

# Outer Hebrides STAG Appraisal

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South Uist & Eriskay Public  
Exhibition

13<sup>th</sup> May 2019, 16:00-19:30

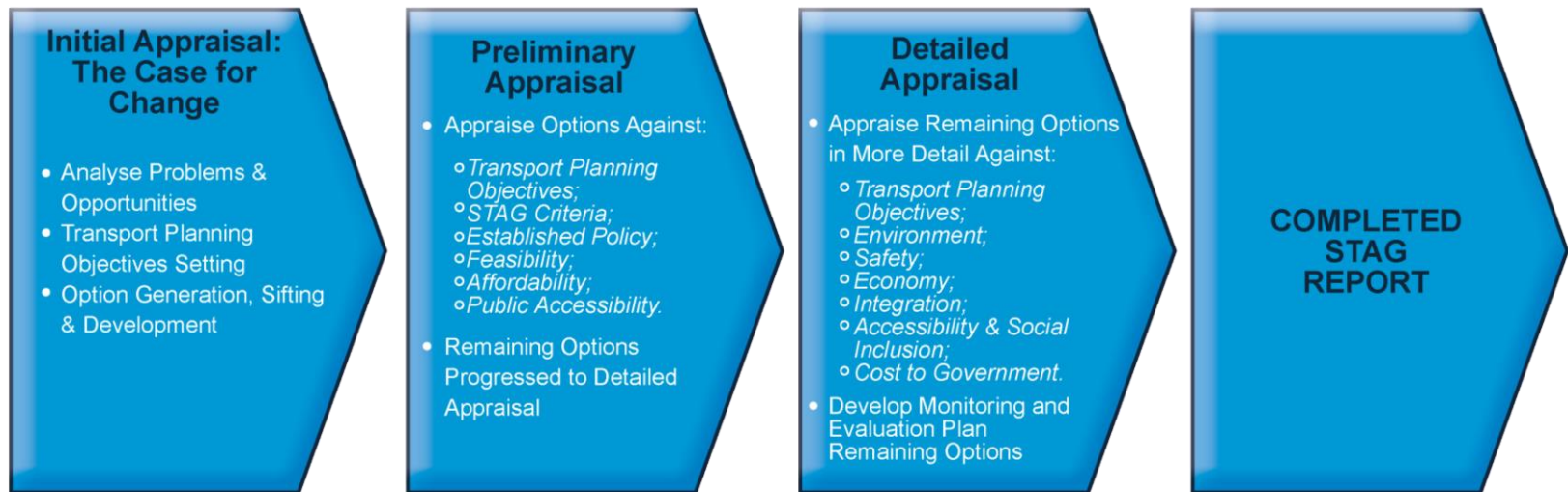
Southend Community Hall,  
Daliburgh

## What is the study about?

- A transport appraisal of the long-term options for the ferry routes to, from and within the Outer Hebrides, including the Sounds, was a commitment made in the Vessel Replacement & Deployment Plan (VRDP) annual report for 2015
- Peter Brett Associates LLP, now part of Stantec, has been commissioned by Transport Scotland to carry out this appraisal. The study is being informed and guided by a Reference Group, which is being led by Transport Scotland and includes Comhairle nan Eilean Siar, HITRANS, CMAL and CalMac Ferries Ltd
- The appraisal will identify and evaluate options for the short, medium & long-term development of the Outer Hebrides network

# Scottish Transport Appraisal Guidance (STAG)

- The appraisal is being undertaken using a Transport Scotland process referred to as 'STAG', the approved guidance for the appraisal of potential transport projects
- The principle of STAG is that it is **objective-led rather than solution-led**, ensuring that the option(s) ultimately taken forward address the identified transport problems and are the most appropriate when judged against a range of criteria



- The study is at the **Detailed Appraisal** stage, and we are now seeking public & stakeholder views on the emerging outputs

# What are we presenting today?

- For your **local** route (**Lochboisdale – Mallaig / Oban**), the following boards set out:
  - the transport problems & opportunities on the Lochboisdale – Mallaig / Oban route
  - the study ‘Transport Planning Objectives’ against which options are assessed
  - the options developed and appraised for the Lochboisdale – Mallaig / Oban route
  - how these options feed into a ‘Draft Network Plan’ for the Outer Hebrides as a whole
- *Please note:*
  - *Equivalent material for all **other routes** operating to, from and within the Outer Hebrides is provided in booklet form on the tables around the room*
  - *The material presented at the **2018 public exhibitions** telling the story so far in terms of timetables, connectivity, capacity and reliability is also presented in booklet form around the room should you wish to (re)read this material*
- **Please browse the information for the route(s) relevant to you. When you are finished, please:**
  - **Take the time to give your thoughts to a member of the team if you wish**
  - **Fill out and hand back the comments form before leaving**
  - **All of the material presented is available on the Comhairle and HITRANS websites**

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# Lochboisdale – Mallaig / Oban: What did you tell us?

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# What did you tell us?

- An important step in a STAG study is defining and evidencing the **transport problems & opportunities** that any investment is intended to address
  - Consultation with the public and stakeholders is an essential part of gathering this evidence – the next few boards feed back on the key issues raised by island households & ferry users in relation to the **Lochboisdale – Mallaig / Oban** route
- Public exhibitions held in May 2018 allowed us to gather anecdotal views on problems & opportunities. These were supplemented by an island household survey and an onboard survey
  - Island resident survey: **73** household respondents had used the **Lochboisdale – Mallaig / Oban** route in the previous 12-months
  - Onboard survey: responses received from **60** passengers on the **Lochboisdale – Mallaig / Oban** service
- The key findings from the two surveys are presented on the next slides.

# Travel Behaviour, Booking & Availability - *Household Survey (1)*

- On average, households reported undertaking 4 return journeys in the last year on this route
- Only 50% of households stated that these trips were fairly evenly spaced across the year
  - 1/3 were all or mostly in summer
- Visiting Friends & Relatives (67%) and holidays (49%) are the main travel purposes
- Glasgow & West Central Scotland is the most popular destination followed by Inverness and Oban
- Bookings are mostly made
  - Winter: '2-4 weeks ahead' (33%) followed by '1-3 months ahead' (17%)
  - Peak Summer: '1-3 months ahead' (33%) followed by '2-4 weeks ahead' (29%)
- 43% of households state frequent or occasional difficulties in booking a vehicle onto the ferry
  - 28% report no problems in this respect
- These instances are focussed on:
  - July (50%) & August (45%)
  - Fridays & Saturdays (both 23%)
- When bookings are thwarted, trips are:
  - Made on a different day (40%)
  - Made on a different route (35%)
  - Some 11% of responses included 'not made at all'
- 47% reported that friends or family visiting the Outer Hebrides had had difficulty booking a vehicle onto the ferry
  - Most of these did not travel (42%) or travelled on a different day (21%)

# What did you tell us? *Household Survey (2)*

- People expressed dissatisfaction with these aspects of the service:
  - Disruption during scheduled refit
  - Level of reliability provided by service
  - Quality of onboard wi-fi
  - Summer service frequency
  - Level of punctuality provided by service
  - Onward transport connections from ferry terminal by train
  - Ability to make a day trip to the mainland
  - Timetable complexity and regularity
  - Level of fares – vehicles
  - Island transport connections to ferry terminal
  - Onward transport connections from ferry terminal by bus
  - Winter service frequency
  - Island departure and arrival times – summer & winter
  - Provision of EV charging points
  - Time of final sailing of the day
  - Use of standby booking arrangements
- 73% stated that the current service prevents more frequent travel to the mainland
  - Mainly affecting seeing friends & family less often (73%) and fewer holidays / short breaks (51%), fewer sporting & shopping opportunities (27%)
  - Also reported is constraints on accessing business opportunities on the mainland (22%)
- On average, households suggest an additional 6 return journeys would be made per annum if their concern with the route was addressed
- Only 27% felt the **main** ferry's onboard facilities did not fully meet their needs
- But 55% felt the **relief** ferry's onboard facilities did not fully meet their needs



# What did you tell us? *Onboard Survey*

## Capacity issues and travelling with a vehicle

- Of those travelling with a vehicle onboard:
  - Only 5% had not booked
  - 84% had secured a place on their preferred route & sailing
  - 12% had not secured a booking on their preferred route
- Overall 72% stated that the current timetable time of this sailing met their travel requirements, residents more so than visitors
- 33% of visitors had or were planning to use another ferry route on this trip – 24% of these had not been able to secure a booking on their preferred option
- Price and the need to travel with a vehicle were the main reasons for choosing ferry over air. Only 18% had considered flying
- 72% were travelling with a vehicle, less so for visitors. The need to carry luggage / equipment and the convenience of having your own vehicle were the most commonly cited reasons for this
- 28% stated that improved public transport would or may have made them consider not bringing a car on board

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# Lochboisdale – Mallaig / Oban, Problems & Opportunities

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# Lochboisdale – Mallaig / Oban: Problems & Opportunities (1)

- The identification of problems & opportunities at the **route level**:
  - considered each element of the service / connectivity to ensure that all relevant problems & opportunities had been identified; and
  - undertook an assessment of the relative magnitude of each problem (as evidenced by the operator data and 2018 consultation). The assessment scale is as follows:
    - **○** – neutral
    - **x** - minor problem
    - **xx** - moderate problem
    - **xxx** - major problem

## Lochboisdale – Mallaig / Oban: – Assessment of Transport Problems

Aspect of Service / Connectivity	Relative Magnitude of Problem
Operations	xxx
Landside Infrastructure	xxx
Resilience	xxx
Timetable	x
Capacity	x
Punctuality & Reliability	xxx
Public Transport Integration	x

# Lochboisdale – Mallaig / Oban: Problems & Opportunities (2)

- **Operations**

- MV *Lord of the Isles* is the only 'Major Vessel' in the fleet which can access Mallaig Harbour, and she is approaching the point of life expiry
- When the MV *Lord of the Isles* is out of service for scheduled dry docking, all services are operated to Oban, i.e. the Mallaig connection is suspended.

- **Landside Infrastructure**

- Lochboisdale is one of the more challenging ports on the network and the infrastructure there is also approach life expiry
- Mallaig is also a highly constrained port to operate to/from and the current infrastructure there means that there is an 85m (or thereabouts) vessel length restriction
- The A830 trunk road connecting Mallaig to Fort William has three railway bridges with height restrictions of 4.1m, which is too low for general commercial freight traffic using some standard trailer equipment.
- The Spinal Route (the A865) which connects Lochmaddy (the primary Uist freight hub) with Lochboisdale – a journey of 42 miles – still has several long single track sections.

- **Resilience**

- The MV *Lord of the Isles* is a highly versatile vessel and, in the event of a breakdown elsewhere on the network, she can be redeployed to other routes, as Uist has an alternative route to the mainland. The Mallaig link is therefore suspended – but if a spare vessel is available, the Lochboisdale service is diverted to Oban
- The MV *Lord of the Isles* overnights in Lochboisdale. She cannot generally lie in Mallaig and there are few other diversion ports if she cannot get back into Lochboisdale. This lack of diversion ports means that, prior to departing Lochboisdale in the morning, the Master has to be confident that the vessel can get back alongside in the evening. Where the Master is not confident of this, the service may either be cancelled or brought forward.

# Lochboisdale – Mallaig / Oban: Problems & Opportunities (3)

- **Timetable**

- The summer timetable for the Lochboisdale-Mallaig service is driven by the sharing of the vessel with the Mallaig–Armadale route. The timetable is not seen as ideal from the perspective of:
  - island residents & outbound tourists: whilst some like the early departure, check-in closes at 06:15 and requires a drive to the terminal unless the user lives / is staying in Lochboisdale; and
  - inbound tourists, who arrive relatively late in the evening and miss e.g. evening dinner at their hotel (although a restaurant service is available onboard the ferry).
- There are some of constraints with the current berth at Mallaig, which include tidal restrictions during spring tides. During such periods, the service is subject to a tidal timetable, which operated on 14 out of 206 timetabled days in the 2018 summer timetable period.

- **Capacity**

- Capacity pressures are beginning to materialise on peak days (e.g. Fridays and Saturdays in July and August).

- **Punctuality & Reliability**

- The main ‘transport problem’ on the route since its commencement has been weather-related reliability, with cancellations well above the network average. However, the scale of this problem has reduced significantly, potentially due to vessel modifications:
  - Mallaig-Lochboisdale Winter weather cancellations dropped from 34% to 4% between 2016 and 2017
  - *By comparison, other Outer Hebrides routes Winter weather cancellations dropped from 9% to 6%*
  - Mallaig-Lochboisdale Total weather cancellations dropped from 11% to 5% between 2016 and 2017
  - *By comparison, other Outer Hebrides routes Total weather cancellations dropped from 4% to 3%*

# Lochboisdale – Mallaig / Oban: Problems & Opportunities (4)

- **Public Transport Integration**

- Integration with public transport at Mallaig, particularly rail, was cited as a problem on this route through the consultation and surveys. In the summer timetable period:
  - The timetable does not align particularly well with railway services to or from Mallaig (except for arrivals from Lochboisdale on a Friday to Sunday).
  - There is a connecting bus service to / from Fort William which is timed to meet arrivals and departures from Lochboisdale.
- In the winter timetable period:
  - As with the summer timetable, there is a connecting bus to / from Fort William which meets with Mallaig – Lochboisdale services. There is however no bus service connecting with the Sunday evening Mallaig – Lochboisdale sailing.
  - Ferries from Oban to Lochboisdale in the winter do not align particularly well with inbound public transport, although there is a connecting bus from Glasgow for the Friday morning departure (whilst the train from Glasgow Queen Street arrives before the ferry, this is only by a matter of minutes and does not allow for a connection to be easily made).
- Given the constraints on the rail service, improving integration would require changes to the ferry timetable, but this is also challenging to deliver at present given the shared nature of the service

- **Opportunities**

- An appraisal of options for the redevelopment of Lochboisdale Harbour was undertaken in 2017 and is expected to progress to the next stage of the business case process in 2019
- CMAL is also in the process of completing an appraisal of options for the redevelopment of Mallaig Harbour, although any upgrades are a medium-term proposition

# Transport Planning Objectives

- The setting of Transport Planning Objectives (TPOs) is a key step in the STAG process as they define what the policymaker should be seeking to achieve through investing in a transport scheme
- The TPOs for this study were developed such that they could cover the entire Outer Hebrides network, albeit certain objectives will be more relevant to some routes than others.
- **Transport Planning Objective 1:** The *capacity* of the service should as far as reasonably possible meet the passenger and vehicle demand for the service.
- **Transport Planning Objective 2:** The timetable operated will meet all reasonable *connectivity* needs of each island.
- **Transport Planning Objective 3:** The *cancellation rate* of the Outer Hebrides to mainland ferry services should not exceed the average for all 'Major Vessel' routes (and for all 'Small Ferry' routes for the Sound services).
- **Transport Planning Objective 4:** The *resilience* of individual routes and the Outer Hebrides network as a whole should be improved and / or risks mitigated over the appraisal period.

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# **Lochboisdale – Mallaig / Oban: Option Generation, Development & Appraisal**

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# Option Generation, Development & Appraisal

- The STAG process requires the generation of a long-list of options for addressing the identified transport problems – these options can originate from:
  - Analysis of operator data, timetables and other secondary sources
  - Public & stakeholder inputs (e.g. public exhibitions, surveys etc)
  - Ideas considered in previous studies
- The long-list of options is developed and appraised against both the TPOs and a set of criteria set out in the STAG Guidance
- In the interests of brevity, the focus of most of the following boards is predominantly on the shortlist of options which progressed to the ‘Detailed Appraisal’ – i.e. those which had progressed through the initial two sifting exercises (known as Initial & Preliminary Appraisal)
  - The long-list of options (including those which have been sifted out) are listed on the next board and the reason for their exclusion is provided
  - If you would like more details on any of these earlier options or on the reasons for their exclusion, please do not hesitate to ask a member of the team

# Initial Long-List of Options

Option	Description	Rationale for Selection / Rejection
Ref Case	Like-for-like (in terms of length) new vessel / new Lochboisdale harbour. <b>Shared</b> with Mallaig - Armadale	✓ - This option is retained for further consideration. It is the lowest cost means of maintaining the current level of service on the Mallaig – Lochboisdale route.
LMO1a	Like-for-like new vessel / new Lochboisdale harbour / harbour upgrade at Mallaig. <b>Shared</b> with Mallaig - Armadale	✓ - This option is retained for further consideration. Improvements to Mallaig would improve the reliability and resilience of the service.
LMO1b	Like-for-like new vessel / new Lochboisdale harbour / harbour upgrade at Mallaig / harbour upgrade at Armadale. <b>Shared</b> with Mallaig - Armadale	✗ - Whilst not rejected as an option, LMO1b is not considered further in this appraisal as Armadale is outwith scope. The current infrastructure at Armadale can accommodate the MV <i>Lord of the Isles</i> and it is assumed it could do likewise with an LfL replacement assuming vessel displacement is not increased. A separate appraisal of options for Armadale (in tandem with Mallaig) is currently being undertaken.
LMO2a	New FMEL 802 (i.e. the new vessel being built for the Uig Triangle route) equivalent vessel / new Lochboisdale harbour. <b>Shared</b> with Mallaig - Armadale	✗ - This option is rejected from further consideration as the summer Mallaig–Armadale timetable could not be delivered as Armadale could not accommodate FMEL 802.
LMO2b	New FMEL 802 equivalent vessel / new Lochboisdale harbour / harbour upgrade at Mallaig. <b>Shared</b> with Mallaig - Armadale	✗ - This option is rejected from further consideration as the summer Mallaig–Armadale timetable could not be delivered as Armadale could not accommodate FMEL 802.
LMO2c	New FMEL 802 equivalent vessel / new Lochboisdale harbour / harbour upgrade at Mallaig / harbour upgrade at Armadale. <b>Shared</b> with Mallaig - Armadale	✗ - Whilst not rejected as an option, LMO2c is not considered further in this appraisal as Armadale is outwith scope. A separate appraisal of options for Armadale (in tandem with Mallaig) is currently being undertaken.
LMO3	Operate the service 7-days per week year round	✓ - This option is retained for further consideration.
LMO4	Revert to the previous Oban – Castlebay / Lochboisdale route	✗ - This option is rejected from further consideration. Reverting to a triangular service would be publicly unacceptable in both South Uist and Barra, where the 2016 service changes were considered to be highly beneficial by both communities. This has been reflected in a net increase in carryings when comparing Mallaig – Lochboisdale / Oban & Castlebay–Oban to the former triangular route.
LMO5a	Provide a <b>dedicated</b> (i.e. not shared with Mallaig – Armadale) like-for-like new vessel / new Lochboisdale harbour	✓ - This option is retained for further consideration.
LMO5b	Provide a <b>dedicated</b> Like-for-like new vessel / new Lochboisdale harbour / harbour upgrade at Mallaig	✓ - This option is retained for further consideration.
LMO5c	Provide a <b>dedicated</b> FMEL 802 equivalent vessel / new Lochboisdale harbour / harbour upgrade at Mallaig	✓ - This option is retained for further consideration.

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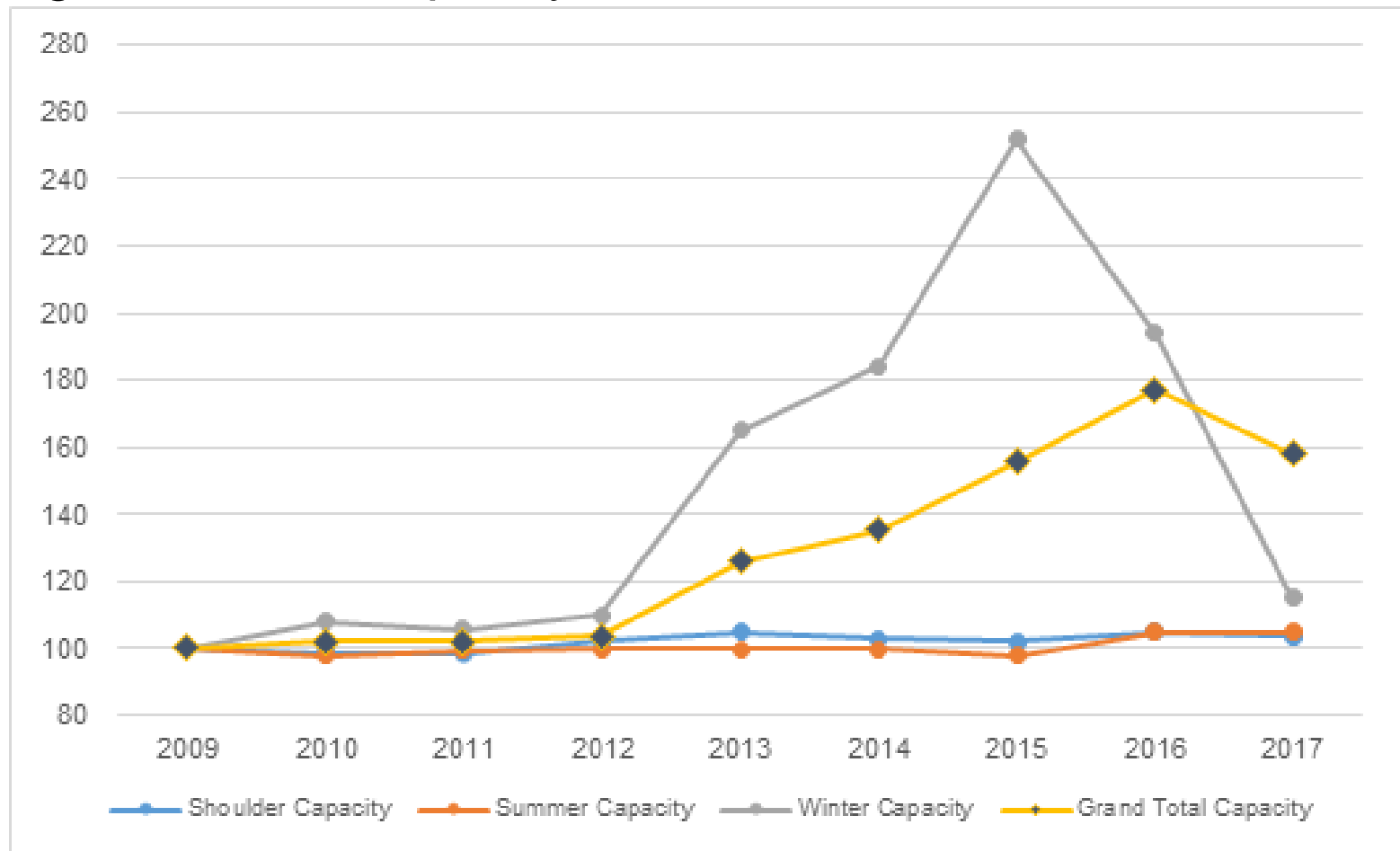
# Lochboisdale – Mallaig / Oban: Detailed Appraisal

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# Options Considered in Detailed Appraisal

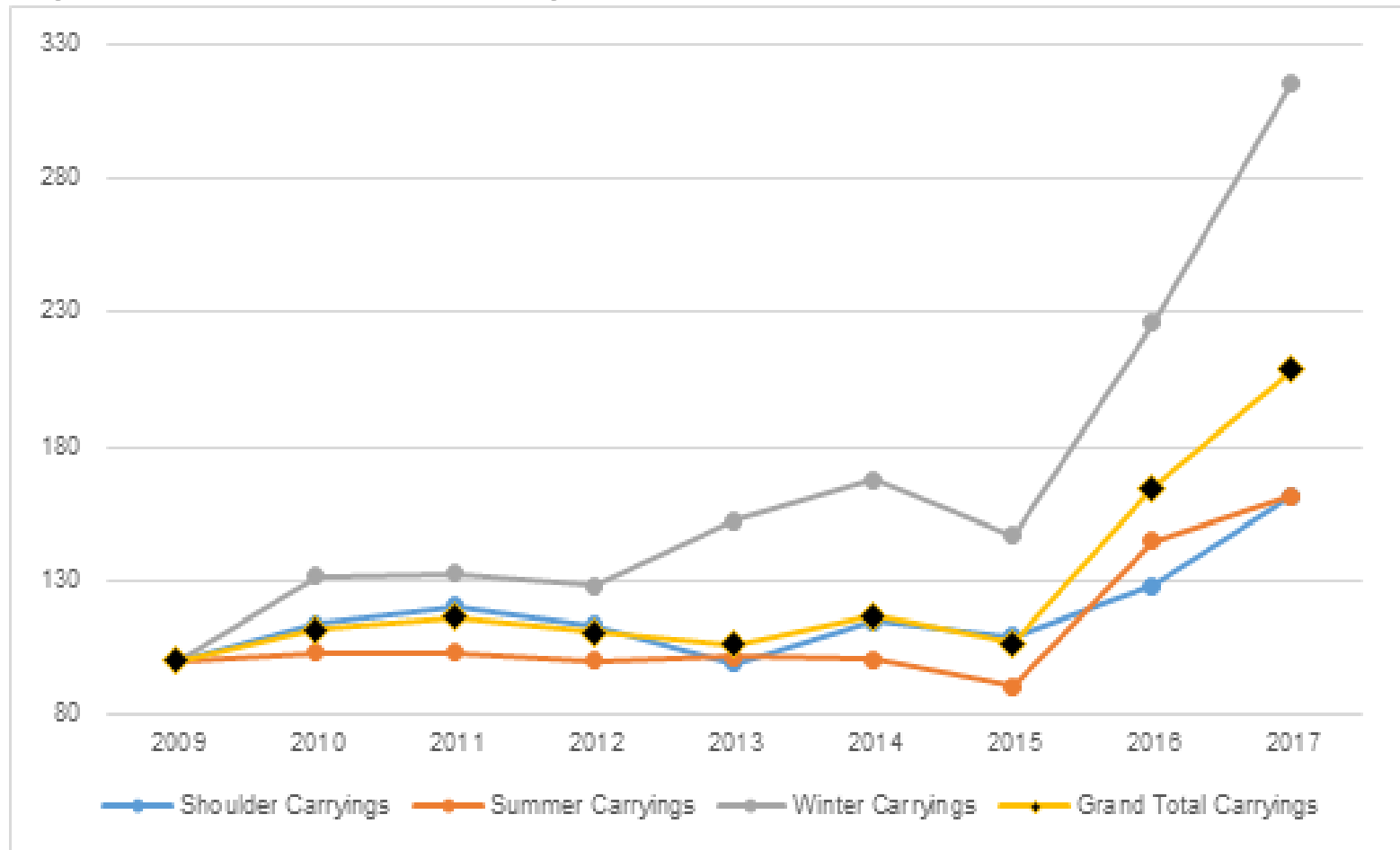
- Six options were shortlisted for consideration in the Detailed Appraisal:
  - **Option LMO Do Min / Ref Case:** Like-for-like new vessel / harbour upgrade at Lochboisdale
  - **Option LMO1a:** Like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig
  - **Option LMO3:** Operate the service 7-days per week year-round
  - **Option LMO5:** Provide a dedicated Ro-Pax for the Lochboisdale – Mallaig / Oban route, of which there are three sub-options:
    - **Option LMO5a:** Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale.
    - **Option LMO5b:** Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig
    - **Option LMO5c:** Provide a dedicated FMEL 802 equivalent vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig
- The following boards:
  - provide some context in terms of current and forecast **capacity utilisation** on the Lochboisdale - Mallaig / Oban route
  - provide further details on the **specifics of each option**
  - set out the **appraisal** of each option against the TPOs and STAG criteria
  - provide our recommendation as to which options should progress to the '**Draft Network Plan**' for this route

# Change in Route Capacity Over Time



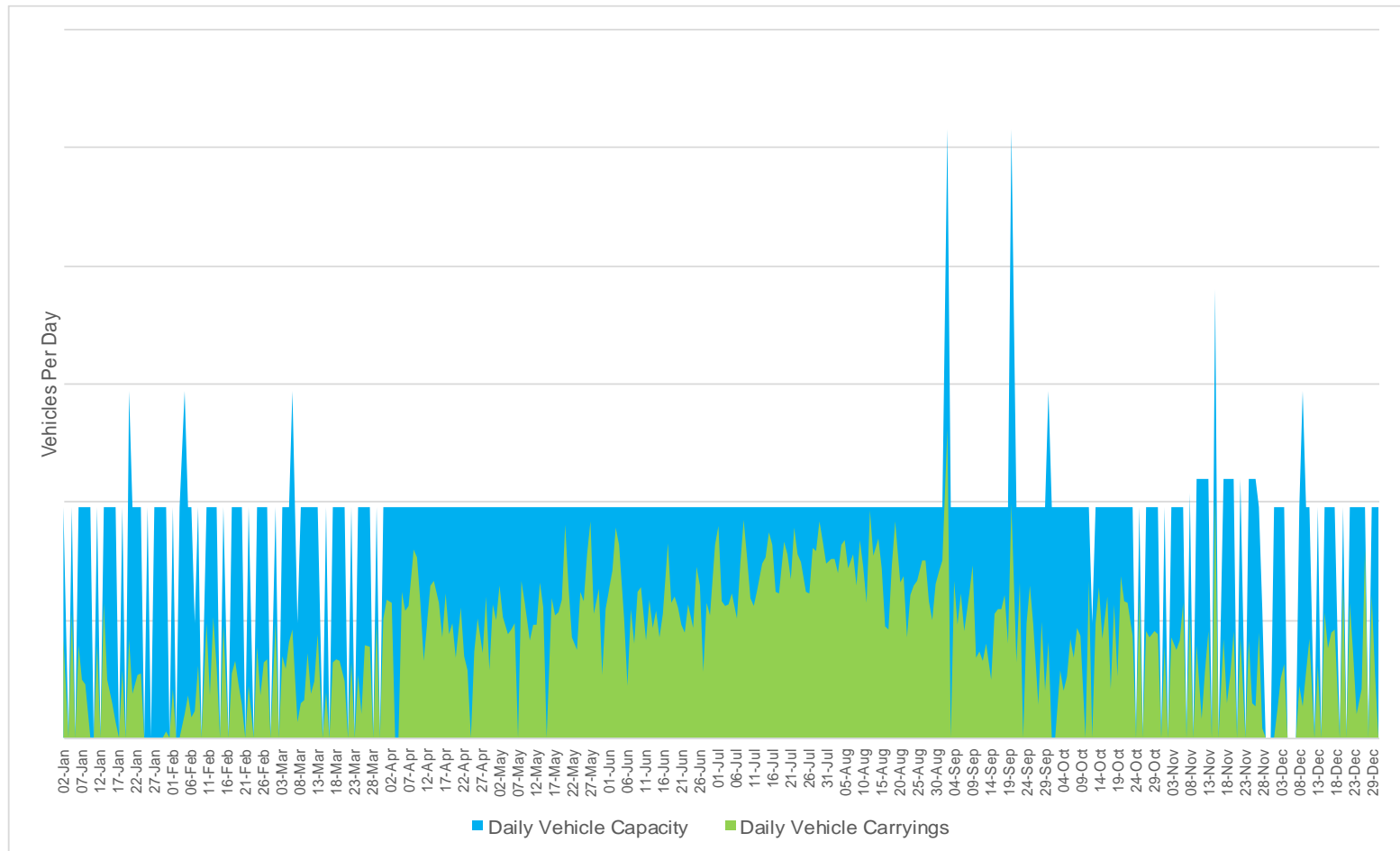
- Chart shows **total annual ferry vehicle capacity on all Lochboisdale routes** indexed to 2009 (2009=100)
- There was a supply side spike in Winter 2015 in terms of number of connections between Castlebay-Lochboisdale and the increased deployment of the MV *Clansman*.
- Major increase in connectivity out of Lochboisdale from 2013 onwards

# Change in Route Carryings Over Time



- Chart shows **total annual ferry vehicle carryings on all Lochboisdale routes** indexed to 2009 (2009=100)
- These figures are a combination of connections between Oban-Lochboisdale (direct), Mallaig-Lochboisdale and also Castlebay-Lochboisdale
- The overall picture was fairly stable between 2009 and 2015, after which carryings have almost doubled

# When is capacity a problem?

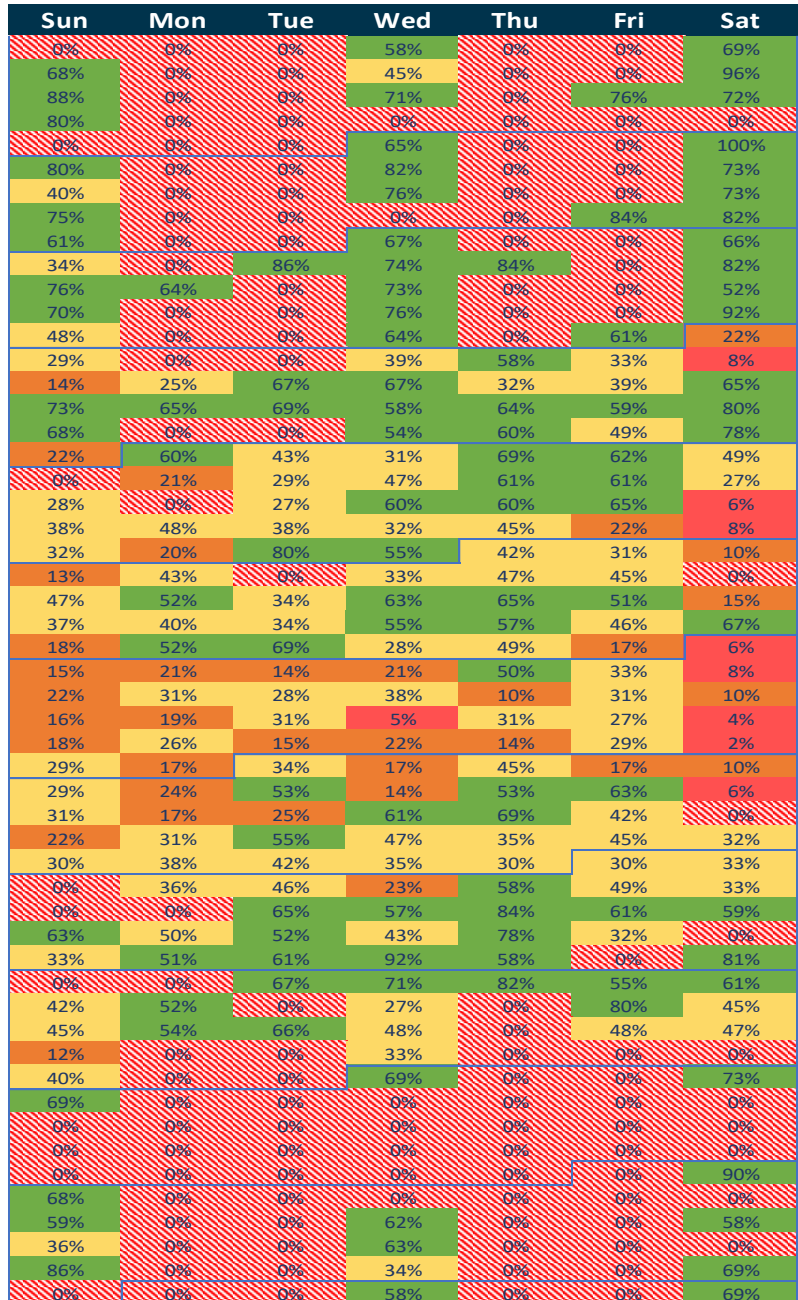


- Chart shows comparison of 2017 daily vehicle carryings (green) versus daily capacity (blue)
- Irregular capacity in winter reflects current non-sailing days
- Current and impending capacity problems are limited to the Easter to October period, with higher carryings across July and August

# Capacity Utilisation – Daily Available Vehicle Space, Lochboisdale – Mallaig / Oban

- Calendar shows **total daily remaining (i.e. available) vehicle space** between Lochboisdale – Mallaig / Oban in 2017
- e.g. on Monday 8<sup>th</sup> January 2017, 68% of car deck space was available / not used
- Note days with the red hashing are days where all sailings were cancelled or there are no timetabled sailings
- Saturdays are peak days throughout the summer timetable period, with many having less than 10% vehicle space remaining across the day
- Whilst there are other days of relatively high utilisation, capacity is not a major problem overall at present

	Su	M	Tu	W	Th	F	Sa	
Jan	1	2	3	4	5	6	7	
	8	9	10	11	12	13	14	
	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	
	29	30	31	1	2	3	4	
	Feb	5	6	7	8	9	10	11
		12	13	14	15	16	17	18
19		20	21	22	23	24	25	
26		27	28	1	2	3	4	
Mar		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
		19	20	21	22	23	24	25
	26	27	28	29	30	31	1	
	Apr	2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
23		24	25	26	27	28	29	
30		1	2	3	4	5	6	
May		7	8	9	10	11	12	13
		14	15	16	17	18	19	20
	21	22	23	24	25	26	27	
	28	29	30	31	1	2	3	
	Jun	4	5	6	7	8	9	10
		11	12	13	14	15	16	17
		18	19	20	21	22	23	24
25		26	27	28	29	30	1	
Jul		2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
	23	24	25	26	27	28	29	
	30	31	1	2	3	4	5	
	Aug	6	7	8	9	10	11	12
		13	14	15	16	17	18	19
20		21	22	23	24	25	26	
27		28	29	30	31	1	2	
Sep		3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
	24	25	26	27	28	29	30	
	Oct	1	2	3	4	5	6	7
		8	9	10	11	12	13	14
		15	16	17	18	19	20	21
22		23	24	25	26	27	28	
29		30	31	1	2	3	4	
Nov		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
	19	20	21	22	23	24	25	
	26	27	28	29	30	1	2	
	Dec	3	4	5	6	7	8	9
		10	11	12	13	14	15	16
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31		1	2	3	4	5	6	

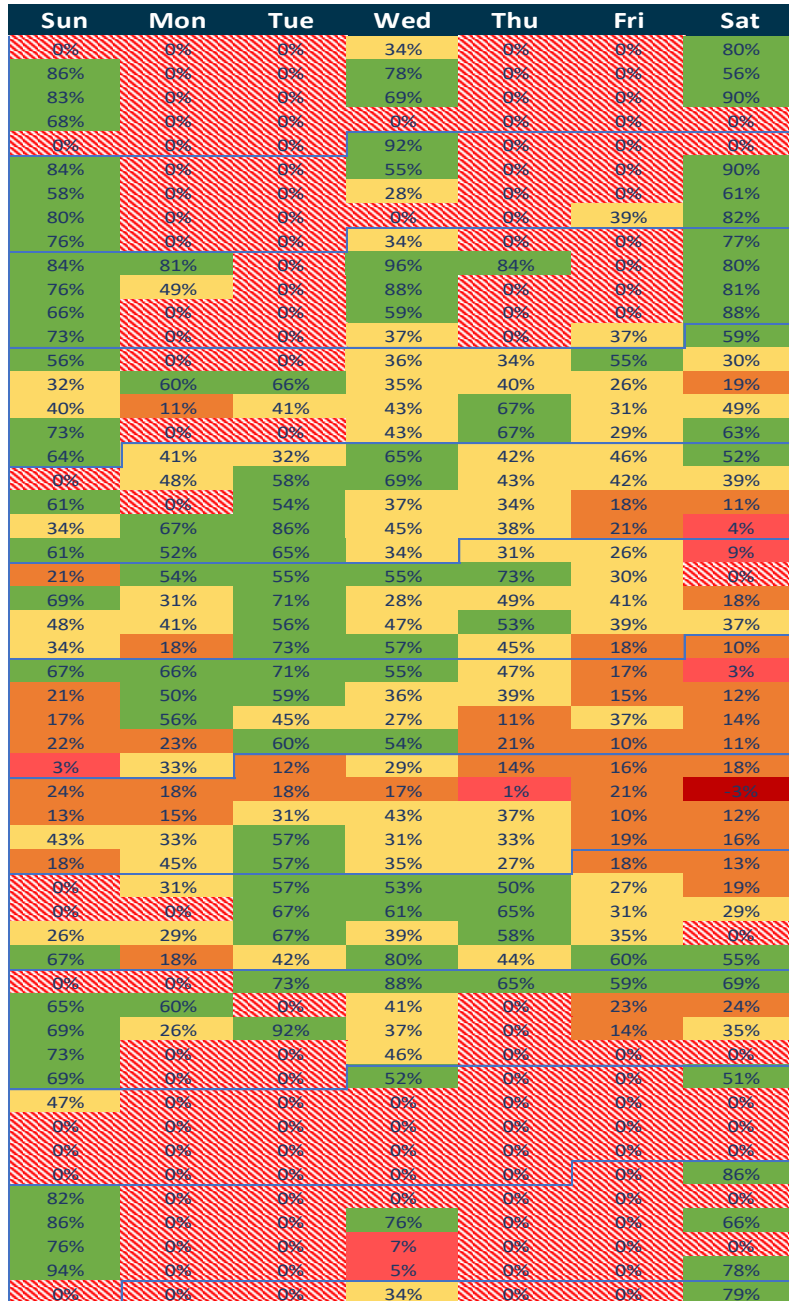




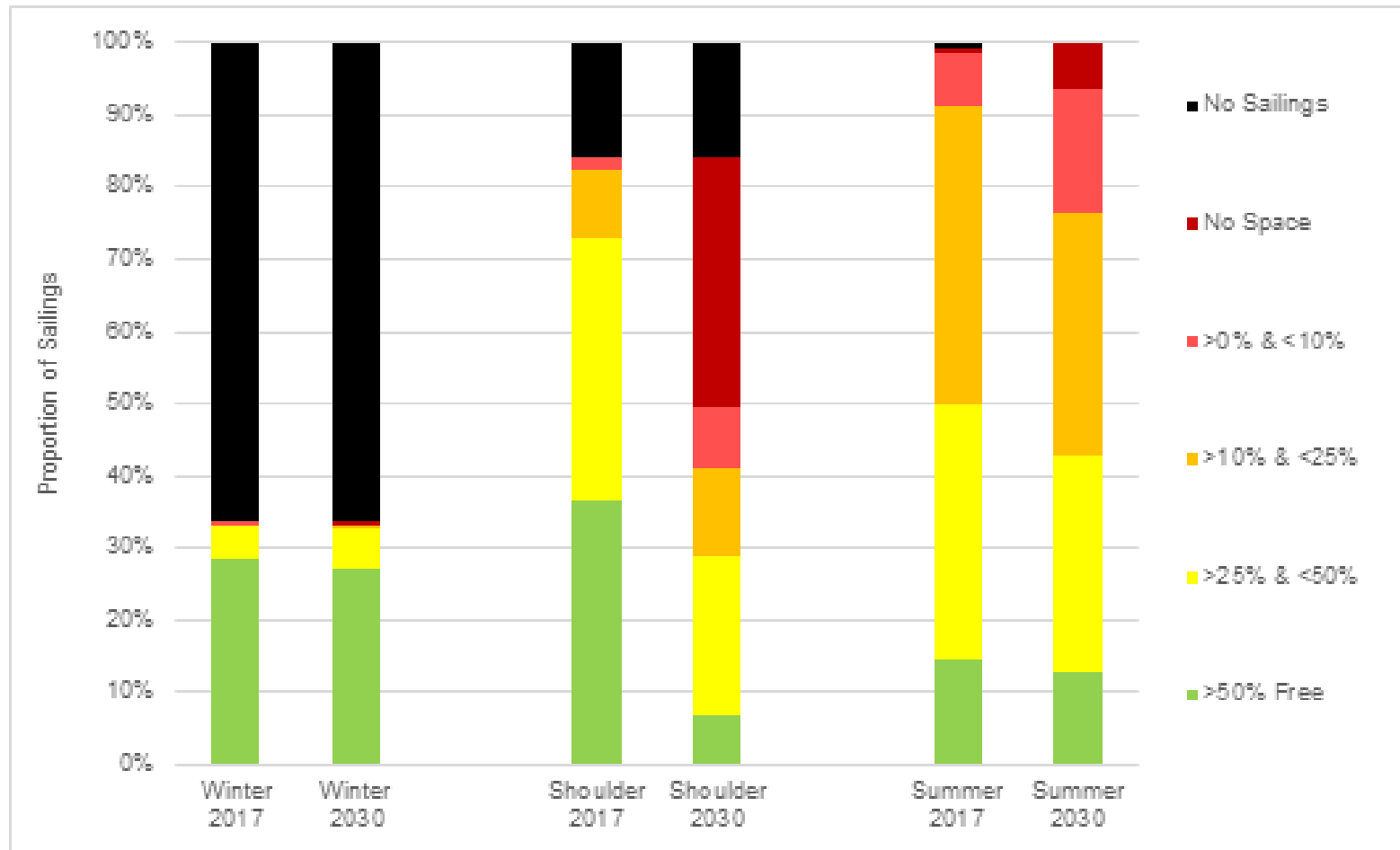
# Capacity Utilisation – Daily Available Vehicle Space, Mallaig / Oban - Lochboisdale

- Calendar shows **total daily remaining (i.e. available) vehicle space** between Mallaig / Oban –Lochboisdale in 2017
- e.g. on Monday 8<sup>th</sup> January 2017, 86% of car deck space was available / not used
- Note days with the red hashing are days where all sailings were cancelled or there are no timetabled sailings
- There is limited availability in July & August, particularly on Saturdays
- As with the eastbound direction, whilst there are other days of relatively high utilisation, capacity is not a major problem overall at present

	Su	M	Tu	W	Th	F	Sa	
Jan	1	2	3	4	5	6	7	
	8	9	10	11	12	13	14	
	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	
	29	30	31	1	2	3	4	
	Feb	5	6	7	8	9	10	11
		12	13	14	15	16	17	18
19		20	21	22	23	24	25	
26		27	28	1	2	3	4	
Mar		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
		19	20	21	22	23	24	25
	26	27	28	29	30	31	1	
	Apr	2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
23		24	25	26	27	28	29	
30		1	2	3	4	5	6	
May		7	8	9	10	11	12	13
		14	15	16	17	18	19	20
	21	22	23	24	25	26	27	
	28	29	30	31	1	2	3	
	Jun	4	5	6	7	8	9	10
		11	12	13	14	15	16	17
		18	19	20	21	22	23	24
25		26	27	28	29	30	1	
Jul		2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
	23	24	25	26	27	28	29	
	30	31	1	2	3	4	5	
	Aug	6	7	8	9	10	11	12
		13	14	15	16	17	18	19
20		21	22	23	24	25	26	
27		28	29	30	31	1	2	
Sep		3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
	24	25	26	27	28	29	30	
	Oct	1	2	3	4	5	6	7
		8	9	10	11	12	13	14
		15	16	17	18	19	20	21
22		23	24	25	26	27	28	
29		30	31	1	2	3	4	
Nov		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
	19	20	21	22	23	24	25	
	26	27	28	29	30	1	2	
	Dec	3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
24		25	26	27	28	29	30	
31		1	2	3	4	5	6	



# Capacity Utilisation – Forecasts



- Chart **compares 2017 and illustrative forecasts for 2030** vehicle deck space / availability by season
- High Shoulder growth projection in first 10 years results in major shoulder period capacity issues - these projections would have to be monitored over time to determine whether they are likely to materialise
- Problems are also likely to escalate in the Summer period over the next decade

# Option LMO Ref Case: Like-for-like new vessel / harbour upgrade at Lochboisdale

- **Vessel & Harbour Implications**

- New vessel of maximum 85m
- Lochboisdale Harbour upgraded to accommodate majority of CalMac vessels
- No harbour works at Mallaig

- **Operational Feasibility**

- This option would maintain the current day position, although it would address reliability issues at Lochboisdale

- **Timetable**

- This option would maintain the current day position

- **Capacity**

- In theory, this option would maintain the current day position. However, modern vessel design standards may mean that capacity is reduced for a vessel of the same length

# Option LMO1a: Like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig

- **Vessel & Harbour Implications**

- New vessel of maximum 85m
- Lochboisdale Harbour upgraded to accommodate majority of CalMac vessels
- Mallaig Harbour upgraded to accommodate majority of CalMac vessels

- **Operational Feasibility**

- This option would address the reliability issues at both Lochboisdale & Mallaig and increase the flexibility of vessel deployment.

- **Timetable**

- This option would maintain the current day position

- **Capacity**

- This option would maintain the current day position but would provide additional flexibility in terms of vessel deployment options

# Option LMO3: Operate the service 7-days per week year-round

- **Vessel & Harbour Implications**

- None

- **Operational Feasibility**

- None

- **Timetable**

- This option would involve operating sailings on a winter Tuesday and Thursday, days on which there is currently no service.
  - If the preference was to go to Mallaig, the timetable would be that of the winter Wednesday or Saturday – i.e. Depart Lochboisdale 07:15 – Arrive Mallaig 10:45 – Depart Mallaig 14:00 – Arrive Lochboisdale 17:40.
  - If the preference was to go to Oban, the timetable would be that of the winter Friday – i.e. Depart Lochboisdale 06:20 - Arrive Oban 11:30 - Depart Oban 12:30 - Arrive Lochboisdale 17:40.

- **Capacity**

- This option would provide an additional 139 lane metres in each direction on each day.

# Option LMO5a: Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale

- **Vessel & Harbour Implications**

- New vessel of maximum 85m
- Lochboisdale Harbour upgraded to accommodate majority of CalMac vessels
- No harbour works at Mallaig

- **Operational Feasibility**

- This option would maintain the current day position, although it would address the reliability issues at Lochboisdale.

- **Timetable**

- The deployment of a **dedicated vessel** would allow for a twice daily return service between Lochboisdale and Mallaig. It is assumed that this would be summer only, with a single rotation per day during winter.

- **Capacity**

- The provision of a dedicated like-for-like vessel would fill the gaps in the winter timetable and double daily route capacity in summer.

# Option LMO5b: Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig

- **Vessel & Harbour Implications**

- New vessel of maximum 85m
- Lochboisdale Harbour upgraded to accommodate majority of CalMac vessels
- Mallaig Harbour upgraded to accommodate majority of CalMac vessels

- **Operational Feasibility**

- This option would maintain the current day position, although it would address the reliability issues at both Lochboisdale & Mallaig and increase the flexibility of vessel deployment

- **Timetable**

- The deployment of a **dedicated vessel** would allow for a twice daily return service between Lochboisdale and Mallaig. It is assumed that this would be summer only, with a single rotation per day during winter

- **Capacity**

- The provision of a dedicated like-for-like vessel would fill the gaps in the winter timetable and double daily route capacity in summer

# Option LMO5c: Provide a dedicated FMEL 802 equivalent vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig

- **Vessel & Harbour Implications**

- New vessel of equivalent to FMEL 802
- Lochboisdale Harbour upgraded to accommodate majority of CalMac vessels
- Mallaig Harbour upgraded to accommodate majority of CalMac vessels

- **Operational Feasibility**

- This option would address the reliability issues at both Lochboisdale & Mallaig and increase the flexibility of vessel deployment

- **Timetable**

- The deployment of a **dedicated vessel** would allow for a twice daily return service between Lochboisdale and Mallaig. It is assumed that this would be summer only, with a single rotation per day during winter

- **Capacity**

- The deployment of a dedicated FMEL 802 equivalent vessel would provide a major uplift in daily route capacity in both summer and winter. Indeed, the summer capacity on this route would actually be higher over the week than on Lochmaddy – Uig



# Appraisal of Options against TPOs

Option	TPO1 - Capacity		TPO2 – Connectivity		TPO3 - Reliability		TPO 4- Resilience	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
<b>Option LMO Ref Case:</b> Like-for-like new vessel / harbour upgrade at Lochboisdale	x	o	o	o	✓	✓	o	o
<b>Option LMO1a:</b> Like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig	x	o	o	o	✓✓✓	✓✓✓	✓✓✓	✓✓✓
<b>Option LMO3:</b> Operate the service 7-days per week year-round	o	✓	o	✓	o	o	o	o
<b>Option LMO5a:</b> Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale	✓✓	✓	✓✓	✓✓	✓	✓	o	o
<b>Option LMO5b:</b> Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig	✓✓	✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
<b>Option LMO5c:</b> Provide a dedicated FMEL 802 equivalent vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig	✓✓✓	✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓

- Replacing the current vessel on a like-for-like basis and continuing the shared arrangement with Mallaig – Armadale (**Options LMO Ref Case & LMO1a**) would have negative capacity & limited connectivity benefits
- The provision of a dedicated Lochboisdale – Mallaig vessel (**Options LMO5a-5c**) would offer significant capacity and connectivity benefits through the flexibility to operate two return sailings per day
- Options which involve the upgrade of Mallaig (**Options LMO1a, 5b & 5c**) would offer the most significant benefit in terms of reliability & resilience

## Assessment Scale

- ✓✓✓ - major positive
- ✓✓ - moderate positive
- ✓ - minor positive
- o - Neutral
- x - minor negative
- xx - moderate negative
- xxx - major negative

# Appraisal of Options against STAG Criteria

Option	Environment	Safety	Economy	Integration	Accessibility & Social Inclusion	Cost to Gov.
<b>Option LMO Ref Case:</b> Like-for-like new vessel / harbour upgrade at Lochboisdale	x	✓	✓	✓	○	Moderate
<b>Option LMO1a:</b> Like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig	xx	✓✓	✓✓	✓✓	○	Very High
<b>Option LMO3:</b> Operate the service 7-days per week year-round	x	○	✓	○	✓	Low
<b>Option LMO5a:</b> Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale	x	✓	✓✓	✓✓	✓	Moderate
<b>Option LMO5b:</b> Provide a dedicated like-for-like new vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig	xx	✓✓	✓✓✓	✓✓	✓✓	Very High
<b>Option LMO5c:</b> Provide a dedicated FMEL 802 equivalent vessel / harbour upgrade at Lochboisdale / harbour upgrade at Mallaig	xx	✓✓	✓✓✓	✓✓	✓✓✓	Very High

- In the context of the STAG criteria, the options which include the upgrade of Mallaig (**Options LMO1a, 5b & 5c**) provide the most significant benefit in terms of economy and accessibility, but are at the same time the most expensive & negative from an environmental perspective
- Operating the service 7-days per week year round (**Option LMO3**) would provide minor benefits but at a very low cost
- The provision of a dedicated vessel for Lochboisdale – Mallaig (**Options LMO5a-5c**) would maximise the benefits of any new investment for the Uist community

# Options Shortlisted for 'Network Plan'

Option	Description	Rationale for Selection / Rejection
LMO Ref Case	Like-for-like new vessel / new Lochboisdale harbour	✓ - This option is retained for further consideration. It is the lowest cost means of maintaining the current level of service on the Mallaig – Lochboisdale route and would allow an initial improvement to be made to the Lochboisdale – Mallaig route independent of any future investment at Mallaig.
LMO1a	Like-for-like new vessel / new Lochboisdale harbour / harbour upgrade at Mallaig	✓ - This option is retained for further consideration. Improvements to Mallaig would improve the reliability and resilience of the service.
LMO3	Operate the service 7-days per week year round	✓ - This option is retained for further consideration.
LMO5a	Provide a dedicated Like-for-like new vessel / new Lochboisdale harbour	✓ - This option is retained for further consideration.
LMO5b	Provide a dedicated Like-for-like new vessel / new Lochboisdale harbour / harbour upgrade at Mallaig	✓ - This option is retained for further consideration.
LMO5c	Provide a dedicated FMEL 802 equivalent vessel / new Lochboisdale harbour / harbour upgrade at Mallaig	✓ - This option is retained for further consideration.

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# Outer Hebrides Wide Options, Detailed Appraisal

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# Outer Hebrides-wide Options

- In addition to the route specific options which are being presented at these exhibitions, a series of Outer Hebrides-wide options were developed and appraised
  - These options are defined as impacting on more than one landmass within the Outer Hebrides, so for example a freighter shared between Lewis and Uist
  - In the interests of brevity, only brief details on the options considered and the rationale for selection / rejection are presented here, but please speak to the team if you would like more details on any specific options considered
- In summary, only the **Outer Hebrides-wide option OH8 (Introduce Demand Management Measures)** is being retained for further consideration within the Network Plan

	Description	Rationale for Selection / Rejection
OH1	Rationalise the service to two routes with two Outer Hebrides access points (one for Lewis & Harris and one for Uist & Barra) and a single mainland port (Uig)	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> <li>• There would be significant public acceptability issues, particularly in Barra</li> <li>• Journey times would be extended for residents of Lewis, Harris, South Uist, Eriskay and Barra.</li> <li>• Significant investment has recently been made at Ullapool, with investment planned at Tarbert. The benefits of this investment would be lost and could lead to financial difficulties for trust ports</li> <li>• There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.</li> </ul>
OH2	Rationalise the service to two routes with two Outer Hebrides access points (one for Lewis & Harris and one for Uist & Barra) and two mainland ports (Ullapool & Uig)	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> <li>• There would be significant public acceptability issues, particularly in Barra, where a ferry crossing would be required to connect with any mainland ferry service.</li> <li>• Journey times would be extended for residents of Harris, South Uist, Eriskay and Barra.</li> <li>• There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.</li> </ul>
OH3	Rationalise the service to one route by routeing all island – mainland services via Stornoway–Ullapool	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> <li>• There would be significant public acceptability issues, particularly in Barra, where two ferry crossings would be required and in Uist where one ferry crossing would be required to connect with any mainland ferry service.</li> <li>• There would be significant costs of upgrading Stornoway Harbour, the Spinal Route and potentially a fixed link across the Sound of Harris.</li> <li>• Without a fixed link across the Sound of Harris, a service would need to be maintained between Lochmaddy and Tarbert, meaning that the cost savings associated with discontinuing the ferry service at these ports would not be realised.</li> <li>• Journey times would be extended for residents of Harris, Uist and Barra.</li> <li>• There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.</li> </ul>
OH4	Rationalise the service to four routes by routing all Uist services through a single new port at Lochcarnan, using the short-sea crossing to Dunvegan or Milovaig on Skye	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> <li>• The costs of building the new harbours and enhanced road infrastructure would be significant and up-front.</li> <li>• There would be significant public acceptability issues in certain communities within Uist (particularly Lochmaddy and Lochboisdale), although this option may be attractive to some. There would likely be public acceptability issues in north-west Skye</li> <li>• There are likely to be planning and environmental impediments to developing new harbours in Uist where two already exist, as well as in Skye.</li> <li>• There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.</li> </ul>

	Description	Rationale for Selection / Rejection
OH5	Rationalise the service to four routes by routeing all Uist services through Lochmaddy	✘ - Whilst there would be transport and financial benefits to hubbing Uist services through Lochmaddy, the closure of Lochboisdale and the discontinuation of the Mallaig / Oban route would have a highly negative impact on South Uist & Eriskay in terms of economic confidence and the accessibility of residents. Moreover, this option would lead to an overall loss in flexibility for Uist residents in terms of timetable, destinations and resilience.
OH6	Rationalise the service to two (or zero) routes by constructing a fixed link between North Uist and north-west Skye	<p>✘ - This option is rejected from further consideration in this study for the following reasons:</p> <ul style="list-style-type: none"> <li>• A fixed link of this distance (around 25km) plus connecting infrastructure would be hugely expensive, with the cost also up-front.</li> <li>• The notion of a fixed link is entirely conceptual at this stage, in terms of the form it would take and the likely alignment.</li> <li>• Lead in times would mean that even if a decision was taken to proceed, the link would not be in place until well into the appraisal period being considered here.</li> <li>• There would be major planning and environmental issues.</li> <li>• There would likely be split opinions within the community on whether a fixed link is desirable.</li> </ul> <p>Whilst conceptually, this option would provide a wide range of benefits, the scale of investment required means that it is unaffordable. It should also be noted that Comhairle nan Eilean Siar chose not to include a fixed link between North Uist and Skye in their Islands Deal submission.</p>
OH7a	Develop a new freight route serving Stornoway and Lochmaddy	✘ - This option has significant merits when considered in a stand-alone form, including the provision of additional freight capacity on the two volume routes to the Outer Hebrides and releasing the MV <i>Loch Seaforth</i> to operate a third return Ro-Pax sailing four days per week. However, the legs between Stornoway & Lochmaddy are likely to be only lightly used and it can be argued that a more efficient and cost effective option would be to add a second vessel (freighter or Ro-Pax) to Stornoway – Ullapool and / or Lochmaddy – Uig.
OH7b	Develop a new Ro-Pax route serving Stornoway and Lochmaddy	✘ - This option is rejected from further consideration on the same basis as Option OH7a.
OH8	Introduce demand management measures on routes across the Outer Hebrides	✓ - This option is retained for further consideration as it would assist in maximising the use of available capacity. It is not however specifically considered as an option in the appraisal, rather it is integrated within the development of the wider Draft Outer Hebrides Network Plan.

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# Emerging Network Plan

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# The Draft Network Plan

- Having appraised options for all routes to, from & within the Outer Hebrides, a draft Network Plan has been developed which brings together the outputs of the route specific considerations
  - A reminder that analysis and conclusions for all other routes are available in booklets around the room
- The Draft Network Plan considers:
  - Short-term measures (to 2023)
  - Medium-term measures (to 2032, which covers the period of the next *Ferries Plan*)
  - Long-term considerations beyond 2032 which will need to be planned for between now and then
- **A few points to note...**
  - **The options presented in the Draft Network Plan remain conceptual at this stage – the purpose of this engagement exercise is to seek feedback on the proposals developed**
  - **The Plan does not imply a commitment from Transport Scotland – if the Draft Network Plan is approved, it would remain subject to available funding**
  - **In parallel to this engagement process, CalMac is reviewing the deliverability of the options being presented**
  - **The Draft Network Plan is also in the process of being more fully costed**

## Short-Term Measures (to 2023)

- The lead time for developing a business case for a new vessel, securing funding, placing an order, building the vessel and adapting / developing infrastructure is in the region of 5 years
- Short-term measures are therefore focused on identifying:
  - **What more can be done with current vessels & harbours** to plug evidenced connectivity gaps and capacity problems; and
  - **Preparatory work** for necessary capital infrastructure investment.
- It is not anticipated that new vessels will be in service during this period except where there is a possibility to procure them via the charter / second-hand market or a cascade from within the existing fleet

## Short-Term Measures (to 2023) – Outer-Hebrides Wide & Capital Options

- **Outer Hebrides-wide Options**

- Transport Scotland and the operator to explore the extent to which existing capacity could be better used through the implementation of ***demand management*** measures
- Develop a medium-term ***Vessels Plan***, thus ensuring the capital options progressed as part of this appraisal are nested within a wider delivery plan.

- **Capital investment preparation**

- Progress a dedicated like-for-like new vessel for the Lochboisdale – Mallaig route, together with a new Lochboisdale harbour
  - The new vessel would be designed to fit within the current Mallaig Harbour, although redevelopment of Mallaig retained as a longer-term ambition
  - New vessel would operate two return sailings per day
- Second vessel for Stornoway – Ullapool route: further work is required to determine whether this is a part-year or year-round freighter or part-year Ro-Pax vessel
  - Capacity analysis suggests that a second Stornoway – Ullapool vessel would provide greater benefits than a second vessel on the Uig Triangle, particularly given the forthcoming introduction of FMEL 802 – although the impact of this vessel should be closely monitored

# Short-Term Measures (to 2023): Service Enhancements

- Operate a Saturday evening return Ro-Pax sailing from Stornoway to Ullapool between June and September, with the Sunday overnight freight sailing suspended during this period
- Operate the overnight freight service in Ro-Pax mode on a Monday and Friday between June and September
  - An agreed amount of deck-space should be allocated for freight on these sailings
- The availability of a charter freighter for the Stornoway – Ullapool route should be considered ahead of the proposed capital option being delivered. This would permit up to three MV *Loch Seaforth* Ro-Pax services per day
- The Saturday evening Ro-Pax sailing and opening the overnight freight service to vehicle bookings on certain days of the week would **not** be required if this option was delivered
- Extend the length of the operating day on the Sound of Barra
- There are two further service enhancements which could be delivered in the short-term should the respective communities be receptive to them:
  - Operate the Lochboisdale – Mallaig / Oban service 7-days per week year-round
  - Operate the Castlebay - Oban service 7-days per week year-round
- The following opportunities could be pursued should an appropriate vessel become spare:
  - Introduce a second-year round vessel onto the Sound of Harris route
  - Introduce a second summer vessel onto the Sound of Barra route

## Medium-Term Measures (to 2023-2032)

- Introduce new Lochboisdale – Mallaig & Stornoway – Ullapool vessels early in the period
- The MV *Isle of Lewis* will need to be replaced during this period
  - The capacity utilisation forecasts suggest that a vessel of this size is not required to operate the Castlebay – Oban route and thus the option of procuring an open-deck vessel of a proportionate capacity could be pursued (i.e. MV *Clansman* size).
- At the outset of the ‘medium-term’ period, there should be a degree of certainty on the future development of Mallaig Harbour. If the decision is taken to upgrade that port to accommodate the wider ‘Major Vessel’ fleet, a review could be undertaken as to whether a larger vessel should be deployed on the Lochboisdale – Mallaig route.
  - The smaller Lochboisdale – Mallaig vessel could be redeployed elsewhere on the network
- There would also be a degree of certainty as to whether a full or partial fixed link for the Sound of Harris emerges from either the Islands Deal or Strategic Transport Projects Review 2. This would determine whether a ferry service is still required on that route. If so, a ‘Euro B’ compliant main & relief vessel for that route would be required by the mid-2030s, so planning would have to commence.
- In relation to the Sound of Barra, an ongoing review of capacity utilisation would determine the appropriate vessel solution for that route when MV *Loch Alainn* is retired from service in the late 2020s / early 2030s

## Long-Term Considerations (beyond 2032)

- 2031-2036 Replacement of MV *Hebrides*.
- 2033-2038: Replacement of MV *Loch Portain* with a 'Euro B' vessel unless a fixed link for the Sound of Harris is progressed through the Islands Deal or STPR.
- 2045-2050: Replacement of MV *Loch Seaforth*
- Ongoing monitoring of capacity utilisation to inform future fleet deployment and investment decisions

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# Completing the Study

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# Completing the Study

- The feedback from this event and wider engagement with stakeholders, the Reference Group and Transport Scotland will be used to refine the appraisal of the options
  - This will include a more detailed review of deliverability and cost to government
- The STAG Report will be finalised and published in Autumn 2019
- Transport Scotland will discuss the published report with stakeholders
- Transport Scotland will feed the outputs of the study into future versions of the *Vessel Replacement & Deployment Plan* and the next *Ferries Plan*



## What to do next

- Please take this opportunity to provide your thoughts on the options presented to the team and ask any questions you may have
- The boards you have just read provide some areas you may wish to discuss but we would be happy to hear any views that you have
- Please also take the time to fill out the exit questionnaire before you leave. It can also be found here:

<https://www.surveymonkey.com/r/OuterHebridesExhibitionQuestionnaire>

## Thank you for coming