

METROLINK

Integrated Transport. Integrated Life.



MetroLink Detailed Business Case Submission to the National Transport Authority September 2026

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List of Acronyms and Abbreviations

Term	Abbreviation
Approval Gate 2	AG2
Approval Gate 3	AG3
Automatic Train Operation	ATO
Automatic Train Protection	ATP
Benefit-Cost Ratio	BCR
Billion	bn
Building Information Modelling	BIM
Building Research Establishment Environmental Assessment Method	BREEAM
Carbon Dioxide Equivalent	CO ₂ e
Climate Action Plan 2025	CAP25
Central Statistics Office	CSO
Commission for Railway Regulation	CRR
Communication-Based Train Control	CBTC
Consumer Price Index	CPI
Corporate Power Purchase Agreement	CPPA
Cost and Benefits to Accidents Light Touch	COBALT
Cost-Benefit Analysis	CBA
Department of Transport	DoT
Design, Build, Finance, Operate and Maintain	DBFOM
Design, Build, Operate and Maintain	DBOM
Detailed Business Case	DBC
Early Services Agreement	ESA
Eastern Regional Model	ERM
Engineering and Construction Contract	ECC
Engineering Management Strategy	EMS
Economic Evaluation	ENEVAL

Term	Abbreviation
Environmental Impact Assessment Report	EIAR
Environmental Protection Agency	EPA
European Union	EU
Federation Internationale des Ingénieurs-Conseils	FIDIC
Final Business Case	FBC
Gateway 5a	G5A
Government Construction Contracts Committee	GCCC
Grade of Automation Level 4	GoA4
Greater Dublin Area	GDA
Health, Safety and Quality	HSQ
Invitation to Negotiate	ITN
Invitation to Tender	ITT
Key Performance Indicators	KPIs
Kilotonnes	Kt
Land Development Agency	LDA
Line of Assurance	LoA
Memoranda of Understanding	MoU
MetroLink Programme Steering Committee	MPSC
Millions	m
National Development Finance Agency	NDFA
National Development Plan	NDP
National Strategic Outcomes	NSOs
National Transport Authority	NTA
Natura Impact Statement	NIS
Net Present Value	NPV

Term	Abbreviation
Nitrogen Oxide	NOx
Organisation for Economic Co-operation and Development	OECD
Official Journal of the European Union	OJEU
Owner Controlled Insurance Program	OCIP
Project Appraisal Guidelines for a Government-Level Options Management	PAGGLOM
Periodic Indicative Notice	PIN
Particulate matter with a diameter of 2.5 micrometres or smaller	PM _{2.5}
Preliminary Business Case	PBC
Pre-Qualification Questionnaire	PQQ
Present Value	PV
Programme Management Office	PMO
Project Controls Framework	PCF
Project Controls Office	PCO
Project Execution Plan	PEP
Public Private Partnership	PPP
Public Sector Benchmark	PSB
Public Service Obligation	PSO
Quantitative Risk Assessment	QRA
Quantitative Schedule Risk Analysis	QSRA
Reference Class Forecasting	RCF
Shadow Bid Model	SBM
Small and Medium-sized Enterprises	SMEs
Special Purpose Vehicle	SPV
Specific, Measurable, Attributable, Realistic, and Time-Bound	SMART

Term	Abbreviation
Strategic Review Panel	SRP
Sustainable Development Goals	SDGs
Third-Party Agreements	TPAs
Transport and Accessibility Appraisal	TAA
Transport Appraisal Framework	TAF
Transport Infrastructure Ireland	TII
Transport User Benefits Appraisal	TUBA
Union Internationale des Transports Publics - International Association of Public Transport	UITP
United Nations	UN
Unattended Train Operation	UTO
Value-Added Tax	VAT
Value for Money	VfM

Executive Foreword



MetroLink is Ireland's twenty-first century transformation, a mega-project to create a reliable, high-capacity, sustainable public transport system.

MetroLink will tackle the challenge of Dublin as the third-most congested city in Europe, and the 11th-most congested in the world.

While existing public transport options across Dublin are reaching capacity and the M50 motorway is similarly constrained, MetroLink will improve connectivity, reduce congestion and emissions, and improve quality of life for current and future generations.

This Detailed Business Case marks an important point in the evolution of the MetroLink Programme. The Programme now has a confirmed and operative Railway Order, providing the statutory certainty required to move confidently from planning into delivery. This is a critical milestone and reflects many years of detailed design, rigorous assessment and sustained engagement with communities, stakeholders and statutory bodies.

Transport Infrastructure Ireland is grateful for the continued support of the Department of Transport and the National Transport Authority whose partnership has been fundamental in bringing the Programme to this stage. Ongoing engagement with local authorities, communities, businesses and stakeholders along the route will remain central as the Programme advances through procurement and into construction and will be vital to ensuring MetroLink is successfully delivered.

MetroLink is more than a transport programme.

It is a catalyst for economic development, a key enabler of housing delivery, and a cornerstone of Ireland's climate and sustainability objectives. By providing fast, frequent and reliable connections from Swords and Dublin Airport to the city centre and beyond, MetroLink will strengthen Dublin's role as a competitive, accessible and liveable capital city.

The foundations are now firmly in place. This Detailed Business Case is a mature, well-governed programme that is ready to move forward with confidence, delivering an infrastructure legacy that will serve the Irish people for generations to come.

Lorcan O'Connor
CEO, Transport Infrastructure Ireland



Figure 0—1: Representation of a MetroLink Underground Station

Executive Summary

To describe MetroLink as Ireland's first high-capacity, high-frequency metro system, connecting Swords, Dublin Airport, Ballymun, Glasnevin, the city centre, and Charlemont is accurate – but fails to convey the implications of this transformative nation-building investment.

No other national action in this century carries such sweeping positive implications for Ireland's economic and social development. MetroLink is revolutionary in its possibilities and will radically change national and international perceptions of this country.

Some of the benefits are measurable and predictable. However, experience from international equivalents points to immeasurable gains which cannot currently be predicted.

MetroLink will be a fully automated and mostly underground metro route, 18.8km in length. With 16 stations, the line will directly serve major residential, employment, education and healthcare hubs from Estuary in Swords, and Dublin Airport, all the way to Charlemont, while unlocking seamless onward connections across the national transport network.

Through interchange with the DART coastal network at Tara Street, the Northern commuter and intercity rail corridor serving Drogheda, Dundalk and Belfast, the Maynooth and M3 Parkway commuter lines at Glasnevin, and the Kildare commuter and intercity corridor through onward city-centre connections, MetroLink will significantly strengthen Ireland's transport system as an integrated whole. Connections with the Luas Green Line at Charlemont and St Stephen's Green, wider Luas interchange opportunities, Dublin Bus and BusConnects corridors, and active travel infrastructure, will further expand the network effect.

MetroLink will not simply deliver a new metro line between Swords and the city centre but provide for seamless interchange across multiple strategic service lines, extending the practical reach of high-frequency public transport to communities across Dublin, the Greater Dublin Area (GDA) and regional Ireland. Communities including Drogheda, Dundalk, Maynooth, Portlaoise, Newbridge, Longford and Dunboyne, will benefit from MetroLink's integrated public transport network, unlocking faster, more reliable and more sustainable journeys for commuters, business travellers, students, patients and tourists.

As the future backbone of Dublin's integrated transport network, MetroLink will relieve severe road congestion in the capital, support Ireland's compact growth strategy, and provide sustainable mobility for future generations. MetroLink, the State's largest-ever single transport investment, will enable low-carbon economic growth and improve connectivity across the capital and commuter towns, enhancing the quality of life for residents and boosting Ireland's international competitiveness.

MetroLink will be pivotal in addressing Ireland's long-term transport needs, as well. It is aligning with national policies and frameworks, the Climate Action Plan 2025 (CAP25), including the National Strategic Outcomes (NSOs), together with European policies and Irish local and regional policy.

Since the Preliminary Business Case (PBC) was approved in principle in July 2022, programme design, cost refinement, scheduling, and commercial/procurement strategy have advanced.

Table 0 – 1 below summarises key Programme details.

Key Programme Details	
2027	Estimated start of construction
8-10 years	Estimated time to complete construction
7,000	Average jobs supported annually in the construction industry during construction
2036-2038	Anticipated start of operations: 2036 (optimistic) to 2038 (pessimistic)
20,000 passengers	Peak capacity per direction per hour
90 seconds	Maximum system frequency capability
Approx 18.8km	Route length with 16 stations
Connections across the Greater Dublin Area	Heavy rail and regional network (Glasnevin, Tara), Dublin Airport, City Centre (O'Connell Street, St. Stephen's Green), Hospitals (5 – Mater, Rotunda, Temple St., Bon Secours, National Maternity Hospital), Universities (3: Dublin City University, Trinity College Dublin and Technological University Dublin), Schools (127)
Park and Ride	3,000 space facility at Estuary
Over 57 million	Passenger trips expected in opening year, rising to c.92.7 million annually by 2065

Table 0—1: Key Programme Details

METROLINK

SWORDS - CHARLEMONT

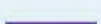
-  MetroLink Stations
-  MetroLink Interchange
-  Dublin Airport
-  Park and Ride
-  Commuter Rail Services
-  DART
-  LUAS Green Line
-  LUAS Red Line
-  Bridge
-  Cutting / Cut & Cover
-  Embankment
-  Surface
-  Tunnel



Figure 0—2: MetroLink Route Map

Cost Estimates

The costs at this Detailed Business Case (DBC) stage include scope refinements, while addressing revised technical specifications and construction methodologies consistent with the undertakings made by MetroLink. In addition, an allowance equivalent to 3% of the direct costs has been included to account for Railway Order conditions. The impact of inflationary pressures over the period, a revised schedule, and updated risk assessments have also been incorporated.

Table 0 – 2 below summarises the cost estimates for the delivery of MetroLink across a range of probabilities.

Delivery Costs	P30	P50	P80
AG2 Cost Estimate	€14.44bn	€15.75bn	€17.49bn

Table 0—2: DBC Delivery Costs estimates for P30, P50 and P80, including inflation and risk allowance, excluding Value-Added Tax (VAT)

The capital cost estimate range to deliver MetroLink is €14.44 billion (P30 probability) to €17.49 billion (P80 probability), with €15.75 billion representing a central P50 probability (Excluding VAT).

Further cost certainty will be achieved once the procurement processes finalise in 2027-2028, as DBC costs are based on current prices, but market conditions will influence final costs. Until then, the DBC Delivery Cost estimates provide a robust and risk-adjusted basis for planning and decision-making.

Several factors contribute to the scheme's per-kilometre costs being at the upper end of a benchmark range for metro systems. These include a relatively high number of stations for the route length, a constrained urban environment with numerous historic and commercial properties, and several stations with significant construction complexity to build. In addition, Ireland's relative distance from continental Europe increases input costs, as labour, materials, and equipment must be sourced from abroad. The scheme will also compete with other major European infrastructure projects for limited resources, further elevating costs.

To drive efficiency and deliver value for money for the taxpayer, MetroLink is proactively identifying and pursuing opportunities for cost optimisation, wherever possible.

For the M400 contracts, a contracting strategy has been developed that is aligned with achieving value for money throughout procurement, contract award, and delivery. This approach incorporates a pain/gain share mechanism (50/50) based on a target cost, supported by both positive and negative performance incentives to encourage optimal outcomes. As part of the tender process, contractors will be required to submit detailed activity schedules alongside separate risk registers. This will ensure a high level of transparency in how each contractor has developed their target cost.

Under the M500 contract, the M500 Service Delivery Partner will be incentivised through the Payment Mechanism to deliver services in line with specified KPIs.

In addition, market engagement has generated strong interest from an international supply base. MetroLink anticipates robust competition, which is expected to drive a highly competitive tender process and support the achievement of cost efficiencies and value for money.

Schedule

A Quantitative Schedule Risk Analysis (QSRA) was completed.

Reference Class Forecasting (RCF) is an alternative cost forecasting methodology to a Quantitative Risk Assessment (QRA). A review was also undertaken of schedule experience on other large scale international projects using this methodology. The range for start of operations extends from 2036 (optimistic) to 2038 (pessimistic), with 2037 representing the median of that range. As the Programme procurement and construction delivery progresses, this range will be narrowed and refined as uncertainties are resolved and removed.

Table 0 – 3 outlines the key procurement schedule milestones.

Key Procurement Milestones	Schedule Range
Advance and Enabling Works (M100)	Late 2025 (procurement initiated)
Tender Issue – Main Civils (M401)	Q3/Q4 2026
Tender Issue – Main Civils (M402)	Q4 2026 - Q1 2027
Tender Issue – Service Delivery Partner (M500)	Q3/Q4 2026
Contract Award Main Civils (M401)	Q3/Q4 2027
Contract Award Main Civils (M402)	Q4 2027 - Q1 2028
Preferred Tenderer Appointment M500 Service Delivery Partner	Q1/Q2 2028
Financial Close M500	Q4 2028 - Q1 2029

**Table 0—3: Procurement Schedule – for all probabilities the timelines for procurement remain consistent
In line with the launch dates of the pre qualification phase - final timings subject to change**

Economic Benefits and Benefit-Cost Ratio

The benefits of MetroLink have been assessed using cost benefit analysis (CBA), scenario analysis, and sensitivity analysis. The benefits of MetroLink have been monetised and presented for directly attributed benefits to transport users (Level 1 benefits) including time savings, and wider economic impacts to the region (Level 2 benefits), including agglomeration (i.e. clustering and economic advantages from proximity to MetroLink) and productivity gains.

A series of alternative scenarios have been created to test the economic value of MetroLink in different circumstances. This includes the Core scenario which includes committed transport projects as of 2019 and the National Development Plan (NDP) Future scenario, which captures transport schemes included in the NDP (2018-2027). The Benefit-Cost Ratio (BCR) for the Core Scenario is 1.78. The core BCR rises to 1.95 when wider economic impacts to the region are included. The BCR for the NDP Future scenario is 1.13, and 1.26 when wider economic impacts are considered. This is presented in Table 0 – 4.

Economic Benefits (2016 prices)	DBC Core Scenario	DBC NDP Future Scenario
Directly Attributed Benefits (PV)	€20.56bn	€12.96bn
Directly Attributed & Wider Benefits (PV)	€22.56bn	€14.43bn
PV Costs	€11.58bn	€11.47bn
BCR: Directly Attributed Benefits	1.78	1.13
BCR: Directly Attributed & Wider Benefits	1.95	1.26

Table 0—4: High-level Economic Appraisal summary table for Core Scenario and NDP Future scenario

Level 1 directly attributed benefits therefore range from 1.13 to 1.78. Benefits will be further assessed at the Final Business Case (FBC) stage and the expectation is that the final BCR will not be dissimilar to that presented in the PBC of 1.40.

During construction alone, MetroLink will generate economic activity and employment.

In addition to the monetised benefits, the project is expected to deliver substantial non-monetary benefits like enabling compact urban growth and regeneration, introducing educational opportunities through the MetroLink apprenticeship scheme, supporting inclusive access for socially deprived groups and people with varying mobility needs.

Reducing emissions in the transport sector, one of Ireland's most carbon-intensive and fastest-growing sources of greenhouse gases, is essential. Central to Ireland's climate ambition, MetroLink contributes directly to national emissions reduction targets and long-term resilience. More than a transport project, it is a cornerstone of Ireland's transition to a low-carbon, inclusive, and future-ready economy.

The BCRs reaffirm MetroLink as a value-for-money, future-focused investment that will provide long-term strategic capacity to support Ireland's transport, climate, and economic development objectives. They confirm that the scale of benefits generated by the Programme exceeds its costs. They establish that MetroLink is a critical enabler of Ireland's sustainable growth over the coming decades.

Governance Framework

MetroLink is currently governed through a dedicated, programme specific governance framework which includes the Department of Transport (DoT), the National Transport Authority (NTA), and Transport Infrastructure Ireland (TII) in line with their statutory responsibilities for oversight, funding and delivery of Metro projects, with the DoT ultimately accountable for the project. In November 2025, the Government approved a proposal to establish, on a statutory basis, a dedicated MetroLink delivery body. The DoT are leading on the implementation of this decision, including the development of primary legislation, in partnership with TII and the NTA.

The arrangements provide clear accountability, robust oversight, and timely decision-making across all stages of delivery.

MetroLink's Programme Steering Committee (MPSC) is the primary decision-making body (under delegated authority from the TII Board), providing strategic leadership, governance, and performance oversight. The TII Board remains responsible for the project (ahead of MPSC) until the proposed Statutory Delivery Body, as referred to above, is established.

The MPSC includes members from the NTA, TII and external individuals with relevant expertise and experience of working on and overseeing similar programmes. Day-to-day delivery is led by the Programme Director, supported by a Programme Executive Team and Programme Delivery Team, each bringing major programme and international metro expertise.



Figure 0—3: Representation of MetroLink Retained Cut Station at Swords

Introductory Guide

Purpose

In accordance with the Infrastructure Guidelines, a programme must receive Approval Gate 2 (AG2) – Pre-Tender Approval, at the appropriate stage of the programme’s development from the Approving Authority.

The AG2 – Pre Tender Approval is a key decision prior to MetroLink launching the major procurement processes. The information submitted must therefore be appropriately detailed to inform the decision-makers that the Programme is ready to pass through this decision-gate.

The purpose of this introductory section is to:

- Provide guidance on how to read this MetroLink DBC which summarises the Programme's status at this AG2 stage;
- Guide the reader in terms of the requirements under the Infrastructure Guidelines and Transport Appraisal Framework (TAF) which sets out the requirements for the appraisal of public investment projects;
- Summarise how costs and P-numbers are presented in this DBC.

How to Read this DBC Submission

Chapter 1 Transformative investment for the entire Country sets out the objectives for MetroLink, its alignment with policy frameworks, Programme progression to date, and then introduces some of the benefits of MetroLink.

Chapter 2 MetroLink Description outlines the scope of works and how they will provide a sustainable, safe, efficient, integrated and accessible public transport service as well as the anticipated climate and environmental performance.

Chapter 3 Costs describes the cost development process and presents cost estimates for MetroLink.

Chapter 4 Economic Appraisal includes an overview of the monetised, quantified, and qualitative benefits for MetroLink.

Chapter 5 Packaging, Contracting and Procurement details the packaging, contracting and procurement approach taken for MetroLink to safeguard value-for-money and better ensure on-time and within budget delivery.

Chapter 6 Financial Appraisal includes an analysis of cashflows.

Chapter 7 Governance details the governance arrangements that are in place to ensure the Programme has appropriate oversight and that it delivers on the promises of this document.

Chapter 8 Delivering MetroLink details how MetroLink will be delivered, introducing the MetroLink Integrated Client Schedule, the Project Execution Plan (PEP) and the reporting and management arrangements for successful delivery, with a dynamic, overarching framework that guides the planning, delivery, and governance of the Programme throughout its lifecycle.

Chapter 9 Next Steps outlines the immediate next steps for the Programme in advance of the FBC at Approval Gate 3 (AG3).

Requirements and Guidelines

How this DBC Addresses the Requirements of the Infrastructure Guidelines and TAF

This MetroLink DBC addresses the requirements of the new Infrastructure Guidelines as well as the relevant sector-specific guidelines including the TAF and the NTA Project Approval Guidelines. This includes the submission of the DBC, the Procurement Strategy and the PEP, as required at the DBC stage.

The tables below describe the specific requirements under each of the guidelines and how the DBC addresses them.

Infrastructure Guidelines Requirements	Addressed	Where it is Addressed
Developing further the governance structures that will be used throughout the life of the project	✓	Ch 7
Reviewing and confirming assumptions and constraints on which the Approval in Principle was based, including budget estimates	✓	Ch 1, 3, 4, 6
Reviewing the assumptions which underpinned the preferred option	✓	Ch 4, 6
Preparing the Detailed Business Case	✓	Ch 2
Developing and refining the budget within the Detailed Business Case	✓	Ch 3
Developing a PEP	✓	Ch 8
Deciding on a Procurement Strategy	✓	Ch 5

Table 0—5: Infrastructure Guidelines Requirements

Infrastructure Guidelines (formerly the Public Spending Code)

In December 2023, the Department of Public Expenditure, NDP Delivery and Reform released the new Infrastructure Guidelines. In February 2026, the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation released a circular, "Updates to the Infrastructure Guidelines – Accelerating Infrastructure Taskforce Recommendations" to update the Infrastructure Guidelines that impacted the approval process for DBC.

These guidelines supersede the Public Spending Code 2019, and the interim modifications communicated by the Department in March 2023. The Infrastructure Guidelines set out the value for money (VfM) guidelines for the evaluation, planning and management of public investment projects, including purchase or acquisitions of assets or shareholdings. Table 0 – 5 on the next page outlines where the various Infrastructure Guidelines' requirements are addressed in this document.

Transport Appraisal Framework (TAF)

This provides guidance for assessing and implementing transport projects, with the goal of encouraging investments in a transport system that aligns with societal needs, achieves strategic policy goals, and ensures cost-effective outcomes. TAF requires that economic benefits and costs are appraised at 2016 prices. Additional requirements of the TAF include, a Transport and Accessibility Appraisal (TAA) and a Climate Hazard Assessment. Table 0 – 6 outlines where the TAF requirements are addressed in this document.

TAF Requirement	Addressed	Where it is Addressed
Project or programme context	✓	Ch 1
Updated assessment of rationale or need for the project/programme	✓	Ch 1
Description and updated assessment of the strategic relevance of the project or programme	✓	Ch 1
Summary of the results and recommendation arising from the detailed appraisal process undertaken at PBC	✓	Ch 2, 3, 4, 5
Procurement Strategy	✓	Ch 5
TAA	✓	Ch 4

Table 0—6: TAF Requirement

Presentation of Costs and Schedule

The Cost chapter uses a range of estimates associated with different QRA probabilities (P30, P50 and P80). The Economic Appraisal and Financial Appraisal chapters both use P80. These probabilities and associated cost figures are used in the Cost chapter to provide an estimate of the potential cost outcomes for MetroLink.

The schedule has been presented on a QRA P50 median probability for economic and financial appraisal purposes.

Chapter	P-number of Costs	P-number of Schedule
Chapter 3: Cost	Delivery Costs (QRA ¹ P30, QRA P50, QRA P80) Operating and Renewals Costs (QRA P30, QRA P50, QRA P80)	QRA P50 – Opening in Q3 2037 ²
Chapter 4: Economic Appraisal	QRA P80	
Chapter 6: Financial Appraisal	QRA 50, QRA P80	

Table 0—7: Summary of probabilities of costs and schedule used in chapters 3, 4 and 6

The costs presented in chapters 3, 4 and 6 are directly comparable although presented according to the specific purposes and / or appraisal approach of each chapter which is:

Chapter 3: Cost presents the estimated scheme costs of the MetroLink Programme. These costs are presented as a range under three probabilistic outcomes (P30, P50 and P80) in Q1 2025 terms (and then nominally when accounting for inflation) and are agnostic to the MetroLink procurement and contracting approach. They do not include the financing costs of the M500 Service Delivery Partner and are not a fixed forecast of the cost to deliver MetroLink.

Chapter 4: Economic Appraisal focuses on assessing the economic case for MetroLink, comparing the present value of economic benefits against the present value of economic costs. This is done in line with the guidelines mentioned above (TAF, IG, NTA Project Approval Guidelines) which prescribe how costs should be treated to support the consistent assessment of public investment decisions regarding transport projects in Ireland. This includes assessing the costs in 2016 terms.

Chapter 6: Financial Appraisal focuses on the financial cashflows of MetroLink Programme from an Exchequer and affordability perspective. Cashflows, including those relating to costs (during delivery and operations), are assumed in line with the MetroLink procurement strategy and the P50 schedule. This is done through a net present value (NPV) analysis with an appraisal date of Q1 2026.

- 1 Quantitative Risk Assessment – see Chapter 3: Cost for further information regarding this
- 2 A P50 opening year equates to a 50% chance of the Programme opening on or before the specified date

Transformative Investment for the Entire Country

"MetroLink is one of the most important developments for our state. Not just another infrastructure project; it is a truly transformative investment for the entire country. We need to think big and act decisively, and that is precisely what we are doing. I find it hard to envisage Dublin or Ireland in the future without a successful MetroLink providing the backbone of a modern transport system."

Micheál Martin T.D., Taoiseach

Strategic Need for MetroLink

With population growing faster than forecasted, there is increasing congestion across the GDA and limited options to meaningfully expand transport modes within the existing infrastructure.

The GDA Transport Strategy 2022-2042 recognises that additional road capacity alone will not solve structural congestion challenges and identifies high-capacity public transport as being essential to support mobility and growth.

The Swords-Dublin Airport-City Centre Corridor remains one of the most strategically significant transport corridors on the island of Ireland. MetroLink will provide a high frequency, high volume transport route from Swords via Dublin Airport to Dublin City Centre.

MetroLink will also connect seamlessly with the DART, heavy rail, Luas, bus and active travel networks. This approach is central to Project Ireland 2040 and the 2025 update of the NDP, which sets out Ireland's long-term strategic investment priorities. As a small, open economy, Ireland depends on frictionless links to the world. MetroLink will enable regular, reliable, and affordable access to Dublin Airport, supporting compact urban growth and strengthening global connectivity.

MetroLink is a nation-building programme that will transform Ireland for generations to come.

MetroLink's Intervention Objectives

MetroLink's 'Intervention Objectives' underpin its role as a nation-building project and align fully with Ireland's transport and climate policies. Established at the PBC stage, these Intervention Objectives, set out in Box 1 –1, reflect MetroLink's commitment to delivering a high-capacity, sustainable, and integrated public transport solution that supports compact growth, improves accessibility, and advances climate goals.

The objectives will be refined within the FBC, in line with the Infrastructure Guidelines, to make them specific, measurable, attributable, realistic and timebound (SMART). Objectives will be accompanied by Key Performance Indicators (KPIs) and targets for objectives will be established.

Box 1—1: MetroLink Objective and Sub-objectives

MetroLink Objective: To provide a sustainable, safe, efficient, integrated, and accessible public transport service between Swords, Dublin Airport and Dublin City Centre.

Sub Objectives:

Cater for existing public transport travel demand and support long-term patronage growth along this corridor through the provision of a high-frequency, high-capacity public transport service which supports sustainable economic development and population growth;

Improve accessibility to jobs, education, and other social and economic opportunities through the provision of improved inter-modal connectivity and integration with other public transport services and connectivity for national and international visitors using Dublin Airport;

Enable compact growth, unlock regeneration opportunities and more effective use of land in Dublin, for present and future generations, through the provision of high-capacity Public Transport whilst integrating into the existing public realm;

Deliver an efficient, low-carbon and climate-resilient public transport service, which contributes to a reduction in congestion on the road network in the Dublin Region and which supports the advancement of Ireland's transition to a low-emissions transport system and delivery of Ireland's emission reduction targets;

Provide a high standard of customer experience, including provision for clean, safe, modern vehicles and a reliable and punctual service with regulated and integrated fares.

A Country Growing Faster Than Its Transport Network

Ireland's transport infrastructure is under increasing pressure from rapid and higher than expected population growth, rising housing demand, worsening urban congestion, and limited options to meaningfully increase public transport capacity.

Ireland's population reached 5.1 million in 2022, up 8.1% since 2016, with Dublin City growing by 7.7% over the same period.³ Since 2022, Ireland's population has grown faster than expected, by almost 300,000 people, with the population reaching over 5.45 million in 2025.⁴ By 2051, Ireland's population is expected to grow by an additional 1 million people and recent high-growth scenarios published by the Department of Finance show Ireland could have 7.59 million inhabitants by 2065.⁵ This will place further strain on housing, transport, and public services.⁶

The GDA remains heavily car-dependent, but further road investment will not solve the region's mobility challenges.

GDA road networks are reaching capacity. Peak traffic times have lengthened in mornings and evenings. Rush hour on the M50, the major artery of Dublin's commuter belt, starts shortly after midday on Fridays, and there is almost nothing that can be done to address worsening gridlock.⁷ Further expansion of the current road network (e.g. M50 and Dublin Port Tunnel) would be difficult to undertake and unlikely to solve the problem.

In 2025, Dublin ranked as the European Union's (EU) third most congested city, 11th globally, with average journey times of 34.5 minutes per 10km.⁸ Average congestion in Dublin increased 1.7% from 2024 to 2025.⁹ According to the 2025 TOMTOM Traffic Index, Dublin drivers lose an average of 191 hours annually due to traffic in rush hour: an estimated €6,830 per year in lost productivity.

Economists estimate that without intervention, congestion and lost time could cost the Irish economy €1.5 billion annually by 2040, highlighting the scale of the challenge.¹⁰

The Swords-Dublin Airport-City Centre corridor is critical to Ireland's economy, linking two major international gateways (Dublin Port and Dublin Airport), as well as forming part of the Belfast-Dublin Economic Corridor, a strategic axis under Project Ireland 2040.¹¹ Yet public transport capacity along the Swords-Dublin Airport-City Centre corridor is severely constrained. The heavy rail network in the GDA is operating near capacity, with peak demand approaching system limits. Morning peak travel times for private vehicles from Swords Pavilion to St. Stephen's Green can exceed 55 minutes, nearly double the off-peak journey time (25-35 minutes).¹²

Traffic volumes – and consequent congestion rates – now surpass pre-COVID levels, with 63% of journeys taken by private car in 2024.¹³ Public transport usage is increasing, but capacity remains insufficient to meet growing demand and encourage further modal shift.¹⁴

- 3 CSO Census of Population (2022): [Population Changes](#)
- 4 CSO (2026): [2025 Highlights Ireland](#)
- 5 CSO (2025): [Population Projections Results: Population and Labour Force Projections 2017 - 2051](#)
- 6 RTE (2025): [Population could grow much faster than expected - report](#)
- 7 RTE (2025): ['We've done all we can do to fix M50,' warns TII](#)
- 8 Inrix (2025): [Global Traffic Scorecard](#)
- 9 TomTom (2025): [TOMTOM TRAFFIC INDEX'](#)
- 10 DoT (2023). Economic Cost of congestion in the Greater Dublin Area
- 11 Dublin City University (2021): [DBEC Full Report](#)
- 12 Transport and Accessibility Appraisal – MetroLink (2026)
- 13 NTA National Household Travel Surveys (2023 & 2024)
- 14 [Record numbers take public transport in 2023](#) (RTE, 2024)

Following decades of study, policy alignment, and rigorous appraisal, MetroLink emerged as a critical element of the preferred solution.

In 2015, the NTA published a study of the need for a metro solution connecting Swords and Dublin City Centre against various alternatives. The Fingal/North Dublin Transport Study identified a rail-based solution as the most appropriate response to growing demand, and MetroLink was subsequently embedded in the GDA Transport Strategy 2022-2042.¹⁵ Since the approval in principle of the MetroLink PBC which confirmed the scheme route, MetroLink has undergone rigorous assessment under the Infrastructure Guidelines and the TAF which reaffirms it as the preferred public transport intervention for the corridor.

MetroLink will deliver high-capacity, low-carbon connectivity across Dublin, linking key social, economic, and international hubs.

MetroLink will integrate with current and planned public transport infrastructure and links Ireland to the world via Dublin Airport.¹⁶ A direct, high-capacity metro connection will enhance the airport's accessibility for residents, commuters, tourists, business travellers, and logistics operators, support Ireland's global competitiveness and reduce congestion on key freight routes to Dublin Port.

MetroLink has a peak capacity of up to 20,000 passengers per hour per direction, enabling more than 57 million passenger trips in the first full year of operations. To match this capacity would require approximately 533 double-decker buses per hour, a volume neither feasible nor sustainable on Dublin's constrained road network. MetroLink's automated, high-frequency service, capable of operating every 90 seconds, will deliver reliable, low-carbon mobility at scale.

The route will also connect major social and economic hubs, including Dublin Airport and its Business Park, Ballymun, Glasnevin, Dublin City Centre, and Trinity College Dublin. This will improve access to educational, healthcare and employment opportunities for thousands of Dublin's residents, particularly in underserved communities, and support inclusive urban development. It is estimated that MetroLink will enable a 50% increase in deprived groups that can access urban centres and a 12% increase in deprived groups that can access key hospitals, within a 30-min public transport journey on average.¹⁴

¹⁵ Fingal/North Dublin Transport Study (2015): [Stage 2 Appraisal Report](#)

¹⁶ Fingal County Council: [Dublin Airport Local area plan Passenger - Forecasts](#)

Confirming the Preferred Option

MetroLink is a strategic enabler of inclusive urban development, climate action, and long-term economic resilience.

MetroLink will also directly support the delivery of approximately 77,000 additional housing units including in the Transport-Oriented Development areas of Ballymun and Lissenhall.¹⁷ The Report of the Housing Commission (2024) estimates that Dublin City will require an additional 140,000-253,000 dwellings by 2050, with a further 81,000-146,000 needed in Fingal County.¹⁸ The MetroLink Programme has the potential to facilitate the delivery of a proportion of this future housing.

Globally, metro systems enable high-capacity, low-emission mobility that shape sustainable urban growth. Research from Delft University (2023) shows that metros are essential for productivity and social inclusion.¹⁹ In London, Paris, and Barcelona, metro infrastructure enhances economic productivity and social inclusion by improving access to jobs and services. Metros also enable modal shift to public transport, which reduces congestion and environmental impacts.²⁰

MetroLink will be a strategic enabler of Dublin's future integrated urban development connecting people to places, citizens to services, workers to employment. It will do all of this in alignment with Irish and EU economic and environmental policies.

Options for the delivery of the MetroLink Programme were appraised in detail at the PBC stage. Ten route options were appraised, and a range of procurement options. The Preferred Option was taken forward into the Railway Order application which was submitted in September 2022 and awarded in January 2026. The Client Model and procurement options were re-assessed at DBC stage, as set out in Chapter 5, which confirmed the approach as outlined at PBC stage.

Given the opportunities that the MetroLink project offers to achieve Programme outcomes and benefits, the Preferred Option is still considered to be appropriate.

17 [PwC Connected Communities Report](#)

18 Report of the Housing Commission (2024): [Report](#)

19 Delft University of Technology, Tunnelling and Underground Space Technology (2023): Metro systems: [Construction, operation and impacts](#)

20 OECD Regions and Cities at a Glance (2024): [Full Report | OECD](#)

Policy Alignment

With multimodal connectivity, including active travel, MetroLink will be the backbone of a wider integrated transport network facilitating significant shift away from private car dependency, a shift critical if the Irish transport sector is to meet its CAP25 Carbon budget.

The Irish Government has committed €24.3 billion to the transport sector under the NDP Review 2025, including €2 billion from the Infrastructure, Climate and Nature Fund to support MetroLink's construction up to 2030.

An overview summary of Irish strategic policy updates is set out in Figure 1 – 1 below.

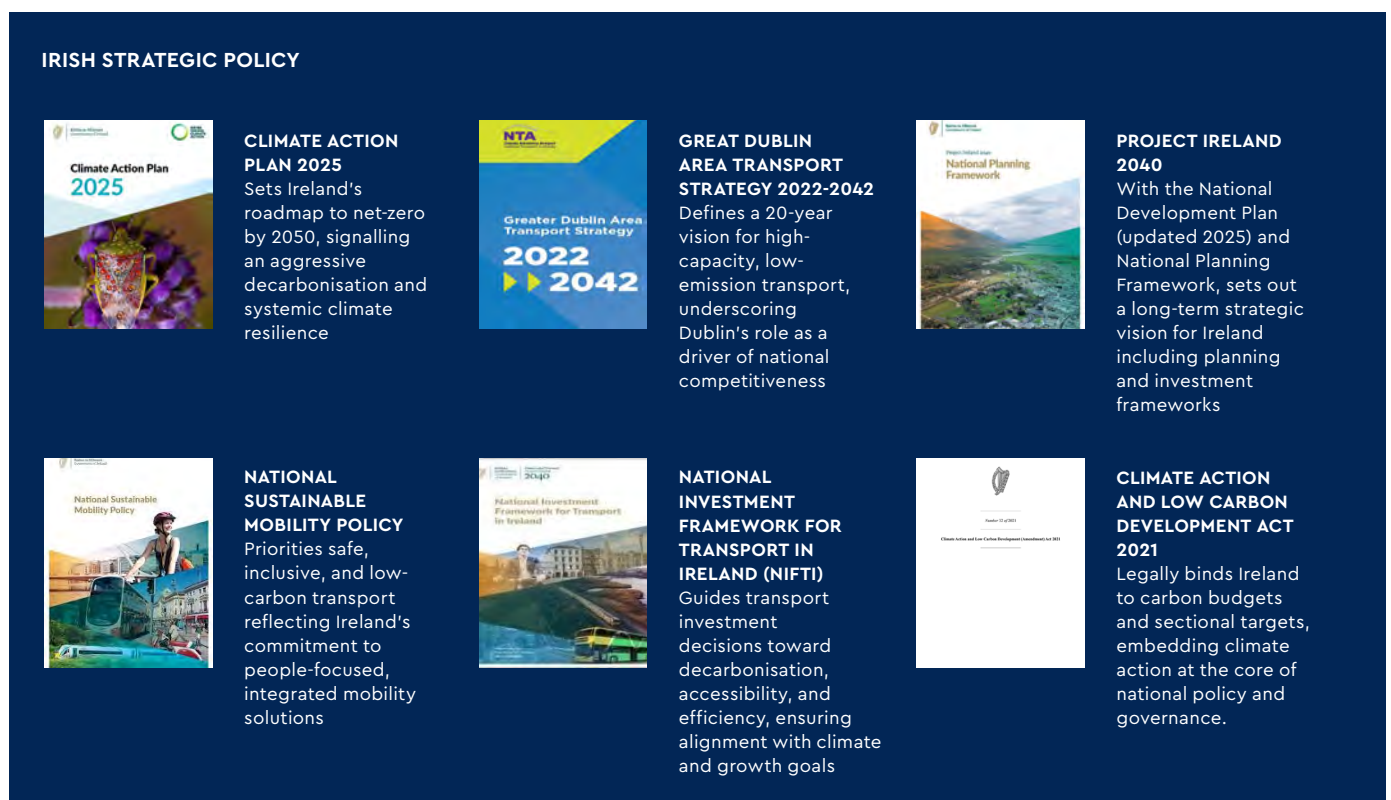


Figure 1—1: Irish Strategic Policy

National Policy Alignment

- **Project Ireland 2040:** MetroLink aligns Project Ireland 2040's NSOs, which guide Ireland's sustainable growth, regional development, and climate resilience through to 2040.
- **NDP:** The 2025 NDP update includes measures to enable the delivery of 300,000 additional homes nationally by 2030. With housing and transport so inextricably linked, the NDP prioritises large-scale public transport infrastructure in areas targeted for higher density development, such as Dublin, Cork and Galway, ensuring investment aligns with land-use and community needs. MetroLink is identified as a flagship investment priority.
- **CAP25:** Responsible for over 21% of national greenhouse gas emissions, Ireland's transport sector is under increasing pressure to reduce emissions.²¹ The Environmental Protection Agency (EPA) estimates that transport emissions must fall by approximately 90% by 2050 to meet climate targets, yet current measures, like the Renewable Transport Fuel Obligation, are projected to deliver only 8.7% reduction by 2030. The CAP25 notes the importance of behavioural change for achieving long-term climate goals. Behavioural change measures, like modal shift, involve making sustainable choices more convenient, or accessible for all, through interventions like infrastructure or policy, and are critical for decarbonisation. MetroLink will enhance the capacity, reliability and safety of the public transport network, thus improving the experience of public transport users and encourage a larger proportion of GDA residents to choose more sustainable modes of travel over the long term. Through enabling modal shift, MetroLink will contribute to the long-term vision of climate neutrality (net zero) by 2050.
- **GDA Transport Strategy 2022-2042:** Positions MetroLink as the backbone of the GDA's integrated transport network, complementing DART+, BusConnects, Luas extensions, and active travel expansion, to deliver high-capacity, multi-modal connectivity. Main actions in the strategy to support decarbonisation include reducing travel demand, supported by MetroLink by unlocking modal shift, and fleet electrification.²²
- **National Investment Framework for Transport in Ireland:** Supports investment in sustainable, high-capacity public transport, such as MetroLink, DART+, BusConnects, and active travel networks, as part of the NDP's priorities, and recognises MetroLink's essential role in boosting public transport access to Dublin Airport and communities alongside its corridor, amid population growth and rising pressure on key international gateways.
- **National Sustainable Mobility Policy** reinforces this vision through three principles:²³
 - **Safe and Green Mobility:** Decarbonising transport while enhancing safety of sustainable modes;
 - **People-Focused Mobility:** Inclusive, accessible public infrastructure, leveraging the reallocation of road space;
 - **Better Integrated Mobility:** Coordinating land-use and transport planning and leveraging smart technologies.

21 Environmental Protection Agency (2025): [Transport](#)

22 NTA (2023): [GDA Transport Strategy 2022-2042](#) (3.2)

23 Department of Transport (2022): [National Sustainable Mobility Policy](#)

National Policy in Focus | National Strategic Outcomes (Project Ireland 2040)



Compact growth: Aligned with Transit-Orientated Development, MetroLink will directly support the delivery of approximately 77,000 additional housing units with potential to support further housing development as land-use opportunities evolve. It will also contribute to the development of Fingal County Council's designated 390 acres as the "MetroLink Economic Corridor." MetroLink's construction also provides the opportunity for additional residential development along the approximately 18.8km route, helping address housing market challenges and delivering on Dublin's sustainable urban form.²⁴



Enhanced regional accessibility: MetroLink will facilitate, for the first time, the ability for anyone to complete a journey from their point of origin to Dublin Airport just using heavy rail, Luas and MetroLink. In addition, travellers and commuters arriving on Iarnród Éireann from all parts of Ireland will be able to access MetroLink and the north/south of the city with the opportunity to interchange at Glasnevin and Tara Street MetroLink Stations.



Sustainable Mobility: MetroLink is expected to attract more travellers to use public transport, thus supporting modal shift away from carbon-intensive private car dependency. Integration with various transport modes, including buses and cycling infrastructure, will create seamless connections and make public transport more convenient. Economic models indicate a reduction in operational vehicle emissions (i.e. those influenced by modal shift) of 0.26 million tonnes of carbon dioxide equivalent (CO₂e) (saved) in the first full year of operations, and a total of 2.7 million tonnes of CO₂e road-based emissions reduction across the 60-year period assessed. This indicates that the Programme will not only offset its construction emissions but also contribute positively to the overall carbon footprint

of the region. The carbon reduction potential is discussed further in Chapter 2: MetroLink Description and Chapter 4: Economic Appraisal.



A strong economy supported by enterprise innovation and skills: MetroLink will help to stimulate economic activity, encourage innovation, and grow our national skills base. It supports almost 7,000 jobs for each year of construction activity (direct, indirect, and induced), as well as peak employment in 2030 with almost 14,000 jobs supported at the height of construction activity. Operations and maintenance will create high quality jobs in the GDA from the start of operations.



High-quality international connectivity: MetroLink will enhance efficiency and growth of Dublin Port and Dublin Airport through improved passenger access and network optimisation.



Transition to a low-carbon and climate-resilient society: MetroLink will enable diversion of 6.7 million private vehicle passengers per annum in the first 12 months of operations starting in 2037 (growing to 13.8 million by 2050). Approximately 370 million car trips diverted in the first 30 years following start of operations.²⁵

MetroLink supports other NSOs such as enhanced amenity and heritage, and access to quality childcare, education and health services.

²⁴ Housing opportunity detailed in Chapter 4: Economic Appraisal, Box 4 – 2

²⁵ Economic Appraisal

Regional and Local Policy Alignment

- **Regional Spatial and Economic Strategy for the Eastern and Midland Region:** MetroLink will support Transport-Orientated Development along the crucial Swords-City Centre economic corridor, integrating land use and transport planning; enable compact growth along high-capacity public transport corridors; and enhance connectivity to international gateways, including Dublin Airport.
- **Dublin Metropolitan Area Strategic Plan:** MetroLink will concentrate development along public transport corridors reinforcing coordinated land-use and transport planning; MetroLink will link strategic development zones such as Ballymun, Dublin Airport, Swords, and the city centre.

European and Global Policy Alignment

- **Fit for 55 & European Green Deal:** MetroLink will contribute to EU emissions reduction targets and modal shift goals;
- **EU Sustainable and Smart Mobility Strategy:** MetroLink aligns with the green, digitalised transport by 2050 vision, delivering electrified, high-capacity public transport integrated with active travel, and supports Ireland's TEN-T Core Network obligations;
- **United Nations (UN) Sustainable Development Goals (SDGs):** MetroLink will advance several SDGs, notably SDG 11 (Sustainable Cities) and SDG 13 (Climate Action) through compact growth, emissions reduction, and inclusive mobility;
- **Paris Agreement:** MetroLink will provide essential low-carbon infrastructure which will support the global goal to limit warming to well-below 2°C above pre-industrial levels, contributing to the EU's collective Nationally Determined Contributions (expressed in the Fit for 55 targets).

Global Policy in Focus | UN SDGs Alignment

MetroLink advances inclusive access, decarbonisation, and compact growth, addressing multiple SDGs.

SDG 3: Good Health and Well-Being

Improves connectivity to hospitals and healthcare facilities, reducing travel barriers for patients and staff.

SDG 4: Quality Education

Connects passengers to 127 schools across the GDA and three third-level institutions (Trinity College Dublin, Dublin City University and Technological University Dublin). MetroLink can enable a 47% increase in deprived groups that can access further education facilities within a 30-min public transport journey on average, enabling equitable access to education.²⁶

SDG 8: Decent Work and Economic Growth

Enhances access to employment hubs, supports decent work and entrepreneurship, reduces commute times, and supports economic productivity through improved mobility.

SDG 9: Industry, Innovation and Infrastructure

Delivers quality, reliable, sustainable and resilient infrastructure to support economic development and human well-being, ensuring affordable and equitable access for all.

SDG 11: Sustainable Cities and Communities

Provides low emission transport, reduces congestion, and concentrates development along corridors.

SDG 13: Climate Action

Supports Ireland's legally binding carbon budgets and Paris Agreement commitments by enabling modal shift and reducing emissions.

Legacy of MetroLink

MetroLink will deliver transformative benefits for society and the economy by delivering fast, fully electrified, low carbon mobility. It will enable significant modal shift by connecting more people and communities to schools, hospitals, employment centres, and key public services, while providing seamless links to Dublin Airport and regional rail that strengthen Ireland's global and European connectivity.

MetroLink is more than a transport project: it is the backbone of a future-ready Dublin. Convenient, affordable, and capable of operating on renewable energy, it will enable cleaner urban living and empower residents to more easily choose greener travel options thus reducing car dependency.

Economically, this ambitious nation-building project will stimulate productivity and innovation. It complements other major national investments such as DART+, active travel expansion, and BusConnects while strengthening Ireland's competitiveness and quality of life for generations.

A once-in-a-generation investment, MetroLink will reshape how citizens and visitors live, move, and connect, reducing congestion, shortening journey times, and offering reliable, efficient, and sustainable connections across Dublin and the region. Table 1 – 1 below highlights just some of the benefits from MetroLink’s construction and operations.

A broader illustrative summary of the benefits from the construction and operation of the MetroLink system is provided in Figure 1 – 2. The impact of MetroLink from an economic benefits and costs perspective is covered in detail in Chapter 4: Economic Appraisal.

Key Benefits (cumulative basis) ²⁷	
1 billion	Low carbon passenger trips by 2050
€1.4 billion	Time savings (monetised benefit) by 2050
2.2 billion hours	Time saved in traffic in first 60 years of operations
2.7 million tonnes CO ₂ e	Net carbon reduction and monetised benefit for Ireland's economy in first 60 years of operations
€530 million	

Table 1—1: Key Benefits from MetroLink’s Construction and Operation based on Core scenario.

27 Economic Appraisal and Transport and Accessibility Appraisal

METROLINK

A Nation Building Programme
that will Transform Ireland for Generations

Seamless Interchange with Ireland's Transport Network



Scalable to
20,000
passengers per hour
per direction

2.2 billion hours saved in
traffic in the
first 60 years



Up to **33%** faster
journey times



Cutting **370** million
car trips across Dublin
in the first 30 years



c. **7,000**
jobs supported every
year of construction



c. **500**
operations jobs created
with MetroLink's opening



Dublin Airport to
Dublin City Centre
in **20** minutes

MetroLink and Ireland's Environment, Health and Wellbeing



2.5 million tonnes of
carbon emissions reduced
in first 60 years



Over **5,900** road casualties
prevented in first 60 years



Driving Growth, Connecting Communities, Building a Nation



Figure 1—2: Expected Benefits of MetroLink

Where We Are Now

With the awarding of the Operative Railway Order in January 2026, MetroLink achieved a major milestone and is planning for procurement. Since the PBC, the concept has evolved into the current MetroLink Programme, reflecting updated policy, developments in design, and environmental requirements. Following analysis of the Railway Order and all associated documents, the Railway Order commitments are being considered to determine the obligations that the MetroLink Programme is required to comply with and the status of such compliance.

In November 2025, the Government approved a proposal to establish, on a statutory basis, a dedicated MetroLink delivery body. The DoT are leading on the implementation of this decision in partnership with TII and NTA.

This section outlines the key changes in the MetroLink Programme since PBC approval in July 2022, summarised in Table 1 – 2.

Developments in Design

The design of the system has been revisited within the parameters of the Operative Railway Order, creating refinements to station layouts, tunnelling approaches, and integration with other transport modes.

Procurement Strategy

MetroLink's procurement strategy has been refined with the Operative Railway Order and market consultation process to improve integration, reduce delivery risk, better ensure supplier capacity and enhance programme resilience. The number of major civil works contracts (the M400 package) has been reduced from three to two.

Date	Activity	Description
July 2022	Approval in Principle	Government grants Approval in Principle (Decision Gate 1), enabling Railway Order submission
September 2022	Railway Order Submission	TII formally submits draft Railway Order application to An Bord Pleanála
2024	Oral Hearings and Statutory Public Consultations	MetroLink Oral Hearings held by An Coimisiún Pleanála (formerly, An Bord Pleanála) with two rounds of public consultation (second round in Q3 2024)
July 2025	NDP Review	Inclusion in the NDP Review 2025 and funding allocated in the 2026 budget
2025	International Market Engagement	Series of events to connect with global suppliers across Dublin, Madrid, London, Paris, Milan, Berlin, Vienna and Istanbul; confirmed the interest of the global supply chain
October 2025	Formal granting of Railway Order by An Coimisiún Pleanála	Granting legal authority to construct and operate the railway under the Transport (Railway Infrastructure) Act 2001
November 2025	Approval for the creation of a new MetroLink delivery body	The Minister for Transport secured approval for MetroLink to become a Statutory Delivery Body, reflecting the size and national importance of MetroLink.
January 2026	Operative Railway Order Awarded	MetroLink receives full legal planning permission, and Railway Order comes into force

Table 1—2: Evolution of MetroLink since PBC approval

Client Partner Team

In July 2023, TII appointed a multi-disciplinary Client Partner team, including Turner & Townsend, WSP, Mace and PwC, to provide expertise in programme management, procurement, engineering, and sustainability.

MetroLink's Programme Steering Committee (MPSC), the primary decision-making body for the Programme under delegated authority from the TII Board, provides strategic leadership, governance, and performance oversight. The MPSC includes members from the NTA, TII and external individuals with relevant expertise and experience of working on and overseeing similar programmes. Chapter 7: Governance provides further details.

Funding Commitment

€2 billion from the Infrastructure, Climate and Nature Fund will support MetroLink's construction up to 2030.

Chapter Supporting Information

In support of this chapter, a comprehensive history of the rationale for the MetroLink Programme is available publicly in the following documents:

- Fingal / North Dublin Transport Study Stage One Appraisal Report (NTA, 2014);
- Fingal / North Dublin Transport Study Stage Two Appraisal Report (NTA, 2015);
- Alternative Future Scenario for Travel Demand (NTA, 2020).

MetroLink Description

The Customer Experience: A System for Everybody

Accessible travel is a core freedom. Whether you're a student heading to class, a parent on the school run, a carer on shift, or a retiree meeting friends, MetroLink connects people to the places they want to go and the people they want to see.

MetroLink has been planned to connect workers to job hubs and employment centres.

MetroLink will offer a direct, high-frequency service from Swords to the city centre in just 25 minutes, connecting workers with key employment hubs and transforming the daily commute into a predictable and stress-free experience.

MetroLink will link workers with key employment hubs:

- The combined area of Dublin 1 and Dublin 2, one of the city's largest employment centres, will be within walking distance of five of MetroLink's stations from Mater to Charlemont;
- The Grand Canal Dock and International Financial Services Centre areas, which include some of Ireland's largest employers in the financial services and technology sectors, will be approximately a 15-minute walking distance from Tara Street station.

MetroLink will enhance the connectivity of Dublin Airport as an international gateway for residents of Ireland and tourists.

Dublin Airport is Ireland's main international gateway with 34.6 million passengers in 2024 and is expected to reach 40 million passengers per year by 2030, serving residents of Ireland, tourists and business travellers.

MetroLink will enable a sub-20-minute journey from Dublin Airport to the city centre.

MetroLink has been designed to facilitate seamless travel within Dublin and the surrounding regions.

Seamless linkages with other modes of transport, include:

- **Bus:** Numerous bus services will be available at all stations;
- **Luas:** Charlemont, St. Stephen's Green, O'Connell Street;
- **DART:** Tara Street;
- **DART+:** Glasnevin
- **Dublin Airport:** Providing the first direct rail link to the airport;
- **Iarnród Éireann:** Tara Street and Glasnevin stations;
- **Active travel:** Cycle parking at all stations except O'Connell Street;
- **Park and Ride Facilities:** 3,000-space multi-storey car park located at Estuary station, nearly 7% of the spaces being wheelchair-accessible.

MetroLink is designed to maximise accessibility for users who experience difficulties using other modes of transport.

MetroLink's design refinements include better step-free access, more lifts, and better escalators to provide seamless step-free access at all stations and ensure that everyone, regardless of age, ability, language, or familiarity with the city, can travel with confidence. Many users face barriers with traditional transport modes, including:

- People with disabilities;
- Older adults;
- Parents with prams;
- Travellers with luggage;
- Tourists unfamiliar with Dublin's transport network;
- Residents and visitors who do not speak English as a first language.

As with any scheme design and operation carried out by TII directly or by third parties on its behalf, "Access for all" is central to MetroLink's design, with MetroLink integrated into the established Luas User Group (discussed in Box 2 – 1) to ensure accessibility features reflect user needs.

TII's research²⁸ into the public transport gender gap highlights MetroLink's value in providing safe, reliable and high frequency public transport that integrates with the existing network, supporting the more complex and multi-purpose travel patterns typically undertaken by women, including caregiving journeys. Reflecting international best practice, including the International Association of Public Transport (UITP) guidance,²⁹ the scheme places strong emphasis on safety, accessibility, and inclusive design to better meet women's mobility needs.

Box 2—1: Luas User Group

The Luas User Group is a forum established prior to the delivery of the first Red and Green Luas lines to ensure that the voices of marginalised and underrepresented communities were heard from the earliest stages of design. It has played a key role in building consensus around accessibility needs and ensuring that public transport infrastructure is inclusive by design. The Luas system is now fully accessible to people with mobility, visual, hearing, and cognitive impairments, as well as the wider public. The Luas User Group continues to advise TII on improving accessibility across the network, in line with the DoT's "Transport Access for All" Sectoral Plan under the Disability Act 2005 and the National Disability Strategy Implementation Plan. The group meets at least three times a year, hosting targeted site visits and project-specific presentations. Its membership includes representatives from organisations such as Vision Ireland, Fighting Blindness, Irish Guide Dogs for the Blind, Chime, the Irish Wheelchair Association, Enable Ireland, and other social inclusion groups. MetroLink will be fully integrated into this established group, ensuring that the Luas User Group continues to play a central role in shaping an inclusive, accessible transport system from design through to delivery.

28 TII (2020): [tii-travelling-in-a-womans-shoes-report_issue.pdf](#)

29 UITP (2024) [Knowledge-Brief_Gender-best-practices-in-public-transport_WEB.pdf](#)

The commitment to universal access is grounded in extensive stakeholder engagement, including the Emerging Preferred Route Consultation (2018), the Preferred Route Public Consultation (2019), and the formal Railway Order Application process. Thousands of submissions from residents, advocacy groups, and public bodies shaped the design, supported by independent reviews such as the RINA Engineering Expert Reports (2022 and 2024).³⁰

Specific MetroLink accessibility features include:

- Stations will be equipped with escalators, lifts, ramps, and wide platform screen doors to allow those using mobility aids and wheelchairs smoother access;
- Wide platform screen doors and easy to access trains will be purposefully designed to make getting on and off a train a safe and comfortable experience for all;
- The design of wayfinding and the employment of customer service assistants will assist those unfamiliar with the public transport system (including clearly indicating direction of trains, times, and frequency to reduce stress);
- Ticket machines and travel information will be multilingual to enable all users to utilise the service regardless of their first language.

MetroLink strategically connects with public services, including health care facilities, educational centres and recreation facilities.

MetroLink places key public services destinations within short walking distance of stations, including:

- **Healthcare facilities** such as the Mater Hospital which is within 7 minutes' walk of Mater station and the Rotunda Hospital which is within 5 minutes' walk of O'Connell station. With MetroLink, 22% more people would be able to access key hospitals (e.g. Rotunda Hospital, Bon Secours Hospital and Mater University Hospital) in a 30-minute public transport journey on average;³¹
- **Educational centres** such as Trinity College Dublin, a 6-minute walk from Tara Station and Dublin City University, 15 minutes' walk from Glasnevin station.
- **Parks and recreation** such as St Stephen's Green where a MetroLink station will be located and the National Botanic Gardens which is within 13 minutes' walk from Glasnevin station. With MetroLink, 44% more people would be able to access sports/leisure (including sports clubs), and 39% more people would be able to access parks and playgrounds within a 30-min public transport journey on average.

MetroLink is designed to support families across Dublin by improving access to childcare, schools, and extracurricular activities.

With almost 130 schools and multiple third-level institutions connected to the network, MetroLink will make daily routines more manageable for parents and children alike.

Whether it is the morning school run, a dash to daycare before work, or an evening pickup from after-school activities, MetroLink will offer a dependable and time-saving solution. This is especially important for families living in suburban areas who want to maintain access to high-quality educational and employment opportunities in the city.

³⁰ RINA Consulting was retained by TII to provide impartial technical advice to Residential Stakeholder Groups who may be affected by the construction and operation of MetroLink.

³¹ Transport and Accessibility Appraisal – MetroLink (2026)

What Are We Delivering?

This section describes in detail the assets being delivered through MetroLink, including core infrastructure, line-wide systems, and supporting elements that together will enable a fully automated, high-capacity, and low carbon metro service. The proposed MetroLink route and stations can be seen in Figure 2 – 1. The construction approach uses different types of underground tunnelling, retained cut, cut-and-cover, and surface-level segments to optimise efficiency, minimise disruption where possible, and enhance safety; illustrations in Figure 2 – 2 through to Figure 2 – 6 in this chapter.

METROLINK

SWORDS - CHARLEMONT

-  MetroLink Stations
-  MetroLink Interchange
-  Dublin Airport
-  Park and Ride
-  Commuter Rail Services
-  DART
-  LUAS Green Line
-  LUAS Red Line
-  Bridge
-  Cutting / Cut & Cover
-  Embankment
-  Surface
-  Tunnel



Figure 2—1: Proposed MetroLink route and stations

System

The MetroLink system will be driverless and fully automated, allowing flexibility, as the control centre can respond to demand levels. Up to 20,000 passengers per hour may be carried in each direction, with platform screen doors that prevent people or objects from accidentally entering the track.



Figure 2—2: Representation of MetroLink Underground Station at Tara Street

Stations

MetroLink will include 16 stations at locations that maximise the catchment area and accessibility and support compact growth, as well as minimising disruption during the construction stage. To improve access to MetroLink services, enhance modal shift, and further reduce traffic on the key highway routes, a multi-storey Park and Ride facility will be strategically located at Estuary with capacity for 3,000 vehicles. Seamless interchange opportunities with other major transport modes include connections to the DART at Tara Street, and to the Luas at Charlemont, St. Stephen's Green, and O'Connell Street, Iarnród Éireann connections at Glasnevin and Tara Street, plus the international connectivity at Dublin airport.



Figure 2—3: Representation of MetroLink Retained Cut Station at Seatown

Underground Stations

Of the 16 stations, 11 will be underground, ten in the southern section, from Northwood to Charlemont, with another underground station at Dublin Airport.

Retained Cut and At-grade Stations

The MetroLink stations have been designed with safety, sustainability (including bicycle parking facilities), community and inclusivity in mind. The level of finish and high safety specification is exceptional, incorporating, as it does, a concentration on high-quality materials for durability and aesthetics, accessibility for all users, together with fast user-friendly wayfinding at stations.

Table 2 – 1 summarises planned system components and their contribution to the MetroLink Objectives.

Component	Description	Contribution to Objectives
Platform Screen Doors	Installed at all stations; interlocked with train arrival	Safety: Prevents track intrusion and accidents Reliability: Reduces delays
Automated Train Control	Highest grade of automation; no onboard drivers	Reliability: Enables consistent service Affordability: Lowers Operating Costs Safety: Minimises human error
Communication-Based Train Control (CBTC)	Advanced signalling system with latest CBTC technology	Reliability: Allows precise train spacing Integration: Supports network coordination
Operations Control Centre	Centralised system management at Dardistown depot	Reliability: Real-time monitoring Safety: System-wide oversight
Depot and Maintenance Facilities	Located at Dardistown; includes backup control centre at Estuary	Sustainability: Supports long-term upkeep Reliability: Enables efficient maintenance
Traction Power Substations	Eight electricity substations powering the system	Sustainability: Enables electrified, low carbon operations
Integrated Station Design	Includes lifts, ramps, wide doors, and multilingual signage	Accessibility: Universal design Safety: Secure and inclusive access
Interchange Hubs	Seamless connections with DART, heavy rail, Luas, bus and Active Travel networks	Integration: Enhances connectivity Affordability: Reduces car dependency
Park and Ride Facility	3,000-space multi-storey car park at Estuary	Integration: Encourages modal shift Sustainability: Reduces urban congestion

Table 2—1: System Components' Contribution to MetroLink Objectives

Segregated System

One of the key engineering aspects is the construction of a fully segregated and automated railway. A fully segregated metro is a high-capacity rail system that runs entirely on its own dedicated tracks, physically separated from road traffic and pedestrians. An automated metro uses driverless trains to deliver fast, frequent, and reliable service with minimal delays.

Tunnelled

A single-bore tunnel will allow north and south trains running side by side:

- Approximately 2.4km under Dublin Airport as part of the northern section (not including ventilation tunnels);
- Approximately 9.1km from Northwood box, under the city and continuing to the south at Charlemont overrun tunnel, as part of the southern section.

The construction of these sections within the required timeline will require the acquisition of two large tunnel boring machines.

This tunnelling approach is implemented on several new metro lines worldwide, particularly where automated trains are being specified (as is the case with MetroLink). International examples include Barcelona Metro Line 9, Milan Metro Line 5, Rennes Metro Line B, Metro Sao Paulo Line 4, and Metro Santiago Lines 3 & 6. Figure 2 – 4 illustrates the single-bore tunnel configuration.

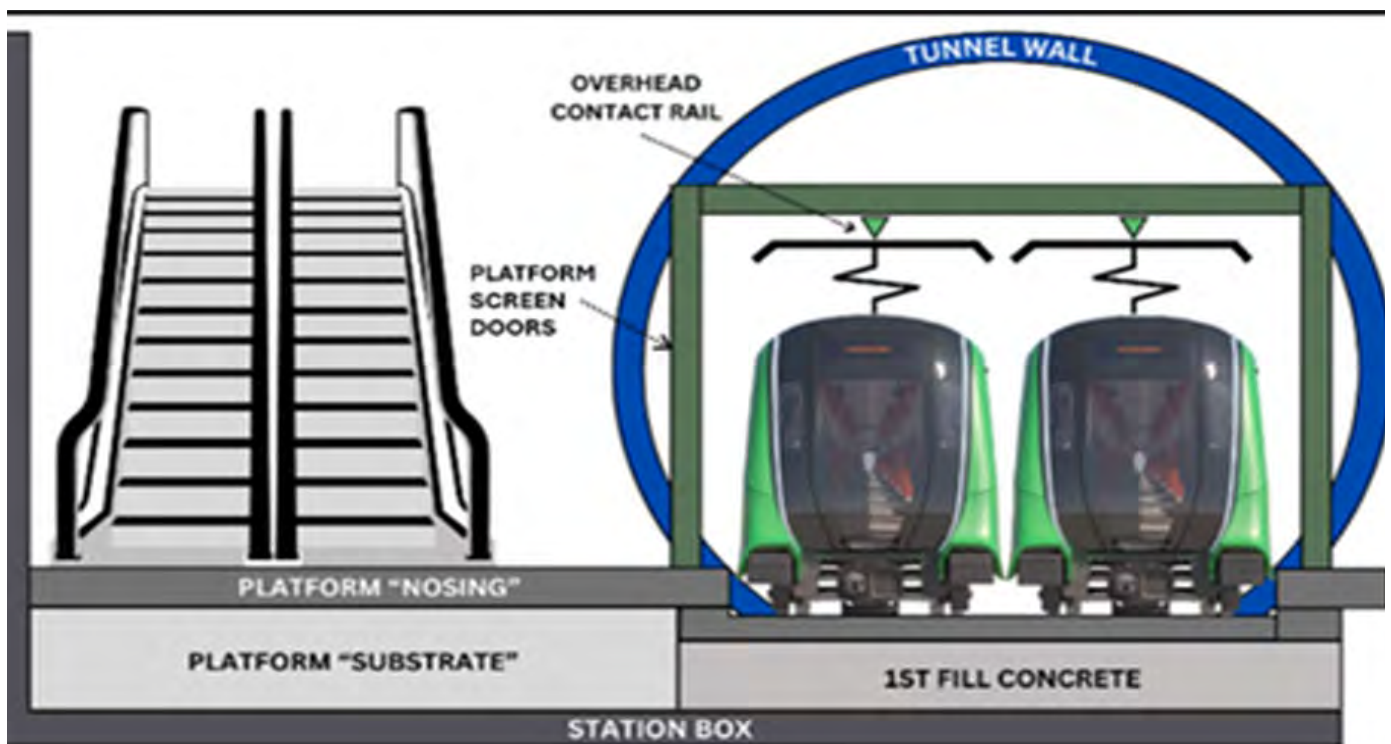


Figure 2—4: Representation of Single Tunnel Configuration, Platform Cross-section

Retained Cut

The retained cut method is typically where the ground is excavated, the railway structure is built, and then the surface is restored on either side of the structure. It offers construction efficiency and easier long-term maintenance access. This method will be used in two sections for a total of 5.8km between Dardistown and Northwood and from south Fosterstown to north of Seatown.

Retained cut systems are used in cities such as London, New York and Paris where it has been integral to the expansion and maintenance of the underground network.

Cut-and-Cover

Cut-and-cover sections will be utilised along the MetroLink line and will aid in providing a reliable and integrated transport solution. This method will be used in two sections for a total of 2.38km between Dublin Airport to beyond Seatown and including a small section from Northwood to Dardistown.

Like retained cut, cut-and-cover involves excavation, construction, and subsequent covering. Cut-and-cover is better suited in urban areas where space is limited and where the construction process can be more easily managed due to direct access to the excavation site.

Cut-and-cover has played a foundational role in the development of metro systems worldwide. A notable example is New York City where it enabled the rapid expansion of one of the world's busiest subway networks.

Surface Level

Portions of MetroLink will include surface level sections, to optimise construction efficiency and enhance the passenger experience, as follows:

- 1.2km surface-level from Estuary towards Seatown;
- 0.8km surface-level from south Fosterstown towards Dublin Airport.

This approach is like systems such as the Docklands Light Railway in London, which combines underground and surface-level operations to provide flexible, accessible service across both urban and suburban areas. Surface-level segments reduce the need for extensive tunnelling while maintaining high levels of connectivity and convenience.

Viaducts

Broadmeadow viaduct, 280m long, traverses the Broadmeadow River floodplain just south of Estuary Station. The second viaduct is over the M50 between Dardistown and Northwood stations.



Figure 2—5: Representation of Surface Level Station Platform at Estuary

Line-wide Systems

MetroLink will require key railway systems, subsystems, and supporting infrastructure to deliver a service which is efficient, sustainable, and safe.

Platform Screen Doors

Platform screen doors will be installed at every station to enhance MetroLink's overall safety, efficiency, and capacity. These screen doors will open only when a train is correctly aligned at the platform, preventing public access to the tracks at all other times. This critical safety feature allows trains to enter stations at the optimum speed, reducing wait times and improving journey reliability. By sealing the trackway from intrusion and debris, platform screen doors also increase system resilience and minimise service disruptions.

Platform screen doors are a key feature of the Barcelona Metro Line 9, Paris Metro, Copenhagen Metro, Turkey Metro, Sydney Metro and various systems throughout China, Japan, South Korea, and Southeast Asia.



Figure 2—6: Representation of MetroLink Underground Station Illustrating Platform Screen Doors (from track view)

Signalling System and Automated Control Systems

MetroLink will operate using the most advanced level of train automation available globally, Grade of Automation Level 4 (GoA4), which enables fully driverless, centrally controlled operations. GoA systems are compared in Table 2-2. This high-performance system will be achieved through the integrated operation of several key modern technologies including the signalling system, known as CBTC, which permits continuous communication between trains and trackside equipment, to determine more accurately each train's position, speed, direction of travel, and braking distances, compared to traditional signalling systems. This results in a reduction in the amount of track that must be reserved for train separation, enabling trains to run safely and reliably at closer intervals. This allows for higher service frequency, shorter wait times, and increased passenger capacity, making MetroLink more reliable, efficient, and responsive to demand.

CBTC supports automated operations, and most automated metros rely on CBTC to enable safe, efficient, and reliable operation. Over 60% of newly planned metro rail projects are opting for CBTC, which is becoming standard also for renewals of older metro systems.³²

GoA4 automated systems will deliver significant advantages over older versions of train control systems:

- Higher performance levels (capacity, reliability, efficiency, passenger service and speed);
- Flexibility and resilience to changing operational requirements;
- Highest safety standards;
- World class customer service level capability.

Grade of Automation	Type of Train Operation	Settling Train in Motion	Stopping Train	Door Closure	Operation in Event of Disruption
GoA1	ATP* with driver	Driver	Driver	Driver	Driver
GoA2	ATP and ATO* with driver	Automatic	Automatic	Driver	Driver
GoA3	Driverless	Automatic	Automatic	Train attendant	Train attendant
GoA4	UTO*	Automatic	Automatic	Automatic	Automatic

Table 2—2: Grade of Automation

*ATP – Automatic Train Protection; ATO – Automatic Train Operation; UTO – Unattended Train Operation

Systems Integration

For MetroLink to function, it will require essential systems including track, signalling systems and equipment, overhead conductor rail, traction power (up to 8 traction power substations), and mechanical and electrical systems. To function effectively, these systems need to be integrated to work together as one safe, reliable, and high-performing network.

The integration of the systems is a complex undertaking and will require high levels of collaboration during the planning and delivery stages. An approach to managing and de-risking the delivery of the system essentials has carefully been considered and is covered in Chapter 5: Packaging, Contracting and Procurement.

Railway Systems Control

MetroLink's operating systems will all be controlled from the operation's control centre, located in a depot at Dardistown. The depot will also include maintenance buildings, train storage space, train washing and a stabling yard. In addition to the main control centre, a back-up centre will be located at Estuary.



Figure 2—7: Representation of Surface Level Station at Estuary

Rationale for a Segregated System

The rationale for a segregated system during construction and operational phases is outlined below.

Construction Phase

- **Minimal Surface and Community Disruption:** Prioritising underground and segregated construction significantly reduces the need for surface level land acquisitions, street closures, and widespread demolition. By confining heavy construction activity below ground or within isolated corridors, this approach preserves existing urban architecture, maintains access for local businesses, minimises traffic detours, and protects the overall visual aesthetics and liveability of the surrounding communities during the build phase;
- **Optimised Cost and Constructability:** Using a tailored combination of construction techniques, such as deep tunnelling for congested areas alongside retained cut and cut-and-cover methods (where space permits), balances overall capital expenditure with engineering feasibility. Where conditions allow, incorporating overground or surface level infrastructure further enhances economic viability while maintaining strict safety, structural and performance standards.

Operational Phase

- **Reduced congestion and reliable travel:** Grade separated and underground pathways isolate rail operations from surface traffic, eliminating delays caused by cars, buses and cyclists. This dedicated right-of-way guarantees consistent transit times and insulates operations from weather related disruptions like heavy rain or snow;
- **Improved ventilation and lighting:** Strategically integrating surface level and retained cut sections maximises natural light and airflow. This reduces energy loads for artificial lighting and mechanical ventilation while providing a brighter, more open, and comfortable environment for commuters wherever possible;
- **Enhanced safety and efficient operations:** Completely separating train from pedestrians, vehicles, and surface intersections eliminates key collision risks. This grade separation allows trains to safely run through at higher speeds and tighter frequencies without waiting at traffic signals or navigating urban obstacles;
- **Mitigating Operational Impacts for People and the Environment:** Retained cut and underground alignment sections will reduce operational noise and vibration, protecting nearby neighbourhoods. Shifting commuters to high capacity, zero emission electric rail directly cuts urban carbon emissions and aligns with broader national sustainability targets.

Climate and Environment Performance

Since the submission of the MetroLink Environmental Impact Assessment Report (EIAR) in 2022, several key updates to the carbon assessment methodology have been implemented, as raised during the Oral Hearing for the Railway Order application process in early 2024:

- Adoption of the Updated TII Carbon Tool, aligned with the CAP25;
- Enhanced TII construction-phase carbon commitments, including renewable-sourced power and low-carbon materials;
- Updated estimates of construction and operational power carbon intensity;
- Operational Phase Transport Study updates, including the GDA Transport Strategy 2022-2042.

More information on the updated carbon assessment can be found in the publicly available MetroLink – Estuary to Charlemont via Dublin Airport Oral Hearing Statement of Evidence on Climate and Air Quality (19 February 2024) (Statement of Evidence).³³

Activity (Kt CO ₂ e)	EIAR Carbon Tool 2022 (V2.1)	Updated Carbon Tool 2024
Embodied Carbon	479.30	478.87
Construction Activities (including plant use, fuel/ power)	455.89	455.89
Construction Waste	55.69	61.28
Maintenance Material *	25.66	25.89
Total	1,016.54	1,021.93

Table 2—3: Predicted unmitigated carbon emissions during 9.25-year construction phase, annual³⁴

*Maintenance material also comprises carbon emissions resulting from maintenance activities after the metro's successful start of operations, so these are not necessarily confined to the construction phase. They are included here as decisions made during the construction phase will determine the quantum of emissions resulting from maintenance material.

Carbon emissions during Construction Phase

During the construction phase, the predicted impacts on carbon emissions considered include the embodied carbon used, vehicles associated with construction, energy use during construction, disposal of waste and redistribution of other road traffic during construction.

Table 2 – 3 outlines the carbon emissions of key activities during the construction period, prior to the mitigations expected to be implemented. Total construction phase carbon emissions expected in the 2022 EIAR calculation were 1,017 Kilotonnes Carbon Dioxide equivalent (Kt CO₂e). The updated calculation for the 2024 Oral Hearing estimated total construction phase carbon emissions as 1,022 Kt CO₂e.

Embodied carbon and construction activities, including plant use and fuel/power, are expected to be the dominant sources of carbon emissions during the construction phase, with 478.87 Kt CO₂e and 455.89 Kt CO₂e expected emissions respectively (2024 Oral Hearing calculation).

As design develops, more detailed information becomes available for the carbon calculations. For example, a better understanding of route length led to an increase in the calculation of construction waste. These changes, combined with a slight rise in transport emission factors, resulted in a net increase of 5.4 Kt CO₂e (0.53%) between the two construction phase emission calculations. The carbon estimates increased because the Updated Carbon Tool 2024 corrected a waste emissions factor error, requiring transport emissions to be added separately, and updated worst-case assumptions to reflect longer transport distances and revised landfill/reuse proportions.³⁵ The largest changes are related to waste disposal and transport.

33 [MetroLink – Estuary to Charlemont via Dublin Airport Oral Hearing Statement of Evidence on Climate and Air Quality \(19 February 2024\)](#)

34 MetroLink – Estuary to Charlemont via Dublin Airport Oral Hearing Statement of Evidence on Climate and Air Quality (19 February 2024) – Table 6: Predicted Differences between V2.1 and Online Tool with Updated Waste Assumptions

35 MetroLink – Estuary to Charlemont via Dublin Airport Oral Hearing Statement of Evidence on Climate and Air Quality (19 February 2024) – Sections 12 and 13

Operational Phase

During the operational phase, the predicted carbon emissions considered include anticipated vehicle emissions savings achieved through modal shift from other modes of transport to MetroLink, and operational power.

Electricity consumption is the main contributor to operational emissions, with the carbon intensity of grid electricity influencing long term performance. As the national grid continues to decarbonise with the goal to achieve Net Zero by 2050, operational emissions are expected to decline correspondingly, with later years of operation benefiting from projected increases in renewable penetration.

Emissions across the full operational period are annualised, meaning that total projected emissions over 80 years are expressed as an average yearly value.

Table 2 – 4 outlines the carbon emissions of key activities during the operational phase prior to the implementation of mitigation measures.

Activity in Opening Year 2035 - as per EIAR (Kt CO ₂ e)	EIAR Carbon Tool V2.1 (2022)	Updated Carbon Tool 2024	
		Actual Traffic Flows	Demand Traffic Flows
Operational Vehicle Emissions	-12.88	-12.88	-274.76
Operational Power (Projected 2030 Carbon Intensity)	6.24	6.24	6.64
Total	-6.64	-6.64	-268.12

Table 2—4: Summary of predicted operational phase impacts prior to implementation of mitigation measures, annual³⁶

As with the construction stage, the quantification of operational emissions will continue to be refined as design develops. Changes to asset lifecycles, rolling stock specifications, and efficiency measures may lead to further adjustments in calculated emissions. Alignment with PAS 2080³⁷ principles during design and operation of MetroLink is expected to support ongoing optimisation, helping to ensure that operational carbon remains minimised throughout the life of the Programme.

36

MetroLink – Estuary to Charlemont via Dublin Airport Oral Hearing Statement of Evidence on Climate and Air Quality (19 February 2024) Tables 11, 12, and 13; EIAR Chapter 17 Table 17.23

37

PAS 2080 is a global standard for managing whole-life carbon in infrastructure

Mitigation

During the 2024 Oral Hearings, TII committed to the following mitigation measures in addition to those set out in the EIAR:³⁸

- Corporate Power Purchase Agreement (CPPA) to use electricity generated from renewables for 100% of construction stage power including the tunnel boring machine;
- CPPA to use electricity generated from renewables for 100% of operational power (the EIAR committed to 90%);
- The use, where practicable, during construction of low carbon concrete with an embodied carbon equivalent to a 50% ground granulated blast-furnace slag replacement;
- The use of construction plant and equipment of sustainably sourced Hydrotreated Vegetable Oil as a 100% replacement for fossil fuel;
- Procurement limited to suppliers that meet the industry requirements within the CAP for 10% reduction in embodied carbon by 2025.

These measures go above and beyond the required commitments in the CAP25 and clearly illustrate MetroLink's contribution to Ireland's trajectory to Net Zero by 2050.

TII will also, where feasible, mandate the use of electric construction plant and equipment to further reinforce emissions reductions. This has not, however, been included in the calculated residual impact carbon savings (post the implementation of mitigations) because the extent to which this will be feasible is not clear at this time.

How MetroLink will mitigate the impacts of Climate Change and adhere to national policy

To reduce impacts that Climate Change will have on MetroLink, the following design and management measures have been implemented:

- Climate-resilient design specifications for tunnels and infrastructure;
- Mandatory plans to be developed by the appointed contractors including, a water management plan, sediment erosion and pollution control plan, groundwater monitoring plan and construction flood protection plan;
- Real-time meteorological forecasting will be used by the contractor to inform short-to-medium-term programme management, environmental control, and impact mitigation measures.

These updates, submitted during the Oral Hearings in 2024, demonstrate MetroLink's commitment to aligning with evolving climate-related policies (i.e. annual updates to the CAP) and Ireland's net-zero 2050 trajectory, delivering a materially improved carbon profile compared to the original EIAR, as submitted as part of the Railway Order submission.

38 MetroLink – Estuary to Charlemont via Dublin Airport Oral Hearing Statement of Evidence on Climate and Air Quality (19 February 2024)





Chapter Supporting Information

In support of this chapter, the following information is available publicly at the following link <https://www.MetroLinkro.ie/>:

- Environmental Impact Assessment Report;
- MetroLink – Estuary to Charlemont via Dublin Airport Oral Hearing Statement of Evidence on Climate and Air Quality (19 February 2024).

Figure 2—8: Representation of Street Level for MetroLink Underground Station at Ballymun

Cost

"The National Development Plan sets out transformative, critical and growth-enhancing infrastructure investment designed to strengthen Ireland's competitiveness and resilience. All public investment proposals must demonstrate that they represent value for money and that the benefits justify the costs."

Cost Methodology

This section outlines the methodology applied in developing the latest MetroLink DBC Cost Estimates.

Delivery Costs Estimates Methodology

The Delivery Costs estimates were updated in Q1 2026 and include the following components:

- Base Delivery Cost;
- Risk allowances based on a range of probabilities;
- Inflation.

Base Delivery Cost estimates

The Base Delivery Costs estimates for MetroLink represent the estimated cost of delivering the Programme in constant Q1 2025 prices, before the application of risk, inflation or VAT. These Base Delivery Costs estimates have been prepared in accordance with the NTA Cost Management Guidelines for Public Transport Projects, using a combination of benchmarking and first principle estimating methods using actual and historic cost data.

The Base Delivery Costs estimates comprise the following costs:

- Direct Costs (construction costs) estimates including construction contractor costs and relevant provisions. These Direct Costs reflect the Railway Order submission plus amendments up to August 2025 including refinements made following the Oral Hearing and scope refinements, technical specifications and construction methodologies. In addition, an allowance equivalent to 3% of the Direct Costs has been included to account for Railway Order conditions that had not yet been incorporated into the design as of August 2025;
- Land and Property acquisition costs based on updated land requirements, information on land interests and current market conditions;
- Indirect Costs estimates which are costs associated with managing the Programme including staff costs, legal fees and office costs.

Risk Allowance

MetroLink has undertaken a QRA and a RCF exercise³⁹ to determine and validate the appropriate level of risk allowance to be applied to the Delivery Costs estimates, considering the risk exposure in relation to the Programme cost and schedule.

Taken together, these approaches provide an evidence-based, externally validated assessment of the likely cost outcomes for the Programme. This is consistent with international best practice for a programme of this scale and complexity.

QRA risk allowances are being used in this chapter and for the Economic and Financial Appraisals. This is deemed to be the most appropriate basis for the risk allowances in this DBC, given the level of maturity of the Programme and design, and the updated risk assessment.

The QRA involves the assessment of four key areas of risk and uncertainty: discrete risk cost; cost of schedule delay; estimate uncertainty; and unknown unknowns. It incorporates programme-specific risks associated with design, construction, property, interfaces, scheduling and market conditions. See Table 3 – 3 for a breakdown of these risk areas within the QRA calculations for the DBC Delivery Cost estimate.

The application of risk allowances varies according to the desired confidence level in the overall Programme budget. The P-values presented in this chapter correspond to the percentiles of the cost distribution generated by the QRA. For instance, the P80 Delivery Cost corresponds to the 80th percentile of the Delivery Cost distribution.

³⁹ RCF is an alternative cost forecasting method which estimates the forecast costs by examining the actual costs of completed projects of a similar scope, scale and complexity.

In preparing the QRA, these are assumed:

- Market capacity and appetite to deliver the Programme and competitive tender processes;
- Railway Order conditions not exceeding the cost estimate nor materially impacting the timeframes within the schedule;
- No major failing of the tunnel structure or canals during the works.

The following risks have been excluded for the purposes of the QRA:

- Financial/banking market uncertainty/volatility;
- Impacts of the global political situation;
- Further Covid-19/future health pandemics;
- Major incident impacting the works (e.g. terrorism);
- Delay due to a future Judicial Review challenge.

Inflation

A megaproject such as MetroLink takes a considerable number of years to construct and the forecast cost of inflation over the full delivery period is included in the Delivery Costs for financial planning purposes.

An inflation calculator has been developed to estimate the impact of inflation on the Delivery Costs. The inflation calculator includes seven sub-indices (drawn from Ireland and the UK predominantly): civil engineering; stations; mechanical & electrical; railway systems; rolling stock; client; and land and property.

Each index is forecast out to 2037 using a statistical regression / econometric calculation based on historical trends. Finally, a market condition factor is applied to allow for the differences that exist between cost price and tender price inflation.

The calculator is then used to forecast specific cost elements for MetroLink, from Q1 2025 to 2037 (assuming the QRA P50 schedule). Sensitivity analysis is applied to consider the impact if inflation fluctuates by plus or minus 1%, as set out in Table 3 – 1 below.

Delivery Costs average inflation	Low Forecast	Medium Forecast	High Forecast
Civil Engineering	1.40%	2.40%	3.40%
Stations (Buildings)	1.50%	2.50%	3.50%
Mechanical and Electrical	1.00%	2.00%	3.00%
Railway Systems	1.40%	2.40%	3.40%
Rolling Stock	1.60%	2.60%	3.60%
Client	1.30%	2.30%	3.30%
Land and Property	2.40%	3.40%	4.40%
Weighted Average	1.40%	2.40%	3.40%

Table 3—1: Average inflation forecast for Delivery Costs

Operating and Renewal Costs Estimates Methodology

The Operating and Renewal Costs estimates include the following components:

- Base Operating and Renewal Costs;
- Risk allowances based on a range of probabilities;
- Inflation.

Base Operating and Renewal Costs estimates

The Base Operating and Renewals Costs estimates for MetroLink represent the expenditure required to operate, maintain, and renew the system over the first 30 years of service expressed in constant Q1 2025 prices and prior to the application of risk allowance, inflation, or VAT. These costs, developed for the PBC, were updated in 2023 and were inflated up to Q1 2025 prices.

The Base Operating Costs estimates comprise:

- Staff to support customer service, maintenance, operations, cleaning and administrative functions;
- Utilities which include propulsion power to drive the trains in operation and power for the tunnel, operation and maintenance of depots and stations' systems e.g. ventilation;
- Materials for maintenance;
- Casualty and liability provisions;
- Insurances;
- Service and miscellaneous expenses.

The Base Renewals Costs estimate comprise:

- Rolling stock purchases and mid-life overhauls, replacements (e.g. lifts & escalators and platform screen doors);
- Renewal of infrastructure elements such as track, systems, and station assets.

Risk Allowance

Risk allowances for Operating and Renewals Costs have been estimated to account for the estimation uncertainty and variability in these costs. The following percentages have been applied to the Base Operating and Renewal Costs to calculate the appropriate risk allowances:

- P30 QRA: 29.27%;
- P50 QRA: 31.40%;
- P80 QRA: 34.85%.

Inflation

The Base Operations and Renewals Costs estimates are based on Q1 2025 prices. The inflation applied to these costs estimates over the period 2037-2067 is as follows:

- 2% per annum has been applied to Operating Costs;
- 2% per annum has been applied to Renewals Costs.

DBC Delivery Costs Estimates

The DBC Delivery Costs estimates were developed using the methodology outlined above. Table 3 – 2 below shows the total DBC Delivery Costs estimates including risk allowance and inflation, excluding VAT, against different probability levels. The Base Cost is the same across the P30, P50 and P80 range of probabilities. Adjustments in risk allowance and inflation are shown below, which results in variations in total Delivery Costs in both real and nominal terms.

DBC Delivery Costs Estimate	P30	P50	P80
Direct Costs	€7.92bn	€7.92bn	€7.92bn
Land and Property Costs	€0.72bn	€0.72bn	€0.72bn
Indirect Costs	€1.46bn	€1.46bn	€1.46bn
Base Delivery Cost	€10.10bn	€10.10bn	€10.10bn
Risk Allowance	€3.13bn	€3.49bn	€4.09bn
Total Delivery Cost (ex. inflation)	€13.23bn	€13.59bn	€14.19bn
Inflation	€1.21bn	€2.16bn	€3.30bn
Nominal Delivery Cost (Ex. VAT)	€14.44bn	€15.75bn	€17.49bn

Table 3—2: Total Delivery Costs Estimates (P30, P50 and P80) including risk allowance and inflation, excluding VAT.

The cost estimates above represent the costs as follows: P30 represents an optimistic outcome; P50 represents the median outcome; and P80 represents the conservative outcome. However, even the P80 estimate still carries a 20% probability of these costs being exceeded.

Delivery Costs Risk Allowance

Delivery Costs risk allowances are based upon the outputs from the QRA, which are detailed in Table 3 – 3 below.

QRA output	P30	P50	P80
Discrete Risk Cost	€0.82bn	€0.88bn	€1.00bn
Cost of Schedule Delay	€0.69bn	€0.77bn	€0.92bn
Estimate Uncertainty	€1.04bn	€1.24bn	€1.58bn
QRA Total	€2.61bn	€2.91bn	€3.41bn
Unknown Unknowns – (20% of Risk Outputs)	€0.52bn	€0.58bn	€0.68bn
QRA & Unknown Unknowns Total (Risk Allowance)	€3.13bn	€3.49bn	€4.09bn

Table 3—3: Delivery Cost QRA Components against a range of probabilities.

* Note that the total risk allowance does not equate to the sum of the individual QRA components due to the portfolio effect as described.

An additional 20% uplift has been applied to the quantified risk outputs to reflect residual uncertainty that cannot be explicitly modelled in the quantitative risk analysis. This adjustment is intended to account for the potential impact of unknown unknowns that may arise during the Programme delivery.

No separate optimism bias uplift has been applied. Instead, the risk allowances derived from the quantitative risk analysis, together with the additional uplift applied for residual uncertainty, are intended to capture the potential impact of cost uncertainty and forecasting bias.

The total risk allowance is not simply the sum of the individual QRA components, and the unknown unknowns as can be seen in Table 3 – 3 above. This is due to the portfolio effect, which refers to the reduction in overall risk when individual exposures are combined into a portfolio, due to diversification and imperfect correlations between risks.

Delivery Costs Inflation

As outlined above, an inflation calculator has been used to calculate the low, medium and high inflation rates to be applied to the Delivery Costs.

Low inflation assumptions have been applied to the P30 estimate, medium inflation assumptions have been applied to the P50 estimate, and high inflation assumptions have been applied to the P80 estimate. This approach ensures that each P-level reflects an appropriate and proportionate inflation provision consistent with its respective certainty level.

Box 3 – 1 below sets out the inflation provision identified for application against the different probability levels:

Box 3—1: Inflation ranges

	Inflation (ex. VAT)
Low inflation P30	€1.21bn
Medium inflation P50	€2.16bn
High inflation P80	€3.30bn

DBC Operating and Renewals Costs Estimates

The Operating and Renewals Costs estimates for the 30-year period 2037-2067 are shown in Table 3 – 4 below against different probability levels.

DBC Operating and Renewals Costs Estimates	(2037-2067)		
	P30	P50	P80
Base Operating Costs			
Operating Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Risk Allowance – Operating Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Inflation – Operating Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Nominal Operating Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Renewals Costs			
Base Renewals Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Risk Allowance – Renewals Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Inflation – Renewals Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Nominal Renewals Costs	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn
Total Operating and Renewals Costs (ex. VAT)	€ [REDACTED] bn	€ [REDACTED] bn	€ [REDACTED] bn

Table 3—4: Total Operating and Renewals Costs estimates across the 30-year period 2037 to 2067 including risk allowance and inflation, excluding VAT.

Operating Costs Estimates

The breakdown of Operating Costs estimates for the 30-year period 2037-2067 at the P50 level is shown in Table 3 – 5 below.

DBC Operating Costs Estimates	(2037-2067)
Staff	€ [REDACTED] bn
Propulsion Power	€ [REDACTED] bn
Utilities	€ [REDACTED] bn
Materials	€ [REDACTED] bn
Casualty and Liability	€ [REDACTED] bn
Services and Miscellaneous	€ [REDACTED] bn
Base Operating Costs	€ [REDACTED] bn
Risk Allowance – Operating Costs (P50)	€ [REDACTED] bn
Inflation – Operating Costs	€ [REDACTED] bn
Total Nominal Operating Costs	€ [REDACTED] bn

Table 3—5: Total Operating Costs estimates (P50) for the 30-year period 2037 to 2067 including risk allowance, inflation and excluding VAT.

Renewals Costs Estimates

In addition to the capital investment, MetroLink will incur asset renewal costs over its operational life, reflecting the long-term maintenance and replacement of major system components.

The breakdown of the Renewals costs estimates for the 30-year period 2037-2067 at the P50 level is shown in Table 3 – 6 below.

DBC Renewals Cost Estimates (2037-2067)	
Renewals Costs - Rolling Stock	€ [REDACTED] bn
Renewals Costs - Infrastructure	€ [REDACTED] bn
Base Renewals Costs	€ [REDACTED] bn
Risk Allowance – Renewals Costs (P50)	€ [REDACTED] bn
Inflation – Renewals Costs	€ [REDACTED] bn
Total Nominal Renewals Costs	€ [REDACTED] bn

Table 3—6: Total Renewals Costs estimates (P50) for the 30-year period 2037 to 2067 including risk allowance, inflation and excluding VAT.

The planned replacement, overhaul, and refurbishment of these key system components will support MetroLink's performance and reliability over its lifecycle and protect the State's initial investment in this vital infrastructure asset.

As MetroLink is assumed to be operational from 2037, no Renewals Costs are expected in that year. It is anticipated that Renewals Costs in the first 30 years of MetroLink's life will amount to approximately € [REDACTED] billion excluding risk allowance, inflation and VAT. Within these Renewal Costs, € [REDACTED] billion of future rolling stock purchases and placements will be incurred.

Operating and Renewals Risk Allowance

The Operating and Renewals Costs estimates incorporate a P50 QRA risk allowance of € [REDACTED] billion over the period 2037-2067 (Q1 2025 prices). Included in this figure are allowances for operating costs (€ [REDACTED] billion), rolling stock renewals (€ [REDACTED] billion) and infrastructure renewals (€ [REDACTED] billion).

Operating and Renewals Inflation

As outlined above, inflation is applied to the different cost categories as follows and cover the period 2037-2067:

- 2% per annum has been applied to Operating Costs, which totals € [REDACTED] billion (P50);
- 2% per annum has been applied to Renewals Costs, which totals € [REDACTED] billion (P50).

Changes to Cost Estimates from the PBC

In this section, the latest MetroLink DBC Cost Estimates are compared with that outlined in the PBC.

Delivery Costs Estimates Updates since PBC

Table 3 – 7 below summarises the change in the MetroLink Delivery Costs estimates between the PBC and the DBC across a range of probabilities.

Delivery Cost Estimates	P30	P50	P80
PBC Cost Estimates	€7.16bn	€9.50bn	€12.25bn
DBC Cost Estimates	€14.44bn	€15.75bn	€17.49bn

Table 3—7: DBC Delivery Costs Estimates for P30, P50 and P80, including inflation and risk allowance, excluding VAT, compared to PBC

The DBC Cost Estimates range reflects an update of the major cost components since the PBC, incorporating design development, inflationary pressures, market intelligence and revised risk assessments. The cost estimates have also been updated to reflect the expected QRA P50 start of operations in 2037.

Table 3 – 8 shows a comparison between the PBC and the DBC Delivery Costs estimates at the P50 probability, for the purposes of demonstrating the variance between the two estimates.

Delivery Cost Estimates	PBC Cost Estimates	DBC Cost Estimates	Variance
Direct Costs	€4.59bn	€7.92bn	€3.33bn
Land and Property Costs	€0.44bn	€0.72bn	€0.28bn
Indirect Costs	€0.77bn	€1.46bn	€0.69bn
Base Delivery Costs⁴⁰	€5.80bn	€10.10bn	€4.30bn
Risk Allowance (QRA P50)	€1.74bn	€3.49bn	€1.75bn
Total Delivery Costs (ex. inflation)	€7.54bn	€13.59bn	€6.05bn
Inflation	€1.96bn	€2.16bn	€0.20bn
Nominal Delivery Costs	€9.50bn	€15.75bn	€6.25bn

Table 3—8: Comparison of Delivery Costs estimates between the PBC and DBC including risk allowance and inflation, excluding VAT

* Of the €4.30 billion variance in the Base Delivery Cost, €0.86 billion relates to an inflationary increase, due to the change in the base date from Q4 2021 (PBC) to Q1 2025

40 The Base Delivery Costs and Total Delivery Costs are in Q4 2021 prices for the PBC and Q1 2025 prices for the DBC

The rationale for the key movements in Delivery Costs is summarised as follows:

Direct Costs (construction costs) estimates: The key drivers for the €3.33 billion increase in the Direct Costs estimates since the PBC are outlined below:

- **Design:** The MetroLink design has been further refined since the submission of the PBC to enhance customer experience, strengthen system resilience, and streamline construction. These updates ensure full compliance with the commitments made during the Oral Hearings, improve mobility and accessibility, and reflect revised stakeholder agreements including with Dublin Airport Authority, Dublin Fire Brigade and Iarnród Éireann. Key refinements include modifications to platform layouts, tunnelling approaches, operational updates as a result of fire and pedestrian modelling, escalator design and ventilation/Mechanical, Electrical, Plumbing design, the latter not being incorporated within the PBC costs.

The Direct Costs reflect this refined scope, incorporating revised technical specifications and construction methodologies consistent with the undertakings made by MetroLink at the Oral Hearings and approved as of August 2025. In addition, an allowance equivalent to 3% of the direct costs has been included to account for Railway Order conditions that have not yet been incorporated into the design. These design refinements represent an increase in cost of €1.16 billion compared to the PBC;

- **Change in base date:** The base date of the costs has been updated from Q4 2021 (PBC) to Q1 2025. This has resulted in an increase in the Direct Costs of €0.61 billion, additional to the PBC costs. This reflects the high levels of inflation in the period, arising from impacts from the Covid-19 pandemic, geopolitical uncertainty and tariffs;
- **Provisions:** An additional provision of €0.51 billion has been included to address the commitments made during the Railway Order application and for workers' accommodation;

- **Contractor costs:** Contractor costs, which includes preliminaries, contractor developed design, and fee components, have increased by €1.04 billion. Contractor costs have increased across the sector since 2021, primarily due to construction inflation driven by higher material, labour, and energy costs.

- **Land and Property Costs** have increased by €0.28 billion due to updated land requirements, further information on land interests and current market conditions.

Indirect Costs estimates, which are costs associated with managing the Programme including staff costs, legal fees and office costs, have risen by €0.69 billion. This reflects the carrying costs of resources given the additional approval timescale for the Railway Order, and the new resource schedule prepared for the DBC which is more mature and incorporates the increased complexity, size and scale of the MetroLink organisation.

Risk Allowance has increased by €1.75 billion to reflect the updated risk analysis as calculated through the QRA.

Inflation: The Delivery Costs estimates have risen by €1.06 billion since the PBC due to inflation. This increase can be attributed to two components:

- **Change in base date:** €0.86 billion of this inflationary increase in Delivery Costs estimates relates to the change in base date of the costs from Q4 2021 (PBC) to Q1 2025. Of this, €0.61 billion relates to increases in Direct Costs and €0.25 billion relates to increases in Land and Property Costs and Indirect Costs. This reflects the high levels of inflation in the period, arising from impacts from the Covid-19 pandemic, geopolitical uncertainty and tariffs.
- **Updated inflation forecast:** The remaining €0.2 billion of the inflationary increase in Delivery Costs estimates relates to changes in forecasted inflation from the base dates (Q4 2021/Q1 2025). This €0.2 billion increase is primarily driven by the increase in Base Delivery Costs and is partially offset by the decrease in forecasted inflation from 2.72% per annum (PBC) to 2.4%, reflecting the improved macro-economic situation at the point in time when the estimates were developed.

Operating and Renewals Costs Estimates

Table 3 – 9 summarises the change in the MetroLink Operating and Renewals Costs estimates (P80 only as presented in PBC) between the PBC and the DBC.

Operating and Renewals Costs Estimates Yr 1 – 30 (2037-2067) ⁴¹	P80
PBC Cost Estimates	€4.39bn
DBC Cost Estimates ⁴²	€■■■bn
Variance	€■■■bn

Table 3—9: Updated Operating and Renewals Costs estimates for P80 including risk allowance and inflation excluding VAT, compared to PBC.

Operating and Renewals Costs Estimates Updates Since PBC

Table 3 – 10 shows a comparison between the PBC and DBC Operating and Renewals Costs estimates at the P80 probability. The comparison is made at P80, as the Operating and Renewal Costs were only prepared at P80 for the PBC.

Operating and Renewals Costs Estimates ⁴³	PBC Cost Estimates Years 1-30 of operations	DBC Cost Estimates Years 1-30 of operations
Base Operating Costs	€0.99bn	€■■■bn
Risk Allowance – Operating Costs	€0.31bn	€■■■bn
Inflation – Operating Costs	€2.09bn	€■■■bn
Total Nominal Operating Costs (ex. VAT)	€3.39bn	€■■■bn
Base Renewals Costs	€0.34bn	€■■■bn
Risk Allowance – Renewals Costs	€0.11bn	€■■■bn
Inflation – Renewals Costs	€0.55bn	€■■■bn
Total Nominal Renewals Costs (ex. VAT) (P80)	€1.00bn	€■■■bn
Total Operating and Renewals Costs (ex. VAT) (P80)	€4.39bn	€■■■bn

Table 3—10: Comparison of Operating and Renewals Costs estimates between the PBC and DBC including risk allowance and inflation, excluding VAT

⁴¹ 30 Years from 2037 to 2067

⁴² Excluding €82m of Operating Costs in the three years prior to opening (2034-2036)

The Operating and Renewals Costs estimates presented in this DBC reflect the following key updates since the PBC:

Operating Costs Estimates Updates

Utilities: Detailed analysis of the estimated utility costs has been undertaken since the PBC, including estimating the cost of lighting, electricity, water and natural gas. As a result, the estimated utility costs have increased by €0.18 billion.

Change in base date: The base date of the costs has been updated from Q4 2019 prices (PBC) to Q1 2025 prices. Similar to the Delivery Costs estimates, the Operating Costs estimates have increased due to inflation of the relevant costs during the period. For example, electricity prices rose significantly in the period, due to geopolitical uncertainty and tariffs.

Future Inflation: Operating Costs future inflation as projected over the forecast period has reduced from 3% per annum (PBC) to 2.0% per annum, reflecting the latest macroeconomic outlook.

Renewals Costs Estimates Updates

Fleet Planning: Initial fleet procurement is included in Base Delivery Costs. The fleet plan, included in the Renewal Cost estimates, includes the future acquisitions, renewals and retirements of the trains. This has been updated since the PBC, to ensure that there are sufficient rolling stock vehicles and spares for reliable operations.

Infrastructure overhauls and renewals: Based upon further analysis, the assumptions regarding the frequency and extent of infrastructure renewals and overhauls have been revisited since the PBC, with the infrastructure and rolling stock being repaired and replaced more regularly, and as a result the infrastructure renewals costs have increased.

Change in base date: As for the Operating Costs, the base date of the Renewals Costs has been updated from Q4 2019 prices (PBC) to Q1 2025 prices, and hence the Renewals Costs have increased due to inflation during the period.

Future Inflation: There have been changes in future inflation as projected over the forecast period, reflecting the latest macroeconomic outlook:

- Infrastructure renewals inflation forecast has decreased from 2.4% per annum (PBC) to 2.0% for infrastructure renewals costs;
- Rolling stock renewals cost inflation remains unchanged from the PBC at 2.0% per annum.

43 The Base Operating and Renewals Costs estimates are in Q4 2019 prices for the PBC and Q1 2025 prices for the DBC

How will the DBC Cost Estimates be Used?

A range of cost estimates associated with probabilities from P30 to P80 has been estimated in this chapter and deemed to provide an appropriate range for cost forecasting and budgeting purposes for MetroLink. These DBC cost estimates will be utilised to manage and oversee the expenditure associated with MetroLink in line with the MetroLink Governance Framework (see Chapter 7: Governance).



Figure 3—1: Representation of MetroLink Underground Station

Economic Appraisal

"The economic benefits from investing in MetroLink are enormous, quantifiable and will absolutely stand to this country for generations to come. MetroLink will improve employment opportunities with around 250,000 jobs within easy walking distance of the route."

Simon Harris T.D., Tánaiste

The introduction of the new Transport Appraisal Framework (TAF), replacing the Common Appraisal Framework in 2023, has led to a change in the recommended guidance for conducting Economic Appraisal and Cost-Benefit analysis (CBA) of transport schemes.

Changes to the appraisal approach are defined later in this chapter, these changes should be considered when comparing the results of this analysis to the PBC.

As outlined below, the DBC Economic Appraisal also includes the quantification of additional benefits to those presented previously in the approved PBC in June 2022. The Programme's costs have been updated to reflect the latest estimates and assumptions made in line with the updated guidance.

These updates increase the analytical robustness of the appraisal and help to provide greater confidence in the likely outcomes of MetroLink.



Figure 4—1: Representation of Street Level for MetroLink Underground Station at Tara

Benefit-Cost Ratio Summary

The Economic appraisal considers both costs and benefits in present values (PV) and a BCR. The BCR indicates the value of benefits relative to costs that the Programme is expected to generate (i.e. the Euros generated in benefit for every Euro spent), with higher values representing better value for money (VfM). The benefits of MetroLink have been assessed using CBA, scenario analysis, and sensitivity analysis. The direct benefits of MetroLink, have been monetised and presented for directly attributed benefits to transport users (Level 1 benefits) and wider economic impacts to the region (Level 2 benefits).

The "Level 1" BCR accounts for benefits directly attributed to the implementation of MetroLink. Level 1 benefits include: transport user benefits; safety benefits; active travel benefits; environmental benefits (carbon, air quality); M500 Service Delivery Partner benefits;⁴⁴ and changes in indirect tax revenues.

The "Level 2" BCR accounts for benefits which includes additional wider economic impacts such as agglomeration⁴⁵ and output change which are considered as indirect impacts of MetroLink. Such wider economic impacts were not previously captured within the main Economic Appraisal conducted at the PBC stage.

A series of scenarios have been created to test the economic value of MetroLink in different circumstances. This includes the Core scenario which only includes committed transport projects as of 2019 and the NDP Future scenario, which assumes that all transport schemes included in the NDP (2018-2027) are fully implemented. The results of CBA modelling are presented in Table 4-1.

Accordingly, the BCR directly attributed benefits (Level 1) falls within a range of between 1.13 to 1.78. Further analysis will continue for the FBC. It is expected that the BCR will be broadly similar to that presented in the PBC of 1.40.

In respect of the Core scenario, the present value of costs, using the new methodology has increased from €9.87 billion (2011 prices) to €11.58 billion (2016 prices). Meanwhile the Level 1 present value of benefits has increased from €13.68 billion to €20.56 billion. As outlined in more detail below, this increase in benefits can be primarily attributed to a more accurate and robust approach to benefit capture courtesy of an additional forecast year within the appraisal undertaken.

Economic Benefits (2016 prices)	DBC Core Scenario	DBC NDP Future Scenario
Directly Attributed Benefits (PV)	€20.56bn	€12.96bn
Directly Attributed & Wider Benefits (PV)	€22.56bn	€14.43bn
PV Costs	€11.58bn	€11.47bn
BCR: Directly Attributed Benefits	1.78	1.13
BCR: Directly Attributed & Wider Benefits	1.95	1.26

Table 4—1: High-level Economic Appraisal summary table for Core Scenario and NDP Future scenario

The updated approach includes an additional forecast (modelled) year (three instead of two⁴⁶) in the updated economic analysis and the resulting transport user benefits estimated (total transport user benefits of €19.50 billion). This represents an increase of €6.80 billion compared to the PBC, reflecting where the greatest benefits from MetroLink are expected to be realised, being the transport user benefits.

The same change in approach is applied in all scenarios, including the NDP Future scenario.

- ⁴⁴ The net impact of costs and revenues (or payment receipts) to the M500 Service Delivery Partner are considered to reflect genuine economic efficiency, resulting in an increase to the present value of benefits to society and the private sector
- ⁴⁵ Agglomeration benefits arise from improved transport links, enhancing local economic activity and productivity while also promoting business growth and job creation
- ⁴⁶ At the PBC, the economic analysis performed was unable to use a third modelling year that provided sufficiently validated results. As a consequence, the PBC model run used just two years which likely understated the benefits in that analysis

Benefits: What's Changed?

A number of changes since the PBC stage are reflected in the results of the DBC Economic Appraisal. This has allowed for a wider scope of benefits to be captured and monetised appropriately at the AG2 stage, including:

- Monetisation of health impacts of active travel (captured in Level 1 benefits);
- Monetisation of environmental impacts including carbon and air quality (accruing to Level 1 benefits);
- Monetisation of wider economic benefits such as agglomeration and output change in imperfectly competitive markets (accruing to Level 2 benefits).

Further changes in the present value of benefits between the PBC and DBC are a result of transport modelling updates which have been enacted to improve the accuracy of the modelling as briefly described above:

- The appraisal for the PBC used two modelled years (2030 and 2040), compared to three for the DBC (2037, 2050, 2065). The addition of a third modelled year improves the integrity of the modelling by better capturing long-term demand and network effects, therefore reducing reliance on extrapolation and assumptions. This provides a more accurate picture of benefits under future growth scenarios;
- Adding a third model year, results in an increase in the magnitude of transport user benefits. This growth in benefits is driven by the notably high level of forecasted traffic congestion in the scenario without MetroLink in the long term (represented by the final modelled year);
- In alignment with the QRA P50 schedule opening year of 2037.

In line with the latest appraisal guidance, other updates have been made to the appraisal approach and relevant assumptions, to enhance the robustness of the analysis. The updates include:

- Updates to Economic Appraisal parameters to align with the latest guidance;
- Completion of a TAA which appraises the merits of a proposed intervention against accessibility; social; land use; safety; climate change; and local environment;
- Changes to the appraisal for revenue impacts associated with the MetroLink Programme;
- Delivery Costs and Operating and Renewals costs have been updated in line with the latest cost estimates and risk assessment as detailed in Chapter 3: Cost;
- Values (costs and benefits) are now presented in a 2016 price base for DBC (instead of 2011 at the PBC) in line with TAF guidance.

To best reflect the established TAF guidance, the Economic Appraisal has been conducted over a 60-year appraisal period (beginning in Q3 2037 according to the QRA P50 schedule), resembling an aggregation of the recommended appraisal period (30 years) and residual value period (30 years) within TAF.

Costs: What's Changed?

Updates to the cost estimates since the PBC which have an impact on the CBA within the Economic Appraisal include:

- **Updates to design development, indirect costs and land and property costs;**
- **Schedule update:** Costs reprofiled to the QRA P50 base schedule with an opening date of Q3 2037;
- **Base date shift:** Moving the real-cost base date from Q4 2021 to Q1 2025 substantially increases costs due to high inflation in the intervening period (post-pandemic impacts and geopolitical shocks);
- **Updated future inflation:** Forward construction inflation assumptions reduced from 2.72% to 2.40% per annum;
- **Updated QRA:** Risk allowances recalculated to reflect the latest QRA.

For the purpose of Economic Appraisal, delivery costs appear lower than illustrated within other chapters of the DBC as they are treated specifically to align with the necessary appraisal guidance (TAF / IG). The key features of economic treatment include presenting costs in 2016 present values, excluding inflation, VAT and sunk costs, adjusting for the shadow price of public funds, and incorporating opportunity costs. This results in lower PV totals than financial or nominal cost estimates elsewhere.

Box 4—1: Why Metro Monetary Benefits Are Often Understated

Evidence from international metro schemes shows that economic appraisals often produce moderate results that understate actual benefits. This reflects the conservative approach typically embedded within appraisal guidance and best practice, which focus on capturing direct transport impacts and often exclude harder-to-quantify outcomes to safeguard the integrity of assessments.

For example, Crossrail (UK) initially forecasted moderate benefits primarily from travel-time savings, yet post-opening evaluations revealed far greater gains in connectivity and productivity. Post-opening evaluation also demonstrated significant increases in patronage levels compared to initial forecasts.⁴⁷

Similarly, Sydney Metro saw its BCR rise from 1.3 to 1.7 for its Metro City & Southwest project when broader city-shaping effects were considered.⁴⁸ The Melbourne Metro case reinforces this trend that early appraisals captured only immediate transport benefits, while later assessments highlighted resilience and urban renewal impacts that were not quantified within early appraisals.⁴⁹

Early appraisals of the Jubilee Line Extension in London focused on capturing direct transport benefits, yet post-opening it has proven to be a catalyst for large-scale regeneration in many areas of East London, including Canary Wharf, North Greenwich and Stratford, driving jobs, housing, land-value uplift and renewed economic activity beyond what the initial, transport-focused assessments had forecast.

For MetroLink, this context is important. International evidence suggests actual benefits often exceed initial forecasts, particularly in terms of strategic connectivity and modal shift.

⁴⁷ [Elizabeth line post-opening evaluation](#)

⁴⁸ [Sydney Metro City Southwest Summary.pdf](#)

⁴⁹ [Melbourne Metro Project Evaluation v2.0.pdf](#)

Economic Benefits

MetroLink will have a range of direct benefits accruing to direct users and the Government as well as wider impacts to society. These benefits are summarised in this section.

Broadly speaking, MetroLink benefits fall into three categories: monetised benefits (e.g. a Euro value can be accurately attributed to the relevant benefit); quantified benefits (which can be measured numerically); and other benefits which are captured qualitatively. The latter two mentioned benefit categories are assessed through the TAA.

The benefits appraisal summary is provided in Table 4 – 2 and is briefly described in the section that follows the table. The numbers presented within the benefits section display the results of the Core scenario (see “Understanding the Scenarios” to see a description of all scenarios considered). There are a large number of MetroLink benefits which due to their nature cannot be monetised.

TAF Criteria	Benefits	Method of Appraisal
Transport User Benefits and Other Economic Impacts	Travel Time; Transport Costs; Agglomeration; Imperfect Competition; Active Travel Benefits	Monetised
	Journey Reliability, Journey Quality, Changes in Land Value	Qualitative
	Labour Market Imperfections	Not Assessed ⁵⁰
	M500 Service Delivery Partner (not specified in TAF), Indirect Tax Impacts (not specified in TAF)	Monetised
Accessibility Impacts	Access to Key Services; Access to Recreational Facilities; Access to Jobs and Access to International Transport Gateways	Quantitative and qualitative (Captured in TAA)
	Freight Access	Not Assessed ⁵¹
Social Impacts	Impacts on Deprived Groups	Quantitative and qualitative (Captured in TAA)
Land Use Impacts	Change in Quality of Public Realm; Existing Transport Network and Service Impact; Zoned Land, Land Use Planning & Spatial Planning	Qualitative (Captured in TAA)
Safety Impacts	Collisions and Safety Related Impacts	Monetised
	Other Safety Impacts	Qualitative (Captured in TAA)
Climate Change Impacts	Climate Action Impact	Monetised
	Climate Adaptation Impact	Qualitative (Captured in TAA)
Local Environmental Impacts	Air Quality	Monetised
	Noise and Vibration; Biodiversity; Water Resources and Soil Quality; Landscape and Visual Quality; Cultural and Heritage	Qualitative (Captured in TAA)

Table 4—2: MetroLink Benefits Appraisal Summary

50 Impacts arising from labour market imperfections are currently excluded from the Economic Appraisal. Due to the current assumption of full employment across Ireland, there is limited scope to demonstrate genuine additionality in terms of the labour market impacts that MetroLink will have.

51 Not assessed as the scheme neither sets out to or is perceived to have a discernible impact on freight access

Transport User Benefits

Travel Time

A key user benefit generated by MetroLink is travel time savings for both public transport and road network users through enhanced accessibility and decreased congestion. Journey time improvements for transport users are expected to amount to €17.36 billion within the core scenario.

Transport Costs

Users can expect a reduction in transport costs due to several factors including lower vehicle operating costs and user charges. Over the appraisal period, vehicle operating cost reductions⁵² for transport users are approximately €1.05 billion, with user charge reductions equating to a value of €1.09 billion.

Other Economic Impacts

Agglomeration (only considered in Level 2 BCR)

Agglomeration benefits arise from improved transport links, enhancing local economic activity and productivity while also promoting business growth and job creation. Agglomeration benefits are estimated to be €0.91 billion.

Output Changes in Imperfectly Competitive Markets (only considered in Level 2 BCR)

By lowering the cost of transport for businesses, MetroLink enables firms in imperfectly competitive sectors to expand activity, resulting in an estimated €1.09 billion in additional economic output.

Active Travel Benefits

Promoting physical activity through increased use of public transport (walking and cycling to and from stations) is expected to lead to benefits of €0.28 billion, with increased levels of physical activity leading to reduced levels of absenteeism, premature mortality and associated healthcare costs.

Journey Reliability

Given that journey time savings form a large portion of the benefits attributed to MetroLink, it is highly likely there will be material benefits from improved journey time reliability overall. At this DBC stage, a qualitative assessment of journey reliability impacts for various user groups has been conducted due to the lack of necessary input data to supplement a monetised assessment.

Journey Quality

For the DBC, a qualitative assessment has been undertaken to indicate the perceived journey quality impacts across several user groups. However, it has not yet been possible to collate sufficient data to monetise the impact of changes to journey quality at this stage of assessment.

Changes in Land Value

An updated analysis indicates potential increases in housing values due to improved accessibility from MetroLink. While these impacts are secondary and not included in the CBA, significant land value increases are anticipated across the study area.

M500 Service Delivery Partner

While not a key part of the TAF appraisal criteria, the net impact of costs and revenues (or payment receipts) to the M500 Service Delivery Partner are considered to reflect genuine economic efficiency, resulting in an increase to the present value of benefits to society and the private sector. The benefit attributed to the M500 Service Delivery Partner is estimated to be €0.44 billion. The methodology will be reviewed at FBC stage.

Indirect Tax Impacts

Courtesy of the modal shift generated by MetroLink, the reduction in car kilometres travelled is expected to impact the Central Fund ('Exchequer') by reducing the levels of receipts from road and fuel tax, as well as VAT. This impact is expected to be a reduction of €0.41 billion in receipts over the appraisal period. As this is captured from the perspective of the fiscal impact on the Exchequer, the reduction in indirect tax equates to a reduction in the overall level of the PV benefits.

⁵² This includes fuel costs and non-fuel costs relating to vehicle maintenance

Accessibility Impacts (covered in TAA)

Enhanced accessibility will result from the integration of various transport modes, significantly improving access to jobs, healthcare and other key services across the GDA. This will support sustainable mobility and reduce traffic congestion, facilitating a sub-20-minute link between Dublin Airport and the city centre.

Social Impacts (covered in TAA)

MetroLink provides fast and affordable access to key services, especially for deprived groups, while universal design features (such as step-free stations) improve usability for passengers with diverse mobility needs. As a result, MetroLink is expected to generate a strong positive social-inclusion impact.

Land Use Impacts (covered in TAA)

MetroLink creates potential to unlock development sites not currently included in local plans for residential use, encouraging higher-density development, optimising land-use and reducing urban sprawl. MetroLink will also directly support the delivery of approximately 77,000 additional housing units,⁵³ including in the Transport Orientated Development areas of Ballymun and Lissenhall. Further information on MetroLink's housing opportunity is set out in Box 4 – 2.

Given the challenges in apportionment and risks of double counting the benefits from land use / value impacts and other benefits such as time saving, for the purposes of the CBA, land use / value benefits associated with MetroLink have not been monetised in this DBC.

Box 4—2: Housing Opportunity

To accommodate the existing housing deficit and population growth forecasts, the Housing Commission estimates that between 220,000 and 400,000 new dwellings will be required across the local authorities of Dublin City and Fingal between now and 2050.⁵⁴

MetroLink is a prime example of a transport project which will unlock large amounts of sustainable housing through "Transport Orientated Development," aligning with NPF policy which highlights sustainable development opportunities along Dublin's high-capacity rail corridors within the metropolitan area.

Further planning, alignment and analysis is required to ensure the MetroLink housing opportunity is fully leveraged and understood. As evidenced by the Land Development Agency's (LDA) acquisition of greenfield sites in Lissenhall,⁵⁵ MetroLink presents key opportunities for cross-organisational alignment and collaboration to deliver vital housing outcomes in the context of the GDA. TII continues to engage with numerous stakeholders including the LDA, Dublin City Council and Fingal County Council to align on and maximise the housing opportunity that MetroLink represents.

⁵³ [PwC Connected Communities Report](#)

⁵⁴ Report of the Housing Commission (2024) [Report](#)

⁵⁵ <https://lda.ie/news/land-development-agency-announces-acquisition-lissenhall-celbridge-7000-homes>

Safety Impacts (covered in TAA)

MetroLink will lead to a significant impact in terms of inducing modal shift away from private car usage. The resulting projected reduction in road traffic collisions will lead to benefits of €0.10 billion over the 60-year appraisal period.

Climate Change Impacts (covered in TAA)

The modal shift effects of MetroLink are expected to significantly reduce greenhouse gas emissions (CO₂e). Comparatively, the traction emissions (CO₂e) generated through the operation of MetroLink are expected to be minimal over the appraisal period. The net impact on CO₂e emissions is expected to generate €0.53 billion in monetised benefits, courtesy of a 2.7 million tonne net reduction in CO₂e.

In addition to this, a climate hazard assessment has also been conducted to ascertain the impacts of MetroLink in terms of the study area's resilience to climate change effects. While some areas of the scheme may be vulnerable to inland flooding, MetroLink is anticipated to have a negligible impact on existing flood regimes.

Local Environmental Impacts (covered in TAA)

The improvements to air quality (through a reduction in NO_x and PM_{2.5}) induced by MetroLink is expected to yield an estimated benefit of €0.13 billion. This is reflective of an estimated reduction in pollutants: 3,953 tonnes of Nitrogen Oxides (NO_x) and 913 tonnes of particulate matter (PM_{2.5}). Noise pollution will decrease post-construction, whilst biodiversity and water resource impacts will be mitigated through management plans.



Figure 4—2: Representation of Street Level for MetroLink Underground Station at Tara

Costs

For the Economic Appraisal, in alignment with the Financial Appraisal, the P80 QRA cost is used as it is considered an appropriate, prudent cost estimate. However, within the context of Economic Appraisal, the PV costs differ from those presented within Chapter 3: Cost and Chapter 6: Financial Appraisal for reasons stated in the Introductory Guide.

Economic costs also include the opportunity cost associated with the use of resources to provide a true reflection of societal outcomes. The key differences in the treatment of economic costs are:

- Within the Economic Appraisal, all values (costs and benefits) are presented at PV, to the year 2016 using discounting as per TAF. This differs from the costs presented within Chapter 3: Cost;
- Values within the Economic Appraisal do not include inflation or VAT;
- Economic costs borne by the Exchequer are treated to account for the shadow price of public funds;
- The PV costs calculated are exclusive of sunk costs;
- The net impact on transport revenue receipts to the public sector is also included within the economic costs.⁵⁶

Table 4 – 3 presents the PV costs calculated within the Economic Appraisal, representing €11.58 billion in costs associated with MetroLink over the course of the appraisal period (2016 prices and values).

Element	
Delivery Costs ⁵⁷ , Client Costs ⁵⁸ and Risk Allowance	€ [redacted] bn
Operating and Renewals Costs	€ [redacted] bn
M500 Service Payment ⁵⁹	€ [redacted] bn
M500 Capital Contribution	€ [redacted] bn
Total Funding Requirement	€ [redacted] bn
Reduction in net user revenue	€ [redacted] bn
Total PV Costs	€11.58bn

Table 4—3: Present Value Costs (€ billions, 2016 prices and values)

- 56 This includes changes to public transport fare revenues and a reduction in highway tolls revenue following a change in demand patterns
- 57 Delivery Costs are Direct Costs (construction costs)
- 58 Comprised of Indirect costs (fees associated with setting up the project, design costs, legal fees), in addition to Land and Property Costs
- 59 M500 Service Payment and M500 Capital Contribution both relate to payments to the M500 Service Delivery Partner

Transport and Accessibility Appraisal

In alignment with TAF guidance, a TAA has been developed to provide a holistic assessment of scheme impacts beyond the monetised impacts. Corresponding with the latest TAF guidance, the TAA appraises the merits of a proposed intervention against the key TAF criteria: Accessibility; Social; Land Use; Safety; Climate Change; and Local Environment.

The scale of impacts within a TAA is assessed on a seven-point scale ranging from high positive to high negative, as follows: High Positive; Positive; Slight Positive; Neutral; Slight Negative; Negative; High Negative. Table 4 – 4 below provides a summary of the outcomes of the TAA.

TAA Criteria	MetroLink Impact
Accessibility	High Positive
Social Impact	High Positive
Land Use	High Positive
Safety	High Positive
Climate Change	Positive
Local Environment	Neutral

Table 4 – 4: TAA Results Summary

Accessibility – High Positive

MetroLink delivers substantial improvements in access to services, jobs, recreation and major transport hubs, with PT catchments rising by between 19 – 44% across the various services and amenities. These strong, quantifiable uplifts, enabled by high frequency services and integrated interchange, underpin its overall high positive accessibility score.

Social Impacts – High Positive

MetroLink substantially improves access to employment, education, and healthcare for deprived and other groups across society, supported by significant increases in 30-minute public transport catchments. The scheme's close alignment with the Universal Design approach, including step-free access, and consistent, safe station environments, enhances usability for a wide range of passengers with varying mobility and travel needs. Reflecting international best practice, the scheme places strong emphasis on safety, reliability, frequency, accessibility, and inclusive design to better meet women's mobility needs. These inclusive features drive a clear high positive social impact score.

Land Use – High Positive

MetroLink supports extensive public realm upgrades and high-quality multimodal integration courtesy of the interchange stops along the corridor (Dublin Airport, Glasnevin, Tara). MetroLink will also deliver improved links to zoned development lands. By strengthening compact growth and Transport Orientated Development objectives, the scheme meaningfully enhances urban quality and development potential, resulting in a high positive land use score.

Climate Change – Positive

Significant modal shift, leading to reduced car kilometres travelled and lower CO₂e emissions, delivers meaningful climate mitigation benefits consistent with long term net zero alignment. While adaptation impacts remain neutral due to residual flooding vulnerabilities, comprehensive resilience measures support an overall positive climate score.

Local Environment – Neutral

The air quality improvements generated in the operational phase of MetroLink as per the road traffic emissions modelled are balanced by largely neutral net effects across the various receptors assessed within the EIAR's air quality assessments. Meanwhile construction impacts on noise, biodiversity, water resources and landscape are mitigated though still present. These offsetting factors result in a steady neutral local environment outcome.

Understanding the Scenarios

Standard practice in undertaking assessments of transport projects requires that a number of demand and network configuration scenarios are generated to provide a range of appraisal results. Each scenario is offering a different assessment of economic costs and benefits by comparing a "Do Minimum" development scenario with a "Do Minimum plus MetroLink" (also known as "Do Something" scenarios).

In terms of the various Do Something scenarios assessed, the Economic Appraisal considers the Core scenario, the NDP Future scenario, and three alternative scenarios, consistent with those at the PBC stage. Each scenario has a range of road-based and public transport projects that are assumed to be completed which therefore affects the scale of impacts associated within each scenario. The Do-Minimum scenario exhibits the same characteristics as the core scenario, however without the introduction of MetroLink.

The Core scenario, NDP Future scenario, and the three alternative scenarios that have been evaluated are set out in Table 4 – 5.

The Core Scenario used in this DBC represents committed infrastructure as at 2019. Since this date, further infrastructure developments have been delivered or received funding, and the Core Scenario will be updated to reflect this in advance of finalising the FBC.

However, additional committed projects (some of which are now complete) within the Core scenario include:

- Luas Green Line Capacity Enhancement – Phase 1;
- BusConnects Dublin Area Bus Network Redesign;
- BusConnects Fares and Ticketing;
- Widening of M7 between Junctions 9 and 11.

Scenario	Description
1. Core Future (also referred to as "Core")	Reflects the committed transport projects outlined in the National Development Plan from 2018-2027 as of 2019.
2. Slow Growth Future	Assumes the Core Future projects only and that overall growth in both population and employment is 20% less than in the Core Future.
3. Alternative Demand Future	Assumes the Core Future projects only, and demand patterns aligned with the NTA's 'Alternative Future Scenario for Travel Demand.'
4. NDP Future	Assumes that all the projects of the Core Future and the interim DART+ expansion and the core bus corridors of Dublin BusConnects are undertaken.
5. NDP Alternative Demand Future	Assumes all the projects of the Core Future and the interim DART+ expansion and the core bus corridors of Dublin BusConnects are undertaken, and demand patterns aligned with the NTA's 'Alternative Future Scenario for Travel Demand.'

Table 4—5: Core Scenario Plus Four Alternative Scenarios

Economic Appraisal Results

Table 4 – 6 presents the results of the Economic Appraisal for MetroLink under the five different futures Do Something scenarios.

The metrics shown include the PV of benefits and costs, the NPVs, and a series of BCR measures. Both Level 1 BCRs (considering direct, 'first-order' impacts only) and Level 2 BCRs, which incorporate wider economic impacts such as agglomeration benefits, are included.

The varying levels of trip demand exhibited within each scenario impact the results displayed within Table 4 – 6.

The broader range of accompanying transport schemes which are included under scenarios 3, 4, and 5 lead to a more resilient and less constrained transport network outside of MetroLink. As a result, the magnitude of improvement that MetroLink induces alone under these scenarios is comparatively reduced compared to the Core scenario. This is reflected in the scale of benefits demonstrated in scenarios 3, 4, and 5.

Furthermore, given that PV costs are sensitive to revenue impacts to the Exchequer within the Economic Appraisal, the varying level of trip demand across the scenarios leads to a marginal variance in the PV cost levels estimated for the respective scenarios.

The results show that the Core scenario provides a Level 1 BCR of 1.78. The NDP Future scenario provides a Level 1 BCR of 1.13.

In contrast, the NDP Alternative Demand Future scenario produces the lowest economic performance.⁶⁰ The Level 1 BCR for this scenario is 1.03, indicating a much smaller margin of benefits over costs. Even after accounting for agglomeration effects, the level 2 BCR only reaches 1.15 which remains the lowest of all scenarios. The results in Table 4 – 6 demonstrate that MetroLink delivers positive VfM across all scenarios assessed.

	Scenarios				
	Core	Slow Growth Future	Alternative Demand Future	NDP Future	NDP Alternative Demand Future
PV Benefits – Level 1	€20.56bn	€19.19bn	€19.15bn	€12.96bn	€11.72bn
PV Benefits – Level 2	€22.56bn	€21.14bn	€21.10bn	€14.43bn	€13.13bn
PV Costs	€11.58bn	€11.64bn	€11.61bn	€11.47bn	€11.42bn
NPV – Level 1	€8.99bn	€7.55bn	€7.54bn	€1.50bn	€0.31bn
NPV – Level 2	€10.99bn	€9.50bn	€9.49bn	€2.97bn	€1.71bn
BCR – Level 1	1.78	1.65	1.65	1.13	1.03
BCR – Level 2	1.95	1.82	1.82	1.26	1.15

Table 4—6: Economic Appraisal summary table (2016 prices and values)

⁶⁰ The reduced performance within the NDP Future and NDP Alternative Demand Future scenarios is reflective of circumstances in which the introduction of a significant range of parallel transport schemes reduces the scale of marginal benefits created by MetroLink alone. The impact is amplified within the latter scenario as transport demand is also suppressed

Sensitivity Analysis of Core Scenario

Separate to the sensitivity analysis conducted within the Financial Appraisal, the cost sensitivity analysis undertaken within the Economic Appraisal analyses how changes to the scale of Nominal Delivery Costs impact the value-for-money status of the Programme.

Consistent with the approach at the PBC stage, cost estimate sensitivities which represent approximately +30% and -30% of the P80 Nominal Delivery Cost have been used. Following consideration of the latest range of cost estimates available, the RCF P85 High Inflation (+32%) and P50 Medium Inflation (-34%) cost estimates were deemed most appropriate to use for the purpose of undertaking sensitivity analysis.

The cost sensitivities outlined below are based on different expenditure profiles to the Core scenario, which vary by the inflation assumptions used and the level of risk included in the cost estimate.

- High-cost sensitivity: RCF P85 High Inflation (+32% P80 Nominal Delivery Cost);
- Low-cost sensitivity: RCF P50 Medium Inflation (-34% P80 Nominal Delivery Cost).

Table 4 – 7 summarises the results of these sensitivity tests. The cost sensitivity analysis like the Core scenario is completed on the PV Costs

The High-Cost scenario sees PV costs rise to €13.7 billion, compared to €11.6 billion under the Core scenario. As expected, this delivers reduced performance, leading to a Level 1 BCR of 1.46 (compared to 1.78) and a Level 2 BCR of 1.60 (compared to 1.95).

Conversely, the Low-Cost scenario sees PV costs reduce to €10.2 billion, this leads to improved VfM against the Core scenario, equating to a Level 1 BCR of 2.06 and a Level 2 BCR of 2.26.

	Core	High-cost	Low-cost
PV Benefits – Level 1	€20.56bn	€19.97bn	€20.98bn
PV Benefits – Level 2	€22.56bn	€21.97bn	€22.98bn
PV Costs	€11.58bn	€13.72bn	€10.18bn
NPV – Level 1	€8.99bn	€6.25bn	€10.80bn
NPV – Level 2	€10.99bn	€8.25bn	€12.80bn
BCR – Level 1	1.78	1.46	2.06
BCR – Level 2	1.95	1.60	2.26

Table 4—7: Cost sensitivity tests summary table (2016 prices and values)

Modelling Approach

Demand estimates are at the centre of the CBA. These have been constructed using the NTA's National Demand Forecasting Model as was the case at the PBC. Of the five regional models, most of Leinster is covered by the Eastern Regional Model (ERM).

The outputs of the ERM are estimated demand for four modes of transport (walking, cycling, public transport, and private vehicles) which are then converted into the CBA results using the following standard transport benefit appraisal tools:

1. Transport User Benefits Appraisal (TUBA);
2. Cost and Benefits to Accidents Light Touch (COBALT);
3. TII Project Appraisal Guidelines for a Government-Level Options Management (PAGGLOM) tool;
4. NTA Economic Evaluation (ENEVAL) tool;
5. NTA Health Appraisal module.

TUBA and COBALT provide a robust, internationally recognised set of outputs which culminate in the production of the CBA results. The TUBA/COBALT models have been utilised to monetise the following impacts within the Economic Appraisal: Time savings; vehicle operating costs; user charges; revenue; indirect taxation.

The remaining three tools have been developed specifically for use within Ireland. PAGGLOM is used to assess the wider economic impacts of transport infrastructure, ENEVAL is used to assess the impacts against air quality, and the Health Appraisal Module assesses the benefit from an increase in Active Travel (cycling and walking).



Figure 4—3: Representation of MetroLink Generic Underground Station Skylights

Packaging, Contracting and Procurement

"By advancing these contracts, we are laying the foundations for a system that will significantly increase public transport capacity, improve connectivity to the airport and key destinations, and support Ireland's climate and sustainability objectives over the coming decades."

Lorcan O'Connor, Chief Executive Officer, TII

Introduction and Overview

Delivering a programme of MetroLink's scale and complexity requires a robust commercial framework that ensures clarity, efficiency, alignment with strategic objectives, and compliance with EU and national policy. MetroLink's commercial approach will guide the construction, testing and commissioning, certification for entry into use, and initial 25 years of operations of MetroLink. This approach will help MetroLink fulfil its overall strategic objective to deliver significant environmental, community and socio-economic benefits to Ireland.

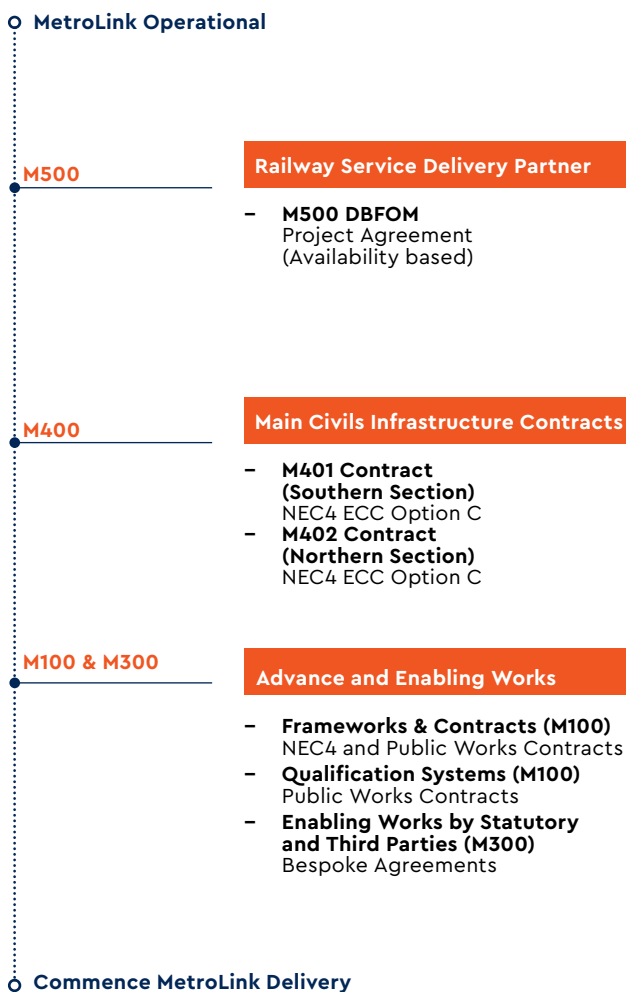


Figure 5—1: MetroLink Work Package Overview

Overview of Work Packages

MetroLink will be delivered through a series of works and services packages, namely two Main Civils infrastructure packages, one Design, Build, Finance, Operate and Maintain (DBFOM) delivery contract and a number of supporting contracts.

M400 and M500 Contracts

- **M400 Main Civils Infrastructure:** two design and build works packages to deliver the MetroLink civil infrastructure and assets and provide space-proofing for installation of MetroLink systems by the M500 Service Delivery Partner.
- **M500 Service Delivery Partner:** a single partner responsible for the design, build, finance, operations and maintenance of MetroLink systems, rolling stock, station fit outs, and depots as further described below. This scope will be delivered under a DBFOM delivery model which provides the best possible overall contract management wrap by securing the specialised expertise required to manage complex delivery and commissioning, system integration and ensure seamless operation of an automated railway.

Supporting Contracts

- **Advance and Enabling Works (M100):** the purpose of these supporting contracts is to achieve a level of site readiness to accelerate mobilisation of the main civil contracts, and, in the case of the M120 Framework, to deliver elements of scope, previously in the main civils package;
- **Third Party Agreements (M300),** bespoke agreements for works that can be delivered only by specific third parties.

The key work packages are summarised in Figure 5 – 1 and a description of their scope set out below. The rationale for this approach is outlined in the 'Packaging Approach' section.

Main Civils (M401 and M402)

The main civil engineering works are consolidated into the M400 work packages and focus on the design and construction of heavy civils, tunnels, viaducts, and all shell and core station structures.

The M400 scope is subdivided geographically into two packages of similar scale and complexity:

- **Main Civils – M401 Contract (Southern Section):** Charlemont to Northwood, approximately 9.1km, all tunnel and 10 underground stations;
- **Main Civils – M402 Contract (Northern Section):** Northwood to Estuary, approximately 9.0km including 2.4km tunnel, retained cut and at-grade sections, plus associated viaducts, four retained cut stations and one surface station.⁶¹ This contract will also include preparatory works for the depot site and Park and Ride facilities.

Railway Service Delivery Partner (M500)

The M500 scope includes:

- Design, supply, operation, maintenance and financing of the metro rolling stock and signalling system (GoA4);
- Design, supply, construction, operation, maintenance and financing of a railway depot and maintenance facility, Park and Ride facility, metro control centre building;
- Installation of all line-wide trackwork, overhead contact system, power, signalling and communication systems, mechanical and electrical systems including tunnel and station ventilation, people movement systems, construction of internal walls and secondary civil and building works within the shell-and-core structures of the underground stations (built by others), the fit out of finishes in sixteen stations (above and below ground);
- Railway systems integration;
- Testing and commissioning;
- Design and construction of urban realm;
- Operation and maintenance of all assets comprising MetroLink and provision of passenger services for an anticipated 25 years;
- Being a Railway Organisation for MetroLink within the meaning of the RSA 2005 and fulfilling all associated responsibilities (including having ownership of the railway safety case).

Advance and Enabling Works (M100)

The M100 packages consolidate the relatively low complexity, cost and fragmented preparatory scope, with the exception of the M120 heavy civils package which includes the underground Dublin Airport Station. The advance and enabling works packages bring together the baseline and environmental surveys, baseline and construction monitoring, utility diversions, civils (including heavy civils advance works), site clearance (demolitions and site clearance), archaeological services and specialist heritage work capabilities required before main civils can be delivered.

Third Party Agreements (M300)

Bespoke agreements for works that can only be delivered by specific third parties due to technical or legal constraints (e.g. ESB power supply and Iarnród Éireann related works), as well as agreements with third party stakeholders in line with Railway Order commitments. These agreements will cover a wide range of stakeholders (approximately 75 entities) including utility providers (i.e. ESB, Irish Water), Iarnród Éireann, And Garda Síochána, local authorities, regulators, and private developers, with some requiring multiple agreements.

⁶¹ Dublin Airport Station previously included in M402 Scope will now be delivered under M120 (see Key Changes since the PBC section below)

Evolution of Commercial Strategy

The PBC outlined an emerging contracting and procurement strategy since refined and informed by extensive market engagement.

Market Engagement and International Feedback

Activities undertaken to inform the approach include:

- **The extensive market consultation process** with industry days, meetings, and publication of Periodic Indicative Notices (PINs) on eTenders, ie and the Official Journal of the European Union (OJEU). Consultations have been conducted with 200+ companies, as well as industry groupings such as the UK Rail Contractors Group;
- **The review of learning legacy reports and direct engagement with similar rail programmes** including Crossrail, Sydney metro projects, the Ontario Line and Canberra Light Rail.

The feedback provided through the activities has been critical in shaping a strategy that reflects market capacity, incentivises performance, and aligns with international best practice for complex metro systems.

Key Changes Since the PBC

Key changes in the approach to contracting and procurement, since the PBC, include:

- **Consolidation of M402 and M403 contracts:** Feedback from the market engagement exercises did not demonstrate sufficient interest in the previously named M403 Northern section package from the international and domestic markets, with the risk of no market response. Therefore, the previously named M402 Central section and M403 Northern section have been consolidated into a single, larger M402 Contract (Northern Section) package. This is to ensure that the packages are of a sufficient scale to be attractive to the appropriate contractors without being so large as to exceed their risk thresholds and TII's risk thresholds;
- **Earlier delivery of elements of Main Civils (M400) packages:** Selected advance main civils elements previously included in the M400 packages, e.g. Dublin Airport station box works, have been identified and included as a new package within the advanced and enabling frameworks and contracts (now M120 heavy civils advanced works, one of the M100 packages). While this approach does not fully align with the guiding packaging principle of combining tunnel and station construction as outlined in the Packaging Approach section below, it has been determined that there are significant benefits to be realised in delivering elements of the M400 packages earlier e.g., in terms of time saving and de-risking the Programme. The M120 framework can also be used to mitigate programme risk in the event that delays arise during the procurement or execution of the M400 contract packages;

- **MetroLink Co-operation Agreement:** There has been a transition from a standalone interface agreement with a combined incentive fund to a Co-operation Agreement (with no combined incentive fund) across the M100 (where interface risk exists), M400 and M500 work packages, and potentially select M300 work packages on an exceptional basis, to drive collaborative behaviours and “Best for Project” outcomes. The Co-operation Agreement has been developed to formalise the ways of working between the parties, to provide an overarching framework and forums for the parties to implement, communicate and work within, and outline the expected behaviours assigned to the parties. Parties are incentivised where relevant and appropriate through their KPIs within the bilateral contracts. This contractually encourages coordination across the various parties’ activities;
- **Optimised sequencing:** The sequencing of the procurement of major contracts has been refined to manage dependencies between the M400 and M500 tender processes, mitigate integration risk through identifying key interfaces through the tender process, manage resources, and maintain competitive tension in the market by staggering procurement processes in response to feedback received during market engagement events;
- **Bid cost reimbursement:** Overwhelming market feedback during the market engagement exercise emphasised that tenderers incur significant costs in responding to tenders for projects of the scale and complexity of MetroLink, requiring inputs from various advisors, consultants and third parties. Therefore, the cost of tendering, and whether a contribution to the cost of tendering is being made available, is a major determining factor as to whether organisations will participate in the tender process for megaprojects such as MetroLink. International best practice in Australia and from Organisation for Economic Co-operation and Development (OECD) case studies shows that partial bid cost compensation helps to retain competitive tension and increase design innovation. For this reason, TII has received government approval to provide a contribution towards each of the M400 and M500 unsuccessful tenderers’ allowable bid costs. This contribution will be capped and subject to tenderers satisfying minimum requirements. This will be a key measure in attracting the appropriate level of market involvement in the tender phase and ensuring a strong competitive process. This contribution will also assist with early engagement by M500 tenderers with the funding market by helping with the cost of due diligence required to secure committed funding during the tender process.

Objectives and Approach

The MetroLink Balanced Scorecard will guide supplier selection and performance, reflecting MetroLink's strategic priorities, highlighting areas such as social responsibility, environmental sustainability, innovation, and long-term public value. It provides a clear framework to support alignment between contractor proposals, and the outcomes MetroLink is working to achieve.

Packaging Approach

The packaging approach taken minimises interfaces between contracts and mitigates integration risk, as well as assign responsibility and risks to the parties most able to manage them.

The works and services to deliver MetroLink are packaged together based on the following shared characteristics:

- **Functional:** Works and services with specialised or distinct technical systems that benefit from 'end-to-end' delivery to avoid complex interfaces are packaged together;
- **Geographic:** Works and services that benefit from being split geographically are split into separate packages;
- **Systematic:** Works and services that have common characteristics are packaged accordingly.

Rationale for Multiple Contract Packages as Opposed to One Large Contract Package

Given the scale and breadth of works, goods and services required for delivery and operation of MetroLink, many potential contract packaging options (e.g., number and size / scope / nature of contracts) were assessed.

A single package for the entire programme was considered but discounted due to risks associated with market appetite and capacity, and deliverability concerns, as confirmed through market analysis and consultation, deeming it commercially unattractive and operationally challenging.

Instead, MetroLink has adopted a packaging approach that balances scale with deliverability and risk management. The preferred approach creates a suite of sufficiently large contract packages that:

- **Minimise interface risk** by consolidating interdependent scopes, assigning system integration responsibility to the M500 Service Delivery Partner, and supporting coordination of contract interface risks through the MetroLink Co-operation Agreement;
- **Enable market participation** in a capacity-constrained market by creating packages of sufficient scale sized to attract the required supply chain in line with contractor risk threshold;
- **Optimise lifecycle performance** by coupling design, construction, and operations under the M500 Contract for GoA4 systems and rolling stock;
- **Maximise economies of scale** while avoiding unnecessary complexity;
- **Provide flexibility and resilience** through frameworks for advance and enabling works and redundancy measures.

Guiding Principles for Packaging Approach

The following set of guiding principles has been defined to steer the packaging approach:

- **Consolidate into a few large packages:** Larger packages reduce the number of interfaces and dependencies, lowering commercial risk and procurement cost while maintaining competitive tension;
- **Separate Main Civils (tunnels, shafts and stations) from line-wide systems and train operations:** Civil works and railway systems require different capabilities and are delivered by different types of contractors.
- **Combine line-wide systems integral to GoA4:** Continuous line-wide systems, control centre and rolling stock are highly interdependent; combining them under one package (i.e. M500 Service Delivery Partner) reduces integration risk and improves efficiency of testing and commissioning and lifecycle performance;
- **Combine tunnel and station construction:** Lessons learned from recent metro and underground rail projects (e.g. Crossrail, UK) suggest that separating these scopes creates inefficiencies and interface risk.

The packaging approach thus reflects international best practice and lessons learned from major recent metro programmes, ensuring that MetroLink's delivery model is commercially viable and operationally robust.

Managing Interfaces and Interdependencies

While MetroLink's packaging approach of consolidating works into larger packages significantly reduces interface risk compared to multiple smaller contracts, it cannot eliminate it.

The strategy assigns line-wide responsibility for design, construction, and integration of all railway systems, mechanical, electrical and plumbing fit out, architectural fit out and station finishes, testing and commissioning to the M500 Service Delivery Partner, who will also operate and maintain the system and MetroLink assets. The M400 contracts focus solely on heavy civil works (tunnels, viaducts, and shell/core station structures), reducing overlap and clarifying accountability.

In addition, each of the M100 contracts, and the M401, M402 and M500 contracts, will contain technical requirements on the identification, management, coordination, integration, and development of designs, and coordination of construction activities at contract interfaces.

Certain works are brought forward to address interdependencies and their potential to be completed in the earlier procured M100 packages. Undertaking these works earlier than the main works will help reduce potential risks to MetroLink's overall timeline, including: the resolution of archaeological matters, the relocation and safe storage of specified heritage items, the diversion and protection of existing utilities (such as water supply networks, sewerage pipework and buried cables), certain demolitions identified in the Railway Order, and pre-clearance of the designated site working areas to be used for the main construction activities.

The M500 package depends on phased, timely completion of defined sections of M120 and M400 works. Handover will thus follow a formal process of joint inspections and agreement, between TII and M401 and M402 representatives, and between TII and M500 representatives, in accordance with the handover requirements set out in their respective contracts, ensuring readiness for system installation and commissioning. The M401 and M402 handover will be overseen by the Programme Delivery Partner, and the M500 handover process will be overseen by the Programme Delivery Partner and the M500 Independent Certifier (these roles are described below). A robust interface management framework will be implemented, which includes the following:

MetroLink Co-operation Agreement

The MetroLink Co-operation Agreement across the M100, M400 and M500 work packages, set out collaborative requirements for design coordination, construction planning, safety, commissioning, and regulatory approvals. This agreement may also be extended to selected third parties (M300) on an exceptions basis if they are required to deliver works on MetroLink's behalf and interface with other MetroLink main contractors. The Agreement will provide the governance and behavioural framework for managing interface risk across contracts aimed at delivering "Best for Project" outcomes.

Early Services Agreement (ESA)

As the M500 Contract is a DBFOM delivery model with private equity and funding, a period of time is required, following the identification of the preferred tenderer (PT), in which the PT will finalise all financing documents and terms with the funders. Financial close is the point in time when funding is in place and the M500 Contract is awarded.

In order to allow certain M500 elements of the technical scope to be progressed with the PT, a bespoke ESA agreement between the Contracting Authority (TII) and the M500 Service Delivery Partner PT will be agreed for the period up to financial close of the M500 Contract. This agreement will have a clearly defined scope, the purpose of which is to support TII in early identification, resolution and mitigation of interface issues and liaison with the M400 contractors. Early identification and resolution or mitigation of issues will reduce the risk of problems arising during construction, potentially reducing unforeseen cost increases or delays in delivery. The ESA will be subsumed into the M500 Contract upon financial close.

Railway Systems Integration

Successful system integration is critical to delivering a safe, resilient, and high-performing GoA4 metro system. The M500 Service Delivery Partner will be responsible for overall coordination and integration of the railway systems to ensure that MetroLink's complex systems operate as one seamless network.

Railway systems integration responsibilities include:

- Coordinating all technical interfaces between civil works (M400) and railway systems, integrating GoA4 automation, signalling, power, rolling stock, and mechanical, electrical and plumbing fit-out within stations and depots (M500);
- Overseeing design and safety management processes to meet Commission for Railway Regulation (CRR) acceptance requirements, including undertaking the role of Railway Organisation;
- Reviewing and commenting on designs from other contractors where they affect operational performance and confirm that the complete system satisfies functional and performance standards;
- TII will be responsible for rail systems integration up to the point of the appointment of the M500 Service Delivery Partner. A formal handover process will be defined in the contract requirements for transition of railway systems integration responsibility from TII to the M500 Service Delivery Partner.

Programme Delivery Partner

The Programme Delivery Partner, working as part of MetroLink's Integrated Team, will manage interfaces across all packages and provide project management, contract administration, and site supervision for the MetroLink Programme. To be appointed before the M400 and M500 contract awards, the Programme Delivery Partner will manage the M400 handover and, with the Independent Certifier, the M500 handover. It will also fulfil NEC4 Engineering and Construction Contract (ECC) Project Manager and Supervisor roles. The Programme Delivery Partner will offer objective insight on delivery performance, risks, and readiness, enabling TII to act as an informed programme owner.

Programme Delivery Partner activities will be further defined post-appointment, with scope and responsibilities evolving in line with contract mobilisation and delivery needs.

Client Partner

The Client Partner (Turner & Townsend (Lead), WSP, Mace and PwC) provides strategic programme and procurement management, design, assurance, and support to TII, acting as a central hub for major project expertise. The Client Partner will oversee the assurance processes for technical acceptance of works as designed and constructed, ensuring compliance and technical assurance.

Independent Certifier

The Independent Certifier will certify readiness of systems and assets for operation and completeness of works. This role will be jointly appointed by TII and the M500 Service Delivery Partner through a bespoke agreement which will define the assurance process for the works, including associated testing and commissioning, to achieve certification of operational readiness.

Design Assurance and Change Control

Processes will be in place through the contract requirements to validate, coordinate, control, and integrate designs and manage scope changes across the multiple required works. TII will have oversight of the Programme Delivery Partner in the performance of their contract management duties and of the assurance processes for technical acceptance of the works. The design assurance and change control procedures will be articulated further in the associated contracts.

Integrated Team

The Integrated Team brings together TII, as the Sponsoring Agency, supported by the Client Partner, Programme Delivery Partner, and specialist advisors within a function-led matrix structure. Details in Chapter 8: Delivering MetroLink.

Contract Models

The selected contract forms are designed to align with MetroLink's packaging approach, manage risk effectively, and embed performance incentives that support MetroLink's strategic objectives. The selection of contract forms reflects international best practice and lessons learned from major infrastructure projects, balancing market appetite with the need for collaboration, transparency, and lifecycle value.

By adopting internationally recognised contract models, such as NEC4 ECC for Main Civils and select Advance and Enabling Works, and a Project Agreement for the M500 Service Delivery Partner (based on the standard availability-based Irish Public Private Partnerships (PPP) contract template amended to incorporate market terms typical of international metro contracts), MetroLink ensures fair risk distribution, incentivisation, and alignment with best practice.

Table 5 – 1 below outlines the contract forms to be used across the packages and their key features.

Contract Form	Package(s)	Key Features
NEC4 ECC Option C (Target Cost Contract with activity schedule)	M400 M100*	- Cost-reimbursable contract set against a target price - Includes pain/gain share mechanism for cost savings or overruns - Encourages collaboration and proactive risk management - Full cost transparency and audit rights - Allows flexibility for scope changes via compensation events - Incentivisation through KPIs (schedule and quality) - Internationally and nationally recognised for proactive risk management, collaboration, and interface management
Project Agreement (availability-based)	M500	- Fixed price Service Payment linked to KPIs - Standard availability-based PPP contract template amended to incorporate market terms typical of international PPP metro contracts, e.g. Sydney metro projects and Ontario Line. - Successfully used in Ireland on major public investment projects - Performance regime tied to KPIs for service performance, availability, quality, and asset management - M500 Service Delivery Partner responsible for the DBFOM of the asset over a long time period (e.g. 25-years)
Public Works Contracts and Standard Conditions of Engagement under the Capital Works Management Framework	M100*	- Fixed price, lump-sum payment mechanism - Payment made on completion of priced activities (defined scope) - Transfer of delivery risk to the contractor - Proven template for public sector construction procurement in Ireland - Incentivises cost control through fixed pricing
NEC4 ECC Option A (Priced contract with activity schedule)	M100*	- Fixed price lump sum contract, contractor carries most of the financial risk for delivering each activity at an agreed lump sum - Suitable for fixed price activities where the scope of work is relatively clear - Payments are made only upon completion of activities listed in the activity schedule
NEC4 ECC Option E (Cost reimbursable)	M100*	- Cost reimbursable for works with limited risk transfer - Used in limited cases where uncertainty prevents target pricing
Bespoke Third-party Agreements (TPAs)	M300	- Directly negotiated rather than competitively tendered, due to the unique nature of the works and/or the limited pool of providers - Form of agreements: Memoranda of Understanding (MoU) (non-binding), 'Stepping Stone' (binding), and Development or Long Form (binding) - Risk transfer is constrained; agreements include provisions to incentivise timely delivery and compliance with programme milestones - Aligned to principles of public procurement and required to demonstrate VfM

Table 5—1: Summary of key work packages

*M100 packages will use a mix of Public Works Contracts and NEC4 ECC Option C contracts (with M100 frameworks also reserving the right to use Options A and E) under an approved derogation from the Government Construction Contracts Committee. Contract forms are selected depending on the scope maturity and complexity of the specific package of works.

Contract Model – Main Civils (M400)

Detailed Outline of Form of Contract

The M400 series contracts, M401 Contract (Southern Section) and M402 Contract (Northern Section), covering the main civil engineering works for MetroLink, will be procured and delivered under NEC4 ECC Contract Option C Target Cost Contract with activity schedule. The intention is to use standard forms, with only those amendments necessary due to the specific nature of MetroLink and to comply with Irish legislation. Tenderers' familiarity with and understanding of the contract forms mean they will be easier to price, post-tender negotiations will be reduced, and it will be easier to administer and reduce contractors' perceived risk, driving collaboration and innovation.

Under NEC4 Option C, the target price will be bid as part of the tendering process and consists of defined costs plus a fee percentage. Defined costs are reimbursed, and contractors are incentivised to manage costs efficiently through a pain/gain share mechanism meaning that any cost savings are shared in defined percentages between the Client and the contractor, and conversely, any cost overrun is shared between the Client and contractor up to defined limits. Further performance incentives may include schedule adherence and improvement, and various other KPIs.

Rationale for Form of Contract

An assessment of various contract forms that could be used for M400 works concluded that the NEC4 ECC Contract Option C Target Cost Contract with activity schedule is the most appropriate. NEC4, the latest version of the NEC suite, promotes collaborative working and transparency between client and contractor and facilitates a proactive approach to contract management. It requires parties to issue early warnings for any event that could affect cost, schedule, or quality. Standard secondary option clauses will address risks such as cost inflation, design liability, and contractual delay damages.

Other contract forms considered for the M400 works were the Public Works Contract under the national Capital Works Management Framework and Federation Internationale des Ingénieurs-Conseils (FIDIC) suite of contracts.

The Public Works Contract was deemed unsuitable for application due to the scale, complexity, and risk profile of the works, as well as limited support from major contractors during market consultations.

FIDIC contracts are used internationally and considered adaptable to the complexities and risks expected in the delivery of MetroLink. The direction of development of the FIDIC contract suite is to a risk share balance that is already well established at a mature and proven standard in the NEC4 contracts. This is demonstrated in the extensive use of NEC contracts internationally and in the UK civil engineering market where it is the default for major publicly funded projects, including major rail projects.

The NEC4 ECC contract provides reliable and well-established contract conditions with significant precedent in their interpretation and application in conditions similar to MetroLink. It aligns to TII's preferred risk appetite/desire for proactive and sustainable risk management and a collaborative approach to project delivery. All market consultations undertaken to date found strong support for the use of the NEC4 form of contract for the main civils contracts.

Contract Model – M500 Contract

Detailed Outline of Form of Contract

The M500 Service Delivery Partner will be contracted under a Project Agreement that follows the Irish standard template amended to incorporate market terms typical of international PPP metros. See Box 5 – 1 below for further detail on a DBFOM contract as well as the next page for the rationale for selecting this procurement approach.

Box 5—1: What is a DBFOM?

A Design, Build, Finance, Operate and Maintain delivery model is a type of PPP that creates a long-term agreement between the public sector and a private consortium. This consortium, for MetroLink the M500 Service Delivery Partner, is a single entity formed specifically for the project and structured as a Special Purpose Vehicle (SPV). The SPV allows the consortium to raise private finance, typically a mix of equity from its shareholders and debt from banks or other financial institutions, while shielding the parent companies from direct commercial risk. This is a common approach with which international tenderers will be very familiar.

Under a DBFOM model, the M500 Service Delivery Partner is responsible for the design, construction, financing and commissioning of the infrastructure, as well as operating and maintaining the system for a set period (25 years for MetroLink). While not all risk can or should be transferred to the private sector, the DBFOM delivery model enables long-term risk transfer to the appropriate party with specialist expertise to manage rolling stock technology and railway systems delivery and integration risks.

Availability vs Concession

MetroLink's M500 Contract will use an availability-based DBFOM model, meaning the M500 Service Delivery Partner will receive a fixed, periodic (monthly) payment from MetroLink, referred to as the Service Payment, provided that the system is available and meets agreed performance standards. This differs from a concession-based DBFOM, where the private partner assumes demand risk and earns revenue directly from users, such as through tolls or ticket sales.

The Service Payment is designed to cover ongoing operational and maintenance costs, including lifecycle replacements, as well as debt and equity repayments at agreed rates of return, which reflect the perceived risk of the programme.

A key feature of availability-based PPPs is the payment mechanism, which reduces the Service Payment if performance requirements are not met (abatements). This approach creates strong incentives for the M500 Service Delivery Partner to deliver a safe, reliable, and high-quality metro system, as it will be responsible for its performance over decades. It also ensures financiers remain motivated to support timely delivery and long-term performance.

The main objective of MetroLink's M500 Service Delivery Partner contract is the provision and operation of public passenger transport services; thus, it is characterised as a public services contract. In order to mitigate the substantial financial cost associated with the M500's extensive construction period (up to 10 years) and to improve affordability of the M500, the funding strategy for the M500 will use a combination of capital contributions from TII and debt financing to cover the costs of project delivery.

VfM and affordability will be monitored throughout the procurement of the M500; prior to going to tender, on receipt of tenders, and at or around financial close. A Public Sector Benchmark (PSB) and a Shadow Bid Model (SBM) will be developed to assess VfM and affordability before issuance of the Invitation to Tender (ITT), in accordance with Government PPP policy. The PSB represents the estimated cost of delivering the contract outputs over the duration of the contract through traditional public sector procurement rather than a DBFOM. The SBM is a financial model, developed by the Client, to create an estimate or "shadow" version of the anticipated financial model tenderers will submit as part of their tenders. It is used by the Client to assess the likely contract price to be tendered and affordability.

The operation and maintenance services phase of the M500 contract is expected to be for 25 years and will start after successful completion of the construction, testing and commissioning and trial running phases by the M500 Service Delivery Partner in the manner required by the CRR.

Service Payments are subject to the commencement and successful operation of MetroLink with all performance requirements met to allow safe operation of the railway. A summary of the expected abatements that may result in an adjustment to the service payment is as follows:

- **Availability adjustment:** arising from a reduction in availability of the service during the monitoring period (e.g. fewer trains running);
- **Headway/Journey Time:** period between train services and end-to-end running time between Estuary and Charlemont;
- **Service quality deduction:** reflecting a reduction in the quality of service provided during the monitoring period across the following areas:
 - Passenger service and communications;
 - Passenger comfort;
 - Asset condition and cleanliness (e.g. stations and platforms);
 - Communication systems availability (e.g. passenger information displays, public announcements, emergency help points).

Additional metrics might include the delivery of community and social benefits that are either required or formed as part of the tender offer and can be included through negotiation. The level of abatement will reflect the severity of the reduction in service or functionality and will be proportionate to the consequence.

The M500 Service Delivery Partner will step-down most of its rights and obligations to a structure of principal sub-contractors, allocating responsibilities, obligations, risks, and cash flows from the M500 Service Delivery Partner through core subcontracts.

Risk Allocation

- **Availability-based model:** No demand risk for the M500 Service Delivery Partner. The demand/revenue risk will be retained by TII and NTA who will therefore be responsible for any variation in the usage of the asset and in the revenue collected;
- **Whole life risk** from design and installation to operation and maintenance is transferred to the M500 Service Delivery Partner.

Rationale for DBFOM Delivery Model

The M500 Contract is a substantial part of the overall cost of the MetroLink Programme. The compelling reason and rationale for selecting a DBFOM contract is a strategic decision aimed at mitigating and effectively transferring risk by securing the specialised expertise required to manage complex delivery and commissioning, system integration and ensure seamless operation of an automated railway. Alternative forms of delivery / forms of contract were considered including delivering M500 on a package-by-package basis and also as a Design, Build, Operate and Maintain (DBOM) contract.

The package-by-package approach, whereby TII would procure each of the M500 systems packages individually (1. Track and tunnel systems, 2. Depot and Park & Ride, 3. Stations, 4. Rolling stock and signalling, 5. Operations and maintenance, and 6. Lifecycle and asset management), would place the risk of overall contract management and systems integration with TII. TII do not have the necessary resources and experience to manage the complex integration, commissioning and operational management of these M500 packages and this form of delivery was, therefore, deemed unsuitable as it did not sufficiently mitigate and place the significant systems integration risk with the party best placed to manage it.

A DBOM form of contract was also considered. Under a DBOM structure, a consortium would be appointed to deliver and operate the M500 contract. Based on the scale and value of the M500 contract, the consortium would likely be an incorporated Joint Venture. While a consortium with a lead member, would provide a level of systems integration management capability over that of TII, the Joint Venture nature of the consortium does not provide a transfer of the systems integration risk.

Under a DBFOM contract, the SPV is required to be an Irish incorporated entity with an associated corporate structure. The SPV raises finance through a combination of equity – provided by the consortium's shareholders – and debt provided by banks or other financial institutions. The rigour project financing brings by way of lender due diligence, and the vested interest of the SPV and its shareholders, provides the best possible overall approach to securing the specialised expertise required to manage complex delivery and commissioning, system integration and ensure seamless operation of an automated railway.

Accordingly, a DBFOM was selected as the best delivery model to deliver the M500 scope of works and services for the reasons set out above. This delivery model is commonly used by clients in international megaprojects, e.g. Sydney metro. This procurement strategy of using a PPP/DBFOM delivery model was approved by Project Board in 2020 and formed part of the PBC approved in 2022. The rationale for use of the DBFOM model continues to be relevant and is further summarised below.

Access to long-term private sector expertise: A DBFOM structure enables the State to leverage international private-sector experience in automated metro design, integration, operations, and customer service. Bringing design, construction, operations, and maintenance under one entity strengthens system coherence, lifecycle optimisation, and operational performance from day one;

Effective risk transfer and integrated delivery: The model consolidates responsibility for design, fit-out, integration, commissioning, operations, and maintenance within a single private consortium, enabling greater and long-term risk transfer and reducing exposure for the public authority (TII). This reduces interface risks which are particularly important given the number of complex subsystems within M500. The interfaces include trains, signalling, stations, lifts, escalators, and digital infrastructure. Risks are therefore assigned to the entity best positioned to manage and mitigate them. Requiring the M500 Service Delivery Partner to raise equity and debt capital further incentivises a whole-of-life approach, with financial returns tied to construction completion, operational reliability, and long-term performance;

Performance-based adjustments: As discussed in Box 5 – 1, payments to the M500 Service Delivery Partner (i.e. Service Payments) are directly linked to availability and performance across the 25-year term. This includes train frequency, journey time reliability, station and system availability (e.g. lifts, escalators, 5G, lighting, CCTV) as well as adherence to reporting obligations. The M500 Service Delivery Partner is reliant on the Service Payments to repay its debt providers and secure a return on its equity investment. This will ensure continuous focus on high service standards and financial accountability over the lifetime of the contract;

Lifecycle accountability and asset management: The DBFOM model contractually obliges the private partner to maintain all assets to defined standards, return them in good condition with a specified residual life, and manage lifecycle costs effectively, motivating the M500 Service Delivery Partner to build an efficient and durable system. These requirements will be embedded in the M500 Contract, including through the Operations and Maintenance Strategy which will be developed in tender meetings and bid back by the M500 tenderers. The contract requirements, together with meaningful levels of equity and debt outstanding, mean that the M500 Service Delivery Partner has strong incentives to meet all maintenance, lifecycle renewals, and handback requirements, enhancing reliability and reducing lifecycle expenditure for the State. The M500 Contract will also include change in control / variation mechanisms to instruct and pay for any additional unanticipated requirements that may arise;

Strong market interest and bankability: Market engagement indicates high interest from several consortium groups comprising top-tier construction and operations and maintenance firms, as well as equity partners. Debt funders have expressed some satisfaction in the likely bankability of the M500 DBFOM, subject to an ongoing positive financial markets environment, citing Ireland's established PPP track record and the strategic national importance of MetroLink. While lenders noted the significant challenges, risks and costs of a long construction period, slow drawdown, and long financing tenor, they felt these challenges and risk could be mitigated and no obvious immediate impediment has been identified;

Aligned with international best practice: Global precedent across projects comparable in scale and complexity to the M500 package in Europe, North America, the Middle East, Australia, and Asia strongly support the use of PPP delivery models to deliver large-scale, complex metro projects. The underlying principles remain consistent across projects and jurisdictions: integrated delivery, clearly defined risk allocation, lifecycle accountability and performance-based contracting. These precedent projects demonstrate that availability-based PPPs are well suited to programmes requiring the seamless integration of civil works, systems installation, commissioning, and long-term operations and maintenance. DBFOM models have also shown strong resilience, during the delivery stage, across mature PPP markets, including during periods of economic stress. Their structure, linking payment to availability and service quality over extended periods, has consistently supported stable operational outcomes, rigorous asset management, and protection of public value.

Additional Contractual Details

Government Guidance and DBFOM

The M500 DBFOM delivery model has been developed in line with the Government guidance on PPPs produced by the Central PPP Unit of the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation. The "Guidelines for the Use of Public Private Partnerships" will be followed throughout the procurement and contract lifecycle of the M500 Contract to ensure VfM is achieved for the Exchequer. Supporting these guidelines, the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation provide further technical guidance for PPPs, which will also be utilised.

Capital Contributions

A key consideration in developing and financing large scale capital projects using private financing is ensuring the appropriate balance between risk transfer to a private sector partner and the achievement of VfM over the life of the associated infrastructure. One way to try to achieve this is by using capital contributions, where the contributions are structured to support affordability without unduly undermining effective risk transfer. Given the scale of the funding requirement for the M500 Contract, capital contributions will also assist in securing competitive financing from the market by reducing the overall private funding levels. Capital contributions work as a form of State-provided finance, helping to significantly reduce the required private funding commitment and, hence, lowering the overall project's finance costs.

Capital contributions of between 70-80% of the capital cost of the M500 Contract will be made by the Exchequer of which 50% will be paid during the construction period, and 20-30% of the capital cost will be paid within 3-4 years of the start of operations (once TII has confidence that the required performance levels are achieved). Private finance (debt and equity) will make up the remaining required capital expenditure.

Capital contributions, therefore, function as an alternative to privately provided debt. It should be noted that, even with significant capital contributions, the portion being financed by the M500 Service Delivery Partner is still material and will incentivise discipline around delivery and performance associated with a PPP project. Capital contributions have been widely used domestically (by TII on its concession road programme) and internationally on large scale projects (including metros), as the focus for public authorities in balancing VfM, risk transfer and affordability.

Owner Controlled Insurance Programme (OCIP)

The MetroLink Programme plans to implement an OCIP for both the M400 and M500 work packages together during the construction period, with consideration for extending coverage to some elements of the M100. The OCIP will cover Construction All Risk, Third Party Liability, Non-negligent liability, Marine Cargo, Environmental liability, and Delay in Start Up as a minimum.

Under this approach, TII (MetroLink) will collaborate with their appointed insurance broker to deliver comprehensive insurance coverage, risk control, and claims management. The OCIP will be structured to ensure consistent coverage across all contractors, centralised management of policies, and clear allocation of responsibilities. It will prioritise transparency, cost efficiency, and robust risk mitigation measures.

This strategy offers significant advantages, including:

- Improved cost efficiency through volume discounts, avoidance of overlapping policies across multiple contracts, and removal of contractor mark-up on insurance costs;
- Transparent insurance pricing for the owner / authority;
- Greater resilience given interface risks and interdependence between the M500 and the M400 achieving on time delivery;
- Improved risk mitigation due to broad and consistent coverage across work packages, uniform insurance terms for all contractors, and ensuring no uninsured exposure arises between contractors;
- Improved risk management through avoidance of liability disputes, enhanced control over risk management and claims handling, and improved ability to manage public relations and stakeholder confidence.

The approach of putting an OCIP in place was supported by contractors as evidenced through the market engagement feedback. The OCIP contract will be owned and managed by TII, and the overall insurance strategy and level of insurance and deductibles will be determined by the project's insurance advisors.

M500 Statistical Treatment

Following consultation with the Central Statistics Office (CSO) by TII and the National Development Finance Agency (NDFA), the conclusion of CSO is that on an ex-ante basis and, considering only items which have been determined in the draft contract so far, the M500 DBFOM is "on balance sheet" for statistical purposes.

Contract Model – Advance and Enabling Works (M100)

Detailed Outline of Form of Contract

The Advance and Enabling Works (M100) work package will be delivered under a mix of frameworks and contracts using the following contract forms:

- NEC4 ECC Forms of Contract (Options A, C, and E);
- Public Works Contracts under the Capital Works Management Framework.

Rationale for Forms of Contract

The scope of the Advance and Enabling Works contract packages will need to address areas of significant uncertainty in delivering MetroLink, particularly in utility diversions and heritage activities, where risks cannot be fully priced upfront. TII's experience from the Luas Cross City utility diversion works, which used the NEC3 ECC contracts, highlighted that utility diversions in a city centre environment demand collaborative working across multiple parties and stakeholders, with parties relying on each other to identify and resolve issues quickly. A high degree of uncertainty regarding the location of existing services may demand design adaptations by statutory undertakers, such as ESB or Uisce Éireann once the precise location of existing services is known.

For this reason, the contracts will be used as follows:

- NEC 4 ECC Option A will be used where the scope is clear with limited uncertainty;
- NEC4 ECC Option C is selected for its collaborative approach and proven ability to manage risk proactively through early warnings and shared pain/gain mechanisms, mirroring the successful approach used on Luas. This ensures that when risks emerge, the parties collaborate to deal with them quickly and decisively;
- NEC4 ECC Option E will be used only where scope is indeterminate, allowing flexibility for unforeseen conditions;
- Public Works Contracts are retained for well-defined, lower-risk activities, such as archaeology, offering more cost certainty and straightforward administration.

This combination reflects international best practice and lessons learned locally, balancing risk allocation, collaboration, and VfM while ensuring agility in managing complex advance and enabling works.

Additional Contractual Details

- **Frameworks for agility:** Long-term frameworks will be established throughout the duration of the MetroLink Programme for Specialist Heritage and Utility Enabling Works, as well as Heavy Civils Advanced Works to enable rapid call-offs for unforeseen works, minimising delays and providing resilience over the duration of the MetroLink Programme;
- **Risk management:** NEC4 contracts, with the exception of Option A, include full cost transparency, audit rights, and, in the case of Option C, a pain/gain share capped within a "cap and collar" range to limit exposure;
- **Interface management:** Where interface risk exists, M100 contractors will be included in the MetroLink Co-Operation Agreement. TII, through the Programme Delivery Partner, will be responsible for managing interfaces between M100 contractors and other MetroLink contractors;
- **Incentives:** Performance incentives may include schedule incentivisation and KPI reporting, driving efficiency and sustainability.

Contract Model – Third Party Agreements (M300)

Detailed Outline of Form of Contract

MetroLink will need to engage and establish third-party agreements (TPAs) with a large number of third-party stakeholders to deliver the MetroLink Programme. The M300 package consists of bespoke TPAs negotiated directly with these entities that have unique control over specific assets or locations. These works cannot be competitively tendered because they involve infrastructure or services that only certain third parties can deliver, such as Iarnród Éireann-related works, integration with private developments, or obligations tied to the Railway Order.

Risk transfer will be limited, as third parties are not positioned to absorb significant delivery risk; instead, the agreements will focus on incentivising timely delivery and cooperation to avoid delays to critical M400 and M500 works. Each agreement will define delivery constraints, responsibilities, and coordination requirements to integrate with the overall programme schedule.

Rationale for Forms of Contract

The rationale for using bespoke agreements is driven by market exclusivity and dependency. These agreements will therefore be negotiated to reflect the unique circumstances of each stakeholder. While they will not be awarded through a competitive procurement process, the principles of public procurement must be observed and VfM demonstrated. This approach ensures flexibility, compliance with legal obligations, and alignment with programme milestones, while mitigating interface risks through clear governance and escalation mechanisms.

Route-to-Market

MetroLink's procurement approach ensures compliance with EU and Irish regulations while securing VfM, managing risk and attracting a competitive international supply chain. It addresses complexity, market capacity constraints, and integration risks through phased, transparent processes.

Applicable Regulations

The applicable regulations for the procurement of the key MetroLink contracts are as follows:

- EU Utilities Regulations 2016 - Utilities Directive 2014/25/EU;
- EU Public Service Obligation (PSO) - Regulation (EC) No 1370/2007.

Procedures

An overview of the various procurement procedures being utilised for the key MetroLink contracts is provided below:

- **Open procedure:** single stage, all interested parties can submit a tender. Suitable for low complexity, straightforward procurements;
- **Restricted procedure:** two-stages, suppliers shortlisted at Pre-Qualification Questionnaire (PQQ) stage, ITT issued to shortlisted tenderers, followed by tender submission, evaluation, and contract award. Suitable for defined scope and high competition;
- **Negotiated procedure (with prior call for competition):** multi-stages, suppliers shortlisted at PQQ stage, Invitation to Negotiate (ITN) issued. Tenderers will submit their initial tenders which are then further negotiated to refine, clarify and optimise the offers. The final tenders will then be evaluated. This procedure allows flexibility in complex procurements and supports securing VfM.

Procedures Selected for Key Contract Packages

Contracts will be awarded under the Utilities Regulations, and, for the M500 Contract, this will be awarded under Regulation (EC) 1370/2007. Set out in Table 5 – 2 are the procedures selected for the key work packages along with the relevant regulation and the rationale for the approach.

Procurement documents are developed in line with MetroLink's overall Commercial Strategy, procurement processes and procedures. Approvals from the Commercial Director, Programme Director, MPSC, TII Board and NTA, depend on the procurement stage and value of the contract and are fully in line with the MetroLink assurance process.

Further details on the procurement procedures for the M400 Contracts and the M500 Contract are set out below.

M400 Contract procedures:

The M401 and M402 contracts will be procured under the Utilities Regulations using a two-stage negotiated procedure with prior call for competition. In Stage 1, the pre-qualification stage, the competition is initiated through a single Contract Notice and one PQQ, structured into two lots—Lot 1 (M401 Contract) and Lot 2 (M402 Contract). The PQQ assesses applicants against minimum financial thresholds, technical capability, major project experience, health & safety competency, and balanced scorecard obligations. For each lot, TII shortlists three applicants (with discretion to shortlist a fourth) provided those applicants meet the required minimum marks, allowing each contract to maintain sufficient competition before issuing the ITN for each lot.

Contract Package	Regulation	Procedure	Rationale for Approach
M400s	EU Utilities Regulations 2016 - Utilities Directive 2014/25/EU	Negotiated procedure (with prior call for competition)	This approach allows flexibility in complex procurements and supports securing VfM.
M500	EU PSO - Regulation (EC) No 1370/2007	Multi-stage tender process with tender negotiation meetings	This approach will enable innovation and consistent bids for this highly complex package.
M100s	EU Utilities Regulations 2016 - Utilities Directive 2014/25/EU	Open Procedure, Restricted Procedure, Negotiated procedure (with prior call for competition)	The advance and enabling works will use a mix of procurement procedures tailored to scope complexity and the target market, e.g.: – Open procedure for archaeology qualification system and minor enabling works; – restricted procedures for archaeology contracts; and – negotiated procedure for baseline and monitoring services, utilities, enabling works and heavy civils advanced works.
M300	Not subject to public procurement regulations	Direct negotiation with relevant third parties	The M300 contract will be a set of bespoke TPAs, involving infrastructure or services that only certain third parties can deliver.

Table 5—2: Procedures selected for key contract packages

In Stage 2, tenderers for each lot are engaged through a structured ITN process, which includes a formal briefing session, provision of detailed technical scope, performance requirements, draft contract conditions, and interface management obligations. During the ITN period, all interaction occurs via the digital tendering platform (Jaggaer), supported by controlled clarifications and iterative refinement of the ITN documentation where required. This phase is designed to ensure tenderers have a complete and consistent understanding of TII's requirements for each of the M401 and M402 contracts. TII deliberately staggered the issue of the M401 and M402 ITNs to manage market capacity and reduce bidder burden while enabling parallel engagement in the tender stage for both lots.

Evaluation of tenders follows the Most Economically Advantageous Tender (MEAT) methodology. Quality evaluation considers the tenderer's technical proposals, including delivery methodology, design and regulatory compliance, health & safety, environmental management, resources and social value, and commercial approach – each with minimum threshold scores. Price evaluation is calculated objectively against the lowest compliant tender.

Once the MEAT assessment identifies the highest-ranking tenderer for a lot, TII issues successful/unsuccessful bidder notifications. While the M400 process does not include a "Preferred Tenderer period" equivalent to the M500, the period between selection and contract execution performs the same function: final checks on financial capacity, resolution of any residual clarifications, completion of governance approvals (Approval Gate 3/NTA Gateway 5B), and contract finalisation. Following contract finalisation and approval, TII executes the NEC4 Option C contract with the successful tenderer for each lot. This step formally transfers the package into delivery and enables advance mobilisation to integrate with M120 enabling works and the M500 Service Delivery Partner.

Each awarded contractor will subsequently enter the MetroLink Co-operation Agreement.

M500 Contract procedures:

The M500 Contract will be procured under EU Regulation 1370/2007 using a two-stage process similar to a negotiated procedure. Stage 1, the pre-qualification phase, will involve the pre-qualification of suitable applicants to undertake stage 2, the tender phase. The pre-qualification phase commences with the publication of the Contract Notice and the PQQ and incorporates an assessment of the financial (financial robustness and project finance experience), technical and operational capabilities of the applicants to deliver and operate a metro rail system similar to the M500 Contract. It is proposed to shortlist three candidates who will be formally invited to tender (ITT). TII reserves the right to have reserve applicants if deemed appropriate.

The tender process under the ITT will include a series of structured tender meetings with the tenderers on the technical, commercial and funding elements of their Tenders. These tender meetings will focus on the key issues under each of these elements, including reviewing design proposals, systems integration methodologies, delivery programmes, payment mechanism understanding as well as mark ups of the Project Agreement. The confidentiality and probity of the tender meetings will be tightly managed and will include the use of appropriate digital procurement software for communication and document control assurance purposes.

Tenders will be assessed on a MEAT basis, applying a quality/price scoring ratio. Following evaluation, the highest ranked tenderer will be appointed as the PT by means of a PT Letter. The PT Letter will set out the requirements for the PT to achieve Financial Close as soon as possible based on the committed financial terms in the tender and completion of all the condition precedent documentation. The period from PT appointment to Financial Close is termed the Preferred Tenderer Period. Part of the PT Letter requirements will be for the PT to enter into an ESA with TII. The purpose of the ESA is to allow the PT to engage with the M401/M402 Contractors on critical project interface issues relating to design, scheduling and works handover, as well as for the PT to advance the Railway Organisation application with the CRR. Financial Close is achieved once all statutory approvals are confirmed and the necessary assurance and governance signoffs are received.

Procurement Sequencing

To manage market and MetroLink's own resource constraints, MetroLink's size and complexity require a phased procurement approach as opposed to tendering all contracts simultaneously.

The aim of the Advance and Enabling Works (M100) is to de-risk the main infrastructure works contracts by carrying out early site preparation, utility diversions, archaeology, safe removal and storage of heritage, demolition and other enabling activities ahead of the main works commencing. A number of frameworks, qualification systems and stand-alone contracts will be utilised, remaining live throughout the Programme for resilience and to enable rapid call-offs. Initial M100 Contract Notices were published in May 2025 and are ongoing. Indicative M400 and M500 tender timelines (as of March 2026) are shown in Figure 5 – 2.

The sequencing of the M400 and M500 procurement processes reflects lessons learned from other jurisdictions and takes on board feedback from market consultations, e.g., staggering M401 and M402 tender processes to support bidder resource management. It also addresses critical integration risks by enabling the systems operator to influence civil design through the procurement process and the ESA. Information regarding such critical integration risks, as further developed during the tender processes, will be communicated as appropriate with each of the Main Civils (M400) and DBFOM (M500) tenderers (through the appropriate tender communications process managed by TII and

the Client Partner team). This information-sharing will support the development of coordinated and aligned solutions through the tender process. The procurement sequencing also means that M500 tenderers are informing the developing railway system integration and safety case and these responsibilities, together with the role of Railway Organisation, will be assumed by the M500 Service Delivery Partner from financial close onwards.

The current PQQ response timeline for the M500 of 8 weeks has been determined by the MetroLink Executive and has been through 3-levels of assurance: functional, semi-independent and independent. The Executive is fully aware that this timeline will be challenging for potential candidates and may be subject to extension of time requests, but the Executive wanted to send a strong signal to the market that time is of the essence.

The overall procurement sequencing approach seeks to award and mobilise advance and enabling works contractors to de-risk the Main Civils contracts and support early engagement between the M400 contractors and M500 Service Delivery Partner to manage interface and integration risks and support timely mobilisation for construction and operation.

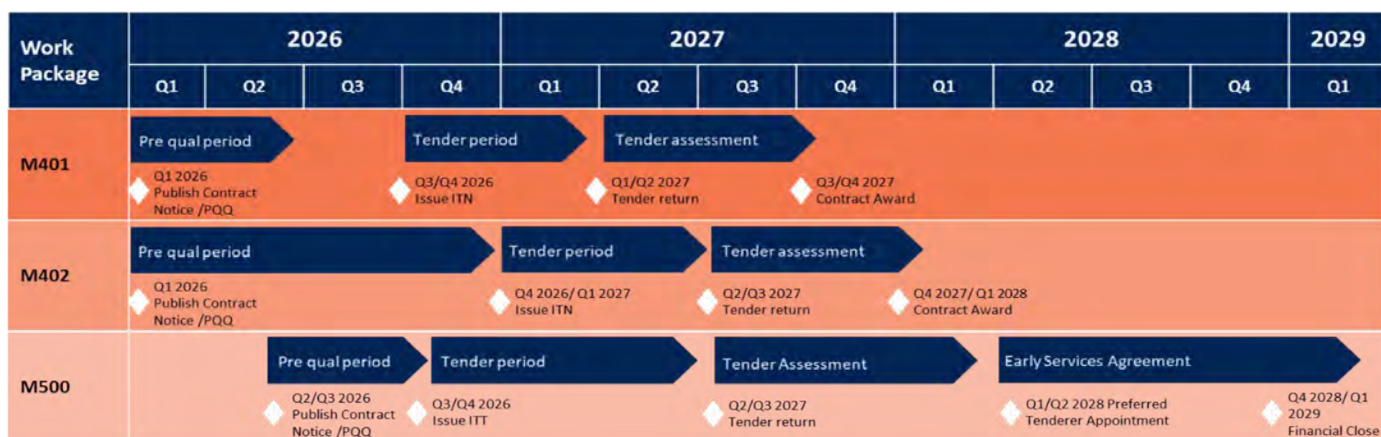


Figure 5—2: M400 and M500 Indicative Tender Timelines – March 2026
In line with the launch dates of the pre qualification phase - final timings subject to change

Key Procurement Risks

Key risks relating to the procurement of MetroLink include market capacity and interest, bid affordability, VfM, and interfaces and third parties. Mitigation measures include early engagement,

flexible frameworks for advance and enabling works, and phased procurement to reduce delivery risk. The table below outlines the key procurement risks and their respective mitigants:

Procurement Risk	Mitigants
Procurement process for M401 takes longer than planned with resulting impact on M500	Proceed with procurement of M402 according to programme.
Insufficient resourcing in TII to manage process	Ongoing review of TII resourcing against Programme requirements, with the ability to supplement internal capacity through strengthened collaboration and alignment with wider Government stakeholders and other public bodies, as required throughout the Programme.
Agreements not reached with Third Parties	MoUs /agreements with Third Parties in place prior to tender process related to the Railway Order and other matters.
Lower market participation than expected	Maintain favourable risk position in contract; tender compensation fees, market engagement (Pre-Contract Notice issue).
Bids are unaffordable	Monitor designs developed in tender phase and invite indicative costs with a draft tender; review scope with Value Engineering proposals; make price assessment of developing tenders at end of Stage 2; Best and Final Offer.
Key third-party interfaces are not resolved prior to contract award	MoUs / agreements in place prior to tender process.
Delay to achieving financial close for M500 Contract	Available float in Programme; extend services under ESA.
Bidder withdraws from a consortium	Make competition as attractive as possible through pre-market engagements; public contracts pre-OJEU; maintain a reserve for tender stage or proceed with two if sufficient competitive tension remains; maintain favourable risk position; tender compensation fee contingent on submission of compliant tender.
Challenge to the award of a contract	Implement rigorous, compliant tender procedures.

Table 5—3: Procurement Risks and Mitigants

Chapter Supporting Information

In support of this chapter, publicly available guidance on PPPs in Ireland is available at the following link:

- [Key Documents of the Central Public Private Partnership Unit in the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation.](#)

Financial Appraisal

"As we look ahead to the coming decade, the choices we make about infrastructure delivery will determine our economic competitiveness, our climate resilience, and the quality of life enjoyed by communities across the country."

Jack Chambers T.D., Minister for Public Expenditure, Infrastructure, Public Service Reform and Digitalisation

Relevant Guidelines

In undertaking the Financial Appraisal for the DBC the following guidelines and guidance have been adhered to:

- Infrastructure Guidelines;
- Guidelines for the Use of Public Private Partnerships (PPPs);⁶²
- Transport Appraisal Framework.

What is Being Appraised?

At this DBC stage, the Financial Appraisal reassesses the preferred option endorsed at PBC, reflecting the material developments and changes as outlined above. In line with the relevant guidance and guidelines, the appraisal evaluates all relevant Exchequer cashflows over MetroLink's construction phase and a 30-year operational period.

The Financial Appraisal is based on the QRA P50 schedule (opening date Q3 2037), the above Packaging, Contracting and Procurement approach as highlighted in Chapter 5, and the QRA P80 costs, as highlighted in Chapter 3: Cost. Alternative scenarios with QRA P80 costs including VAT and with the non-M500 costs at QRA P50, are also considered. These scenarios, inclusive and exclusive of VAT, have been used to test the affordability of the MetroLink Programme. The consideration of the QRA P80 VAT exclusive scenario aligns with the approach taken in the PBC and is an appropriate, prudent cost estimate which aligns the Financial Appraisal approach with the Economic Appraisal approach outlined in Chapter 4: Economic Appraisal.

The affordability assessment will also be informed by the detailed analysis that was undertaken to estimate the revenue associated with MetroLink once operational, which includes Farebox revenue and revenue generated from the Park and Ride facility at Estuary.

62 [Guidelines for the Use of Public Private Partnerships \(PPPs\)](#) – Note that in line with the linked PPP Guidelines, the M500 Public Sector Benchmark will be completed ahead of tender issue (i.e. issue of the M500 ITT), as permitted by the Guidelines in certain circumstances and if approved.

Assumptions

Outlined below in Table 6 – 1 are the key assumptions for the Financial Appraisal, including those applied to the M500 Contract and those in the revenue analysis.

Key Dates and Appraisal Assumptions	Assumptions
Construction Start Date	Q4 2027 – M120 Permanent Works
Operations Start date	Q3 2037
Operational Period	30 years (2037 – 2067)
Appraisal Period	2026 ⁶³ – 2067 (i.e., including the MetroLink Programme construction period and 30-years of operations)
Nominal Discount Factor	3.51% (provided by NDFA) as at 18 February 2026 Mid-year discounting applied using a 365 days time convention.
QRA Assumptions	
Delivery Costs (excluding M500)	P80
Delivery Cost inflation Forecast	2.4%
M500 Capital Contributions and Service Payment	P80
Operating and Renewals Costs (Years 26-30)	P80
Operating and Renewal Cost inflation forecast	Operating Cost inflation forecast: 2.0% Renewal Cost inflation forecast: 2.0%
M500 Assumptions	
Capital Contribution	Assumed at 80% of capital expenditure costs (50% during construction and 30% split across years 3 and 4 of operations (2040 and 2041)) for the purposes of the DBC. The operating period contribution is yet to be approved at a level between 20% and 30%.
Service Payment period	25 years commencing Q3 2037
Revenue Assumptions ⁶⁴	
Farebox revenue	Farebox revenue is estimated with reference to annual passenger demand (i.e., volumes boarding and alighting over a 19-hour daily period) and considering the likely passenger composition and fare mix
Park and Ride revenue	Park and Ride revenue is estimated with reference to annual car volumes using the facility and considering a multi-tiered pricing strategy

Table 6—1: Key Assumptions for the Financial Appraisal

⁶³ The costs in 2026 relate to Indirect Costs and M100 Advance and Enabling Works costs

⁶⁴ The Financial Appraisal considers the Exchequer revenues directly attributable to the Metrolink Programme (Farebox revenue and Park and Ride revenue), while as the Economic Appraisal chapter considers the broader net revenue impact to the Exchequer, calculated via TUBA, which includes broader impacts such as changes in tolling income and public transport revenue

Exchequer Cashflows

Table 6 – 2 below provides an overview of the estimated MetroLink-related Exchequer cashflows across the appraisal period. It presents both the nominal and NPV to show the overall scale of required investment at the P80 QRA level and the revenues expected to be generated over the appraisal period. It should be noted that all costs presented in this chapter exclude VAT, unless otherwise stated.

The total cash outflows (P80 QRA) associated with the MetroLink Programme over the appraisal period are estimated to be €28.23 billion in nominal terms and with an NPV of €18.57 billion. These figures are based upon the P80 costs outlined in Chapter 3: Cost.

Box 6—1: Cost vs Cash outflows

The total nominal cash outflow (€28.23 billion) does not equal the sum of the P80 Delivery Costs estimate and P80 Operating and Renewals Costs estimate outlined in Chapter 3: Cost (€22.99 billion). This is due to the total nominal cash outflows including costs resulting from the M500 contracting approach of using an availability-based DBFOM. This approach results in the inclusion of private sector financing costs, within the Service Payments. The rationale for the use of a DBFOM for the M500 Contract is outlined in Chapter 5: Packaging, Contracting and Procurement.

Estimated Exchequer Cashflows	Timing	Nominal	NPV
Direct Costs associated with M100, M300 & M400 series construction and provisions (See Table 6 – 3 for breakdown)	2026 – 2033	€ 1.1bn	€ 0.8bn
Indirect Costs	2026 – 2037	€ 0.1bn	€ 0.1bn
Land and Property Costs	2026 – 2037	€ 0.1bn	€ 0.1bn
M500 Capital Contribution (80% of construction costs)	2029 – 2037, 2040 & 2041	€ 1.1bn	€ 0.8bn
M500 Service Payment	2037 – 2062	€ 1.1bn	€ 0.8bn
Operating and Renewals Costs (Yr. 26 to 30)	2062 – 2067	€ 0.1bn	€ 0.1bn
Total Cashflow Outflows		€28.23bn	€18.57bn
Farebox Revenue	2037 – 2067	€7.36bn	€2.79bn
Park and Ride Revenue	2037 – 2067	€0.35bn	€0.14bn
Total Cash Inflows		€7.71bn	€2.93bn

Table 6—2: Financial Appraisal Cashflow (including risk allowance (P80) and inflation, excluding VAT)

Overview of Cash Outflows

This analysis considers:

- The cashflows associated with Delivery Costs (P80) excluding those related to the M500 Contract as outlined in Chapter 3: Cost, as follows:
 - Direct Costs (M100, M300, M400 series construction costs and provisions);
 - Indirect Costs (authority costs associated with managing the Programme including staff costs, legal fees and office costs);
 - Land and Property Costs.
- The cashflows associated with the M500 Contract (P80) and the use of an availability-based DBFOM:
 - M500 Capital Contributions (Up to 80% of construction costs are Exchequer-funded – 50% paid during construction and up to 30% split across years 3 and 4 of operations (2040 and 2041) for the purposes of the DBC;
 - M500 Service Payment (Years 1-25 of operations).
- The cashflows associated with Operating and Renewals costs (P80) during Years 26-30 of operations i.e., after the expiry of the DBFOM.

Figure 6 – 1 below illustrates the estimated Exchequer cash outflows and VAT outflows across the delivery and operations period up to Q3 2067 (being the end of the 30-year operational period under appraisal), with a description of each component provided underneath.

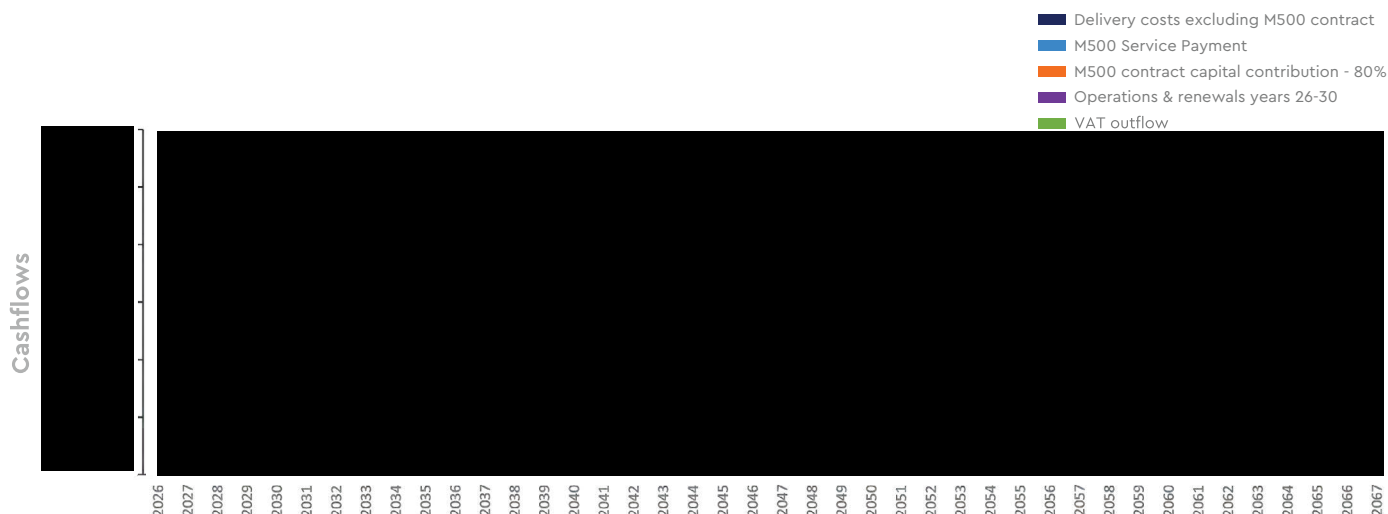


Figure 6—1: Exchequer cash outflow estimates including risk allowance (P80), inflation and VAT

Figure 6 – 2 below illustrates the estimated Exchequer cash outflows and VAT outflows with the Delivery Costs excluding the M500 contract and the Operating and Renewals costs (Years 26-30) at P50 and the M500 costs (M500 Service Payment and M500 Contract Capital Contributions) at P80.

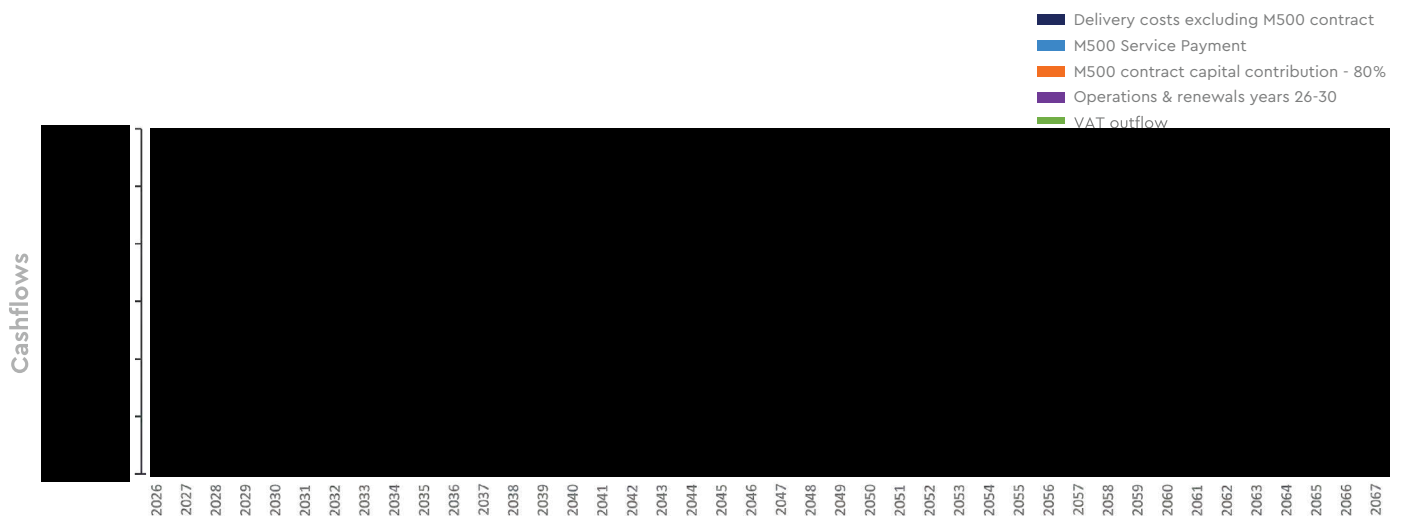


Figure 6—2: Exchequer cash outflow estimates including risk allowance (P50 for non-M500 costs, P80 for M500 costs), inflation and VAT

Direct Costs (Excluding M500)

The Direct Costs associated with MetroLink are estimated to be €■■■■ billion. The M100, M300 and M400 series construction contracts will be fully Exchequer funded. The estimated total nominal cost (including risk and inflation), associated with these four construction contracts and provisions, is €■■■■ billion, as per Table 6 – 3.

Direct Cost Estimates (Excluding M500)	DBC Cost Estimate (Q1 2025 prices)
M100 Advance and Enabling Works	€■■■■ bn
M300 Third Party Agreements	€■■■■ bn
M401 Contract (Southern Section)	€■■■■ bn
M402 Contract (Northern Section)	€■■■■ bn
Provisions	€■■■■ bn
Total Exchequer Base Direct Costs⁶⁵	€■■■■ bn
Risk Allowances (QRA P80)	€■■■■ bn
Inflation	€■■■■ bn
Total Nominal Exchequer Direct Costs³	€■■■■ bn

Table 6—3: Direct Cost estimates for M100, M300, M400 contracts and provisions, including risk allowance and inflation (excluding VAT).

Indirect Costs

The total Indirect Costs associated with MetroLink – which are anticipated to be fully Exchequer-funded – are estimated to be €2.06 billion in nominal terms (including risk and inflation).

Land and Property Costs

The Land and Property Costs associated with MetroLink – which are anticipated to be fully Exchequer-funded – are estimated to be €1.16 billion in nominal terms (including risk and inflation).

M500 Service Payment and Capital Contributions

The contracting strategy for MetroLink includes an availability-based DBFOM model for the M500 Contract, covering construction and 25 years of operations, maintenance, and renewals. Under this model:

- The M500 Service Delivery Partner will deliver, operate and maintain the system over the contract term;
- During the 25-year operating period (commencing Q3 2037), the Exchequer will make an annual Service Payment covering operations and renewals, as well as the private-finance element of the M500 Contract.
- The total estimated Delivery Costs of the Programme are €17.49 billion (P80 including risk and inflation) as per Table 3 – 2, of which the M500 Contract Delivery Cost is €■■■■ billion, as per Table 6 – 4.

As the M500 scope will be delivered using a DBFOM, the total cashflow impact to the Exchequer relating to the M500 (€■■■■ billion)⁶⁶ as per Table 6–2 shall differ to the M500 Contract Delivery Cost (€■■■■ billion). This is because the Operations and Renewals Costs and the cost of financing the element of the M500 construction costs which are paid by the private sector are recouped via the Service Payments paid throughout the operational period of the M500.

The Exchequer intends to make capital contributions of up to 50% of M500 construction costs during the construction period and an additional capital contribution of up to 30% of M500 construction costs during operations.⁶⁷ Details as to the percentage of capital contributions to be paid by the Exchequer will be included in the M500 tender documents, and the value of such capital contributions will depend on the outcome of the competitive tender process.

⁶⁵ Note: This excludes the M500 construction costs paid for by the M500 Service Delivery Partner

⁶⁶ The M500 Exchequer cash outflows (€■■■■ billion) are the sum of the nominal M500 capital contributions (€■■■■ billion) and the nominal M500 Service Payments (€■■■■ billion)

⁶⁷ [Supply Chain M500 Frequently Asked Questions](#)

For the purposes of this Financial Appraisal, the Exchequer is assumed to provide 80% capital contributions to the M500 Service Delivery Partner, with 50% paid progressively during the construction period against defined milestones, and scheduled progress payments on predetermined dates, and the remaining 30% split across years 3 and 4 of operations (2040 and 2041). These capital contributions are estimated to total to €■■■■ billion, as illustrated in Table 6 – 4 below.

M500 Direct Cost Estimates	Total
M500 Contract Base Direct Costs	€■■■ bn
Risk Allowance (QRA P80)	€■■■ bn
Inflation	€■■■ bn
Total Nominal M500 Contract Direct Costs	€■■■ bn
M500 Contract Nominal Capital Contributions (80%)	€■■■ bn

Table 6 – 4: Direct Costs for the M500 Contract including risk allowance and inflation, excluding VAT

M500 Construction VAT is assumed to be paid by the TII as a lump sum at the end of construction, reflecting the reverse charge mechanism, hence the increase in VAT outflows in 2037 in Figure 6 – 1 and Figure 6 – 2.

The use of capital contributions significantly reduces the level of private financing required and therefore the portion of capital costs to be recovered through the Service Payment. However, the remaining private-finance component continues to be structured as an availability-based payment, independent of passenger demand or revenue, consistent with standard PPP practice and with the NTA's retaining responsibility for, and the benefit of, Farebox revenue.

The estimated nominal Service Payment over the 25-year operating period totals €■■■■ billion in nominal terms (NPV €■■■■ billion). The average annual Service Payment is currently estimated at c. €■■■■ million in nominal terms. This has been calculated using an SBM to illustrate how a private sector bidder might approach the M500 Contract. The assumptions underpinning the SBM, while informed by international expertise and market engagement, are expected to evolve through further analysis and competitive tendering.

The average Service Payment figure in nominal terms has increased from c.€■■■■ million in the PBC, as a result of several factors driving increased Delivery Costs estimates and Operating and Renewals Costs estimates, which are further detailed in Chapter 3: Cost. In addition, the following changes have impacted the cost profile of delivering the M500 Contract (and thus the Service Payment to be made by the Exchequer on an annual basis):

- A significantly higher interest rate environment currently prevails, compared to the time the PBC was prepared, which has a significant impact on the level of the Service Payment;
- The financing assumptions have been updated following more recent market input;
- The underlying assumption surrounding the payment of a capital contribution to the M500 Service Delivery Partner has changed from a 0% capital contribution in the PBC to an 80% capital contribution as highlighted above. In proportionate terms, this change leads to an increase in upfront capital contribution costs for the Exchequer but a reduction in the Service Payment payable to the M500 Service Delivery Partner. This reduction however does not outweigh the increases outlined above resulting in a net increase in the Service Payment.

Operating and Renewals Costs (Years 26-30)

Once the M500 Contract expires, in mid-2062, the Operating and Renewals Costs associated with MetroLink will be funded from the Exchequer. These Operating and Renewals costs in years 26 – 30 of operations total €■■■ billion in nominal terms, including risk allowance.

Overview of Cash Inflows (Revenue)

The total cash inflows associated with MetroLink over the appraisal period are estimated to be €7.71 billion in nominal terms with an associated NPV of €2.93 billion. This analysis considers Farebox and Park and Ride revenue, excluding VAT.

Figure 6 – 3 below shows the nominal revenue estimated for 30 years of operations from mid-2037 to mid-2067.

Farebox Revenue

The total Farebox revenue attributable to MetroLink over the 30-year appraisal period is €7.35 billion in nominal terms (NPV €2.79 billion), and when considered alongside Park and Ride revenue, the total revenue attributable to MetroLink over the 30-year appraisal period is €7.71 billion in nominal terms (NPV €2.93 billion).

Farebox revenue is estimated based on passenger demand, with anticipated passenger volumes of 2.26 billion over the 30-year appraisal period (c. 75 million journeys per annum over 30-years). This is based on the 'Core Future' demand scenario as used in the Economic Appraisal. Annual passenger volumes are used to forecast annual revenue, with additional assumptions overlayed including:

- The percentage split of passengers that are Fare Paying (considering the split of this cohort between passengers boarding and alighting at Dublin Airport and elsewhere), those using the Department of Social Protection free travel cards, and those availing of other discounted cards;
- The blended fare payable by each passenger type, including a Fare Premium for those boarding and alighting at Dublin Airport;
- The expected compliance levels of each passenger type, based on available data on comparable services in the GDA;
- Inflation.

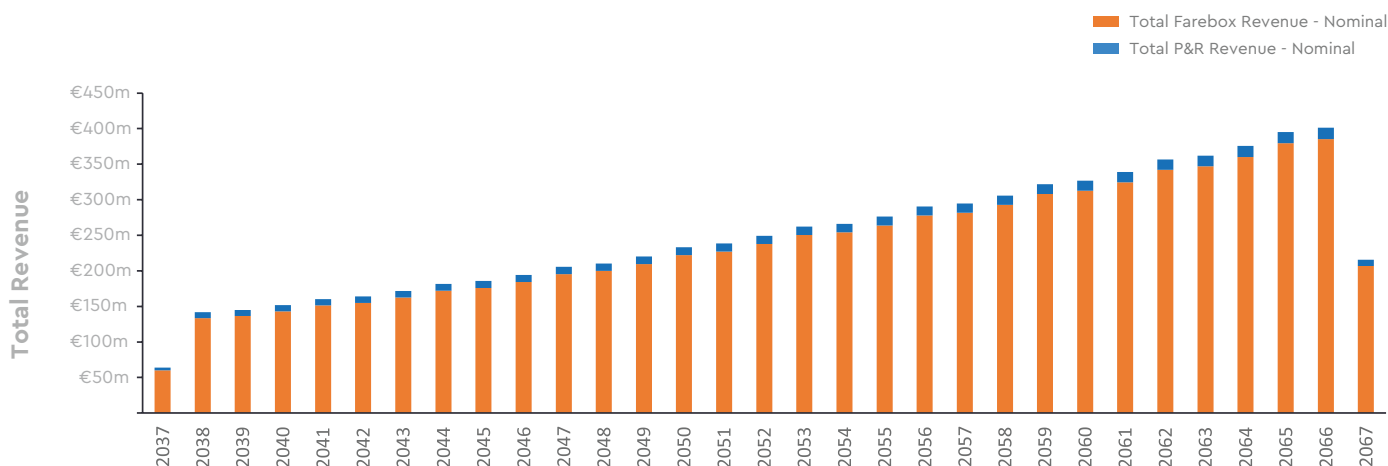


Figure 6—3: Estimated Farebox revenue (nominal) and Park and Ride Revenue (nominal) 2037-2067

The forecast revenues have been derived considering the expected passenger mix that will use MetroLink, including:

- Fare-paying passengers (87.1%);
- Passengers holding a Public Service Card (10.1%);
- Passengers holding TaxSaver tickets (2.7%).

Revenues attributable to fare paying passengers have been calculated using a blended average fare, which takes account of the anticipated fare paying passenger mix and ticket type i.e., Adults, Young Adults and Child tickets (based on comparable services in the GDA) and the NTA's National Fares Strategy.

The blended average fare assumed as being payable by standard fare paying passengers in 2037 is c.€1.59 per journey. The analysis assumes that fare paying passengers boarding and alighting at Dublin Airport (excluding airport staff) will be subjected to a Fare Premium being payable over and above the standard fare, with a fare elasticity assumption of -10% being applied to the premium fare paying passenger demand. The standard fare paying fee is based on the average cash/e-purse fare observed on similar services in the GDA in 2025 (€1.10), indexed at 2% Consumer Price Index (CPI) every 3 years beginning in 2029, with an increase of 10%, 5% and 5% considered for the first 3 years respectively from 2026 to 2029.

The Premium fare includes an additional sum of €3, indexed together with the Standard Fare paying fee at 2% CPI every 3 years beginning in 2026 (€4.10). Other Discounted card holders and Public Service Card holders are also indexed at 2% CPI every 3 years beginning in 2026.

Park and Ride Revenue

The average Park and Ride revenue expected over the appraisal period per annum is €11.79 million, resulting in total Park and Ride revenue expected over the 30-year appraisal period of c.€353.82 million in nominal terms with an associated NPV of €139.33 million.

Park and Ride revenue has been estimated for the 3,000-space multi-storey Park and Ride facilities to be located at Estuary. Volume data has been derived with reference to the total forecast passenger volumes boarding and alighting at this station and available research on existing Park and Ride services for other modes of public transport within the GDA, with 2 million users expected per annum.

In calculating the forecasted revenue to be generated by Park and Ride users, volume data was considered alongside a multi-tiered Park and Ride pricing strategy (across 9 different types of tariffs including half day, full day, 2 days, 3 days, 4 days, 5 days, weekly, monthly, and annual passes) that includes the application of 2% inflation per annum.

Affordability

An assessment of the affordability of MetroLink to the Exchequer is a core requirement of the DBC. This has been considered below in the context of the construction period and the first 30-years of operations. It has been performed using P80 costs, for prudence. Figure 6 – 4 illustrates the estimated Exchequer inflows and outflows on a year-by-year basis from 2026 through to 2067.

Figure 6 – 5 illustrates the estimated Exchequer inflows and outflows with the Delivery Costs excluding the M500 contract and the Operating and Renewals costs (Years 26-30) at P50 and the M500 costs (M500 Service Payment and M500 Contract Capital Contributions) at P80.

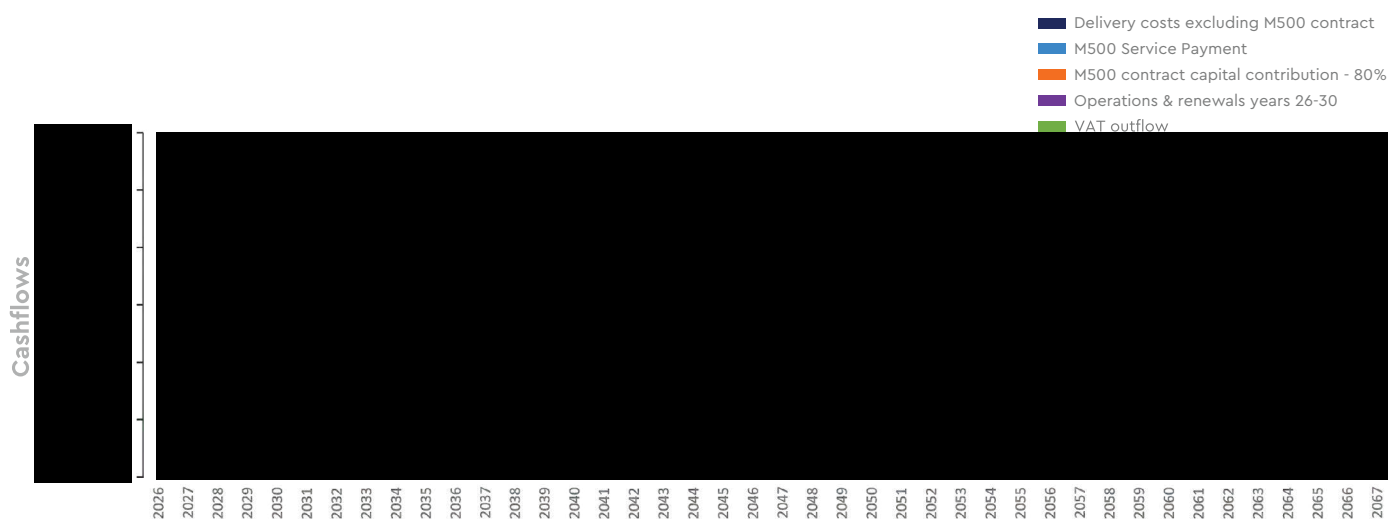


Figure 6—4: P80 Exchequer cash outflows and inflows estimate from 2026 – 2067

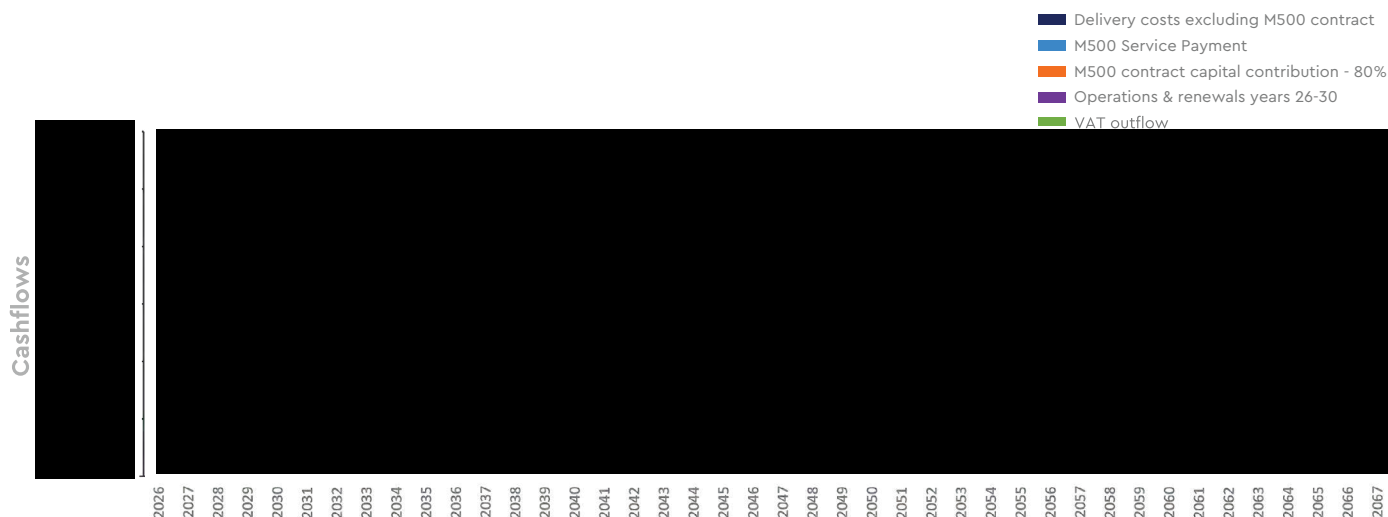


Figure 6—5: Exchequer cash outflows and inflows estimate from 2026 – 2067 (P50 for non-M500 costs, P80 for M500 costs)

Affordability During Construction

The capital funding requirements described in this chapter correspond to the probabilistic cost estimates presented in Chapter 3: Cost. The eventual funding requirement will depend on how project risks evolve during delivery but at this DBC stage we have assumed the P80 probability.

The P80 Exchequer Delivery Cost cashflows (including M500 capital contributions) total € [REDACTED] billion with € [REDACTED] billion during construction (2027 to 2037) and an additional € [REDACTED] billion capital contribution split across years 3 and 4 of operations (2040 and 2041).

Under the revised NDP, €2 billion of funding for MetroLink is committed through the Infrastructure, Climate and Nature Fund up to 2030. €12.93 billion of additional Delivery Costs up to 2037 will need to be funded by the Exchequer of which €6.27 billion is required up to 2030. As per the revised NDP 2025 Sectoral Investment Plan, €10.1 billion has been allocated to public transport investment between 2026 and 2030.

The Peak Exchequer funding requirement is estimated to occur in 2029, which corresponds to the estimated peak of construction activity based upon a Q3 2037 opening date and may exceed the revised NDP 2025 Sectoral Investment Plan budget. As per Figure 6-4 this is estimated to be €2.46 billion (ex. VAT) and €2.81 billion (inc. VAT). Per the scenario outlined in Figure 6-5 this is estimated as €2.29 billion (ex. VAT) and €2.61 billion (inc. VAT).

Affordability During Operations

During the operational period from Q3 2037, the Exchequer will be required to fund the annual Service Payment for which the average nominal amount over the 25 years is € [REDACTED] million per year. As illustrated in Figure 6 – 5, the nominal average annual Farebox revenue and Park and Ride revenue of €256.89 million will contribute significant funding towards offsetting these Service Payments each year. The remaining element of the Service Payment not covered by the MetroLink revenue will need to be Exchequer-funded.

In years 26-30 of operations, following the expiry of the M500 Contract, the Operating and Renewals Costs will be covered by the Exchequer. As illustrated in Figure 6 – 6, such costs will be covered by the revenue cash inflows in these years.

Revenue vs. Operating and Renewals Costs

Disregarding the use of an availability-based DBFOM for the M500 Contract and assuming traditional public sector procurement, for comparative and illustrative purposes only, the total Operating and Renewals Costs over the 30-year period are €████ billion (excluding risk allowance) and €████ billion (including P80 risk allowance). Figure 6 – 6 shows the total revenue and Operating and Renewals Costs over the appraisal period (derived with reference to the assumptions outlined above).

As illustrated, the revenue to be generated from MetroLink is anticipated to outweigh the Operating and Renewals Costs in each year of operations with the exception of several years when material renewal-related costs would likely be incurred. The total revenue generated over the first 30 years of operations exceeds the Operating and Renewals Costs over the period by €████ billion. The rationale for using a DBFOM for the M500 Contract is outlined in Chapter 5: Packaging, Contracting and Procurement.

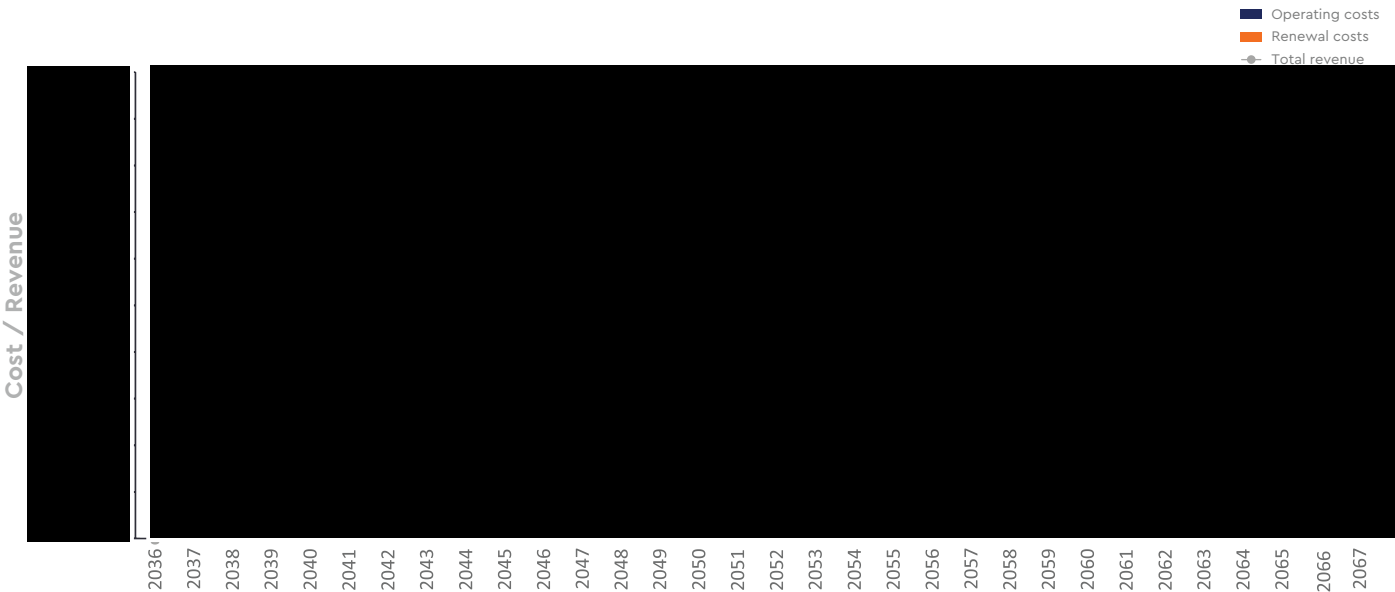


Figure 6—6: Annual estimated revenue against Operating and Renewals Costs (assuming these are Exchequer funded for illustrative purposes)

Sensitivity Analysis

Sensitivity analysis has been carried out in line with the relevant appraisal guidance to test the Financial Appraisal and understand how changes in key assumptions affect projected Exchequer cashflows.

The sensitivities are outlined below, with the resulting difference in NPV compared to the Base Case provided in the table underneath:

1. 10% increase in cash outflows including Operating Costs (excluding M500 related cashflows);
2. 10% decrease in cash outflows including Operating Costs (excluding M500 related cashflows);

3. 10% decrease in passenger volumes;

4. 10% increase in passenger volumes;

5. 10% increase in cash outflows including Operating Costs (excluding M500 related cashflows) and 10% decrease in passenger volumes;

Please note the sensitivity analysis presented in scenarios 1 through 5, as per Table 6-5, does not include changes to the cashflows associated with the M500 Contract including capital contributions and Service Payments. In addition, passenger-volume-related sensitivities have been applied to annual demand and are assumed to impact Farebox revenue only.

Cashflows	Nominal (bn)	NPV (bn)	/- NPV (bn)
Base Case			
Total Cashflow Outflows	€28.23bn	€18.57bn	n.a.
Total Cash Inflows	€7.71bn	€2.93bn	n.a.
Sensitivity Analysis 1 10% increase in cash outflows including Operating Costs (excluding M500 related cashflows)			
Total Cashflow Outflows	€29.60bn	€19.70bn	€1.13bn
Total Cash Inflows	€7.71bn	€2.93bn	-
Sensitivity Analysis 2 10% decrease in cash outflows including Operating Costs (excluding M500 related cashflows)			
Total Cashflow Outflows	€26.85bn	€17.45bn	(€1.12bn)
Total Cash Inflows	€7.71bn	€2.93bn	-
Sensitivity Analysis 3 10% decrease in passenger volumes			
Total Cashflow Outflows	€28.23bn	€18.57bn	-
Total Cash Inflows	€6.97bn	€2.65bn	(€0.28bn)
Sensitivity Analysis 4 10% increase in passenger volumes			
Total Cashflow Outflows	€28.23bn	€18.57bn	-
Total Cash Inflows	€8.44bn	€3.21bn	€0.28bn
Sensitivity Analysis 5 10% increase in cash outflows including Operating Costs (excluding M500 related cashflows) + 10% decrease in passenger volumes			
Total Cashflow Outflows	€29.60bn	€19.70bn	€1.13bn
Total Cash Inflows	€6.97bn	€2.65bn	(€0.28bn)

Table 6—5: Sensitivity Analysis





Chapter Supporting Information

In support of this chapter, publicly available guidance on PPPs in Ireland is available at the following:

- Key Documents of the Central Public Private Partnership Unit in the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation.

Figure 6—7: Representation of MetroLink Retained Cut Station

Governance

Governance Overview

To ensure MetroLink is successfully delivered, it will require governance arrangements with clearly defined roles, responsibilities and accountabilities. As MetroLink progresses, its governance will also evolve to provide sufficient assurance of an increasing scale of activity. This involves multiple Government agencies and other key stakeholders working collaboratively together to effectively oversee and enable the Programme to be delivered. It is critical that all parties understand their respective roles, responsibilities and accountabilities and that a framework for effective and efficient decision-making and oversight is firmly in place.

The NTA and TII have previously established governance frameworks for the delivery of major capital projects. As MetroLink is a first-of-a-kind programme in Ireland, both organisations agree that programme-specific governance arrangements, based on the Infrastructure Guidelines, are required to ensure its success. These governance arrangements are referred to as the "MetroLink Governance Framework".

Key Objectives

The key objectives of the MetroLink Governance Framework are:

- To support efficient and effective programme delivery including timely and appropriate management of risk;
- To comply with the relevant statutory arrangements and relevant powers of TII and NTA, including the Dublin Transport Authority Act 2008, The Transport (Railway Infrastructure) Act 2001, and The Roads Act 1993 to 2005;
- To adhere to the relevant administrative guidelines and codes including: the Infrastructure Guidelines; the TAF; Public Financial Procedures;⁶⁸ the Code of Practice for the Governance of State Bodies;⁶⁹ and the NTA Project Approval Guidelines;
- To align with best practice governance principles to ensure robust and timely governance and decision-making where key characteristics contained include clear lines of accountability; transparency in decision-making; and robust assurance and reporting.

⁶⁸ [Public Financial Procedures](#)

⁶⁹ [Code of Practice for the Governance of State Bodies](#)

Key Elements of the Governance Framework

There are several key elements which combine to ensure effective governance arrangements:

- MetroLink is currently governed through a dedicated, programme specific governance framework which includes the DoT, NTA, and TII in line with their statutory responsibilities for oversight, funding and delivery of Metro projects, with the DoT ultimately accountable for the project. In November 2025, the Government approved a proposal to establish, on a statutory basis, a dedicated MetroLink delivery body. The DoT are leading on the implementation of this decision, including the development of primary legislation, in partnership with TII and the NTA.
- **TII is the Sponsoring Agency.** TII Board retains corporate accountabilities and functions whilst the MPSC established within TII, is a governance function and the main decision-making body on functions delegated to it by the TII Board;
- **The MPSC, independent from the Programme Executive Team,** is to provide robust oversight, governance and strategic leadership for the delivery of MetroLink. It has delegated authority to oversee the delivery of the Programme, provided delivery remains within both the Programme remit ("Programme Remit") and specified delegations of authority;
- **The Programme Director** is the day-to-day leader for MetroLink. This role is accountable for ensuring that the Programme's objectives are clearly defined and achieved within the agreed time, cost and quality constraints. The Programme Executive Team supports the Programme Director in the delivery of the Programme;
- **The Programme Remit is comprised of the following:** the latest MetroLink business case; the MetroLink Reference Design; the Total Programme Budget;⁷⁰ the Programme schedule as defined in the latest business case; and the approved Railway Order;
- **Lessons learnt:** key learnings from recent Irish and UK projects have been considered in the development of the Governance structure;
- **Robust reporting, oversight and assurance** processes have been implemented to enable the DoT, NTA, TII Board and the MPSC to effectively monitor and oversee the Programme during the planning and delivery of MetroLink.

⁷⁰ "Total Programme Budget" refers to the P30, P50 and P80 budgets in the latest business case. This budget will be updated at FBC

Box 7—1: MPSC, Programme Executive Team and Programme Director

The MetroLink Governance Framework incorporates best practice governance, by:

Putting in place appropriately qualified people to perform key roles, including:

A MetroLink Programme Director and a Programme Executive Team with extensive collective experience of working on complex metro, rail and infrastructure projects;

The MPSC who will monitor and oversee the delivery of the Programme, including the Programme Director and Programme Executive Team's performance. The MPSC includes members with significant experience in delivery oversight of large metro, transport and infrastructure projects. This includes expertise across a range of relevant disciplines including procurement and contracts, metro and rail construction and operations, civil / tunnelling design, and railway systems integration and safety. This provides them with the knowledge and experience to oversee the Programme's delivery.

Establishing delegations of authority at appropriate levels to authorise the relevant governance bodies:

This approach allows for timely decision-making to progress the Programme objectives within specified parameters and appropriate safeguards to support oversight and performance.

The MetroLink Governance Framework refers to all programme-specific structures, processes and key principles which underpin decision-making, monitoring and oversight within MetroLink, including:

- The overall structure of the MetroLink Governance Framework and the roles and responsibilities of involved entities;
- Change management and delegations of authority which provides clarity on who is authorised to make certain decision-types and what decisions need to be escalated;
- Effective monitoring and oversight through reporting, assurance and risk-management.

These components are described in the proceeding sections of this chapter.

Governance Structure and Key Roles and Responsibilities

Figure 7 – 1 illustrates the core governance structure for the MetroLink entity, as well as the reporting relationships between the relevant stakeholders.

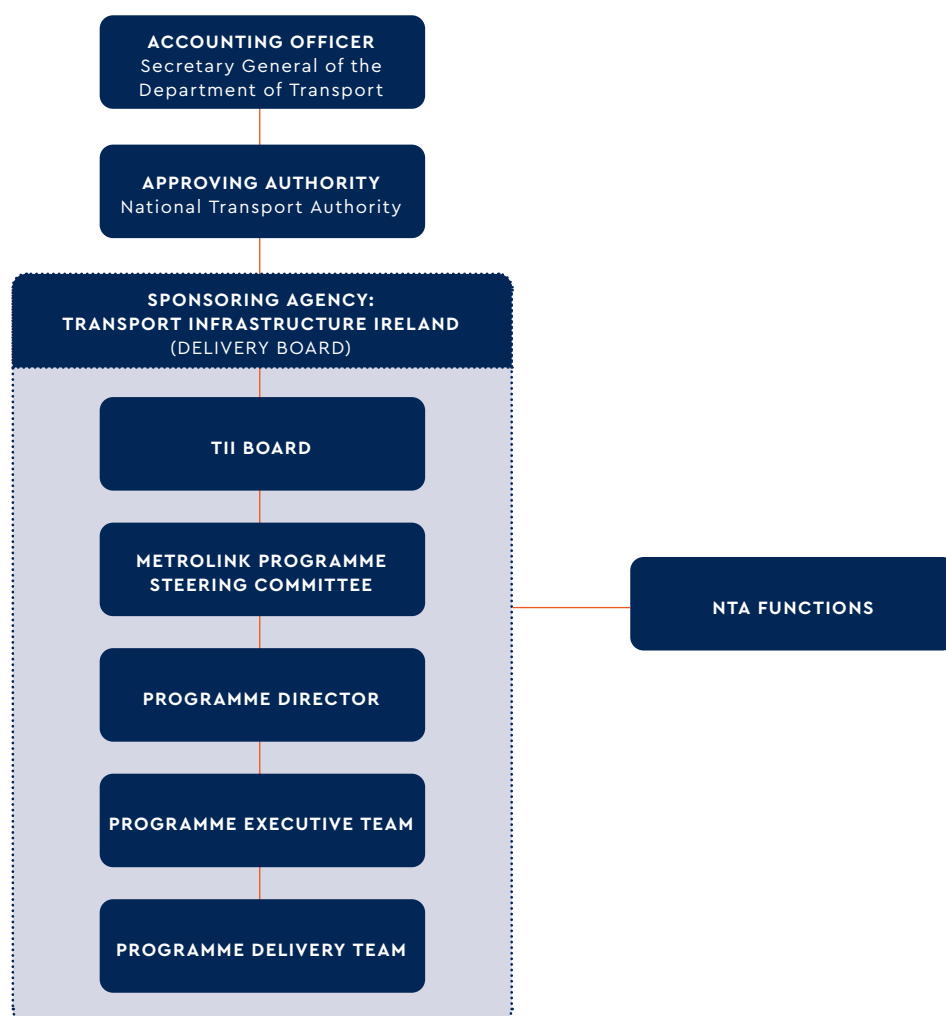


Figure 7—1: MetroLink Governance Framework – Structure

Table 7 – 1 below describes the roles and responsibilities of MetroLink's key governance entities.

Entity	Roles and responsibilities
1. Accounting Officer and Approving Authority	MetroLink is currently governed through a dedicated, programme specific governance framework which includes the DoT, the NTA, and TII in line with their statutory responsibilities for oversight, funding and delivery of Metro projects, with the DoT ultimately accountable for the project.
2. Sponsoring Agency	TII is the Sponsoring Agency for MetroLink with primary responsibility for evaluating, planning and managing the delivery of MetroLink. The Sponsoring Agency reports to the Approving Authority.
3. TII Board	TII Board retains its corporate accountabilities and functions. TII Board is collectively responsible for leading and directing TII's activities. While TII Board may delegate particular functions, the exercise of the power of delegation does not absolve the Board from the duty to supervise the discharge of the delegated functions.
4. MetroLink Programme Steering Committee	The MPSC is established as part of TII and is accountable to the TII Board. The MPSC is a governance function and the main decision-making body on functions delegated to it by the TII Board (within delegated authority thresholds). Its role is to provide robust oversight, governance and strategic leadership for MetroLink. The MPSC will fulfil key functions including reviewing, guiding and monitoring the performance of the MetroLink Directorate.
5. Programme Director	The Programme Director is the day-to-day leader for MetroLink, responsible for managing and leading the delivery of MetroLink, ensuring that the objectives are clearly defined and achieved within the agreed time, cost and quality constraints.
6. Programme Executive Team	The Programme Executive Team supports the Programme Director in the delivery of the Programme and will be made up of an accountable leadership team.
7. Programme Delivery Team	The Programme Delivery Team is the day-to-day delivery team for MetroLink reporting to the Programme Executive Team and ultimately the Programme Director.
8. NTA Functions	Operational interactions with the NTA are required across all aspects of delivery; however, formal Approving Authority decisions are referred to the MPSC and onward to the NTA as required.

Table 7—1: Roles and responsibilities of key governance entities

Change and Delegations of Authority

Change management is a necessary process on a programme as complex as MetroLink.

Delegations of authority have been developed and grouped into categories to provide clarity on who can make decisions and to what level. Change-related delegations of authority have been informed by lessons learnt from previous major programmes (including Crossrail and Sydney Metro), and the contractual frameworks under which the Programme is being delivered. The delegation of authority categories include:

- **Schedule Change Authority:** Relating to the Programme's schedule;
- **Cost Change Authority:** Relating to the Programme's costs;
- **Procurement and Contracts:** The procurement process, award of contracts and making contractual payments;
- **TII Board Retained Functions:** Amendments to delegated authority levels, treasury policy and risk management policies.

Change Control Process

Changes which impact the Programme cost, schedule, scope and benefits are logged. A proposed change is then assessed to understand its impact from a programme-wide perspective. If there is a case for a change, it will be implemented, subject to approvals in line with the delegations of authority.

MetroLink Programme Management Office (PMO) is responsible for oversight of the Change Control Process, whilst Change Owners are accountable for the implementation of changes.

Decision Making on Changes that Impact on Cost, Schedule and Benefits

The current delegations of authority regarding contract change orders and changes that impact on cost, schedule and benefits are currently in development. The proposal is that the MetroLink Programme Director will be authorised to oversee decisions up to P30 budget and schedule; the MPSC will be authorised for decisions up to P50 budget and schedule; and the NTA will be authorised for decisions up to P80 budget and schedule. Decisions above P80 budget and schedule are to be taken by DoT/Government.

Approach to Monitoring, Oversight and Assurance

Reporting

MetroLink reporting is built around a structured, integrated and disciplined framework that ensures all stakeholders have a trusted, single source of truth for understanding programme progress, performance, risk, cost and schedule.

Monthly performance reporting is provided to key stakeholder groups including the MPSC, TII Board and NTA. These reports enable monitoring of areas including KPIs, milestones achieved, budget status, and risk and issue reporting.

The established MetroLink reporting process and cadence provides a clear, timely and accurate view of how the programme is performing against its objectives, enabling:

- Proactive, evidence-based and informed decision-making;
- Visibility of emerging risks, issues and trends;
- Transparency and accountability across all functions and delivery areas;
- Assurance that the Programme remains on track for cost, schedule, scope and quality commitments.

It is both an information process and a control mechanism in that it supports monitoring against agreed baselines.

Risk-related reporting tools include:

- Monthly reporting of the top programme-level risks to the NTA, TII Board and MPSC, for onward reporting to DoT – providing early warnings whilst escalating and managing risks in line with the risk management approach;
- Dashboards provide near-time insights into performance trends. Central risk tools are available to all MetroLink teams with the capability to support management of risk across the Programme. This is being expanded to provide access to key governance stakeholders in the near future.

Schedule-related reporting tools include:

- Scheduling software and dashboards to provide stakeholders with information on programme performance relative to the approved baseline – this allows for sensitivity analysis, float and critical path reviews, trend analysis and forecasts;
- Development of fully integrated cost/ schedule/ risk and change dashboards to provide 'full picture' analysis.

Cost-related reporting tools include:

- Cost and change management software linking to whole-programme, annual, and monthly cost performance (actual vs forecast expenditure), with deeper capability to analyse changes and support budget management through the use of dashboards to present data.

Assurance

A comprehensive and progressive assurance approach has been established to ensure that governance, risk management and control processes for the Programme are independently assessed throughout its lifecycle. Assurance is risk-based and applied at planned, structured intervals, with each review addressing compliance, identification of emerging issues, validating underlying assumptions, and recommending remediation actions. This provides stakeholders with confidence that the Programme remains on track to achieve its objectives and that risks are effectively managed.

Assurance is progressive, meaning it begins early, at the planning and definition stages, and builds in rigour as the Programme advances. During early stages of the Programme, assurance focuses on confirming that terms of reference are clearly defined and understood. Further, that information sources are accurate and recorded, and methodologies adopted (including risk assessments and confidence levels) are robust and proportionate. This ensures that decisions, baselines, and investment cases are founded on validated evidence. As the Programme proceeds into procurement and construction, assurance shifts to monitoring delivery, compliance, controls effectiveness, governance effectiveness and readiness for key milestones, consistent with a 'right first time' ethos.

MetroLink's approach reflects established good practice and is formalised in its Assurance Strategy, which operates through a structured Three Lines of Assurance (LoA) model. Dedicated MetroLink roles are in place to manage and coordinate activities across all three lines, ensuring clarity of responsibilities and seamless interaction between internal and external assurance bodies.

A summary of the Three Lines of Assurance approach for MetroLink is provided in Table 7 – 2.

LoA	Purpose and relevant responsibilities
First Line (LoA1)	Purpose: The first line consists of those directly responsible for day-to-day delivery and management of the Programme whose activities focus on operational assurance and early issue identification. Assurance roles and relevant responsibilities: MetroLink Delivery Team and operational management are responsible for daily monitoring, implementing controls, delivering internal self-checks, and taking corrective actions. Contractor organisations deliver the works in line with contractual obligations and are expected to operate strong internal assurance and compliance mechanisms. The M500 Service Delivery Partner will develop and implement programme management systems, oversee M500 delivery performance, and ensure adherence to required standards and processes.
Second Line (LoA2)	Purpose: The second line provides oversight, challenge and validation of first-line activities. Assurance roles and relevant responsibilities: MetroLink functional teams oversee first-line assurance outputs, review compliance with defined processes, and provide expert scrutiny of risk assessments, designs, plans, and performance forecasts. MetroLink PMO coordinates integrated assurance planning across the Programme, performing risk-based reviews, process compliance checks, schedule and cost integrity assessments, and early trend analysis. MetroLink Executive Team provides strategic direction, endorses assurance plans, and ensures alignment with the Programme's objectives, tolerances, and statutory responsibilities.
Third Line (LoA3)	Purpose: The third line provides independent, external scrutiny and regulatory oversight. Assurance roles and relevant responsibilities: External bodies including DoT, Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation, NTA, NDFA, the Strategic Review Panel (see Box 7 – 2) and the CRR. These organisations undertake regulatory approvals, strategic reviews, independent assurance, and compliance monitoring. They provide impartial challenge and assurance to ensure the Programme aligns with statutory, safety, funding, and governance requirements.

Table 7–2: Summary of MetroLink Lines of Assurance model

Box 7—2: Strategic Review Panel

A Strategic Review Panel (SRP) has been established to provide independent (LoA 3) assurance and advice to the Programme on specific risks and strategic aspects of the MetroLink programme.

The SRP is comprised of independent experts who have experience in providing assurance and oversight of projects and programmes of a comparable scale to MetroLink including Crossrail, Sydney Metro, Copenhagen Metro, Budapest Metro, Athens Metro and DART+.

Expertise available through the panel includes civil engineering and tunnelling; procurement strategy and implementation; construction and programme delivery; safety; and rail systems. Relevant experts can be called upon according to the specific deliverable which is due for review.

The SRP's role is to independently review, and challenge specified deliverables in advance of reviews by the key governance bodies outlined in this chapter. The SRP will bring their relevant findings to the relevant Programme stakeholders with appropriate comprehensive analysis of the recommendations, highlighting their potential implications, risks and benefits for the MetroLink Programme.

Risk Management

MetroLink's comprehensive risk management process is grounded in industry good practice, ISO 31000 principles, and guidelines for risk management. This approach ensures key risks are proactively identified, evaluated, prioritised, managed and monitored by relevant stakeholders throughout the Programme lifecycle. It provides a structured approach to risk governance and supports informed decision-making across all levels of the organisation.

A clear governance and escalation structure is in place to ensure risks are addressed at the appropriate level. Risks are categorised into 'Strategic', 'Programme', 'Delivery', and 'Contract' levels, with clearly defined thresholds for escalation. If a risk exceeds delegated authority or poses a significant threat to programme delivery, it will be escalated to senior governance bodies (i.e. MPSC, TII Board or the NTA).

Risk Management Roles and Responsibilities

Roles and responsibilities for risk management are clearly defined.

- The Programme Director sets and manages the risk management culture and oversight, supported by the Programme Executive Team.
- Individual risks are assigned to "Risk Owners" and "Treatment Owners" who are accountable for managing and mitigating the risks relevant to them.
- The MetroLink PMO Risk Management Team monitors programme risks, conducts workshops, maintains risk registers, and performs assurance and deep-dive reviews. Key risks are escalated either immediately or via monthly reporting.

Risk Identification, Evaluation, Monitoring and Review

Risks are identified early across all phases to support proactive management. Workshops and monthly reviews assess risks, including cost and schedule impacts, with actions assigned to relevant stakeholders. Risks can also be raised outside formal reviews.

All risks are recorded within a central system for tracking, reporting, and assurance. QRAs (described in Chapter 3: Cost) are conducted at least every six months to evaluate impacts on cost and schedule.

Risk Treatment and Escalations

Risk Owners develop mitigation strategies supported by the Risk Team, based on manageability and cost benefit. Material risks are escalated through governance structures, and realised risks are managed via the Change Control Process.

Building Risk Management into the Programme

Third parties, mainly contractors involved in undertaking key elements of the Programme, are required to adhere to the MetroLink 'Contractors Risk Managers Plan.' This ensures that all required third parties are informed in a clear and concise manner of how risk management should be undertaken, and what, how and when key risk information should be communicated to the MetroLink PMO Risk Management Team.

How Risk Management Supports Assurance?

Risk Owners develop mitigation strategies supported by the Risk Team, based on manageability and cost benefit. Material risks are escalated through governance structures, and realised risks are managed via the Change Control Process.

Establishment of a New Statutory Delivery Body and Updated Governance Framework.

In November 2025, the Government approved a proposal to establish, on a statutory basis, a dedicated MetroLink delivery body. The DoT leads on this, including the development of primary legislation, in partnership with TII and the NTA. MetroLink will work alongside the DoT, TII and the NTA to establish a new statutory delivery body. This will involve the development of the legislation and specific departmental agreements which will govern MetroLink. Practical and legislative issues associated with the delivery body establishment are currently being reviewed with a view to developing a proposal that could be tabled for Government decision. Once these issues have been addressed, a legislative process will be implemented to establish the delivery body.



Figure 7—2: Representation of Street Level for MetroLink Underground Station at St. Stephen's Green

Delivering MetroLink

"In order to generate the socio-economic benefits brought about through enhanced connectivity, a cleaner environment, higher productivity, and a generally improved quality of life, it is crucial that public investments in the transport sector are effectively planned and implemented."

Programme Overview

Summary of Scope

MetroLink is Ireland's first megaproject in modern times. To deliver this approximately 18.8km, fully automated, high-capacity metro system will require the coordinated delivery of multiple interdependent work packages, diverse technical systems, and an international supply chain.

The MetroLink Programme will deliver core infrastructure, line-wide systems, and supporting elements that together will enable a fully automated, high-capacity, and low carbon metro service, with 16 stations from Estuary to Charlemont. Delivering this Programme involves a wide ecosystem of stakeholders: TII, the NTA, NDFA, utility providers, Local Authorities, regulators, landowners, community groups, and a global contractor and supplier market. The scale and interdependency of these elements create an exceptionally complex delivery environment where programme success depends on the careful parallel management of contracts, interfaces, technical assurance, and regulatory approvals across the full lifecycle.

In this context, a clear and fully integrated Schedule, PEP and management and reporting arrangements, are essential to delivering MetroLink safely, efficiently, and to the standards expected of an infrastructure megaproject of such national significance and scale of investment.

In order to facilitate successful delivery, MetroLink has developed a Core Behaviours Framework to build a positive delivery culture and align values with clear behavioural standards. This framework was established through a structured process that included culture audits, training and ongoing assessments. Early engagement with team members identified key behaviours essential to successful programme delivery including safety, collaboration, trust, leadership, respect, communication, ownership, a solution focused mindset and continuous improvement. These were subsequently finalised and embedded across the organisation. The Core Behaviours Framework is fully integrated into the MetroLink Co-operation Agreement and the M401, M402, and M500 Contracts. New joiners are trained on the framework as part of their onboarding to ensure shared and consistent expectations from the outset.

MetroLink Delivery Tools

The MetroLink Programme is fully aligned with the NTA Project Approval Guidelines wherein there is a structured roadmap for progressing through the statutory, procurement, delivery and operational phases.

The MetroLink Integrated Client Schedule

The MetroLink Integrated Client Schedule has been developed, which sets out the critical milestones and targets for MetroLink delivery. This will be used to identify key contractual milestones and interfaces to be included in the ITT for all packages. These milestones will be the programme management tool to communicate schedule-related information to external stakeholders, for delivering the project, and for measuring performance during the delivery stage.

MetroLink has considered a range of operational start dates based on the assessment of uncertainties in the Programme schedule.

A QSRA was completed for the MetroLink Programme. In line with the RCF cost forecasting methodology, a review was undertaken of schedule experience on other large scale international projects. Arising from that process, it was assessed that at this stage of the Programme, the range extends from 2036 (optimistic) to 2038 (pessimistic), with 2037 representing the median of that range.

Schedule Evolution

The schedule for the "Construction and Implementation" stage of the Programme lifecycle has undergone a series of reviews, analysis and development as shown in Figure 8 – 1.



Figure 8—1: Evolution of Schedule

The PBC relied upon a schedule which was created in 2017 to support the PBC submission, Railway Order process, and the EIAR requirements.

A Schedule Optimisation and Resilience exercise was completed in Q1 2025 to enhance the 2017 schedule and supporting assumptions. This was approved by the then MetroLink Programme Board in May 2025 along with an action list for further development.

For the DBC, and during Q2 and Q3 2025, the Optimised Schedule was further enhanced. The October 2025 schedule was adopted as the "DBC Schedule." This was used to undertake a schedule risk analysis and for estimating purposes for the DBC.

A Basis of Schedule document has been developed for the DBC that details the scope, methodology, risks and assumptions of the schedule.

The DBC Schedule reflects the following:

- The Railway Order conditions from An Coimisiún Pleanála;
- Continued station and alignment constructability reviews;
- Continued resource levelling optimisation and risk mitigation;
- Allocation of contract-specific time risk allowances and finalisation of contract milestones and sectional completion dates, for inclusion in procurement documentation.

Further refinement of the Schedule will continue through to submission of the FBC.

The MetroLink Integrated Client Schedule will be used to identify key contractual milestones and interfaces, for inclusion in the ITT for all packages. These milestones will be the programme management tool to communicate schedule-related information to external stakeholders, for delivering the project, and for measuring performance during delivery stage.

Critical Path by Commissioning Phases

The critical path for MetroLink is through Tara Street. Commencement of the delivery phase is dependent on access to required land parcels, with constraints due to the volume of existing tenants to relocate and the nature of properties in the area.

Figure 8-2 shows the critical path by works phases through to commissioning:

- Access to land at Tara Street;
- Enabling works at Tara Street site (M100);
- Completion of Tara Street station civil works (M401);
- Fit out of Tara Street (M500);
- Integrated Systems testing and commissioning (M500) before Metrolink opens for passenger service.

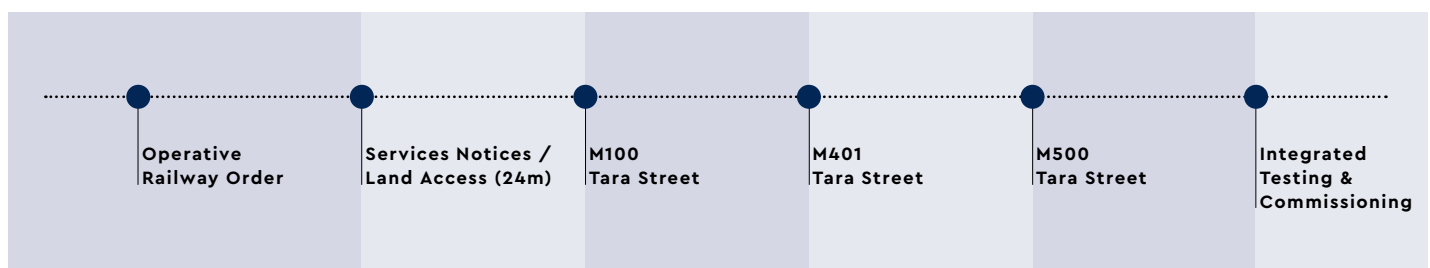


Figure 8—2: Critical Path to Commissioning

The Project Execution Plan

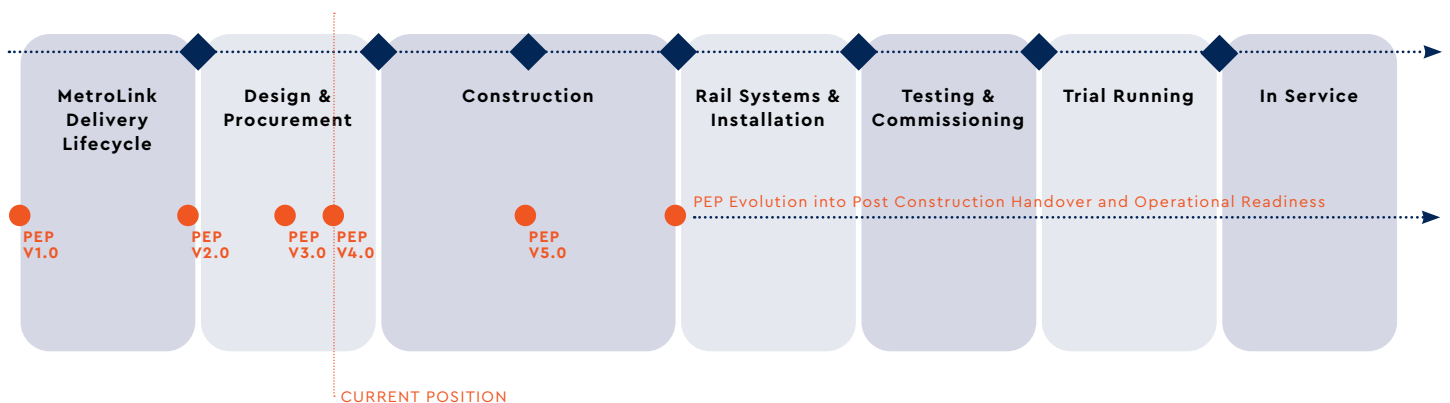
The PEP is the central project management document for the MetroLink Programme and a key strategic document that underpins the delivery of MetroLink. The PEP provides a comprehensive, structured framework for the planning, delivery, and governance of the Programme. It is designed to guide project delivery across all phases of the Programme lifecycle, from early design through procurement, construction, handover, and into operation. It has been developed to align with the Infrastructure Guidelines, the principles of the TAF and the Capital Works Management Framework Guidance Note – Project Management GN1.1.

The PEP also serves as a reference point for all Programme participants, offering clear guidance on roles, responsibilities, and decision-making across all phases and functions within the Programme. It sets out the strategic intent, delivery approach, and key management processes that underpin the successful execution of the Programme. The PEP will therefore help ensure that the Programme is delivered according to the required specifications, within the allocated capital budget, and within the designated timeframe.

The current version of the PEP, dated November 2025, necessarily focuses on defining the governance, proposed delivery approach, and functional responsibilities required at this stage of the Programme's maturity. Further details on the MetroLink Directorate are set out below.

The PEP will be developed as the organisation and operating model evolves, and further aspects of the Programme are finalised. Future iterations will incorporate the details on procurement as set out in Chapter 5: Packaging, Contracting and Procurement and on Governance as per Chapter 7: Governance.

Figure 8 – 3 shows a roadmap that has been produced to reflect future major updates of the PEP.



● PEP Evolution Lifecycle

Figure 8—3: MetroLink Roadmap

Resourcing Arrangements Pre Commencement of Construction

MetroLink has developed a combined resource schedule for TII, Client Partner and the Programme Delivery Partner. This is monitored and managed through the People team within the Operations, Sponsorship and People function for mobilising and demobilising of staff, and a change management process for when additional resource requirements are necessary. It is managed and overseen by the Operations, Sponsorship and People function, while the PMO function undertakes separate monitoring of budget compliance to ensure appropriate cost control.

The Programme Delivery Partner resource profile has been incorporated into the Programme Delivery Partner tender to identify the requirements to support the delivery of the MetroLink Programme. The successful Programme Delivery Partner will be awarded an initial task order for mobilisation to suit the award of contracts and start of construction.

Construction Oversight

The M100, M400 and M500 Contracts will include the requirements for the respective delivery contractors to manage, supervise, confirm completion and quality check their construction and manufacture. The MetroLink Programme Delivery Partner will be the direct Client oversight and assurance with roles including Handover/Handback Management, construction health and safety leadership, construction supervision, construction management, logistics management and quality management. Reporting arrangements will be in place to provide visibility of schedule, progress, sequence, compliance, safety and quality defects, remedial actions planned and taken, monitoring, inspection and testing, consents and Railway Order compliance, for the purposes of ensuring the successful delivery of MetroLink.

Construction Communications & Commitments

The M100, M400 and M500 Contracts will include the requirements for the respective delivery contractors to provide clear and consistent communications to stakeholders and communities. The MetroLink Programme Delivery Partner scope includes requirements for alignment with the MetroLink stakeholder and communications team structure and the implementation of a 'single one-team MetroLink' for the benefit of contractors, stakeholders, landowners, and regulatory bodies. MetroLink, through the Programme Delivery Partner and contractors, produces all delivery-related and stakeholder-engagement related communications, identification, participation of and management of all stakeholders required for the MetroLink Programme, along with coordination of stakeholder and communications interface management between the MetroLink main contractors. MetroLink acts to preserve and elevate the reputation of the Programme and its strategic partners through its communications policies. MetroLink, through the Programme Delivery Partner, ensures that the MetroLink main contractors fulfil their obligations, commitments and requirements under the Railway Order and in line with MetroLink policies. The Programme Delivery Partner Communications Programme and Master Consents Register support the discharging of accountabilities for the purposes of ensuring the successful delivery of MetroLink.

Industry Capacity Development

A Workforce Capability Study has been undertaken which considered the availability of skills to meet resource demand for Ireland across MetroLink and the wider national infrastructure portfolio. This report was shared with the NTA and has formed part of the basis for a broader transport construction workforce initiative, led by the NTA and involving MetroLink, which includes ongoing engagement with the Department of Enterprise, Trade and Employment on skills availability, employment permit policy, and long-term workforce planning.

Following on from the initial study, MetroLink has incorporated employment and skills specific KPIs within contracts and has established a workstream to identify specific training and labour shortages across the programme. This will inform on-going discussions with relevant employment and training providers including SOLAS, local Education and Training Boards and Skillnet with the aim of developing relevant skills and learning programmes for MetroLink, such as pre-employment programmes, traineeships, Science, Technology, Engineering, and Mathematics engagement activities, connections with schools, colleges and universities.

In parallel, market studies were conducted in 2024 which identified a large number of relatively small organisations with relevant capability to deliver for MetroLink, but that are unable to contract directly for large scale packages. To support transparency in the procurement process, MetroLink is therefore mandating the use of the Supply Chain Opportunity Portal to encourage engagement with Small and Medium-sized Enterprises (SMEs). The Opportunity Portal will also support capability development to ensure that SMEs and micro enterprises, are fit to compete in future years.

MetroLink Directorate

MetroLink is strengthening its capability and capacity as the Programme transitions from the planning stage into major procurement and construction phases. Given the scale of the contracts arising from this megaproject, MetroLink requires a delivery structure that can effectively manage growing levels of activity, complexity and risk. As one of Ireland's most complex infrastructure programmes, MetroLink has been structured to ensure its organisational capability expands in line with its progression through statutory approvals, procurement and full delivery. This includes the flexibility to scale resources and bring in specialist expertise at the stages most critical to delivery. MetroLink Directorate is made up of an Integrated Team which includes:

- **Client Partner:** Provides strategic programme management, assurance, and support to TII, acting as a central hub for major project expertise;
- **Programme Delivery Partner:** To be appointed to support contract management, site supervision, and delivery assurance across major works packages, bringing global experience in complex metro delivery;
- **Technical Advisors and Design Consultants:** Provide engineering, environmental, and design services to ensure technical integrity and compliance;
- **Legal, Commercial, and Financial Advisors:** Support procurement, contract management, and business case development, ensuring robust governance and VfM.

Core Programme Functions

MetroLink is delivered through a function-led matrix organisational structure, designed to provide clear accountability while enabling flexibility and integration across all phases of the Programme. Each Function operates under a dedicated Function Management Plan, which defines its purpose, accountabilities, structure, and key processes. Functions include:

- **Deputy Programme Director Office:** Coordinates strategic programme development and organisational change;
- **Delivery:** Responsible for execution of works across all packages (M100, M400, M500), including logistics, integration, and performance oversight;
- **PMO:** Provides governance, assurance, and integrated controls across cost, schedule, risk, and change;
- **Design and Engineering:** Safeguards technical integrity, manages design governance, and ensures compliance with statutory and regulatory requirements;
- **Commercial:** Leads procurement, contract management, and commercial assurance;
- **Digital:** Delivers the integrated information environment, systems architecture, and data governance;
- **Health, Safety and Quality (HSQ):** Ensures safe, compliant, and high-quality delivery across all phases;
- **Operations, Sponsorship and People:** Prepares for operational readiness, benefits realisation, and workforce capability;
- **Communications:** Sets the communications strategy and governs all external and internal messaging;
- **Land and Property and Stakeholder Engagement:** Leads land acquisition, statutory processes, and the management of stakeholder relationships.

Project Management Document Hierarchy

The PEP is a Level 1 MetroLink project document. Each function supports the PEP with a Function Management Plan (Level 2), which sets out the function's responsibilities and explains how its subfunctions are structured and operate.

Level 3 documents such as key management plans and project strategy documents sit beneath the Function Management Plans and link to the Level 4 documents, which describe detailed processes and procedures.

Each Function Management Plan details the relevant subfunction teams and provides concise descriptions of their relevant remits. These documents will include key processes and procedures aligned with the levels of the function's document hierarchy.

Deputy Programme Director Office

The MetroLink Deputy Programme Director Function supports the Programme Director and Programme Executive Team by identifying and driving interventions across MetroLink. Operating at programme-wide level, it interfaces with all internal functions and external stakeholders to ensure effective coordination and alignment. The function maintains a high-level perspective on overall programme performance, governance, and organisational development.

The Deputy Programme Director Function is accountable for:

- Strategic programme set-up and development;
- Programme capability development;
- Organisational definition and business change management;
- Cross-cutting strategic interventions;
- Strategic engagement with the MPSC, NTA and other governance bodies.

The Deputy Programme Director Function supports MetroLink's alignment with national infrastructure governance frameworks, including ongoing engagements with the MPSC, NTA, and wider government oversight bodies such as the Project Ireland 2040 Delivery Board. It plays a central role in preparing for gateway approvals, ensuring that programme outputs, governance processes, and decision-making align with national requirements.

Programme Development and Integration

Programme development and integration is the core focus of the Deputy Programme Director Function. It drives cross-programme collaboration, promotes consistency, and ensures strategic alignment across all MetroLink activities. By avoiding business-as-usual activities, the function maintains the high-level perspective needed to monitor programme performance and guide the overall direction of the Programme.

Delivery Function

The Delivery Function has been designed to oversee the significant complexity of delivering Ireland's first metro system. As a multi-package programme requiring advanced technical capability, rigorous planning, and seamless integration, the Delivery Function provides a scalable framework that ensures coordinated delivery across all contracts and systems.

The Delivery Function operates in accordance with the MetroLink Delivery Management Plan, supported by a comprehensive set of procedures, strategies, and interface protocols. The framework ensures full alignment with programme governance requirements, safety and quality standards, and stakeholder commitments. The Function consists of nine subfunctions, each defined by its scope, responsibilities, and structured integration processes.

Function Structure and Strategic Role

The Delivery Function oversees contractor mobilisation, coordination, and performance across advance and enabling works, civil infrastructure, systems, and PPP delivery. Its key objectives include leading contractor mobilisation and performance management, embedding delivery requirements, coordinating logistics and environmental compliance, supporting procurement and assurance activities, and integrating stakeholder commitments. The function is structured to combine discipline-specific expertise with cross-functional integration.

The nine Delivery subfunctions cover the following:

- Advance and Enabling Works (M100);
- M401 (Southern Section) and M402 (Northern Section);
- M500;
- Programme Delivery Partner;
- Delivery Integration;
- Productivity and Innovation;
- Commercial Interface Team;
- Programme Development.

Advance and Enabling Works (M100)

The Advance and Enabling Works (M100) subfunction prepares sites for main works through enabling activities, including vegetation clearance, utility relocations, fencing, demolition, archaeology, environmental monitoring, and temporary traffic management. This subfunction leads the design, procurement, and execution of advance and enabling works, coordinating closely with other functions including Design & Engineering, Commercial, Land and Property, Stakeholder Engagement, and HSQ to ensure safe, efficient delivery aligned with programme milestones.

Civil Infrastructure Delivery (M401 Contract (Southern Section) and M402 Contract (Northern Section))

The Civil Infrastructure Delivery subfunctions responsible for the M401 Contract (Southern Section) and M402 Contract (Northern Section) will deliver the full suite of complex civil works along the MetroLink route, from Charlemont to Estuary. Their scope includes deep underground stations, tunnel boring operations, cut-and-cover structures, portal construction, viaducts, and surface and elevated civil assets.

These subfunctions are supported by dedicated Interface Managers, Building Information Modelling (BIM) Managers, and integrated digital coordination processes to ensure effective planning, stakeholder management, and seamless alignment with adjacent delivery packages and external partners.

The Civil Infrastructure Delivery subfunctions define the supervision and management requirements for civil works contractors, and coordinating interfaces with third parties, strategic stakeholders such as Dublin Airport, and adjacent delivery packages. Their responsibilities include logistics planning, traffic management, environmental compliance, and the management of access constraints across city-centre and airport operational environments. They oversee construction sequencing, contractor mobilisation, and multi-package integration supported by strong BIM protocols and structured interface management. The subfunctions also manage delivery risks, report progress through the PMO, and support contract administration, compliance assurance, change control, claims, and dispute resolution. They facilitate testing, handover, and commissioning to ensure assets are ready for entry into service.

Delivery of the M500 Contract

The delivery subfunction accountable for the M500 Contract ensures adherences to the Project Agreement and Services Requirements, with TII fulfilling the role of the Authority's Representative during the operations phase to provide ongoing performance, safety, and contractual oversight.

The subfunction monitors service delivery against defined contractual KPIs including safety, reliability, customer satisfaction, and asset condition, and ensures regulatory compliance and readiness for securing Authorisation for Placing into Service through engagement with the CRR. It coordinates interfaces with the M100 and M400 packages, leads lifecycle asset planning, and manages maintenance, renewal, and replacement activities. In addition, the team supports stakeholder engagement, manages land handover and operational queries, and provide continuous performance monitoring and reporting to TII and the NTA.

Programme Delivery Partner

The Programme Delivery Partner will operate as an integrated delivery resource under the Delivery Function, providing strategic and operational support across all work packages. This includes project management, site supervision, logistics, contract administration, and assurance. The Programme Delivery Partner will assist in delivering the enabling and main works contracts, including provision of the NEC Project Manager and Supervisor roles, and will support the programme in maintaining consistent reporting, performance management, and compliance with applicable legislation and codes of practice. Pre-appointment planning is being undertaken by the Programme Development Delivery Team, which is defining the scope, integration arrangements, and mobilisation strategy for the Programme Delivery Partner.

Delivery Integration

The Delivery Integration subfunction facilitates coordinated delivery across the Programme by ensuring design alignment, overseeing the resolution of interfaces, and incorporating stakeholder obligations into delivery strategies. As a strategic enabler within the Delivery Function, it ensures that execution remains consistent, assured, and aligned with programme-level priorities. The subfunction combines expertise in construction integration, interface management, Reference Design, and programme-level planning, collaborating with Design and Engineering, Commercial, PMO, and Stakeholder Functions to manage complexity, and support readiness for operations.

The Delivery Integration Team is accountable for:

- Alignment of design, construction, stakeholder obligations, and logistics;
- Integration of the Reference Design with delivery requirements;
- Coordination of cross-package interfaces and configuration control;
- Development of SMART contract requirements from stakeholder commitments;
- Supporting programme-level strategies including construction logistics, traffic management, and workforce mobility;
- Contribution to contract documentation and Works Information sections.

Productivity and Innovation

The Productivity and Innovation subfunction advances MetroLink's objectives by embedding innovation, modern construction methodologies, and continuous improvement across all delivery packages. It promotes the adoption of modularisation, off-site manufacturing, capital equipment optimisation, and digital tools to enhance delivery performance. The team works closely with Commercial, PMO, and other Delivery teams to support performance benchmarking, lessons learned, and innovation tracking, while contributing to strategic initiatives such as the Balanced Scorecard, Learning Legacy, and contractor engagement.

The Productivity and Innovation subfunction is responsible for promoting modularisation and prefabrication, supporting capital equipment optimisation and lean construction, and embedding digital tools and performance measures across delivery processes. It facilitates innovation workshops and stakeholder engagement, captures and evaluates productivity initiatives, and contributes to the Learning Legacy Strategy through the development of case studies.

Commercial Interface Team

The Commercial Interface Team fulfils a specialist coordination role within Delivery, aligning delivery operations with commercial governance on issues outside the scope of the M100, M300, M400, or M500 packages, as defined in Chapter 5: Packaging, Contracting and Procurement. Interfaces are either captured as risks or covered by the unknown unknowns' allowance as part of the QRA. Its purpose is to eliminate gaps, overlaps and ambiguities in commercial responsibilities that may impact programme schedule, cost or compliance. Operating as a matrix resource, the team works across delivery packages and functional areas to address interface issues, reinforce commercial processes and support adherence to contractual and procedural requirements.

The Commercial Interface Team subfunction serves as the principal point of contact for commercial interface matters arising outside the core work packages and TPAs, supporting the resolution of cross functional commercial queries and emerging risks. It collaborates closely with the Commercial and Delivery teams to ensure consistent contract interpretation and application, while overseeing interface activities and escalating potential impacts on programme schedule, cost or compliance. The team also provides guidance on commercial interface processes and oversees the Commercial Interface Issues Tracker.

Interfaces between Contracts

Interfaces between contracts are managed through a combination of contractual arrangements and delivery coordination rather than through a single function, as set out in Chapter 5, Packaging, Contracting and Procurement. The Delivery Function leads the implementation of these arrangements in practice, including contractor-to-contractor coordination, interface management and escalation where required, ensuring that interfaces across packages, including those between works such as M120 and M402, are actively coordinated and managed.

Programme Development

The Programme Development Delivery Team subfunction maintains core programme wide delivery documentation including the PEP, Delivery Management Plan, Project Manager's Handbook, and Delivery Competence Framework, and supports Programme Delivery Partner integration and procurement readiness. It leads deliverability assurance and lifecycle reviews, manages risk and opportunity escalation in alignment with the Delivery Assurance Plan, and ensures that lessons learnt are systematically captured and applied across the Programme. In addition, the team promotes consistency across delivery packages, provides early warning through structured planning checkpoints, and contributes to focus team assurance activities and cross functional lifecycle reviews, ensuring MetroLink's objectives are translated into clear and actionable delivery requirements.

The Programme Development Delivery Team will support the mobilisation of the Programme Delivery Partner and maintains key programme documentation to ensure alignment with MetroLink's strategic objectives. Working in close collaboration with other functions, the team embeds critical success factors across safety, schedule, cost, quality, stakeholder engagement, and sustainability, consistent with the Programme's Balanced Scorecard, from procurement through mobilisation and into delivery.

The Programme Development subfunction includes several integrated areas of responsibility:

- **Core Document and Process Development:** Maintains programme-wide management tools and guidance documents;
- **Integration:** Ensures alignment with Programme Delivery Partner's strategic delivery model and supports supplier selection;
- **Risk and Opportunity Management:** Maintains structured hierarchy for risk and opportunity identification, escalation, and mitigation;
- **Lessons Learned and Good Practice:** Facilitates capture, review, and dissemination of delivery insights;
- **Deliverability Assurance:** Conducts package-level reviews to assess feasibility, compliance, and supplier capability;
- **Project Lifecycle Support:** Provides guidance and assurance throughout the delivery lifecycle.

Programme Management Office

The MetroLink PMO serves as a central enabling function within the MetroLink Directorate, providing governance, assurance, and performance oversight across the Programme to support the Programme Director and Executive Team in driving effective delivery.

The core responsibilities of the PMO include:

- **Coordinating programme-wide controls:** Integrates cost, schedule, risk, and change management processes across all packages and functions;
- **Maintaining alignment with national infrastructure governance frameworks:** Ensures MetroLink governance aligns with TII standards and wider public sector requirements;
- **Enabling programme-wide governance and assurance:** Implements governance frameworks and conducts assurance reviews to maintain compliance with statutory and programme requirements;
- **Managing cost control and estimating:** Oversees reporting, validating estimates and supporting financial forecasting;
- **Administering risk and change management:** Facilitates risk identification and mitigation strategies, and manages change control processes to protect scope, cost, and schedule objectives;
- **Maintaining schedule management:** Develops and monitors programme schedules, identifies critical paths and ensuring timely delivery of milestones and dependencies;
- **Supporting strategic decision-making through performance reporting:** Provides accurate, timely data and analysis to inform executive decisions and optimise programme outcomes.

The PMO consists of ten integrated subfunctions with defined accountabilities, processes, and tools:

- Project Controls;
- Governance and Assurance;
- Cost Management;
- Estimating;
- Risk Management;
- Change Management;
- Scope and Baseline;
- Schedule Management;
- Performance and Reporting;
- PMO Support and Systems.

Each subfunction is supported by a dedicated team and interfaces with delivery packages and functional leads to ensure coordinated programme management.

Project Controls

The Project Controls Office (PCO) within the PMO functions as the Programme's central coordination point for cost, schedule, risk, and change control, bringing these disciplines together within a unified management framework. It ensures consistency, transparency, and alignment with strategic objectives by maintaining integrated baselines and supporting structured reporting and assurance activities. The PCO leads the implementation of the Project Controls Framework (PCF), which defines the processes, tools, and reporting arrangements for effective project control. This includes establishing the Performance Measurement Baseline, integrating the Work Breakdown Structure and Cost Breakdown Structure, and coordinating assurance reviews and reporting cycles.

Key responsibilities include coordinating with cost, schedule, risk, change, and performance management to ensure consistency and traceability, together with accuracy of programme-wide data, while contributing to the development and maintenance of integrated control baselines. The subfunction leads cross-package and cross-function alignment of controls and reporting, validates key inputs for dashboards, assurance reviews, and programme reports, and provides strategic insights and escalation support to the PMO Director and Programme Executive. It also maintains the PMO Master Document List, supports delivery of the Authorised Work Strategy and Supply Chain Integration Strategy, and plays a central role in developing the integrated Project Controls Lifecycle, defining how each discipline underpins the control environment from baseline creation through performance optimisation and benefits realisation.

Governance and Assurance

The Governance and Assurance subfunction ensures the consistent application of MetroLink's governance framework across all programme functions, supporting transparency, accountability, and compliance throughout the programme lifecycle. It provides direct support to the Programme Director, PMO Director, and Deputy Programme Director Office, and ensures that oversight expectations from the NTA, the DoT and the MPSC are fulfilled. Further details on the Programme's governance arrangements are provided in Chapter 7: Governance.

The Governance and Assurance subfunction implements the governance arrangements outlined in Chapter 7: Governance, setting out clear reporting lines, approval processes and escalation routes. It manages independent assurance processes and gateway reviews. The team also coordinates audits and external oversight activity and provides assurance evidence required to support DBC and FBC submissions.

Cost Management

The Cost Management subfunction provides programme-wide cost control and budget governance, ensuring that cost data is accurate, timely, and fully integrated with schedule and performance metrics, in accordance with ISO 31000 and the NTA Project Approval Guidelines. It upholds financial discipline and transparency for the Programme Director and Commercial leadership.

The Cost Management subfunction is accountable for budget development, cost control, forecasting, variance analysis and cost reporting, as well as financial governance and funding oversight. It collaborates closely with commercial, procurement, estimating, and change control teams to maintain full integration of cost management activities across the Programme.

Cost management is governed by the Cost Estimating Management Plan and MetroLink Cost Management Plan, which set out the processes for budget development, forecasting, variance analysis, and funding oversight. The lifecycle aligns with NTA Cost Management Guidelines, to ensure integrated planning, monitoring, and assurance of cost performance across each delivery phase.

Estimating

The Estimating subfunction provides accurate, consistent, and benchmarked cost estimates across the Programme lifecycle. It underpins procurement planning, commercial strategy, and investment decision-making by producing estimates calibrated to project maturity and aligned with recognised industry standards.

Estimating is governed by the MetroLink Cost Estimating Management Plan, which sets out the estimating cycle, classifications, basis of estimate, and assurance processes. Estimates are progressively developed and validated through structured internal reviews and external benchmarking.

The Estimating subfunction defines the methodologies and assumptions that underpin all Programme estimates. This includes interpretation of design documentation, application of unit rates, inflation, and benchmarking, and preparation of Delivery Costs and operating, and renewals cost estimates for major packages. It undertakes cost benchmarking against industry norms and external comparators and produces Pre-Tender Estimates to act as an independent benchmark prior to ITT release. The subfunction also provides cost inputs for economic modelling and VfM assessments that inform investment and gateway decisions and supports DBC and FBC submissions through the production of suitable levels of estimates.

Risk Management

The Risk Management subfunction leads MetroLink's risk management cycle, ensuring risks are identified, assessed, mitigated, and monitored across all functions and delivery packages. Risk management is a shared responsibility delivered through a structured governance framework and defined in the MetroLink Risk Management Procedure and tender-specific procedures.

The Risk Management subfunction is responsible for maintaining risk registers at design, contract, delivery, programme, and strategic levels. It distinguishes retained risks from those transferred to contractors and provides clear risk allocation both before and after contract award. The subfunction integrates risk management with schedule, cost, and change control processes, facilitates risk workshops and scenario modelling, and escalates strategic risks to governance bodies such as the NTA, DoT, and the MPSC. It also supports DBC and FBC submissions through QRA and risk assurance.

Change Management

The Change Management subfunction provides programme-wide governance of change control, ensuring that all proposed changes are identified, evaluated, authorised, and embedded across cost, schedule, scope, and risk. It forms a key component of the PCF and is fully aligned with the MetroLink Integrated Controls and Performance lifecycle.

The Change Management subfunction identifies and categorises potential changes, coordinates cross functional impact assessments covering scope, schedule, cost, risk, and benefits, and manages the change register to ensure complete traceability. It implements governance decisions and delegated authority approvals, incorporating approved changes into programme baselines and forecast updates. The subfunction also supports contingency drawdown and performance assurance activities and ensures that change outcomes are communicated clearly to stakeholders and suppliers.

Scope and Baseline

The Scope and Baseline subfunction is responsible for defining and controlling programme scope, ensuring all authorised work is clearly articulated, verifiable, and aligned with MetroLink's strategic objectives. The scope forms the basis for integrated planning, estimating, scheduling, and performance management.

Management of scope and baselines is governed by the Programme Baseline Strategy and Change Management Plan, which outline the procedures for setting, maintaining, and closing baselines. The subfunction ensures these processes remain consistent with change control, forecasting, and reporting.

Schedule Management

The Schedule Management subfunction develops, maintains, and assures the integrated programme schedule, providing a single source of truth for milestones, critical paths, and progress tracking. It enables proactive decision making and performance optimisation in line with the Schedule Management Plan.

The Schedule Management subfunction establishes and maintains the integrated baseline schedule, monitoring milestones, critical paths, and progress relative to planned dates, while ensuring supplier schedules are fully integrated and contractually consistent. It manages schedule risks, float erosion, and time risk allowances, while supporting QSRA, forecasting, and schedule impact assessments. The subfunction also assures schedule quality through best practice checks and benchmarking.

Performance and Reporting

The Performance and Reporting subfunction establishes the Programme's performance monitoring and reporting strategy, supporting proactive management and continuous improvement through structured, data-driven analysis. It ensures consistent measurement across all functions and delivery teams, integrating cost, schedule, scope, and benefits metrics.

The Performance and Reporting subfunction develops KPIs and performance metrics aligned with programme objectives and intended benefits. It convenes the weekly Visibility (Vis) meeting which brings together senior leaders to review emerging issues and ensures proactive management. These activities are supported by using dashboards and reporting tools that provide consistent, data-driven performance insights. These processes incorporate lessons learned and support the implementation of corrective actions. This function also supports supply chain performance assurance via audits and periodic reviews. The subfunction facilitates analytics and analysis across cost, schedule, risk, and scope. In addition, it enables forecasting and variance analysis to support effective decision making.

Performance and Reporting are governed by the Measure Progress Strategy, Analyse and Act Strategy, and the Performance and Reporting Plan. This approach collectively defines the reporting calendar, assurance mechanisms, escalation routes and integration with other Integrated Controls and Performance functions.

Programme Management Office Tools and Systems

The PMO Tools and Systems subfunction manages MetroLink's digital controls environment, ensuring integrated, secure, and scalable platforms support all PMO disciplines. It enables seamless data exchange, analytics, and reporting across cost, schedule, risk, estimating, and performance domains.

Design and Engineering

The MetroLink Design and Engineering Function governs, integrates and assures all design and engineering activities across the Programme, ensuring that MetroLink is delivered as a technically robust, safe, sustainable, and operable system.

The Programme's Technical Authority, it provides strategic leadership across design development, technical governance, systems engineering, and integration. The function oversees design quality, technical assurance, and compliance across all phases of the Programme and all major packages. Operating under the Engineering Management Strategy (EMS), it defines the processes and standards that ensure design coherence, technical integrity, and regulatory compliance, while embedding sustainability and environmental considerations into engineering delivery.

Reference Design and Employer's Design

A key responsibility is for the development of the Reference Design which provides the foundational technical intent for MetroLink, establishing a consistent and traceable baseline that supports contractor scoping, procurement documentation, planning approvals, and stakeholder engagement. This design stage ensures both constructability and alignment with delivery requirements and is governed through the EMS, System Integration Management Plan, and Technical Authority processes.

The Employer's Design, developed selectively to de-risk critical elements of delivery, provides targeted technical detail on the areas of the Reference Design which are required to be delivered. This is essential where clarity is required before contract award in areas such as tunnel alignment and spatial safeguarding for stations and depots.

Both design stages undergo progressive verification against Contract Technical Requirements and statutory commitments. This process is supported by Design Assurance Reviews, Designer's Risk Assessments, and the management of technical assumptions through the Technical Authority panel and the MetroLink Assumption Register.

Safety, Regulatory Compliance and Security in Design

MetroLink design outputs must comply with the Safety, Health and Welfare at Work (Construction) Regulations 2013. Design teams are responsible for identifying and mitigating risks across all project phases and recording hazards in the Designer's Risk Assessments for review by the Technical Authority lead, the Project Supervisor for the Design Process, and system safety team.

Security design focuses on proportionate counter-terrorism and crime-prevention measures informed by site-specific threat and vulnerability assessments. Consideration is also given to cybersecurity, physical security, environmental compliance and fire safety. The strategy aims to protect the public, align with project requirements, integrate with wider design elements, and ensure operational feasibility.

Technical Authority

The Technical Authority subfunction safeguards the technical integrity of the Programme by overseeing design assurance, configuration management, change control, and system validation and acceptance across all contracts. Supported by the Technical Authority Plan, EMS, and the System Integration Management Plan, the Technical Authority ensures contractor deliverables meet programme requirements, Sponsor expectations, and statutory and regulatory standards. Its responsibilities are delivered through the Senior Leadership Team, the Head of Engineering & Environment teams, and specialist assurance leads who perform Line of Assurance (LoA2) activities such as auditing contractor self-assurance, conducting risk-based sampling, and undertaking integration and stage-gate reviews.

Environmental and Sustainability

The Environmental and Sustainability subfunction team is responsible for managing environmental compliance with the Railway Order, developing the sustainability strategy and managing the assurance process across the full programme lifecycle. Its approach is guided by the Environmental Management Plan, which informs contractor-led documentation such as Construction Environmental Management Plans, risk assessments and method statements to ensure compliance with the EIAR, the Natura Impact Statement (NIS) and MetroLink's Environmental Policy.

Environmental management has transitioned from assessment to implementation following the Operative Railway Order approval, embedding mitigation, monitoring and reporting requirements into contractor plans, including ecology and biodiversity measures, archaeology and cultural heritage protections and controls for noise, vibration and materials management.

Sustainability is delivered through the MetroLink Sustainability Plan and aligned with the TII Sustainability Implementation Plan, incorporating principles based on the UN SDGs and Irelands National Strategic Objectives. Key commitments include carbon reduction targets under PAS 2080, pursuit of Building Research Establishment Environmental Assessment Method (BREEAM) certification and the integration of social impact initiatives to enhance community relationships, workforce wellbeing and local economic inclusion.

Performance is assured through a three-lines-of-assurance model and monitored through Balanced Scorecard reporting, ensuring that sustainability and social value are embedded throughout design, construction and operations.

Commercial

The MetroLink Commercial Function is responsible for the procurement and commercial management of all MetroLink contracts and agreements. It provides strategic leadership and consistency across procurement, contracting, commercial assurance, and supply chain management, ensuring that all commercial activities are compliant, value-driven, and risk aware.

As outlined in Chapter 5: Packaging, Contracting and Procurement, the Commercial Strategy is designed to maximise VfM through the Programme lifecycle. It is structured around the principles of fairness, transparency, and sustainability, and is aligned with MetroLink's DNA of Benefits Acquisition Model and its Balanced Scorecard.

The procurement programme has moved from concept and initial planning into a mature, well-defined proposal with a clear scope, robust cost estimates, quantified risks and a defined delivery strategy, as noted below:

- Advance and Enabling Works (M100) work package will be delivered under a mix of frameworks and contracts using two contract forms; NEC4 ECC Forms of Contract (Options A, C, and E) and Public Works Contracts under the Capital Works Management Framework;
- Third Party Agreements (M300) will be delivered under bespoke agreements;
- The M400 series contracts, M401 Contract (Southern Section) and M402 Contract (Northern Section), covering the main civil engineering works for MetroLink, procured and delivered under NEC4 ECC Contract Option C Target Cost Contract with activity schedule;
- The M500 scope will be delivered via a DBFOM delivery model where a single partner is responsible for design and construction as well as finance, operations, maintenance and renewal. The M500 Service Delivery Partner will be contracted under a Project Agreement that follows the standard template for an Irish PPP contract.

The procurement and commercial activities:

- Comply with the relevant Irish and EU legislation and procurement rules;
- Align with MetroLink's Assurance Strategy, delegated authorities and internal policies;

- Embed the Balanced Scorecard priorities to deliver economic, environmental, and social value;
- Are fair, transparent, and justifiable;
- Maximise VfM and ethical standards.

The Commercial Function comprises six subfunctions:

- Commercial Policy and Assurance;
- Procurement Delivery;
- Procurement Operations;
- Supply Chain Management;
- Commercial and Contracts;
- Commercial Agreements.

Commercial Policy and Assurance

The Commercial Policy and Assurance subfunction provides strategic leadership across MetroLink's commercial activities, ensuring that procurement and contracting are governed by robust policies, assurance mechanisms, and compliance frameworks. It is responsible for developing the MetroLink Commercial Strategy and Commercial Policy, embedding the Balanced Scorecard, and overseeing assurance processes across all procurement packages, including:

- Functional commercial assurance (LoA1) of procurement documentation;
- Coordination of semi-independent assurance (LoA2);
- Oversight of responsible sourcing and sustainable procurement;
- Management of conflicts of interest and assurance panels (excluding LoA3).

Procurement Delivery

The Procurement Delivery subfunction is responsible for the end-to-end management of procurement activities across MetroLink. It ensures that procurement is strategically planned, executed, and aligned with the Programme's commercial principles and delivery milestones.

The Procurement Delivery subfunction is responsible for the development of procurement documentation and tender strategies, along with the coordination of market engagement and prequalification processes. It manages procurement timelines, approvals, and assurance reviews, and integrates principles from the Balanced Scorecard into procurement evaluation. The subfunction works closely with Delivery, Design and Engineering, PMO, and Legal teams to ensure scope alignment and compliance, while also considering procurement workload, bid capacity, and external market factors when making phasing and packaging decisions.

Procurement Operations

The Procurement Operations subfunction provides the systems, processes and assurance mechanisms required to ensure that procurement activities across MetroLink are consistent, transparent and compliant.

Key responsibilities of the Procurement Operations subfunction include:

- Management of e-Tendering and e-Evaluation platforms;
- Development and maintenance of standard procurement templates and guidance;
- Coordination of document production and technical authoring;
- Oversight of contract conformance and performance tracking;
- Support to procurement reporting and dashboard development.

Supply Chain Management

The Supply Chain Management subfunction is essential to the successful delivery of MetroLink, ensuring the Programme is underpinned by a supply chain that is capable, resilient, and sustainable.

This subfunction leads market engagement activities, including the preparation of consultation packs, questionnaires, and supplier events, and maintains the Programme's Supply Chain Map and Supplier Database. It produces Market Consultation Reports and Supply Chain Intelligence Bulletins and oversees supplier capability development and the formation of strategic partnerships. The subfunction also supports the implementation of the SME Strategy and the electronic brokerage platform and undertakes supplier performance monitoring as well as conflict identification and mitigation.

Commercial and Contracts

The Commercial and Contracts subfunction oversees the lifecycle performance and administration of all MetroLink's contracts.

Its responsibilities include commercial oversight, performance management, and the management of contract variations and change control. It leads claims management and dispute resolution processes, ensures contract compliance in collaborations with Delivery and PMO teams and manages contract closeout and final account activities. The subfunction also interfaces with legal advisors on complex contractual issues, monitors contractor obligations and deliverables, reports on commercial risk and performance, and manages supplier setup and onboarding.

Commercial Agreements

The Commercial Agreements subfunction leads the development and implementation of commercial elements of TPAs.

It is responsible for the development of MoUs and formal agreements, working closely with the Land and Property and Stakeholder Engagement teams to ensure alignment across functions. The team manages the interface between MetroLink contracts and TPAs, providing support to procurement and contract document processes so that third-party requirements are accurately captured. It oversees agreement updates, commercial negotiations, and the commercial inputs that inform third-party engagement strategies. The subfunction also works with legal advisors to ensure that agreements are compliant and fully assured, coordinates commercial terms for utility and local authority agreements, and supports contract administration teams in implementing and monitoring third-party obligations.

Digital

The Digital Function provides the integrated information and technology environment that underpins MetroLink's planning, delivery and operational readiness. It ensures that data, systems and integrations are governed, secure and aligned to programme needs through delivery and into operations. Digital enables an authoritative, trusted source of information for decision-making, compliance and handover, supporting all MetroLink functions. Its responsibilities include defining the digital strategy, managing the Common Data Environment, ensuring compliance with ISO 19650 standards, and delivering secure, interoperable systems that drive efficiency, collaboration and continuous improvement.

Health, Safety and Quality

The HSQ Function provides the governance and assurance framework that ensures that MetroLink is delivered safely, compliantly and to the highest standards of quality. It embeds robust HSQ principles across all programme phases, from planning and design through to construction and into operations, through the HSQ Management System aligned with ISO 45001 and ISO 9001. The function improvement across all delivery teams.

The Health & Safety subfunction provides strategic and operational leadership to ensure compliance with statutory obligations and to embed MetroLink's Target Zero culture, including the promotion of occupational health and wellbeing. The Quality & Document Control subfunction ensures that all deliverables meet contractual and regulatory requirements through a robust assurance framework. It manages audits, non-conformance processes, and maintains a secure, traceable information environment that supports effective governance and continuous improvement.

Operations, Sponsorship and People

The MetroLink Operations, Sponsorship and People Function provide strategic leadership across operations, sponsorship, delivery, fire and rescue, benefits and people services. It ensures programme-wide readiness for service, including the successful handover to the M500 Service Delivery Partner.

The function is comprised of seven specialist subfunctions with defined accountabilities, processes, and tools to support effective delivery and operational preparedness:

- Operations and Asset Management;
- Sponsorship;
- Programme Liaison;
- Strategic Fire and Rescue;
- Benefits Management;
- People Services;
- M500 Development and Oversight.

Operations and Asset Management

The Operations and Asset Management subfunction is responsible for ensuring that operational and maintenance requirements are fully defined and integrated into MetroLink's design and procurement processes. This includes supporting tender evaluations, responding to technical clarifications, and ensuring alignment with the concept of operations. The subfunction leads the development of the Operational Specification, Asset Management Strategy, Maintenance Strategy, and associated lifecycle and performance frameworks that will govern how MetroLink is operated, maintained, and renewed over its operational life. It works closely with the M400 and M500 Delivery teams, Design and Engineering (including Environmental, Sustainability, Procurement, and HSQ), PMO, Digital, Commercial, and Land and Property and Stakeholder Engagement functions.

Sponsorship

The Sponsorship subfunction is responsible for ensuring that all Sponsor Requirements are clearly articulated and fully reflected in downstream technical, operational, and contractual specifications. These requirements span sixteen headline categories, including capacity, connectivity, journey time, performance, whole life asset management, staffing, ticketing, accessibility, safety, sustainability, customer satisfaction, and skills capability. The function supports their transition to ongoing ownership of the business case within the MetroLink programme team by the Head of Sponsorship who will ensure alignment with the FBC.

Programme Liaison

The Programme Liaison subfunction is responsible for coordinating project-level interfaces to ensure that operational requirements, covering rolling stock, systems, signalling, and station assets, are fully embedded in the M400 and M500 scopes. This includes providing guidance on GoA4 operations, supporting integration between M400 and M500 packages, prioritising service patterns, timetabling, identifying interface risks, and coordinating readiness and handover planning. The subfunction ensures that design, delivery, and operational specifications remain aligned throughout the programme and that a customer-centric perspective is integrated into operational planning and future service provision.

Strategic Fire and Rescue

The Strategic Fire and Rescue subfunction ensures that all fire and rescue activities comply with relevant regulations, standards, and international best practice. It leads strategic engagement with Dublin Fire Brigade and international Fire & Rescue organisations and supports the development of evacuation and emergency planning for complex environments, including tunnels and viaducts. The subfunction provides specialist technical expertise on fire safety, emergency response, and risk mitigation, working closely with HSQ, Design, and Operations and Asset Management to identify, manage, and resolve fire related issues throughout design and delivery.

Benefits Management

The Benefits Management subfunction provides strategic leadership for benefits management. It leads the development of the Benefits Realisation Plan and the Monitoring and Evaluation Plan, which together provide the frameworks for capturing, monitoring, and managing the benefits set out in the DBC. Its responsibilities include ensuring alignment with the Balanced Scorecard, monitoring of programme outputs, coordinating the Benefits Realisation Working Group, and identifying and mitigating risks to benefits delivery. The subfunction also manages stakeholder engagement and supports compliance with the Infrastructure Guidelines, ensuring that lessons learned are captured and applied to inform long-term planning.

People Services

The People Services subfunction ensures that MetroLink attracts, supports, and retains a high performing, diverse, and engaged workforce throughout the Programme lifecycle. It provides leadership across onboarding and offboarding, workforce planning, employee experience, human resources coordination, Equality, Diversity and Inclusion, and organisational culture. Key responsibilities include implementation of onboarding and offboarding procedures, performance tracking, wellbeing initiatives, human resources compliance, and management of the Equality, Diversity and Inclusion strategy and governance.

M500 Development and Oversight

The M500 Development and Oversight subfunction leads the development of the M500 Contract Specification and acts as a key interface for the selection, mobilisation and ongoing engagement with the M500 Service Delivery Partner. It also plays a central role in testing, commissioning, and trial operations phases. The subfunction supports oversight of the M500 Service Delivery Partner's responsibilities for demonstrating infrastructure and rolling stock safety, obtaining necessary licences, and delivering against entry into service plans. During trial operations, it ensures the system is tested under normal, degraded, and emergency scenarios, verifies station operations and customer experience factors, and identifies refinements required prior to revenue service. The function also ensures full compliance with CRR requirements and validates that all processes, systems, and staffing arrangements are in place in advance of opening.

Communications

The Communications Function plays a central role in maintaining public trust, managing reputational risk, and supporting programme transparency across all phases of MetroLink. It ensures clear, consistent and accurate messaging across all internal and external channels and acts as a key enabler of public understanding, stakeholder confidence, and organisational alignment. The function shapes MetroLink's public narrative and leads the planning and execution of strategic communications activities. This includes proactively managing media engagement, coordinating responses to emerging issues, and mitigating reputational risk through the MetroLink Strategic Communications Plan, which provides the overarching framework for all communications, campaigns and messaging activity.

The function is accountable for strategic planning, media relations, internal communications, crisis management and brand governance, embedding protocols that align with programme objectives, statutory requirements and stakeholder expectations. The function is organised into specialist areas encompassing Strategic Communications, Internal Communications, social media and Digital, Public Relations and Crisis Communications, each providing focused expertise to ensure consistent, coordinated and effective communication across all channels.

Land and Property and Stakeholder Engagement

The Land and Property and Stakeholder Engagement Function is responsible for securing the property interests required to deliver MetroLink and for managing relationships with affected property owners, occupiers, statutory bodies, community groups, and other stakeholders. The Land and Property workstream oversees the compulsory acquisition of land, negotiation of settlements, the legal transfer of title, and the coordination of possession and handover to contractors. It operates within a statutory framework supported by robust policies and procedures to ensure legal compliance, transparency and alignment with programme requirements.

The function also plays a critical role in building trust and transparency, minimising disruption, and enabling timely access to land for construction and operations. Structured into specialist teams across Land and Property and Stakeholder Engagement, it manages the full property acquisition lifecycle, the coordination of legislative and statutory requirements, consents, and community engagement. It also supports the development of agreements and land value capture opportunities that help integrate MetroLink within the urban environment and maximise long-term public value.

Alongside these responsibilities, the function leads MetroLink's wider Stakeholder and Community Engagement Strategy, which is essential to securing the active support of government departments, local authorities, utilities, businesses, community groups, institutions, and the general public. Given the scale of works and the potential for disruption during delivery, the strategy focuses on maintaining timely, accurate, and consistent communication while fostering collaboration and maintaining confidence in the programme. It ensures that the MetroLink Directorate is regarded as a trusted and transparent source of information and that stakeholders remain engaged and informed throughout all phases of delivery. The approach places strong emphasis on social impact, minimising disruption, supporting inclusive access, enabling employment and training opportunities, and contributing to long-term community benefit and urban regeneration.

The governance arrangements for Land and Property provide that each property acquisition is managed through a standard acquisition lifecycle with clearly defined roles, approvals, and financial controls with operational delegations in place with oversight from the Head of Land and Property. The arrangements are designed to provide a structured control environment for acquisitions, with clear accountability, documented approval steps, formal financial authorisations, and legal oversight through to completion. The overall effect is that property acquisitions are managed through a consistent and controlled process appropriate to the scale and significance of the Programme.

A dedicated Stakeholder Engagement team, supported by Community Liaison Officers and Visitor Information Centres, manages local relationships and provides accessible channels for feedback and issue resolution. A suite of initiatives including cross-government engagement, detailed local construction impact plans, and programme-specific forums, enables continuous dialogue, coordinated decision-making, and proactive management of emerging issues across the lifecycle of the Programme.

Next Steps

"The commencement of the procurement process for MetroLink marks a significant step forward. We now have full planning, we're funded, and now that the procurement has started, this project is happening. It marks an important milestone in the MetroLink project, which is going to be transformational for the Dublin region, and indeed our country."

Darragh O'Brien T.D., Minister for Transport, Minister for Climate, Energy and Environment

MetroLink Programme Next Steps

Subject to the approval of the DBC, the Programme will continue to progress across a range of areas including procurement and land and property acquisitions, as outlined below:

Procurement

Further development of the design information packages in preparation for procurement will require the finalisation of contract and tender documentation prior to release. The release of documentation will initiate the competitive tender process.

The indicative dates for the M401, M402, and M500 contract procurements are outlined as follows:

	M401	M402	M500
Publish contract notice / PQQ	Q1 2026	Q1 2026	Q2/Q3 2026
Issue ITN	Q3/Q4 2026	Q4 2026/Q1 2027	Q3/Q4 2026
Tender returns	Q1/Q2 2027	Q2/Q3 2027	Q2/Q3 2027
Contract award (M401/2) Preferred tenderer appointment (M500)	Q3/Q4 2027	Q4 2027/Q1 2028	Q1/Q2 2028
Financial close	N/A	N/A	Q4 2028/Q1 2029

Table 9—1: Main Civils and M500 Contract Procurement Schedule as of Q1 2026

In line with the launch dates of the pre qualification phase - final timings subject to change

Railway Order Commitment Compliance

A review has been undertaken of the Operative Railway Order commitments to ensure compliance. Work is ongoing in Q2 2026 to incorporate these commitments into the tender design and documentation.

Operating and Renewals costs

An exercise is underway to update the Operating and Renewals Costs to reflect the latest operational requirements. Interim work has identified where costs have been removed, updated, or unchanged relative to the DBC estimate. This will be completed by Q3 2026.

Land and Property acquisitions

The Metrolink Railway Order became operative on 12 January 2026 and the Notice of Confirmation of a Railway Order including Compulsory Purchase Order was published in the national newspapers on 11 February 2026. As a statutory requirement, confirmation packs will be served on all interests identified in the Books of Reference before the end of Q1 2026. The formal commencement of the land acquisition process will occur in Q2 2026 with Notice(s) to Treat and Notice(s) of Entry being served on all relevant rights and interests in land necessary for the construction and operation of the project. TII is responsible for the service of statutory notices, and this function is being managed by Land & Property.

The service of notices will be on a phased basis over the course of 2026, within the 18-month maximum service period from the operative Railway Order date, with initial tranches addressing all surface/ ground level rights and interests and later tranches addressing substratum or below ground land rights as required for tunnel bored sections. Land assembly and preparation for land access arrangements will also commence with the objective of taking possession of land parcels in readiness for the various construction works packages.

Final arrangements for a new MetroLink head office and main visitor information centre move are underway with the intention of the premises being available for occupation during Q3 2026.

Programme Delivery Partner

The Programme Delivery Partner will be appointed in Q3 2026.

Project Execution Plan

The current version of the PEP sets out the MetroLink organisation for the procurement phase of the Programme.

The PEP will be developed as the organisation and operating model evolves, and further aspects of the Programme are finalised. The PEP evolution will reflect the roles and responsibilities of the Client and the contractors for the delivery of the contracts being procured, and their interfaces. This includes the integration of the Programme Delivery Partner who will become a key component of the Client model.

Benefits

Post DBC, MetroLink will continue to reconfirm the Programme's strategic alignment, objectives, benefits, and the logic path model. The evaluation of the appropriateness of MetroLink's objectives and benefits ensures that the Programme has a clear alignment between activities and benefits, which informs the appraisal scope and methodology.

There is also an opportunity to explore the monetisation of a wider range of benefits. The current scope of DBC benefits reflects the availability of data and evidence at the point in time where DBC was produced. Further assessment will be conducted for FBC to explore the potential to monetise and attribute benefits relating to land use and journey reliability. This should provide a more holistic view of the benefits of MetroLink, provided that a case can be robustly demonstrated.

Future Governance

Governance must evolve to remain effective, credible and fit for purpose. Reviews of the MetroLink Governance Framework will continue to take place as required to identify and implement required changes (including to delegated authorities), ensuring governance supports progress in line with the Programme schedule.

The DoT are leading on the implementation of the decision to introduce a Statutory Delivery Body, including the development of primary legislation, in partnership with TII and the NTA.

Business Case Milestones

Subject to the approval of the DBC, the MetroLink Programme will progress to the next stages of the Infrastructure Guidelines, TAF, and NTA Project Approval Guidelines.

NTA Gateway 5a (G5A)

The NTA Project Approval Guidelines requires G5A approval before ITN documents are issued for the key MetroLink contracts.

As part of the G5A Submission, the detailed design report and tender documents for the M400 Contracts and the M500 Contract will be submitted to NTA for review and approval. The other G5A artefacts (DBC, Procurement Strategy and PEP) are provided in this DBC submission.

Furthermore, as part of the G5A Submission, and in line with the Guidelines for the Use of Public Private Partnerships, a VfM test will be performed in relation to the M500 Contract. This test validates that the DBFOM represents VfM when compared to the cost of the works and services if delivered by traditional procurement (as represented by the PSB). Costs will be updated at a package level for use in the VfM test and the PSB. Note that in line with the guidelines, the M500 PSB will be completed ahead of tender issue for the M500 Contract.

Final Business Case

After approval of the DBC and G5A submissions, MetroLink will commence the competitive tender process, culminating in the selection of PTs. Once PTs have been confirmed, MetroLink will submit the FBC as part of the AG3 submission.

Both the Financial Appraisal and the Economic Appraisal will be updated for the FBC to incorporate actual tender costs and reflect the outcome of the procurement process. The appraisals will also account for revised risk allowances and adjusted timelines to reflect any changes in the Programme's risk and schedule. Furthermore, these appraisals will also comply with any updates to the NTA modelling suite, and the parameters laid out in the TAF.

Subject to FBC approval, MetroLink will then proceed to the delivery stage.

