Shetland Inter-Island Transport Connectivity Programme

Fetlar Public Drop-In

27th May 2026

Shetland Inter-Island Transport Connectivity Programme (1)

The Shetland Inter-Island Transport Connectivity Programme (IITCP) will set out a programme for **enhancing the connectivity of eight of Shetland's island communities**. It will explore:

The case for fixed links

The future of ferry services

These elements will combine into a **Network Strategy and Implementation Route Map**, providing a sequenced and costed programme for inter-island transport investments. The Network Strategy is being developed in two stages:

1

Strategic Outline Case

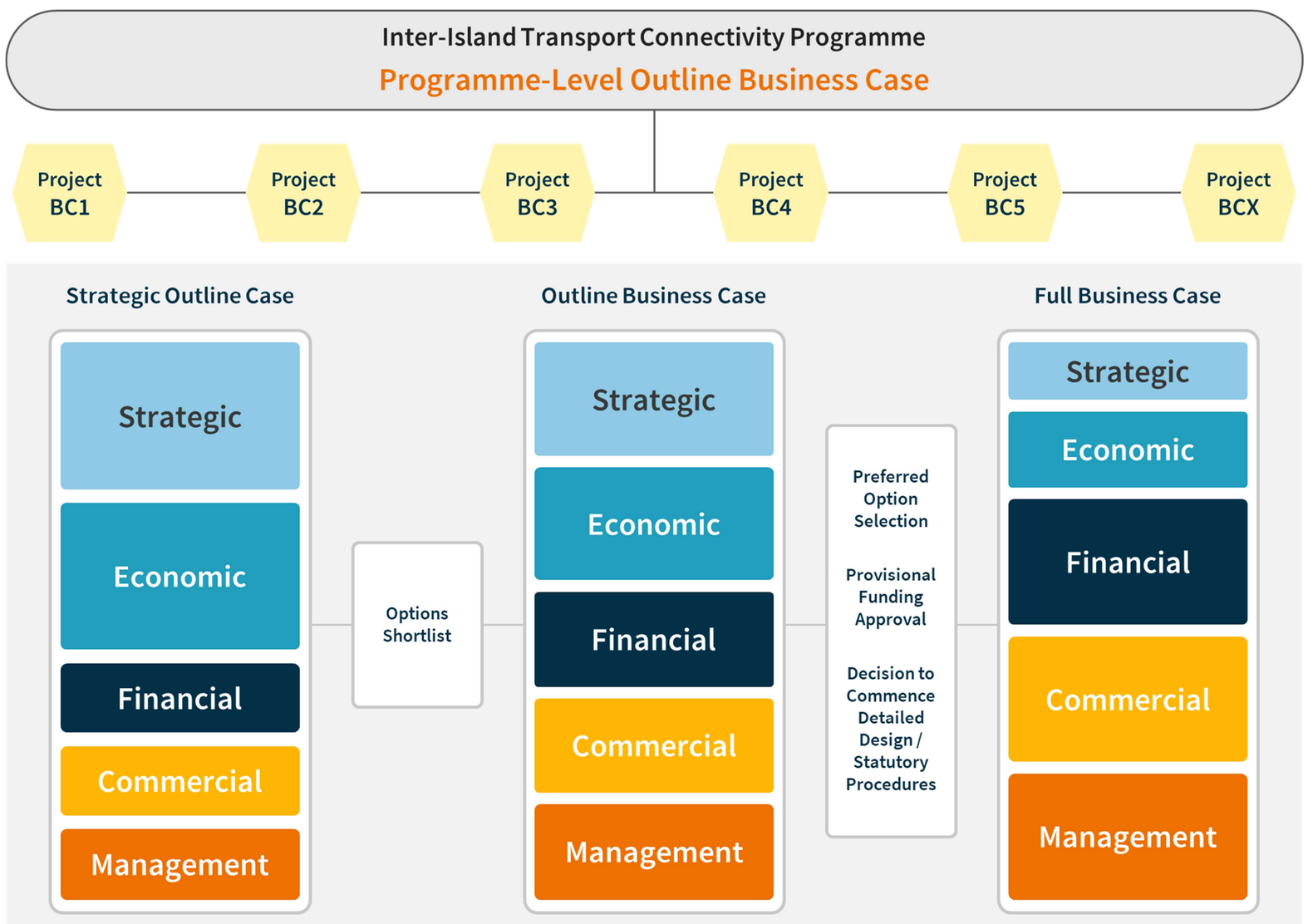
Approved in June 2025, the SOC established the case for investment, the spending objectives and the ferry, harbour and, where appropriate, fixed link options at an island level

2

Outline Business Case

Determines the preferred option for each island / route, providing a list of options for inclusion in the Implementation Route Map

- The IITCP study is a **programme-level business case** – i.e., it is focused on developing a network plan for the eight in-scope islands
- Any individual project emerging from the study – for example, a fixed link – would then be **subject to an individual project-level business case**
- A **programme-level business case** is higher-level and strategic, **setting out why coordinated change is needed**, providing the basis for a future project-level business case to work through how a specific solution is delivered



Shetland Inter-Island Transport Connectivity Programme (2)

The first set of IITCP public drop-in sessions took place in **March 2025**. At these events, we presented a **route and island profile for each community**, feedback from the **resident survey** and our understanding of the **transport problems faced on the route**.

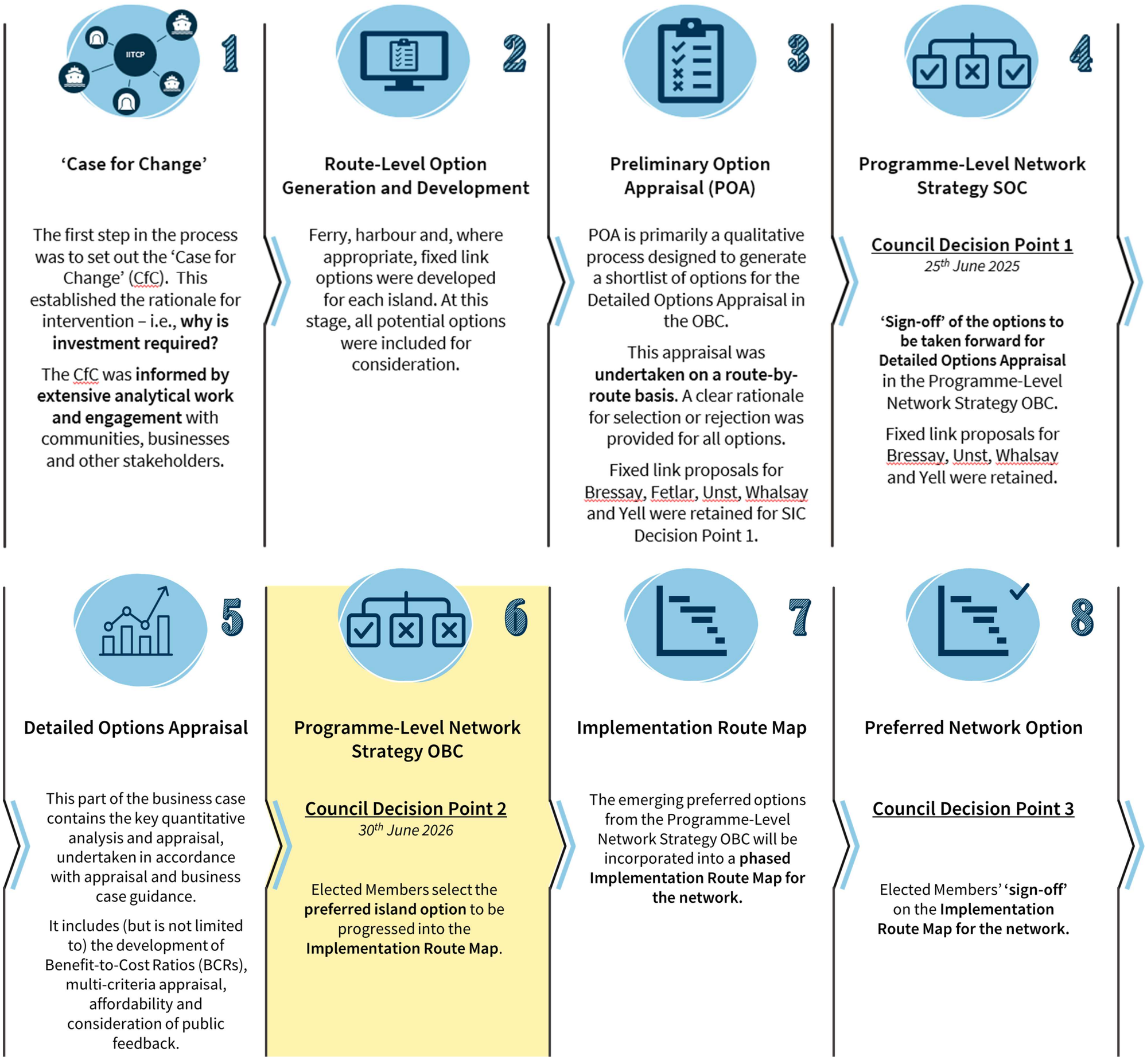
We used the information from this engagement to help inform:

1) The **'case for change'** (i.e., why investment is needed)
2) The **Transport Planning Objectives (TPOs) for the IITCP** – these are a statement of what the Council wants to achieve through any investment and reflect the problems identified by communities
3) The **generation of options** for each route

In the year since these events, the team has been **developing, appraising and costing the ferry and fixed link options**. The purpose of this set of drop-in sessions is to update communities on this work ahead of Shetland Islands Council Members being asked to select a preferred option for each route in June 2026. This will form the **Network Strategy Outline Business Case**

Members of the community are invited to view the material and discuss / ask questions of our team

Following the selection of a preferred option for each route, these options will be aggregated into a timed and prioritised **Implementation Route Map (IRM)**. The IRM will set out the sequencing of proposed investments over the short, medium and long-term



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Strategic Outline Case

The Strategic Outline Case

Any appraisal or business case is founded on developing a **Case for Change** – i.e., what is the rationale for investment?

The Case for Change is focused on evidencing the transport problems that need to be resolved

What is a transport problem? Transport problems can be thought of as one or more of:

- Something that **negatively affects a journey which is still made**
- Something that **stops people or goods travelling by (generally) more sustainable and policy friendly modes**
- Something that **stops people making the journeys they would like to make or goods being moved**

There are two components to this:

1

Network / operational problems, which in this context are the problems that the Council experiences in delivering the ferry and wider public transport services – i.e., the **supply-side** problems, which as of June 2025, were:

Cost

Operating costs have increased significantly in the last decade (**£15m** in 2015/16 and increasing to **£25m** for 2024/25)

Fleet Age

Average vessel age **31.5** years, with **six** vessels over **30**

Crewing

Attraction and retention is a challenge, with growing requirement for agency crew

Succession Planning

Crew are ageing - **50%** aged 46+ and only **9%** aged 16-25 – long-term succession planning risk, particularly for **island-based vessels**

Fleet Resilience

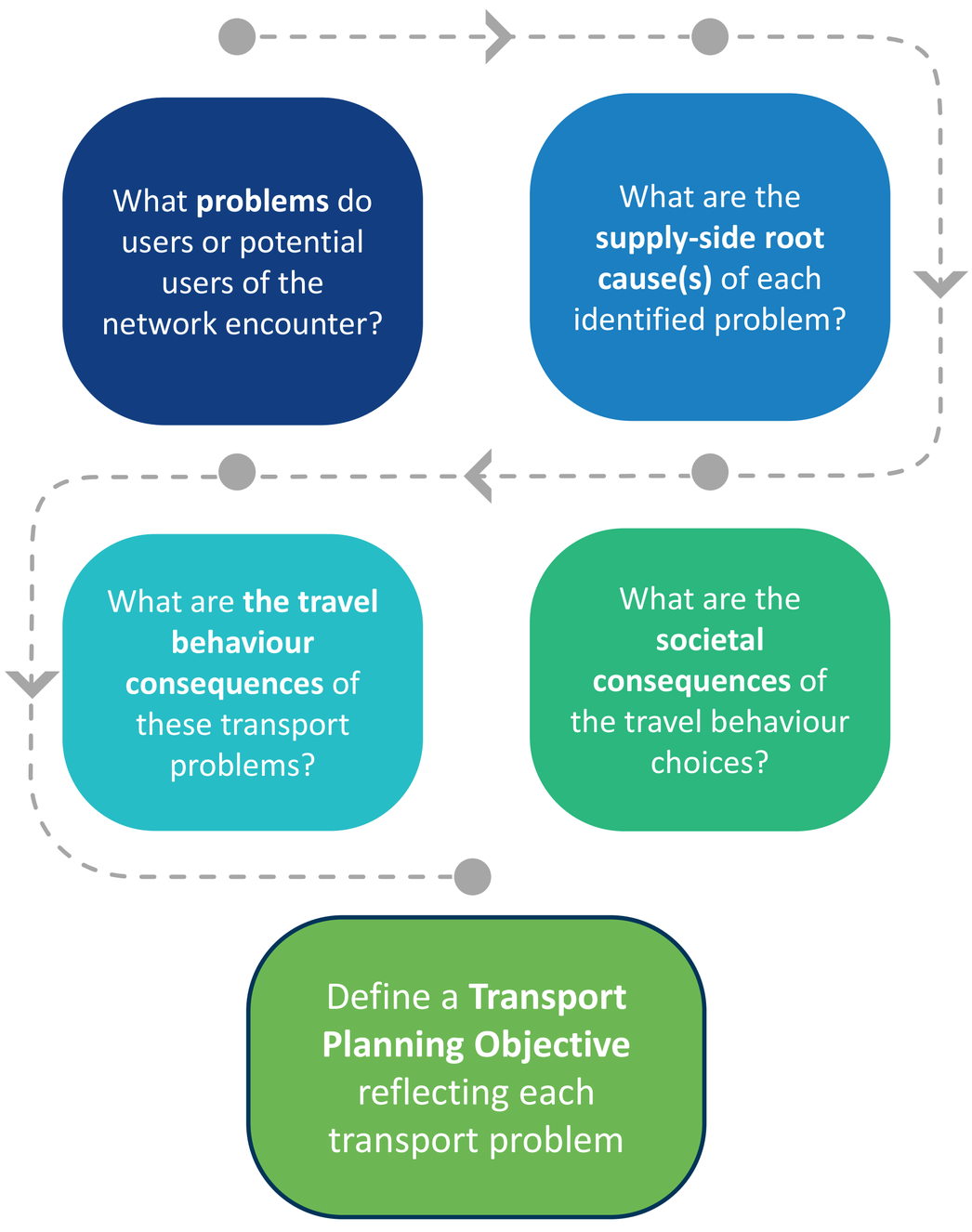
Ageing fleet with only one small spare vessel and certain vessels restricted to certain routes

Vehicle Deck Capacity

Problem on several routes, particularly Bluemull Sound and Whalsay

2

Problems experienced by a **user or potential user of the transport network** – i.e., the **demand side**. These were defined using a systematic **Transport Problems Framework** (and are presented in the next board for **Fetlar**):



What are the transport problems in Fetlar?

Problem Theme	Step 1: Problem(s)	Step 2: Supply-side cause(s)
Concern over environmental impact of travel	❖ Greenhouse gas emissions from vessels	❖ MV *Bigga* and MV *Geira* are both conventional diesel vessels
Cost of travel and affordability	❖ The level of fares was a source of dissatisfaction in the resident survey	❖ High-frequency of travel means that the cost of travel can account for a high proportion of income
Integration of travel between modes – ferry-to-bus	❖ Majority of ferries do not connect with a bus at Gutcher or Belmont – this is a particular issue for journeys to Lerwick given the need to connect with the Yell Sound ferry and then travelling onwards from Toft	❖ Limited and fragmented bus network ❖ High cost of bus service provision relative to demand ❖ Available buses generally focused on the higher volume Gutcher – Belmont route leg
Journey times	❖ Extended journey times for indirect sailings. This is a particular issue in the 'to Fetlar' direction, where most sailings route via Unst	❖ Requirement for two vessels to serve three islands – this is a particular issue when travelling to Fetlar as the majority of sailings are indirect
Personal accessibility	❖ Physical accessibility to the passenger lounge on MV *Bigga* and MV *Geira*	❖ Passenger lounge on both MV *Bigga* and MV *Geira* is below the waterline and only accessible by steep stairs
Booking and journey planning	❖ Most Fetlar residents have to book sailings when taking a car – may not be able to get booking on preferred sailing and general 'hassle factor'	❖ High vehicle deck utilisation on some indirect sailings (either via Gutcher / Belmont or where the ferry has called at Gutcher / Belmont first)
Capacity	❖ Inability to secure a place on the ferry, either unable to get a booking or travel on demand when unbooked	❖ Insufficient vehicle deck capacity at peak times ❖ Little alternative to taking the car given the very limited bus service and poor connections for Fetlar in particular
Service reliability	❖ Cancellations were highlighted as a major source of dissatisfaction in the resident survey	❖ Ageing vessels more prone to breakdown and, more recently, the new requirement to lash vehicles on the Gutcher – Belmont leg ❖ Crew numbers / availability
Timetables	❖ Some relatively long gaps in the timetable during the day ❖ One vessel service on a Sunday and during refit ❖ One vessel service on a Monday afternoon ❖ Recent disruptions to timetable ❖ Connections with first and last flights from Sumburgh ❖ One vessel service on Yell Sound during refit	❖ Limited resilience in the fleet to cover refit ❖ Cost and crewing implications of operating the second vessel on a Sunday ❖ Monday late morning / early afternoon used for drills and maintenance

Setting the Transport Planning Objectives

What is a Transport Planning Objective (TPO)?

» The Scottish Transport Appraisal Guidance (STAG) states that: *"The objective must express the change sought in the study area without indicating potential solutions"*

» The TPOs are focused on **addressing the transport problems identified in the Case for Change**

» Problems were identified at a route level and aggregated on the basis of setting network-wide TPOs

This was primarily done using the **resident survey**, supported by **wider community inputs and secondary data**

Survey respondents were asked about their **level of satisfaction / dissatisfaction with 38 aspects of the ferry service**

Around **one-third of island residents** and **38% of mainland residents** said ferry service issues limited their travel. They were then asked how much **20 specific aspects of the service** contributed to this barrier to travel

To provide some sense of scale, survey responses with respect to **dissatisfaction** and **barriers to travel** were **grouped into themes and ranked**, which is shown in the table below

The themes in the table below were used as the basis of setting the Transport Planning Objectives

TPO Theme	Dissatisfaction Rank		Barrier to Travel Rank	
	Rank (Island Residents)	Rank (Mainland Residents)	Rank (Island Residents)	Rank (Mainland Residents)
Accessibility	7	7	6	4
Capacity	3	3	1=	2
Cost	2	5	5	4
Journey times	9	9	NA	NA
Limited, fixed times of travel, within operating day	6	2	3	3
Operating day restriction	5	8	4	7
Other	8	6	8	8
Poor non-car travel options	4	4	7	6
Resilience	1	1	1=	1

A rank of 1 shows the highest level of dissatisfaction / barrier to travel against any given TPO theme

IITCP Transport Planning Objectives

The Transport Planning Objectives are ordered in terms of their significance as a barrier to travel and have been used to appraise the options

TPO1

Reduce or remove **variances from the regular published timetable**

TPO2

Reduce or remove the **capacity** barrier associated with ferry travel

TPO3

Improve the **flexibility of travel** within the operating day

TPO4

Reduce or remove the **cost** barrier associated with ferry travel

TPO5

Make inter-island travel fully **accessible** to all

TPO6

Improve travel options beyond the current **operating day**

TPO7

Improve provision for those **not** travelling or who would **prefer not to travel by car**

Option Development and Packaging

For each route, there are **multiple potential capital and revenue options**:

» The options are **intended to reflect the problems identified** and thus contribute towards delivering the TPOs

» As this is a **programme level business case** and, to ensure a **manageable and distinguishable set of options** for appraisal purposes, **individual options were combined into option packages in the Strategic Outline Case**. **It is these packages that have been developed and assessed in the Network Strategy OBC**

» Option packages provide increments in service **from the 'business-as-usual' through to a 'Ferry Do Max' and fixed link**, as defined in the table below

» Further **option development and disaggregation** will be required in any subsequent **project level business case**

» The SOC concluded that incremental ferry improvements ('Do Something and 'Do Max') should be progressed for **Fetlar**, but a fixed link to Yell was excluded from further consideration based on poor value for money. The **business-as-usual was excluded from further consideration**, as larger vessels will be required on Bluemull Sound

Option Package	In-Scope Islands	Description
Business-as-usual	**All**	The Business as Usual is focused on **operating services as per the published timetable**, addressing recent resilience issues and the **disruption caused by refit periods**. It assumes **replacement of vessels at the point of life expiry** with vessels of a broadly like-for-like vehicle carrying capacity (although such vessels will be physically larger, reflecting modern design requirements).
Ferry 'Do Something'	**All**	This option package involves **addressing current route priorities using the current assets, supplemented by revenue measures**. It does however include asset replacement ahead of life expiry where there is a clear justification for this, capacity problems for example.
Ferry 'Do Maximum' (Do Max)	**Bressay, Fetlar, Unst, Whalsay and Yell**	The 'Do Max' represents a **realistic maximum level of connectivity that can be achieved through significant increases in revenue and capital funding**. It expands the Ferry Do Something to deliver service levels broadly equivalent to Western Ferries in the Firth of Clyde and would reduce other barriers to travel (e.g., provision for 24-hour sailings, reduced fares etc). This has only been considered for a subset of islands, both as a comparator to a fixed link and also to reflect the high-volume and high-frequency routes on the network at present.
Fixed Link	**Bressay, Unst, Whalsay and Yell**	Fixed link options have been developed for the four listed islands. Within these options, there are potential variants around tolling and public transport provision through the fixed link.

Vessel Typologies

Typology	Class	Indicative Length Overall	Indicative Car Capacity	Single or Double-Ended
Bespoke	Workboat	Max. 24m	1	Not roll through
Fair Isle Class	Workboat	Max. 24m	4	Not roll through
Type 1	Euro B	33m	14-15	Single
Type 2	Euro B	45m	22-24	Double
Type 3	Euro B	65m	31	Double

While vessel design is only being considered at a high level in the IITCP, it is essential in network planning that there is **a clear strategy with respect to vessel replacement**

» IITCP supports **greater standardisation of the fleet**, while recognising that certain islands will always require bespoke solutions that meet their needs (or slight adaptations of standard vessel types)

» A working typology consisting of **five indicative vessel types** has been developed and applied in the option packages

Network Strategy Outline Business Case - Fetlar

Outline Business Case: Approach to Option Development

What is the purpose of the Detailed Options Appraisal process in the Outline Business Case (OBC)?

» The purpose of this exercise is to take the options emerging from the SOC, develop them, appraise them and provide the evidence for Council Members to select **a preferred option package for each route / island**

» The options are a **proof of concept**, but have been subject to an **assessment of deliverability** with respect to e.g., crewing etc. Detailed work on this would be required in a **subsequent project-level business case**

» The **Ferry Do Something** and **Ferry Do Max** include options to **reduce fares for residents and make them free, respectively**. Fares are however a complex network-wide issue for which any significant change would merit a study in its own right, covering: the basis of the tariff; the level at which it is set; discounts; surcharges; and implications for capacity based on the demand response. **The reduction in fares is therefore treated as an in-principle option only and is not explicitly costed or modelled**

» The **Ferry Do Something, Ferry Do Max and Fixed Link** (Unst – Yell only, but with implications for Fetlar) options all include proposed improvements to **bus services**. These options are described in narrative only at this stage. There are however a range of cost and deliverability considerations (e.g., vehicle and driver availability) which would need to be worked through in any project level business case

» The arrangements for booking sailings, including request sailings, as well as arrangements when services are cancelled was identified as a barrier to travel in the resident survey. **Whilst there was value in highlighting this, it is a network-wide operational matter and thus has not been considered in detail in this study**

» The Business-as-Usual harbour drawings are not shown in the following boards as it is a continuation of the present-day situation

Option Costing

Vessels

- Indicative costs have been developed for each vessel type based on **recent procurement experience and engagement with a naval architect**
- A relatively short-term replacement of the fleet is assumed
- Vessels are thereafter **assumed to be replaced every 30-years**
- Maintenance costs are assumed to be covered in day-to-day spending, but an allocation has been made for **major refit costs**, including **for conversion to zero emission fuels**

Ferry Terminals

- Assumed that **wholesale replacement of every terminal** will be **required at least once in a 60-year period**
- Costs included for **cyclical maintenance over terminal lifespan**
- Ferry Do Something and Ferry Do Max include incremental costs to reflect option requirements

Revenue Measures

- Based on increments in crew requirements and additional sailings in each of the Do Something and Do Max

In accordance with H.M. Treasury and Transport Scotland guidance, a **60-year appraisal horizon** is being used – that is, the costs and benefits are considered over a 60-year period.

Recognising the long-life of tunnels (for Unst to Yell in the Bluemull Sound context), a sensitivity based on a **100-year appraisal horizon** has also been undertaken:

» This seeks to understand **whether considering costs and benefits over a longer period would change the respective value for money of options**

Outline Business Case: Bluemull Sound Options

Ferry Do Something

Vessels	Two Type 2 vessels to replace MV *Bigga* and MV *Geira*
Required infrastructure	Significant works at Belmont and Gutcher to replace the existing berthing structures, extend and realign the breakwaters and dredge to accommodate Type 2 vessels.
Service	▪ Two vessel timetable 06:55 to 22:05 Mon-Sat and 06:15 to 17:50 Sunday ▪ Early request sailings for Gutcher and Belmont, Monday to Saturday (depart Gutcher 05:00 and 05:35) ▪ Drills and maintenance on a Sunday subject to contractor availability

» Major asset replacement and scaling-up to **Type 2** vessels

» **Two-vessel operation seven-days a week**, with extended two-vessel operation **Monday to Saturday**

» Drills and maintenance moved to a **Sunday**, subject to contractor availability

The table below shows the **indicative change in the number sailings in the Ferry Do Something** relative to **Business as Usual**:

	Monday	Tuesday to Saturday	Sunday	Monday	Tuesday to Saturday	Sunday
	Gutcher - Belmont			***Hamars Ness – Gutcher / Belmont***		
Business as Usual (BaU)	26	28	15	8	11	5
Ferry Do Something	32	32	26	14	14	8
Do Something v BaU	**+6**	**+4**	**+11**	**+6**	**+3**	**+3**

Outline Business Case: Bluemull Sound Options

Ferry Do Something

Ferry Do Something: Gutcher

Ferry Do Something: Belmont

Ferry Do Something: Hamars Ness

Outline Business Case: Bluemull Sound Options

Ferry Do Max

Vessels	▪ Two Type 3 vessels for **Gutcher – Belmont** ▪ One Type 1 vessel for **Hamars Ness – Gutcher / Belmont**
Required infrastructure	▪ Major works at **Gutcher** including a new breakwater, pier and land reclamation for marshalling to accommodate a Type 3 vessel ▪ Similarly extensive works at **Belmont** including a breakwater extension, new pier and land reclamation for marshalling ▪ Minimal works at **Hamars Ness**
Service	▪ Half hourly direct **Gutcher - Belmont** service Mon-Sat ▪ Hourly **Hamars Ness** departures 06:40-23:35 Mon-Sat ▪ Hourly **overnight Gutcher – Belmont** service Mon-Sat ▪ Same timetables on Sunday except no overnight service and break for drills and maintenance for each vessel

» Major **scaling up of the service** across all route legs

» Significant **increase in asset provision**, moving to a **three-vessel service**, including deployment of **two Type 3 vessels**, equivalent to MV *Dagalien* and MV *Daggri*. Extensive works at Gutcher and Belmont

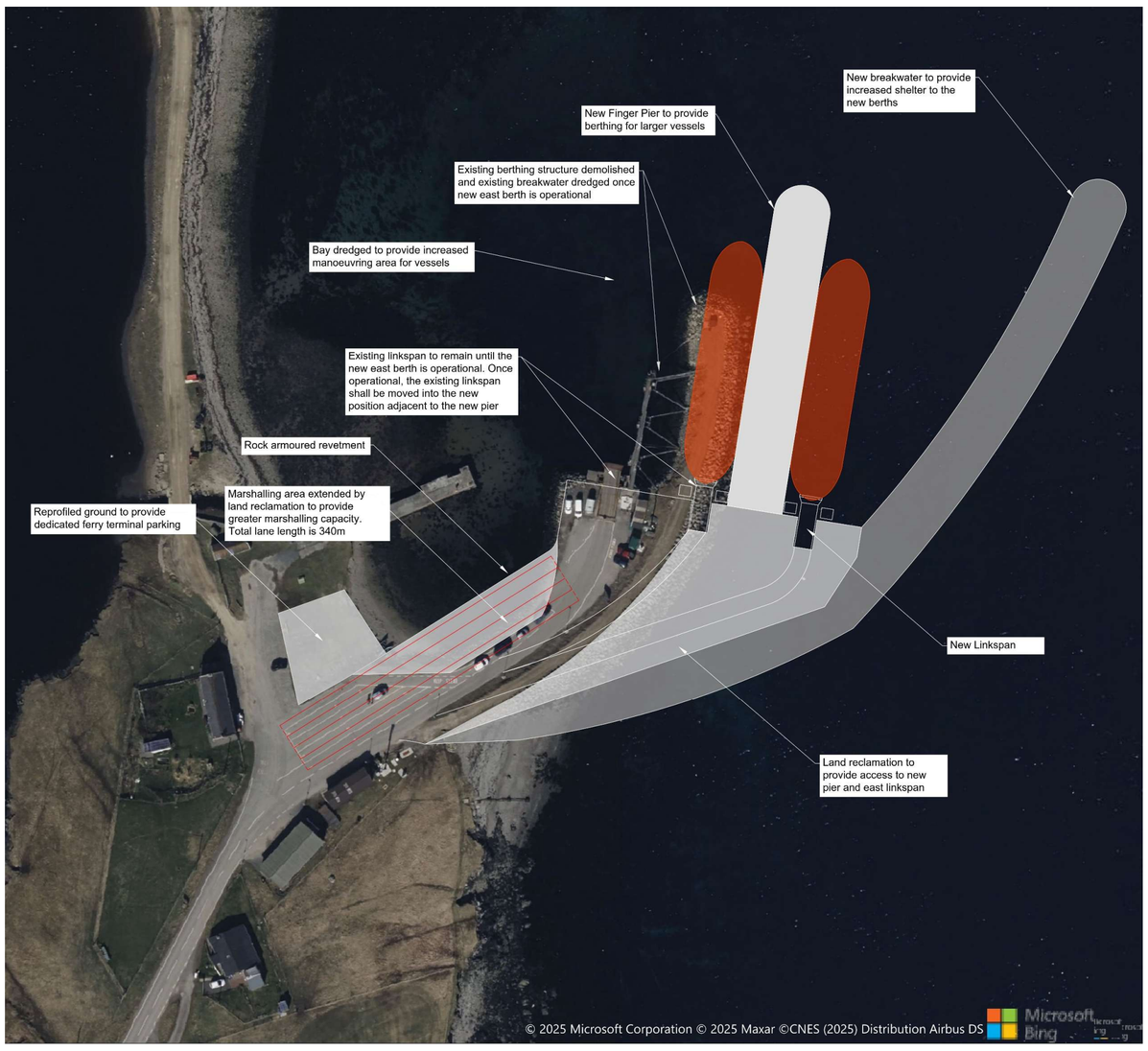
The table below shows the **indicative change in the number sailings in the Ferry Do Max** relative to **Business as Usual**:

	Gutcher - Belmont			***Hamars Ness – Gutcher / Belmont***		
	Monday	**Tuesday to Saturday**	**Sunday**	**Monday**	**Tuesday to Saturday**	**Sunday**
Business as Usual (BaU)	26	28	15	8	11	5
Ferry Do Max	40	40	32	16	16	13
Do Max v BaU	**+14**	**+12**	**+17**	**+8**	**+5**	**+8**

Outline Business Case: Bluemull Sound Options

Ferry Do Max

Ferry Do Max: Gutcher



Ferry Do Max: Belmont

Ferry Do Max: Hamars Ness

Outline Business Case: Bluemull Sound Options

Unst to Yell Fixed Link, and Fetlar Ferry Service

Alignment

» Connects the northern end of Yell to landfall point on Unst located to the south-west of the existing main road network

» The route curves north-east towards the Bluemull Sound crossing, before passing beneath the channel and rising to meet the existing road corridor on Unst

Technical Specification

» 5.3km long forming part of a 6.0km road corridor including the tunnel and its approach junctions

» Two-lane tunnel enabling safe bi-directional travel

» Design speed of 40 mph

What is the Fixed Link Model (FLM)?

An ongoing challenge in assessing the case for fixed links in Shetland has been a lack of knowledge around:

- What could the design for a subsea tunnel look like?
- Are there **contractors who would be interested** in building a tunnel in Shetland? If yes…
  - ✓ *What **delivery models** could the Council adopt?*
  - ✓ *What is the **price** and **risk level**?*
  - ✓ *How would it be **paid for**?*

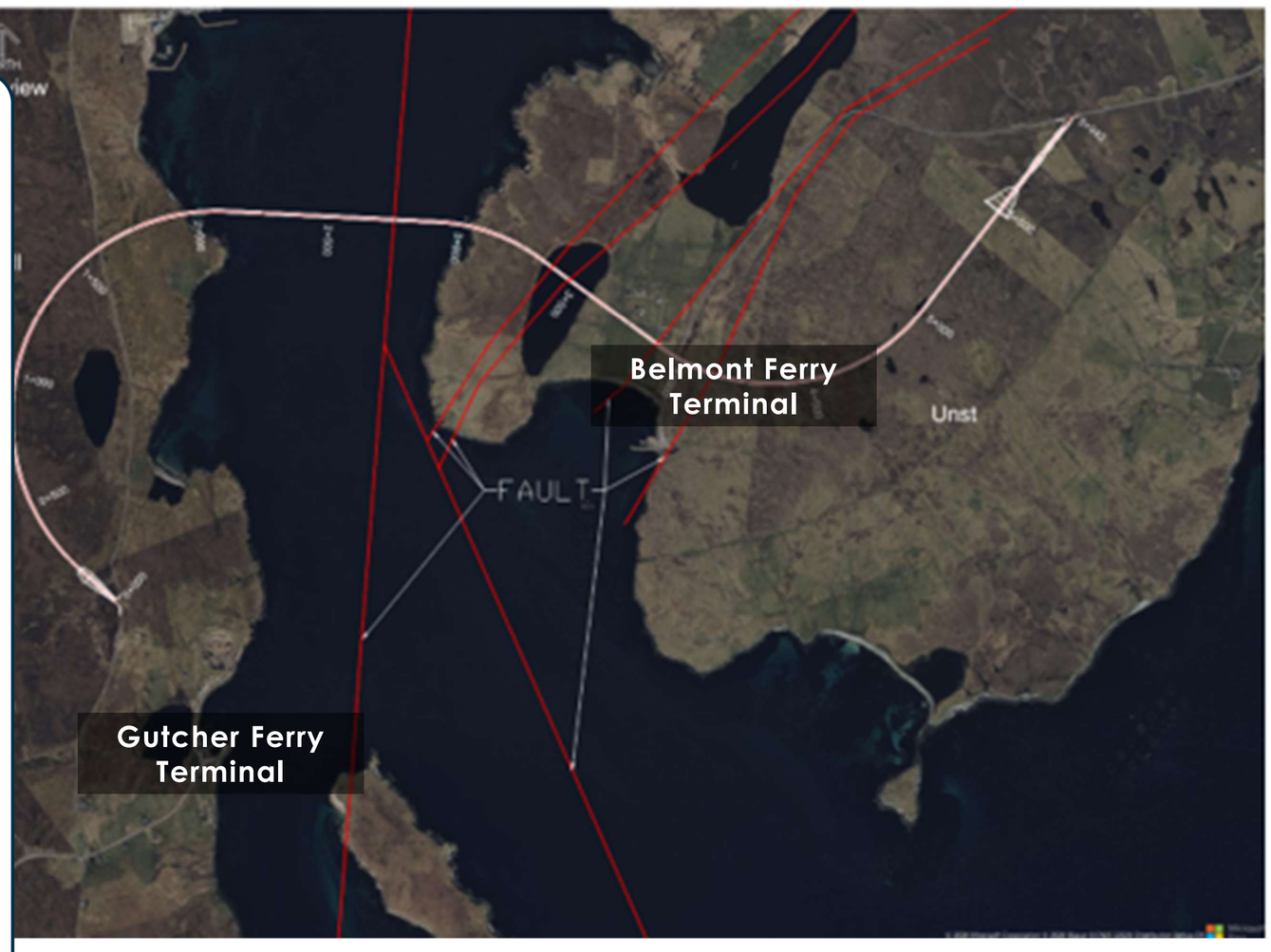
This lack of knowledge has historically made it difficult to compare tunnels and ferries on a like-for-like basis in appraisal exercises

The FLM sought to answer these questions through contractor and financial market engagement, using a tunnel between **mainland Shetland and Yell** as a **test case**

This **does not imply that a tunnel to Yell should be the preferred option**, nor that it would be the first priority if multiple tunnel options are selected. However, the study provided essential insights into how one or more tunnels could be delivered in Shetland, and this knowledge has been applied across all candidate fixed link islands

The FLM concluded that subsea tunnels across the Shetland islands are **technically feasible** using established drill-and-blast methods

Engineering feasibility is not the primary barrier to delivery. The **key constraint is funding**, not technical capability or contractors' interest



Unst –Yell: Potential Fixed Link Alignment

Fetlar Ferry Service

» Following the completion of an Unst - Yell fixed link, **Fetlar would continue to be served by a dedicated Type 1 vessel**

» It is assumed in this business case that the service would **continue to operate to both Belmont and Gutcher**, but this would be revisited in more detail in a project level business case

» The provision of a **dedicated vessel for Fetlar** would provide the community with **greater flexibility**, removing the need for a compromise timetable across the two islands

How is a preferred option selected?

Transport appraisal is the process by which the best value for money option for society overall is defined. There is variant appraisal guidance throughout the world and indeed in the UK – e.g., **Scottish Transport Appraisal Guidance (STAG)**, UK Transport Analysis Guidance (TAG), Welsh Transport Appraisal Guidance (WelTAG) etc

There are however several principles of appraisal that hold across most guidance documents:

» It is **multi-criteria** – i.e., it considers an option from a range of different perspectives – in **STAG**, these are:

Physical Environment

Climate Change

Health, Safety and Wellbeing

Economy

Equality and Accessibility

Fit with Policy

Feasibility, Affordability and Public Acceptability

» It should be **applied proportionately**, focusing on the main areas of differentiation between options

- ❖ No criterion is more important than another and scores should not be weighted

» It should combine **quantitative and qualitative approaches**

» Crucially, **appraisal is not intended to formulaically define the 'answer'**, rather its purpose is to objectively define the advantages and disadvantages of different options

- ❖ It is predicated on the maxim that *"Advisors advise, Ministers [Members] decide"*

The boards which follow show the **appraisal of the Bluemull Sound options** (with a focus on **Fetlar** in these boards) with respect to the **Transport Planning Objectives for the IITCP** and the **STAG criteria** listed above

This is preceded by a description of the **option economics**, which are an H.M. Treasury and Transport Scotland **required standard part of any business case** and are presented as a cost-benefit analysis

Option economics – How are costs presented in a business case?

"Would it not be cheaper in the long-term to pay the upfront costs of a tunnel rather than the ongoing costs of ferry operations, including the replacement of vessels and infrastructure?"

This is the **most frequently asked question** when comparing ferries and fixed links:

» The underpinning logic is based on an **arithmetical approach of summing costs over time**, without adjusting for **when these costs occur**

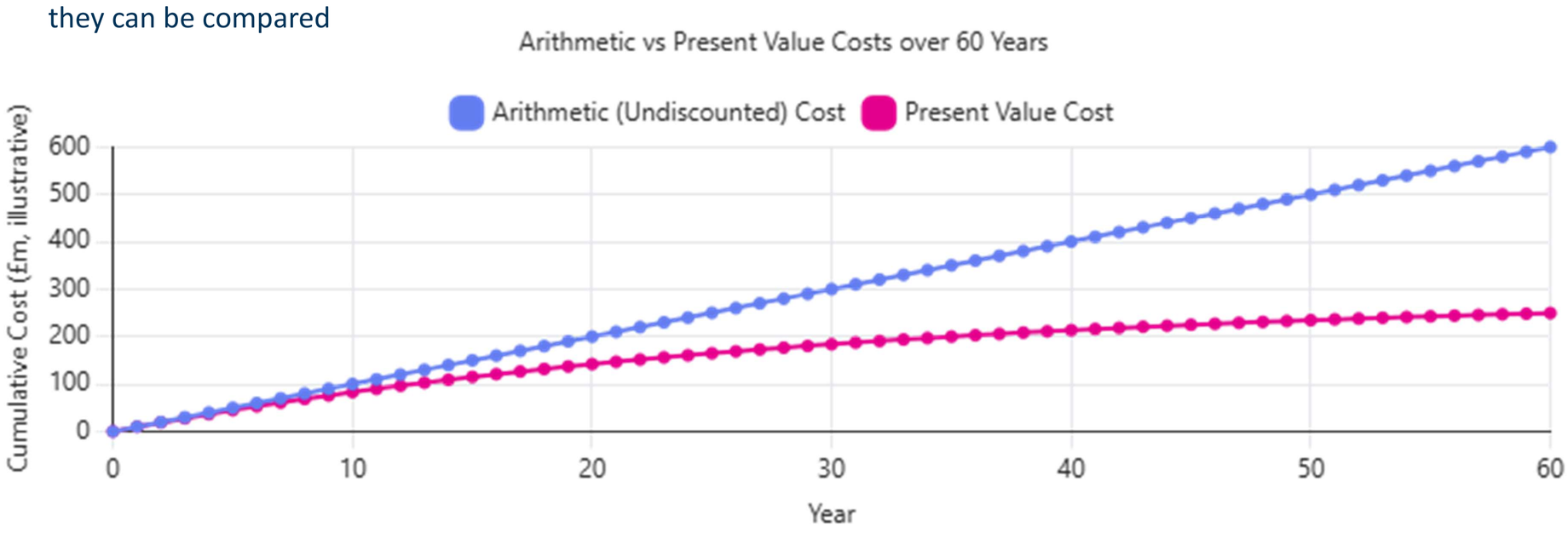
» However, in a business case, transport infrastructure schemes are **long-term and inter-generational investments** for which benefits and costs accrue over different time periods – for example, the **cost of a tunnel would be up-front** and, once spent, would not be required again whereas **ferries would need to be replaced every 30-years and harbour infrastructure every 60-years**

» Appraisal addresses this temporal issue through converting all future costs and benefits **into today's value (known as present value)** so that they can be compared

» The principle here is that **the further into the future a benefit or cost occurs, the less weight it carries today (i.e., the lower its present value)**. In the context of IITCP, the cost of future ferry replacements at e.g., year-30, year-60 etc will be progressively discounted as they are future costs – i.e., their present value will be less

» **The figure below provides an illustration of the difference between arithmetic (undiscounted) costs and present value (discounted) costs and why this matters.** Example is based on a spend of £10 million per annum over 60-years and a discount rate of 3.5%

» The adoption of this approach is **mandated in the guidance**



Arithmetic (undiscounted) cost = £600 million (i.e., £10 million x 60 years)

Present value (discounted) cost = £250 million

Ferry Option Costs

Mott MacDonald generated capital cost estimates for all ferry options for 2026 to 2095. These include refurbishment and replacement of infrastructure at end of life

Stantec estimated annual operating costs from SIC accounts

Fixed Link Costs

COWI provided an estimate of pre-construction and construction costs for in-scope fixed links, as well as an estimate of day-to-day operating and maintenance costs

Costs do not include major refurbishment and renewal of infrastructure

Option	2025 Costs, summed over 60 years *Cash / arithmetic costs summed over 60 years for capital and Operations & Maintenance (O&M)*		Present Value of Costs (60 years)
	Capital Costs	Gross Operating & Maintenance	
Bluemull Sound Business as Usual	£230.3m	£247.8m	£280.0m
Bluemull Sound Ferry Do Something	£291.5m	£291.7m	£347.7m
Bluemull Sound Ferry Do Max	£530.7m	£441.7m	£622.5m
Bluemull Sound Fixed Link (including Fetlar ferry)	£283.0m	£72.0m	£454.9m

Option Economics - Cost Benefit Analysis

Cost-Benefit Analysis (CBA) is a framework for assessing whether a public intervention delivers net benefits to society by comparing all monetisable costs and benefits over time

Origins of CBA

- Traditionally an important metric in decision making
- Origins in transport as it recognises that public investment in infrastructure can deliver a wide range of non-market benefits (i.e., economic and social benefits)

Uses of CBA

- Justifies public investment where there is a public good that the 'market' may not otherwise pursue
- Important in transport where benefits tend to be user-based (e.g., time, reliability, safety, comfort etc)
- Has formed the basis of large public works schemes

Key Output of CBA: Benefit-Cost Ratio – this is a single metric showing how benefits and costs compare, which can be used for transparent comparison and prioritisation between options.

CBA is a tool and a construct designed to support good decision making – it is only one metric and is categorically not a substitute for judgement and, when used in this way, can lead to wrong decisions being made

» The table below shows the **BCR** for the different **Yell** options. The BCR is the ratio of the **Present Value of Benefits (PVB) to the Present Value of Costs (PVC)**. **NPV** is the **Net Present** Value, i.e., the difference between the PVB and the PVC)

» The PVC shows: the PVC of the in-scope option (i.e., Do Something, Do Max, Fixed Link); minus the PVC of the Business as Usual, as this is spend which would be required regardless without an intervention

» To reflect uncertainty, appraisal **includes sensitivity tests to show how results are affected by different assumptions**. Four sensitivity tests in addition to the core scenario have been included:

ST1: Reduced **optimism bias** (an uplift to base costs included to account for uncertainty) for the tunnel option to **23%** for road upgrades (down from **46%**) and **32%** all other works (down from **55%)**

ST2: A different weighting has been applied to the value of the **time spent waiting in a car for a ferry**

ST3: Optimism bias of **38%** has been **applied to the cost of new ferries** (the guidance recommends it is not applied to ferries)

ST4: The options have been **appraised over 100-years rather than 60-years**, to reflect the long-life of a tunnel

Scenario	Scheme	PVB (£000s)	PVC (£000s)	NPV (£000s)	BCR
Core	Ferry Do Something	3,016	67,695	-64,679	0.0
	Ferry Do Max	9,960	342,520	-332,560	0.0
	Fixed Link	47,842	174,974	-127,132	0.3
ST1	Ferry Do Something				
	Ferry Do Max				
	Fixed Link	47,842	110,095	-62,253	0.4
ST2	Ferry Do Something	2,377	67,695	-65,318	0.0
	Ferry Do Max	8,213	342,521	-334,308	0.0
	Fixed Link	34,273	174,980	-140,707	0.2
ST3	Ferry Do Something	3,016	79,100	-76,084	0.0
	Ferry Do Max	9,960	379,498	-369,538	0.0
	Fixed Link	47,842	146,199	-98,357	0.3
ST4	Ferry Do Something	4,122	73,658	-69,536	0.1
	Ferry Do Max	13,609	377,500	-363,891	0.0
	Fixed Link	65,592	109,229	-43,637	0.6

» The BCR of all of the options in all scenarios is **less than one** (i.e., costs exceed benefits)

» A **fixed link (between Unst and Yell) offers the highest BCR in all scenarios**, although still less than one, even in the 100-year appraisal scenario test

» The **Ferry Do Something and Ferry Do Max perform extremely poorly in terms of value for money**. This is because of the scale of the investment required on vessels, Belmont and Gutcher relative to the BaU

Outline Business Case: Options Appraisal

Options Appraisal: Transport Planning Objectives

✓✓✓ Major positive ✓ Slight positive XXX Major negative X Slight negative

✓✓ Moderate positive 0 Neutral XX Moderate negative

TPO	Description	Ferry Do Something	Ferry Do Max	Fixed Link
1	Reduce of remove **variances from the regular published timetable**	✓	✓✓	✓✓✓
2	Reduce or remove the **capacity** barrier associated with ferry travel	✓	✓✓	✓✓✓
3	Improve the **flexibility of travel** within the operating day	✓	✓✓	✓✓✓
4	Reduce of remove the **cost** barrier associated with ferry travel	✓	✓✓✓	✓✓
5	Make inter-island travel fully accessible to all	✓✓	✓✓	✓✓✓
6	Improve travel options beyond the current **operating day**	✓	✓✓	✓✓✓
7	Improve provision for those **not travelling by car** / who would **prefer not to travel by car**	✓	✓✓	✓✓

The appraisal is presented from the perspective of **Bluemull Sound overall**, but specific considerations for **Fetlar** are drawn out below. The nature of the option packages for Bluemull Sound means that **each increment will deliver progressively larger benefits against the TPOs**. This ultimately culminates in a **fixed link for Unst and a dedicated vessel for Fetlar**, which would address many of the identified barriers to travel. **Key points** are as follows:

- **Resilience** is by some distance the critical issue on Bluemull Sound at present. The **Ferry Do Something** and **Do Max** would address the immediate problems of ageing vessels and harbours, with the **Do Max** recording a larger benefit through the addition of a third vessel. A **fixed link** for Unst would provide **Fetlar** with a dedicated vessel, removing the inter-dependency with Gutcher - Belmont

- **Vehicle deck capacity** was identified in the Case for Change as a problem, and one which will be amplified by the **emergence of SaxaVord Spaceport**. Both **ferry options** would deliver an uplift in capacity, but the **Do Max** would be particularly significant in this regard, as it would progress Bluemull Sound to a three-vessel service, with **Fetlar** having a dedicated vessel. A **fixed link** would remove all capacity constraints for Unst and by extension **Fetlar**, through providing the latter island with a dedicated vessel

- The **Do Something** and **Do Max** would progressively increase **frequency** and **the length of the operating day** for **Fetlar**

- All options would support an improvement in **physical accessibility** by replacing MV *Bigga* and MV *Geira*, both of which have passenger accommodation below the waterline, accessible only by steep steps

- The impact on those **not travelling by car / who would prefer not to travel by car** for a **fixed link** would be dependent on providing a bus service through the tunnel that at least matches the frequency of the current ferry service (as pedestrians and cyclists could not use the tunnel). There would be no change for **Fetlar** except if it benefitted from an improved connecting bus service in Yell as a by-product of an Unst tunnel

Outline Business Case: Options Appraisal

Options Appraisal: STAG Criteria

✓✓✓	Major positive	✓	Slight positive	XXX	Major negative	X	Slight negative
✓✓	Moderate positive	0	Neutral	XX	Moderate negative		

Description	Ferry Do Something	Ferry Do Max	Fixed Link
(Physical) Environment	✖	✖✖	✖✖✖
Climate Change	✖	✖✖	✖✖
Health, Safety and Wellbeing	✓	✓✓	✓✓✓
Economy	✓	✓✓	✓✓✓
Equality and Accessibility	✓	✓✓	✓✓

The appraisal is presented from the perspective of **Bluemull Sound overall**, but specific considerations for **Fetlar** are drawn out below.

Environment

The environmental impacts of the Bluemull Sound options increment relative to the scale of those options. However, no significant harbour works are required in **Fetlar** for any of the options, and thus the environmental impacts denoted in the table above are largely attributable to Unst

Climate Change

Climate change impacts would again be largely attributable to Unst across all options. However, **all options** also imply a progressive increase in the number of sailings to / from **Fetlar**, and hence an increase in emissions. This would persist until the ferry fleet is operated on zero carbon fuel

Health, Safety and Wellbeing

By progressively increasing the number of sailings to / from Fetlar, the **all options** would improve access to healthcare and potentially offer long-term public health benefits associated with reduced isolation and improved access to health promoting activities

Economy

Whilst the BCRs of the options are poor, an enhanced ferry service under any of the options would be socially advantageous, supporting the economic, social and demographic sustainability of **Fetlar**

Equality and Accessibility

By progressively increasing the number of sailings to / from **Fetlar**, **all options** would assist in tackling some of the inequalities faced due to geographic remoteness and low population levels. The **Do Max** and **fixed** link options would provide **Fetlar** with a dedicated vessel, and the service could be shaped around community needs rather than as a compromise with another island

Outline Business Case: Options Appraisal

The Economic Criterion and the Strategic Narrative

The Economy criterion in STAG consists of two sub-criterion:

- **Transport Economic Efficiency (TEE)**: This is the conventional option economics culminating in the BCR

- **Wider Economic Impacts (WEI)**: Any economic impacts which are additional to the transport user benefit, primarily focused on business productivity and labour market impacts – treated as a sensitivity to the BCR

  - Only generally **experienced in the largest schemes** (e.g., HS2) so **less relevant here**

However, the guidance allows for a **strategic / economic** narrative, which is a qualitative description of economic benefits in addition to those quantified in the BCR. The key economic benefits of improved connectivity across Bluemull Sound will be most significant for Unst given that it has a population ten times that of Fetlar and a higher level of on-island activity. However, the following applies to Fetlar:

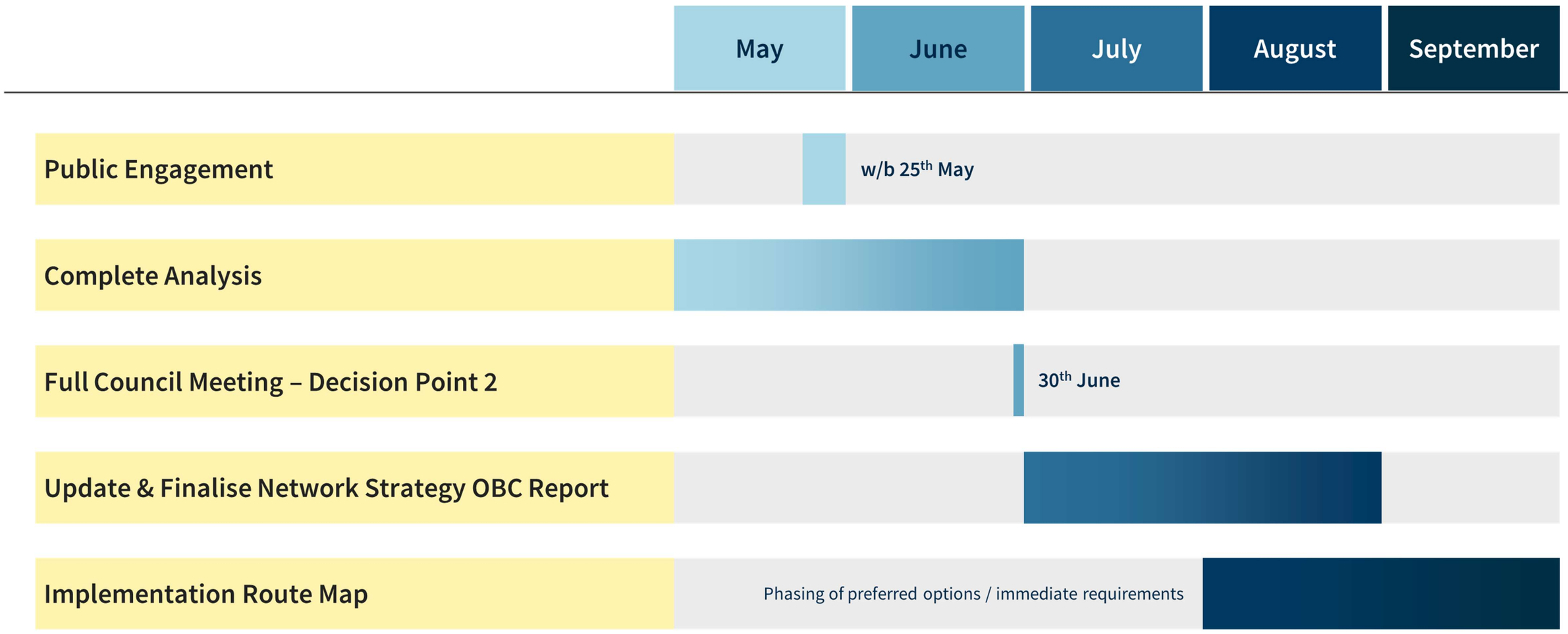
- Businesses in the North Isles noted that ferry dependency **imposes three distinct categories of cost premium across all sectors: (i) direct ferry charges, i.e., fares; (ii) extended journeys; and (iii) uncertainty risk premiums**.

- Uncertainty costs prove particularly problematic, manifesting as inflated quotations, declined work and strategic business decisions.

- Service providers from Lerwick add travel charges reflecting unproductive time and disruption risk, which again is a major issue for Fetlar and Unst given the requirement for two ferry crossings. In extreme cases, businesses simply refuse to quote for work in Fetlar and Unst, or customers cannot proceed with necessary maintenance and repairs due to prohibitive costs. **In short, doing business on Fetlar and Unst costs significantly more than on mainland Shetland and even than on Yell**.

- Improved ferry services would be advantageous here, but it is a Fixed Link that would be economically transformative. While a Fixed Link would not necessarily be economically transformative for Fetlar, an enhanced ferry service under any of the options would be socially advantageous, supporting the economic, social and demographic sustainability of the island.

Next Steps



What To Do Next

Please take this opportunity to provide your thoughts to the team on the material presented and ask any questions you may have

The boards that you have just read provide some topics that you may wish to discuss, and we would be happy to hear any views that you may have

The display boards will also be published online at: www.shetland.gov.uk/IITCShetland

Please also take time to fill out the feedback form before you leave. Scan the QR code to link to the survey **or fill out one of the forms provided.**

Shetland Inter-Island Transport Connectivity Programme – Fill in form

Shetland Inter-Island Transport Connectivity Programme