



**Cruise Tourism in Scotland: Review &
Sustainable Development Opportunities
for
VisitScotland
Scottish Enterprise
Highlands and Islands Enterprise
Scottish Government
Technical Annex B: Case Studies**

September 2020



Report submitted by:	Susan Staiano, Richard Weaver, Adam Ferguson
Proof check completed by:	Adam Ferguson
Date:	17 th September 2020
Report reviewed by:	Susan Staiano
Date:	16 th September 2020

Contents

Introduction	1
1 Bergen, Norway	2
Population	2
Volume of tourism	2
Volume of cruise passengers & trends	2
Terminal facilities	2
Key attractions/activities for cruise passengers	3
Visitor management: challenge and responses	4
In summary	5
Key learnings for Scotland	5
2 Juneau, Alaska	7
Population	7
Volume of tourism	7
Volume of cruise passengers & trend	7
Terminal facilities	8
Key attractions/activities for cruise passengers	8
Visitor management: challenge and responses	9
In summary	11
Key learnings for Scotland	11
3 Barcelona, Spain	13
Population	13
Volume of tourism	13
Volume of cruise passengers & trend	13
Terminal facilities	13
Key attractions/activities for cruise passengers	14
Visitor management: challenge and responses	15
In summary	16
Key learnings for Scotland	16
4 Orkney, Scotland	18
Population	18
Volume of tourism	18
Volume of cruise passengers & trend	18
Terminal facilities	19
Key attractions/activities for cruise passengers	19
Visitor management: challenge and responses	20
In summary	23
Key learnings for Scotland	23

Introduction

This technical annex presents four case studies from different ports that have a contrasting experience of cruise tourism, and that have implemented different approaches to the management of cruise vessels and cruise tourism visitors. The case studies are intended to demonstrate the context for cruise tourism in each destination, and the relative success in managing the volume and resulting impact of cruise tourism visits. Key learnings from each case study are then identified where there is applicability in the Scottish context.

1 Bergen, Norway

Population

Located on the country's west coast, Bergen is Norway's second-largest city at an area of around 180 sq. miles. It has a population of over 283,000 people¹, and is famous for its combination of new and old architecture. Around 62% of Bergen's inhabitants are aged 20 to 64, with a further 22% aged 19 years and below². Around 10% of Bergen's population are students³. Bergen's overall population has grown by 2% since 2016, rising from 277,000 inhabitants.

Volume of tourism

Tourists in Norway had 103.7m overnight stays in 2018, accounting for expenditure of around NOK 128.8bn (£11.9bn)⁴. Foreign tourists represented 11% of overall overnight stays, with domestic tourists accounting for the remaining 89%. Holidaymakers (foreign and domestic) were by far the most common, totalling 87.8m overnight stays (85% overall).

Employment in tourism is also on the rise, with 166,400 FTEs, salaried employees and self-employed persons employed in the industry in 2018, up 2% since 2012.

Volume of cruise passengers & trends

Cruise tourism has increased across Norway by 14% since 2012, rising from 588,000 to 852,241 passengers in 2018, while the number of cruise-related day visitors increased by 13% to over 3.4m in 2018. The number of cruise calls has also increased over the period from 2,135 to 2,066, an increase of 3%. Bergen was Norway's busiest port in 2019, welcoming 576,000 day visitors from cruises⁵, accounting for 15% of all cruise-related day visits across Norway that year.

Table B.1 shows the breakdown of cruise calls and passengers in Bergen from 2014 to 2019⁶. Total cruise calls have increased slightly over the period, rising by four to 327 in 2019. However, there has been a 23% increase in total calls since 2015, when the number of cruises dropped to 265 from the previous year. Total passengers – representing the number of people aboard cruises for any given year – have risen by 30% since 2014, despite a small 4% drop in total passengers between 2018 and 2019. The vast majority of calls to Bergen in 2019 took place from May to September (89%).

Table B.1: Cruise Calls and Passengers – Bergen

	2014	2015 ⁷	2016	2017	2018	2019
Total cruise calls	323	265	296	307	336	327
Total passengers	442,759	430,000	490,546	534,221	597,217	576,000

Source: Cruise Norway, 2020

Terminal facilities

Bergen is Norway's second largest port and is one of the most popular cruise destinations in Europe. Cruise ships dock at Skolten, Vagen Harbor in Bergen. The majority of ships dock at Skolten's cruise

¹ <https://www.ssb.no/en/befolkning/statistikker/folkemengde>

² Population, Statistics Norway (2020)

³ <https://www.visitnorway.com/places-to-go/fjord-norway/bergen/>

⁴ Key figures for Norwegian travel and tourism, 2018

⁵ Day visits takes into account cruises visiting multiple ports, therefore one passenger may visit more than one port.

⁶ Cruise Norway (2020) <https://www.cruise-norway.no/Public-info/Statistics/>

⁷ Actual figures for 2015 were unavailable, therefore projected figures from the year before have been included.

port, which is a short half-mile walk along the waterfront to the popular Bryggen wharf area. However, larger ships sometimes dock at the Dokken port, located around 0.5 miles east of the city's popular Fish Market – one of Norway's most visited outdoor markets.

Bergen's key areas of focus are to promote sea transport, while managing, operating, and developing the port facilities. Port of Bergen is also committed to the development of innovative and sustainable solutions for a more eco-friendly port. The port is operated by 52 employees⁸.

The main cruise terminal at Bergen is around a 10-minute walk from the main harbour and beginning of the city centre (around 300-500 metres), while Dokken quay is about 20 minutes or a short shuttle ride. Up to four ships can visit the port at any one time, and it also operates as a turnaround port for Hurtigruten services⁹. The port operates on handling a maximum number of 9,000 passengers per day, with the capacity to handle ship dimensions of up to 333m long and 9m wide at Skolten.

Services offered by the port include bunkering (by car or boat), supplies, waste handling, fresh water, and waste water management. The shuttle buses from Dokken/Jekteviken operate free of charge for cruise visitors – these run to the city centre and are available from the ship's arrival to departure time. There are also taxi services available on request. Bergen Airport Flesland is 16km from the port.

Key attractions/activities for cruise passengers

Arguably Bergen's key attraction is the Norwegian Fjords, by which the city is surrounded, and which is included on UNESCO's World Heritage list¹⁰. Bergen is nicknamed "The Gateway to the Fjords" and offers a number of guided tours, with itineraries ranging from one to two weeks and incorporating a range of travel options with Bergen as a start point.

Another attraction listed as a UNESCO World Heritage Site is Bryggen, an old wharf that is famous for its picturesque row of colourful wooden houses. Bryggen was once an important Hanseatic trading centre in medieval times, and contains a small museum along with a range of restaurants and shops. Bryggen is located a short five-minute walk from the port.

Bergen's Fish Market is also popular among cruise tourists, particularly given its proximity to the port (around 0.5 miles). The Bergen Museum is located just under a mile from the port, with historical and maritime displays and exhibits, while the Berghuset medieval fortress is situated even closer, around three minutes walking distance (just over 0.1 miles).

Further away, a number of attractions can be reached via short rail, taxi or bus journeys, including the Old Bergen Museum (1.9 miles), the Fantoft Stave Church (4.7 miles), Edvard Greig's Troidhaugen museum (6.2 miles).

⁸ <https://bergenhavn.no/en/about-port-of-bergen/>

⁹ <https://www.telegraph.co.uk/travel/cruises/port-guides/bergen-cruise-port-guide/>

¹⁰ <https://www.cruiseurope.com/destinations/bergen/>

Table B.2: Bergen's key attractions and distance from port (miles)

Attraction	Distance from Port of Bergen (m)
Bryggen	0.2
Bergen Fish Market	0.2
Bergen Museum	0.9
Bergenshus fortress	0.1
Old Bergen Museum	1.9
Fantoft Stave Church	4.7
Troldhaugen museum	6.2

Source: Various online sources

Visitor management: challenge and responses

Challenges

Visitor management concerns in Bergen revolve largely around improving the experience for cruise tourists while capitalising on attracting the right type of tourist. Bergen Tourist Board does not simply have a volume strategy for managing passenger flow in and out of the port and the surrounding areas; this is one part of a wider cruise strategy geared around profitability and sustainability.

Around 3% of cruise passengers in Bergen account for 34% of the total economic consumption by cruise passengers on shore, therefore there is a need for Bergen to understand its cruise passenger base in order to attract the right cruise passengers and avoid high volumes. Part of this is around offering cruise tourists a quality product and experience, built around the key attractions and activities highlighted previously. There are concerns around high volumes of cruise tourists leading to a low-quality experience, particularly when it comes to queueing times, and "experience contamination" from several ships docking at the port at the same time.

Given the geographical proximity of the port to a number of attractions as well as the town centre, it is not uncommon for Bergen to receive more cruise passengers than the surrounding infrastructure can endure. This can lead to overcrowding in streets and around popular sites, such as the Fish Market, and long queues for public transport (particularly buses travelling in the city centre) and congestion. There are concerns that this could lead to a negative perception of Bergen as a tourist destination, and have a negative influence on the quality of life of the local people living in the area, particularly around increased air pollution arising from the running of cruise vessel engines.¹¹

Practical solutions and strategies for proactive cruise management

Bergen Tourist Board has recently taken steps to develop a cruise strategy, with limitations on the number of cruise ships and passengers allowed in the port. The City Council of Bergen recently adopted the strategy, which states a daily maximum of 8,000 passengers and a maximum of three ships at a time docked in the port, a decision fully supported by Bergen Tourism Board. Though the port is obliged to receive all ships calling. However, it can in practice limit the number of calls by specifying criteria for call reservations.¹² This is intended to alleviate the overcrowding problems caused by a large number of visitors from cruise. Further, there are calls among government to introduce a state law change to monitor and control the total number of cruise dockings¹³, which would seek to reduce congestion as well as control any stress on port or surrounding infrastructure caused by increased passenger footfall.

¹¹ Tourism Crowding in Cruise Ports, Green Cruise Port (2018)

¹² <https://www.greenport.com/news101/europe/bergen-targets-sustainable-cruise>

¹³ <https://www.newsinenglish.no/2019/06/06/bergen-struggles-with-cruise-control/>

As such, the Port of Bergen is currently working on a number of projects to develop a more sustainable cruise offering in the city as well as managing the flow of cruise and non-cruise calls in the port. The Bergen municipality has adopted an ambition to become fossil-free by 2030. Part of this ambition is for the port to offer shore power to all vessels by 2020, in accordance with Bergen's Environment Strategy. The port is working with renewable energy company BKK to build Europe's largest onshore power supply, at a cost of NOK 120m. The facility will be able to supply three cruise vessels simultaneously with 6.6/11 kV, 50/60hz and a total of 30mW, with connection points available at Skolten and Bontelabo quays from May 2020.

As part of the sustainability push, the port has partnered with 11 other Norwegian cruise ports plus DNVGL to develop a new system characterising each cruise ship's environmental footprint. The system is called the Environmental Port Index (EPI), and it is designed to inform how ships perform while in the port. Improved operation will be credited with an increased EPI score and will be related to fee increases and reductions around quay dues, passengers, ISPS-fee and fairway dues, depending on environmental and sustainable performance (i.e. ships connected through shore power). In adopting more environmentally-friendly measures, Bergen intends to impose strict rules on large vessels that burn heavy fuel oil that cause environmental damage to the surrounding area – this is of particular importance given the draw of nearby natural assets such as the UNESCO Fjords.

The port is also currently conducting a LNG (liquefied natural gas) risk assessment. The output of the exercise will be a best practice guide to LNG bunkering within the port. The immediate drivers for this assessment is the need for LNG delivery to the AIDA Cruises' ships in 2019, as well as bunkering of the Hurtigruten and Havila coastal passenger ships in 2021. Provision of LNG bunkering would allow cruise ships to utilise LNG and consequently vastly reduce the amount of pollutant caused by the likes of heavy fuel oil, in turn paving a platform for an environmentally sustainable future.

In summary

With tourism on the rise across Norway, it is unsurprising the number of cruise calls and passengers arriving in Bergen has increased over the last five years. With a number of key attractions available within a short walking distance of the port, as well as a variety of activities on offer in a geographically wider sense, a number of initiatives are being planned or undertaken to manage volume and experience. Strategies such as an upper limit on the number of passengers passing through the port from cruise calls each day have been implemented, with governmental institutions working alongside tourism groups to quell concerns around overcrowding and negative impacts on the quality of living for the local population. There is also a drive to curb unsustainable cruise (and wider port) traffic through the introduction of the EPA, an index to monitor the environmental footprint of each ship entering the port.

Key learnings for Scotland

Ports across Scotland could adopt a wider **strategy** for cruise tourism specifically designed to foster and implement measures to manage all aspects of cruise tourism, as has been introduced in Bergen. This would include a visitor management strategy, as in in Orkney. It could set out **guidelines for ports and cruise companies** to follow, such as a daily maximum number of passengers disembarking and ships docking. This would be beneficial in areas where the surrounding infrastructure is unable to cope with increasing cruise volume, such as Invergordon. Where public transport services in Scottish towns are overcrowded due to high volumes of cruise passengers, additional bus services could be introduced. Aberdeen City has implemented an ongoing programme to allow the port to operate in a more sustainable manner, including managing the number of cruise ships docking on any given day and monitoring the capacity of onshore attractions to accommodate passenger demand.

As well as curbing overwhelming volume, there may be an opportunity for some Scottish ports to adopt more **environmentally sustainable approaches** to cruise tourism as part of a wider strategy. This could take the form of an agreement amongst ports across Scotland to commit to more renewable forms

of energy, such as shore power, and would reflect the Scottish Government's net-zero by 2045 ambition. The introduction of **LNG provision** across more ports in Scotland would contribute to this, with ports such as Invergordon currently scoping out feasibility in incorporating LNG services for docked ships. Where there is capacity, more ports and ships using LNG provision would reduce the amount of pollutant caused by heavy fuel oil, creating a more environmentally manageable and sustainable environment.

In considering shore power provision and LNG supply, there may be scope for some ports to implement a **system that monitors environmental sustainability** for its docked cruise ships, similar to Bergen's Environmental Portal Index (EPI). This would limit accessibility to cruise ships operating out-with certain environmental parameters, and would encourage cruise ship operators to adapt accordingly. In the short term, volume management may be more straightforward as ship volume decreases in line with environmental regulations, allowing ports more time to plan for the increase in demand as operators better align with environmental regulations.

2 Juneau, Alaska

Population

Alaska has a population of just over 731,000 people. Juneau has been the capital city of Alaska since 1990 and is part of the Southeast Economic Region. It has a population of just under 32,000 people, having decreased by around 3% since 2013. This is in line with the population of Alaska as a whole, which has fallen by around 5,000 residents since 2013. Residents in Juneau aged 15-24 make up 11% of the city's total population, down one percentage point since 2013. Conversely, the proportion of those aged 65 and over has increased four percentage points since 2013, rising to 14% in 2019¹⁴.

Volume of tourism

Tourism across Alaska is on the rise, particularly in the summer months between May and September. The number of visitors to Alaska during those months in 2018 was over 2 million, accounting for a 5% increase on the previous year and a 27% increase since 2009¹⁵.

Volume of cruise passengers & trend

Cruise tourism accounts for a significant proportion of tourism to Alaska throughout the summer period, including the Southeast and Juneau. Around 58% of all tourism (volume) in Alaska came from cruise ships in 2018, with 38% of visitors arriving by air and the remaining 4% by road or ferry. Proportionally, cruise tourism has retained the same share of overall visitors to Alaska since 2014, however the total number of cruise passengers has increased by 21% to 2018.¹⁶

As the busiest port in Alaska, Juneau also welcomes the vast majority of cruise calls and passengers to the Southeast region. In 2018, total cruise passengers to the Southeast Alaska region amounted to just under 1.17 million, of which the vast majority (1.15 million) visited the Port of Juneau (98%). It was previously anticipated the total number of passengers would rise to 1.44 million in 2020, with 43 cruise calls originally expected in the region. Of passengers visiting the Southeast in 2019, it is expected 97% will visit Juneau, rising to 99% in 2020.

Cruise passenger spend is around \$162 per person in Juneau, with the majority going to tour and excursion operators.¹⁷ In 2016, around \$218 million in direct spending in Juneau came from cruise passengers, crew members and other visitors, with a further \$14.2 million in revenue from marine-related sources such as the state cruise ship passenger tax and Juneau's marine passenger fee.

Table B.3: Cruise Calls and Passengers – Southeast Alaska

	2014	2015	2016	2017	2018	2019 ¹⁸
Total cruise calls	-	-	-	-	-	40
Total passengers	967,500	994,00	1,025,900	1,089,700	1,169,000	1,360,000

Source: Southeast Alaska, Southeast Conference (2019)

¹⁴ Alaska Population Statistics, Department for Labour and Workforce Development (2020) <http://live.laborstats.alaska.gov/pop/>

¹⁵ Visitor Volume Report, Summer 2018 (2019) <https://www.alaskatia.org/Research/Visitor%20Volume%20Summer%202018%20Report%202019.pdf>

¹⁶ Visitor Volume Report, Summer 2018 (2019) <https://www.alaskatia.org/Research/Visitor%20Volume%20Summer%202018%20Report%202019.pdf>

¹⁷ <https://www.alaskajournal.com/2019-07-03/best-practices-help-juneau-absorb-leap-tourist-traffic>

¹⁸ 2019 figures are estimates.

Terminal facilities

Built on a small strip of land between the Gastineau Channel and Mount Juneau, the town of Juneau and its port are located at the southern end of the Lynn Canal. The close proximity of the port to the town centre gives cruise passengers straightforward access to town services and amenities, either by walking or a short shuttle service. The port (and town) is not accessible by road.

Cruise ships dock at one of the port's three cruise terminals, with all four docking berths accessed through these terminals – Marine Park (the largest terminal with two berths), Ferry Terminal, and South Franklin Dock. When all three terminals are already occupied by cruise ships, there is anchorage capacity in the harbour, whereby passengers are transferred to shore through the ship's tender boats¹⁹.

The Port of Juneau built two of the four berths in 2017, accounting for the rise in the cruise tourism to the area and the increase in larger vessels docking. One of the berths, located north of the Marine Park terminal, is the port's biggest at a length of 335 metres, and allows for the docking of large cruise vessels.

Marine Park's other berth to the south is 305 metres long, and is located near Mount Roberts Tram, which climbs to 2,000 feet up the mountain in around six minutes. Both north and south berths can be accessed via the other through a catwalk, although this is only available for use by manual workers at the port. The two berths at Marine Park offer water and sewage services, with the south berth's sewage piping installed in 2016.

There is also cruise berthing available at the AJ Dock, although this is further to the south of the port and is around a 10-minute shuttle bus journey from the town centre. Day passes are available to cruise passengers for around \$3 where they can use the AJ dock shuttle service throughout the day – the service runs every 15 minutes²⁰. Taxis are available for cruise passengers outside each terminal, as are local bus services. Juneau International Airport is around 15 minutes from the port, just under 9 miles.²¹

Key attractions/activities for cruise passengers

The town of Juneau offers a number of attractions for cruise passengers, with a range of museums located in the area as well as a complement of sightseeing ventures. There are also a number of outdoor activities available to cruise passengers, including rafting, sea kayaking, sailing, zip-lining and nature-watching²².

In the immediate proximity to the port (a one-minute walk), cruise passengers can take a six-minute tram journey up Mount Robert. The Mount Roberts Tramway transports visitors up the mountain, offering panoramic views of Juneau, the Gastineau Channel, Douglas Island the highest peaks on Admiralty Island. At the top of the mountain, visitors can explore the Sky Bridge and Mountain House complex, owned and operated by the local Native Corporation. There is also trail-walking and alpine hiking opportunities, as well as wildlife viewing platforms and traditional native tree carvings to experience at the top. The Mountain House hosts a theatre, gift shop, restaurant and espresso bar²³.

In the town centre, the Sealaska Heritage Institute (0.4 miles) is a native non-profit organisation where visitors can view collection and exhibits, as well as a traditional Clan House and store. The Alaska State Museum (0.7 miles) has a range of historical and natural collections for visitors to view, with more than 32,000 catalogued objects.

¹⁹ <https://www.cruisemapper.com/ports/juneau-port-407>

²⁰ <https://www.whatsinport.com/Juneau-AK.htm>

²¹ <https://www.ahoycruises.co.uk/cruise-ports/425-juneau-alaska.html?tmpl=component>

²² <https://www.telegraph.co.uk/travel/cruises/port-guides/juneau-cruise-port-guide/>

²³ <https://www.alaska.org/detail/mt-roberts-tramway>

Outside the town centre, visitors travel to the Mendenhall Glacier (12.7 miles). The 13-mile long glacier is the central part of the Juneau Icefield, and can be viewed from the nearby Forest Service's historic visitor centre, which also includes information on nearby forest and lake trails, wildlife, and Nugget Falls. The Mendenhall Glacier can be accessed via taxi from downtown Juneau, or as part of the town's bus tour offerings²⁴.

A number of excursion companies also offer helicopter sightseeing trips. For instance, Temsco gives visitors an hour-long helicopter tour over the Mendenhall Glacier, as well as providing sightseers the chance to walk on the glacier. Temsco is located around 8 miles from Juneau town centre.

Table B.4: Juneau's key attractions and distance from port (miles)

Attraction	Distance from Port of Juneau (m)
Mount Roberts Tramway	0.03
Sealaska Heritage Institute	0.4
Saint Nicholas Russian Orthodox Church	0.6
Juneau Arts and Humanities Council	0.6
Alaska State Museum	0.7
Alaska State Library	0.7
Temsco sightseeing	8.0
Mendenhall Glacier	12.7

Source: Various online sources

Visitor management: challenge and responses

Challenges

The volume of cruise tourism, and thus the number of people visiting Juneau has risen significantly over the last few years. Naturally, this has raised concerns around overcrowding and the ability of services and infrastructure to cope with the demand of increased volumes of visitors. For context, when all docks at the Port of Juneau are occupied, they can deliver enough passengers to double the town's population, bringing it to over 60,000 for a short, intensive period of time²⁵.

There is evidence that smaller cruise operators in particular, such as Uncruise Adventures, which cater to small group experiences, are concerned about the growth, with suggestions that some sort of limit should be put on the growth of cruise tourism in terms of number of calls and passengers received, in order to provide a sustainable future for smaller businesses, to provide a quality experience for visitors, and importantly to respond to concerns of community groups and Juneau residents.²⁶ The risk is that smaller operators are either crowded out the market, or that the more intimate experiences they offer are negatively impacted by the overcrowding at popular local attractions.

This volume of tourism can have an impact on the local community, with evidence from TBMP that a large segment of the population in Juneau is unhappy with the environmental impacts of summer cruises.

There is increasing concern from residents and businesses in the town regarding health impacts arising from cruise vessel emissions, and also congestion as a result of extra demand on the public transport

²⁴ <https://www.alaska.org/detail/mendenhall-glacier-visitor-center>

²⁵ <https://www.alaskajournal.com/2019-07-03/best-practices-help-juneau-absorb-leap-tourist-traffic>

²⁶ <https://www.ktoo.org/2019/10/15/when-it-comes-to-cruise-ship-passengers-how-much-is-too-much-visitor-industry-insiders-differ/>

infrastructure. Consequently there is a need for increased measures to address these environmental concerns.²⁷

There is a push to expand shore power at the port, in line with other ports. A feasibility study carried out as recently as 2016 outlined the evidence supporting the development of shore power facilities, as well as demonstrating the capacity for installation.²⁸

Practical solutions and strategies for proactive cruise management

Juneau has a long history of managing tourism impacts, driven by the city's Tourism Best Management Practices (TBMP) programme. TBMP brings together stakeholders, including industry and community, to discuss solutions to ongoing concerns such as infrastructural congestion and noise pollution from sightseeing tours (i.e. helicopters and floatplanes).

TBMP has been in place since 1997 and despite not being formally recognised by any government agency, tour operators, cruise lines, transport providers and other businesses involved in the industry have agreed to operate within its parameters in order to keep the impact of visitors, who are predominantly cruise visitors, to a minimum. This includes participation and compliance from around 130 tourism operators and 3,000 employees in Juneau. The group meets in its entirety around once per year to discuss any complaints following the summer cruise season and to update or address any guidelines.

The guidelines for 2019 outlined a variety of agreements related to a number of areas, including cruise ships, infrastructure, tour activities and local businesses.²⁹ Examples of congestion-related guidelines include instructions on monitoring peak congestion times at the port and surrounding area; public transport operators avoiding picking up new fares at unscheduled stops anywhere in the City & Borough of Juneau, and using specially identified areas when performing a "quick drop-off" of passengers; and turning off engines when loading and unloading passengers from vehicles. Cruise ships are also asked to minimise vessel announcements and outdoor entertainment while docked or anchored in the harbour to reduce noise pollution, as well as use vessel floats in a safe and responsible manner when anchored.

As a general rule, the TBMP group asks that all members agree to train their relevant employees in order to make them aware of the programme, its objectives and its guidelines; and to conduct training sessions with new employees hired mid-season. The TBMP group also runs a hotline for local residents to call with any immediate concerns. The hotline received 93 calls in 2019, significantly more than the previous year.

The TBMP programmes have been so successful that other communities in Southeast Alaska have adopted the approach, such as Ketchikan, which has a population of just under 14,000 and welcomed over 1 million cruise passengers from 40 cruise ships in 2018³⁰.

Bespoke initiatives are also undertaken by tour operators to reduce the impact of their increasingly in-demand services. For instance, aviation operators in Juneau (i.e. helicopter tours and small planes) meet at the beginning of every summer cruise season to develop management and safety plans. These incorporate flight patterns, call frequencies and frequency of visits to landmarks. By scheduling flight plans in unison ahead of time, operators are able to manage the visitor flow and accommodate where possible. Newer planes in the Wings tour fleet are equipped with 900-horsepower engines, and are

²⁷ <https://www.alaskapublic.org/2019/04/23/cruise-industry-responds-to-community-concerns-about-environmental-impacts/>

²⁸ Port of Juneau Cruise Ship Berths, Shore Tie Power Feasibility Study (2016)

²⁹ 2019 Tourism Best Management Practices (2019) <https://beta.juneau.org/index.php?qf-download=2019%2F04%2F19-TBMP-final-guidelines-to-print.pdf&form-id=22&field-id=11&hash=9684d06c8a878f314a68e59c4cf34ae611cff6856cbefa982470ee68a0f89224>

³⁰ <https://www.visit-ketchikan.com/en/Membership/Visitor-Statistics>

relatively quiet, therefore reducing the amount of noise pollution (a concern among local residents) while still accommodating the rising number of tourists.

As the number of cruise visitors has increased, the number of new companies offering different excursion experiences has also increased. The city itself has been proactive in installing measures to cope with the volume of people and excursion operators. For instance, the installation of new stanchions near the cruise docks has improved the flow of people through traffic, quelling congestion in the immediate port vicinity.

As of late-2019, there were discussions at a local level around the creation of a tourism task force made up of stakeholders from the industry. The task force would meet to examine the impacts of continued growth from tourism.

In summary

Southeast Alaska has seen significant growth in cruise tourism over the last decade or so. As the busiest port in Alaska, Juneau has seen a large proportion of that growth. This has understandably resulted in increased concerns around the scale of growth, and the ability of stakeholders in the city to effectively manage cruise tourism. There are also concerns around the environment, with the number of cruise calls set to continue rising in the area. The installation and expansion of shore power would go some way to alleviating some concerns around vessel emissions, with a feasibility study in 2016 outlining a possible plan to expand shore power at the Port of Juneau – as of 2019, there were ongoing discussions about expanding shore power.³¹ Concerns around visitor volume from cruise passengers (and tourism more widely) have been largely successfully managed through the development and universal implementation of the TBMP, a positive best practice example of industry stakeholders and communities working together to address concerns around congestion, pollution and overcrowding.

Key learnings for Scotland

A key challenge faced by Juneau that some Scottish ports might consider is ensuring that growth in larger cruise vessels does not crowd smaller, expedition vessels out of the market. The introduction of **limits on the number of larger vessels** docking would help ensure smaller cruise operators are still able to maintain business activity, and would also reduce overcrowding challenges at popular sites caused by an overwhelming influx of passengers, which could negatively impact the product offered by smaller operators. Visits or excursions to popular attractions could also be managed on a timetabled basis, facilitating designated times for smaller vessels and companies to operate.

Adopting a **local programme to help manage cruise tourism** as part of local cruise or tourism group activity, such as that implemented by the TBMP in Juneau, would help facilitate discussion and problem-solving amongst a range of stakeholders in the community. This would be beneficial in busier ports which have seen annual increases in the number of cruise passengers and challenges around a lack of supporting infrastructure and community consultation. In developing a programme built from collaboration between stakeholders such as ports, community organisations, local businesses, local councils, and transport bodies, challenges around congestion and pollution could be addressed and **reviewed each year** before the cruise season. A cruise tourism hotline service could also be introduced in towns or cities at peak times, where local residents can record any concerns about cruise tourism that could then be addressed.

A programme such as this could introduce guidelines around managing congestion, such as **quick pick up and drop off points** at ports for independent taxi operators. These could be adjusted depending on the time of day or the anticipated volume of cruise calls, and would benefit ports in smaller towns, e.g. Tobermory, as well as those in close proximity to larger city centres, e.g. Dundee, by alleviating a build-up of traffic outside ports as independent operators wait for passengers to disembark. As part of the

³¹ <https://akcruise.org/2019/09/the-electrification-of-two-ports/>

programme, local businesses and operators may be required to ensure **staff are trained in any new guidelines**. For instance, local taxi operators would ensure staff do not linger around the port out-with designed taxi rank areas to get fares during peak periods.

3 Barcelona, Spain

Population

Located on the north-eastern coast of Spain, Barcelona is the country's second most populous municipality. It has a total area of 39 sq. miles. Barcelona has a population of over 1.6 million people, and this has increased 2% since 2011, with an even greater increase of 9% since 2001.³² Around 12% of residents are in their twenties, with 44% aged 30-59. Barcelona has a much larger urban area beyond those residents within its administrative limits, accounting for an additional 4.6 million people. The city itself is densely populated at around 41,000 people per sq. mile, making it one of the most densely populated cities in Europe.³³

Volume of tourism

It is estimated that around 20 million tourists visit Barcelona each year, around 12 times more than the city's residential population³⁴. Around 45% of those who visited in 2018 stayed overnight, increasing from around 8 million overnight stays in 1990 to 9.12 million in 2018.³⁵ This highlights an increasing demand on accommodation services and infrastructure.

Volume of cruise passengers & trend

Table B.5 shows the volume of cruise calls and passengers in Barcelona since 2014. Total passengers includes those disembarking from cruises at the port, as well as those boarding for the first time (embarkation) and passengers in transit. Total passenger numbers have increased significantly since 2014, rising from around 2.4 million to over 3.1 million in 2019, an increase of 33%³⁶. The number of cruises passing through the port has also risen over the period, peaking at 830 in 2018, an increase of 9% over that time. There were 30 fewer cruise ships in 2019 than 2018, however total passengers increased by 3%.

In 2019, a total of 875,600 passengers disembarked at Barcelona Port, accounting for over 27% of total passengers passing through the port. This has been consistent across the six-year period. More cruise passengers visited Barcelona in each month from May to September in 2019 than the previous year, suggesting a more intensive period of cruise passenger visits than in 2018.

Table B.5: Cruise Calls and Passengers – Barcelona

	2014	2015	2016	2017	2018	2019
Total cruise calls	764	749	758	778	830	800
Total passengers	2,364,292	2,540,302	2,683,499	2,713,127	3,042,217	3,137,918

Source: Tourism Activity Report, Barcelona 2019

Terminal facilities

The Port of Barcelona is one of three ports in the city along with Port Olímpic and Port Fòrum Sant Andreà, but is by far the largest and the only port dedicated to cruise tourism. It is a leading European cruise port and acts as a main turnaround base in the Mediterranean.

³² https://www.citypopulation.de/en/spain/cataluna/barcelona/08019_barcelona/

³³ <https://worldpopulationreview.com/world-cities/barcelona-population/>

³⁴ <https://www.euronews.com/2019/07/23/barcelona-s-tourist-headache-as-residential-population-declines-11-since-2015>

³⁵ <https://www.statista.com/statistics/452060/number-of-tourists-in-barcelona-spain/>

³⁶ Tourism Activity Report, Barcelona (2019)

https://ajuntament.barcelona.cat/turisme/sites/default/files/capsula_1_iaotb19_1.pdf

The port has seven international passenger terminals for cruises, with a further two non-cruise terminals. All terminals can be categorised into three separate locations across the port: Adossat Quay, which is furthest away from the city centre (1.2 miles); World Trade Centre, which is within walking distance of the city centre; and the Marenagnum Port Vell, a smaller terminal mainly used for large ships that are not cruise liners³⁷.

There are four terminals at Adossat Quay, the largest of which can accommodate vessels of any length, with a depth of 12 metres³⁸. The northern terminal at the World Trade Centre location has a berthing distance of 230 metres and a depth of 8 metres, and can accommodate cruise vessels up to 160 metres in length, while the southern terminal has a maximum berthing distance of 434 metres and 8 metres and can accommodate vessels of up to 253 metres in length. The Marenagnum terminal has a berthing distance of 220 metres with a depth of 8.6 metres, and can accommodate vessels up to 140 metres in length.

The World Trade Centre terminals are around 0.2 miles from the city's public transport network, which includes local buses and the metro. The T3 Portbus shuttle provides transport for cruise passengers at the Adossat Quay terminal into the centre of the city. There is also a cruise bus that runs from all the cruise terminals to the monument of Christopher Columbus at Las Ramblas, and back³⁹. The city's "hop on hop off" tourist bus also has several stops near the port. The port is just over seven miles from Barcelona Airport, located to the southwest.

Services offered at the port include vessel security and logistics for cruise operators, with the port a "leader" in both areas.⁴⁰ The Port Vell area includes a host of activities and attractions, including a cinema, shopping mall and nightlife complex, and Europe's largest aquarium.

Key attractions/activities for cruise passengers

As a go-to tourist destination in Europe, the city of Barcelona has a range of attractions and activities for cruise passengers to enjoy. Aquarium Barcelona is located in the Port Vell section of the port, and is home to a vast array of sea creatures, each separated by a number of different themed aquarium areas.

There are good public transport connections from the port to Las Ramblas, one of the busiest streets in the city. It is around 3.8 miles from the port and is the main drop-off destination for the port's shuttle bus. The street is around 1,200 metres long and is divided into five sections, with various restaurants and shops located throughout.

Other popular attractions include the Plaça Reial, a picturesque square situated close to Las Ramblas that can attract large numbers of tourists. The Museu Maritim (the Maritime Museum) is located 3.2 miles from the port. Picasso Museum is one of many other popular museums and art galleries in the city, and is situated around 4.2 miles from the port.

Further out, key destinations for cruise passengers include La Sagrada Família (6.1 miles), which has been under construction since 1882 and is one of the city's most popular sites for tourists. Barcelona Cathedral (4.2 miles) has been upgraded in response to the increasing number of tourists in the city, including the addition of a gift shop. The Camp Nou is another popular attraction for tourists, home to FC Barcelona, and is located around 6.3 miles from the port. Park Güell is a public park system comprised of gardens and different architectural elements, situated 7.5 miles from the port. The Arc de Triomf is around 5.6 miles from the port.

³⁷ <https://www.barcelona-tourist-guide.com/en/transport/barcelona-cruise-port.html>

³⁸ http://www.worldportsource.com/ports/commerce/ESP_Port_of_Barcelona_1207.php

³⁹ <https://www.barcelona-tourist-guide.com/en/transport/barcelona-cruise-port.html>

⁴⁰ <http://www.portdebarcelona.cat/en/web/Port-del-Ciudadada/cruceros>

Table B.6: Barcelona's key attractions and distance from port (miles)

Attraction	Distance from Port of Barcelona (m)
Barcelona Aquarium	0.7
Las Ramblas	3.8
Plaça Reial	5.2
Museu Maritim	3.2
Barcelona Cathedral	4.2
Sagrada Família	6.1
Camp Nou	6.3
Park Güell	7.5
Picasso Museum	4.2
Arc de Triomf	5.6

Source: Various online sources

Visitor management: challenge and responses

Challenges

The primary concern around visitor management in Barcelona is around combating over-tourism in the city. Over-tourism, in part driven by the increased influx of cruise passengers over the last few years, has led to a number of issues, highlighted in particular by community and local groups. These include congestion problems and negative environmental impacts.

Neighbourhood organisations and environmental groups have campaigned for a number of years to place restrictions on the number of cruise ships allowed to dock in the city. Demonstrations organised by environmental groups (i.e. Ecologistas en Acció) have taken place outside the port, with messaging targeting the pollution generated by the presence of so many large ships moored in the harbour.

There is also a lack of affordable housing in the city, which is another of Barcelona's key problems, and it is likely this has been exacerbated by the rise of cruise passengers, particularly those disembarking in Barcelona with an intention to spend time overnight.

While there is general positivity towards tourists themselves among residents local to the city⁴¹, there is concern that the spend per person from cruises passengers does not justify the overcrowding problem – opponents to increasing cruise tourism argue passengers contribute little, averaging only €57 during visits⁴².

Other concerns among locals include the rise of new hotel projects, loud night life (i.e. noise pollution), long queues for key traditional sites (such as La Sagrada Família), and the influx of souvenir shops on Las Ramblas⁴³. Congestion is generated at sites such as La Sagrada Família, however this is primarily in the immediate vicinity of the site rather than inside. This is because, in the case of La Sagrada Família in particular, the majority of tourists (80%) do not go inside, causing congestion on the streets outside⁴⁴.

Development of approaches to cruise management

Finding ways to combat the city's perceived over-tourism is a key item on the city council's agenda. In 2019, Barcelona's mayor, Ada Colau, pledged to restrict the number of cruise ships allowed to dock in the city, as well as the number of cruise visitors to the city.

⁴¹ <https://www.tourism-review.com/barcelona-cruise-tours-are-booming-news5449>

⁴² <https://www.theguardian.com/cities/2019/jul/05/barcelona-mayor-promises-crackdown-cruise-ships>

⁴³ <https://www.tourism-review.com/barcelona-cruise-tours-are-booming-news5449>

⁴⁴ <https://barcelona-home.com/events-and-guide/event/tourists-dont-go-inside-la-sagrada-familia/>

As part of this, the city council recently launched its Strategic Plan for Tourism 2020, which recognises the city's dependence on tourism, while acknowledging it must move away from constant promotion and increasing tourism numbers, and move towards a greater focus on governance to ensure that tourism is sustainable. Part of the Plan sets out a need for new narratives on destination marketing around Barcelona, which is intended to reduce pressure in the most popular areas of the city in an attempt to reduce overcrowding and tourism bottlenecks. It will also look to ensure tourism jobs are of a higher quality for those working in the city, while seeking to crack down on illegal accommodations, and toughen up on the negative environmental impacts and mobility issues caused by cruise ships.

In terms of managing pollution, there have been some efforts to encourage cruise vessels to operate ship engines with less contaminated maritime diesel. Provided it can be made available on-site by the port, some cruise vessels are making the effort to operate their engines by making use of more environmentally friendly liquefied natural gas (LNG), although as noted in the Main Report, there is some debate as to how environmentally friendly LNG will actually be.⁴⁵

In summary

Prior to 2020, cruise tourism in Barcelona had been on an upward trajectory, with the number of passengers (including those disembarking and those spending a brief time in the city) and vessel calls rising year upon year with little variation. The city is one of the most densely populated in Europe, meaning effective visitor management strategies are required in order to cater for the needs of the local community, as well as offer a quality experience to passengers from cruise ships (and elsewhere). With a variety of popular attractions on offer, most of which exist within a 10-mile radius of the port, issues and concerns around congestion have been raised by local communities and community groups. Environmental pressures caused by the increased cruise traffic into the port have not been welcomed by environmental groups, resulting in a number of protests and demonstrations. Barcelona's Strategic Plan for Tourism 2020 sets out a number of aims to address these concerns, however progress on achieving those aims is not clear at this stage. There has been talk from those in government of addressing the problem at source by restricting the number of cruise vessels allowed into the port.

Key learnings for Scotland

Barcelona has faced increasing challenges around overcrowding and congestion as a result of an increased influx of cruise tourists in recent years, with community groups and local residents raising concerns. It is evident that a 'do nothing' approach has not benefited the city or its community. For ports in Scotland where there has been a considerable rise in the number of cruise calls and passengers such as Invergordon, Kirkwall and Glasgow (Greenock) management strategies are required and should be developed in **consultation with local community groups and residents**, with an opportunity to strengthen relationships between these groups and port operators and local authorities.

A **balanced approach** needs to be adopted when it comes to developing cruise tourism and addressing environmental and societal challenges posed by increasing visitor numbers. For Scotland, this could take the form of **more targeted destination marketing and management** to ensure cruise operators are incentivised to visit a wider variety of ports across Scotland offering a range of destinations and experiences. (In line of course with local or regional plans for sustainable development, including capacity and appetite for cruise tourism). This would require a joined-up effort and a degree of collaboration in planning as well as engagement with industry operators across all ports in Scotland, as well as at government level, with different tourism offerings effectively conveying the array of possibilities for passengers and operators across the country.

In developing a more effective, targeted approach to destination marketing, and linking this approach with key ports across the country, a **reduction in cruise tourism bottlenecks** in increasingly busier

⁴⁵ <https://www.tourism-review.com/barcelona-cruise-tours-are-booming-news5449>

places such as Invergordon and Edinburgh could be achieved, and more growth opportunities for ports such as Aberdeen and those smaller ports on the west coast.

4 Orkney, Scotland

Population

Situated off the north coast of Scotland, Orkney is an archipelago with an area of around 202 sq. miles. Orkney accounts for a very small proportion of the overall Scottish population at less than 1%⁴⁶. The latest figures for 2018 show the population of Orkney to be 22,200 people, an increase of 3% since 2014. Three-fifths of those living in Orkney are aged between 16 and 64. People aged 65 and over account for a larger proportion of Orkney's population than they do Scotland's population as a whole (23% versus 19% respectively).

Volume of tourism

Orkney Islands Visitor Survey 2017⁴⁷ estimates a total of 174,273 non-cruise visits were made to Orkney in 2017. This was an increase of 22% since 2013 (up from 142,816), with the increase felt across both marine and air travel routes. When including cruise passengers, the number of visits in 2017 was over 300,000⁴⁸.

Volume of cruise passengers & trend

Table B.7 shows the volume of cruise calls and passengers since 2014. There has been growth in cruise tourism at global, UK and Scotland levels over the last decade. Cruise calls to Orkney have grown substantially over the period, with Orkney's main port, Kirkwall, Scotland's busiest port for cruise ship calls. Cruise calls have risen 108% between 2014 and 2019. Passenger numbers have also increased substantially, by 109% over the period.

Kirkwall accounted for just under 132,400 passengers from 158 cruise ships in 2019. A significant volume of these passengers came from large (between 1,750 and 2,999 passengers) and mega (over 3,000 passenger) ships, a total of 57% of total passengers that year.

Table B.7: Cruise Calls and Passengers – Orkney (Kirkwall)

	2014	2015	2016	2017	2018	2019
Total cruise calls	76	88	116	135	138	158
Mega ship	7	8	8	7	7	4
Large ship	8	16	21	25	28	32
Medium ship	17	18	23	29	37	43
Small ship	27	22	23	24	27	25
Boutique ship	17	24	41	50	39	54
Total passengers	63,346	81,197	96,658	113,805	126,724	132,388
Mega ship	21,149	28,046	26,803	24,155	25,896	12,964
Large ship	15,935	27,575	37,064	47,898	52,339	62,986
Medium ship	14,127	13,995	20,775	26,098	34,299	41,966
Small ship	10,832	9,162	8,564	9,916	10,137	8,974
Boutique ship	1,303	2,459	3,452	5,738	4,053	5,498

Source: ekosgen primary research & Orkney Islands Council, 2020

⁴⁶ Population estimates, ONS

⁴⁷ Orkney Islands Visitor Survey 2017 (2018) <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-papers/orkney-report---may-18.pdf>

⁴⁸ Draft Orkney Tourism Strategy (2019) https://www.orkney.gov.uk/Files/Committees-and-Agendas/Development%20and%20Infrastructure/DI2019/DI12-11-2019/114_Orkney_Tourism_Strategy.pdf

Terminal facilities

There are two ports of arrival for cruise ships in Orkney – the port of Kirkwall on the east side of the islands, and the smaller Port of Stromness to the west.

At Kirkwall, ships berth at either Hatston Pier – Orkney’s main cruise ship terminal – or at Kirkwall Pier. They may also anchor within Kirkwall Bay, with tenders transporting passengers from the ship and Kirkwall Harbour.

Hatston Pier is located just outside Kirkwall and is Orkney’s largest commercial pier and Scotland’s longest deep-water commercial berth. The original pier was built in 2002 and the 160 metre extension was completed in 2013. The longest berth is 385 metres and offering 10.5 metre draft. In total there is 884 metres of quay side available and are used primarily for the arrival of passenger and freight vessels, North Sea supply vessels and vessels supporting the marine renewables industry, as well as cruise ships.

Kirkwall Pier is located right in the heart of Orkney’s capital and is the main hub for the inter-island ferry routes, fishing and dive vessels. It is the home of Orkney’s largest marina and the second commercial hub for Orkney. The pier infrastructure offers over 970 metres of quay edge including the ‘basin’ area with up to 6 metre drafts.

At Stromness, the second largest town in the islands, cruise ships arrive at Stromness Pier which is right in the heart of the town. It is the base for the daily Serco Northlink Ferry to Scrabster, the MV Graemsay ferry to Hoy and Graemsay, the base for the local lifeboat and numerous fishing vessels and dive boats; it is fast becoming a popular location for smaller explorer style cruise liners. Within Stromness Pier there are numerous berthing options, the longest berth being 148 metres with 5.5 metre drafts.

Both ports operate a ‘Meet and Greet’ service to provide arriving passengers with general information about Orkney. Passengers receive a Welcome to Orkney street map and guide, published in six different languages. Orkney Islands Council provides a complimentary shuttle bus service from Hatston Pier to the Kirkwall Travel Centre. The distance is about 3km (1.8 miles) and the journey takes around four minutes. The shuttle buses operate from 08:00 and the last shuttle is 45 minutes prior to the ship’s departure. The shuttle bus service operates throughout the day and does not conform to any particular timetable; instead it operates on a continuous rotation in line with passenger demand.

Key attractions/activities for cruise passengers

There are a number of key attractions and activities popular amongst cruise passengers in Orkney, and particularly in and around Kirkwall. Skara Brae, located 17 miles from the port, is part of the Heart of Neolithic Orkney World Heritage Site and is a 5,000 year-old best-preserved Neolithic settlement. The site is popular among tourists who can explore the village and its nine surviving Neolithic houses.

Kirkwall’s most prominent building is St Magnus Cathedral, founded in 1137 by the Viking, Earl Rognvald. It is Britain’s most northerly Cathedral. Other key attractions are the Ring of Brodgar, particular popular at sunset, around 12 miles from Kirkwall, the Standing Stones of Stenness (11 miles) and Bishops and Earls Palaces, less than one mile from the port. The Palaces sit opposite St Magnus Cathedral.

Table B.8 shows a longlist of attractions and their distances from Kirkwall and Stromness ports, highlighting the range and volume of activities and attractions available to visitors to Orkney, as well as their wide dispersion across the region.

Table B.8: Orkney's key attractions and distance from ports (miles)

Attraction	Distance from Stromness (m)	Distance from Kirkwall (m)
Finstown	7.5	6.5
Maeshowe	4.7	10.0
Standing Stones of Stenness	4.8	11.0
Ring of Brodgar	5.8	12.0
Skara Brae & Skail House	7.4	17.0
Brough of Birsay	14.1	20.5
Corrigall Farm Museum	10.6	13.0
Kirbuster Farm Museum	11.5	17.0
Broch of Gurness	17.1	16.0
Churchill Barriers	22.0	7.5
Italian Chapel	22.5	8.0
Orkney Fossil Centre	25.0	10.6
St Margaret's Hope	29.0	15.0
Tomb of the Eagles	36.4	22.0
St Magnus Cathedral	14.0	In town centre
Bishops and Earls Palaces	13.9	In town centre

Source: Cruise Orkney, 2020

Visitor management: challenge and responses

Challenges

The increased tourism and visitor numbers, particularly driven by the rise of cruise calls and passengers over the last decade, has had a significant impact on the area's economy, environment and infrastructure. The 2017 Orkney Volume Tourism Study⁴⁹ found that businesses had reported a general increase in turnover, and a longer peak season. The study found that support for local businesses and attractions through cruise tourism contributes to the sustainability of Orkney's offer to the wider tourism market. However, growth was not equal across all areas, with markets such as scuba diving and areas such as the outlying islands (i.e. Stronsay) experiencing less growth in comparison to the consistent growth in tourists to traditional markets and attractions such as history/archaeology, wildlife and genealogy.

Concerns around local services and environments being able to meet the increased demand of cruise lines have also arisen in recent years. In terms of environmental impacts, sites such as Ring of Brodgar are being negatively impacted by increased footfall as well as climate change. However, regarding Ring of Brodgar specifically, the site is maintained by Historic Environment Scotland (HES) guides and the inner ring is closed to visitors when footfall is too heavy. Infrastructure at key attractions is also suffering, for instance Orkney Museum is an old building not conducive to managing large volumes of passenger visits.

There are also concerns around the management of transport infrastructure. While cruise-related tourism infrastructure and volume is well managed in and of itself, there is a risk it can have a negative impact on non-cruise day visitors, particularly around increased demand for local buses and similar public services. Port infrastructure is well managed, however broader island infrastructure, such as narrow roads, are more of an issue. Better alignment of infrastructure and planning is required.

⁴⁹ ekosgen for Orkney Islands Council and Highlands and Islands Enterprise (2017) Orkney Volume Tourism Management Study

The recent survey⁵⁰ reports that a majority of businesses think cruise tourism has meant increased pressure/congestion around local transport infrastructure (74%), local amenities (86%), overcrowding at local attractions (85%), and degradation of natural environment (62%)

Practical solutions and strategies for proactive cruise management

The 2017 Orkney Volume Tourism Management Study⁵¹ included a number of recommendations, the first of which was to establish a vehicle for developing and implementing a Destination Management Plan. In 2018 the Destination Orkney Strategic Partnership was formed to create a collaborative and strategic approach to managing the opportunities and challenges that Orkney's tourism success has brought.

The Partnership is made up of representatives from:

- Destination Orkney Ltd, representing members of the tourism industry
- Orkney Islands Council
- VisitScotland
- Highlands and Islands Enterprise
- Historic Environment Scotland
- Scottish Natural Heritage

A Draft Orkney Tourism Strategy was launched in November 2019, with a final version expected early 2020 following public consultation. The main objectives of the strategy are to:

- Increase economic prosperity of the islands, improve existing and create quality jobs.
- Extend the visitor season and increase visitor spend.
- Sustainably manage visitor numbers to protect the quality of experience, the key sites and routes to the sites, for visitors and local residents.
- Disperse the benefits of tourism throughout the whole of Orkney.
- Conserve the islands' natural and cultural heritage.

It recognises that the main limitations of increasing Orkney's tourism offer are the physical size of the islands, the size of its working population and the ability of visitor attractions and local people to welcome and sustainably manage increasing visitor numbers. It is necessary to find the balance between maximising the opportunities of existing assets and infrastructure and the need to protect the natural and cultural heritage as well as islanders' quality of life. Whilst there is acknowledgement from the council that they welcome cruise ships and their passengers, harbour guidance has been developed to try to keep disembarking passengers below 4,500 per day to alleviate pressures on the town and wider island (however there is harbour capacity for up to 6,500 passengers).

The Orkney Archaeology Society⁵² have proposed an 'ecomuseum' approach to ensure that tourism remains sustainable for Orkney's numerous heritage sites. This approach would allow visitors to experience the archaeology and the landscape in a more integrated way, as well as facilitating a more even spread across the tourist sites and easing overcrowding, therefore enhancing the individual visitor experience. Also, the availability of group tickets to gain access to multiple sites would encourage

⁵⁰ ekosgen online community and business survey, 2020

⁵¹ ekosgen for Orkney Islands Council and Highlands and Islands Enterprise (2017) Orkney Volume Tourism Management Study

⁵² Orkney Archaeology Society (2018) Orkney Ecomuseum: A contribution to the debate on the future of tourism and archaeology

visitors to explore more widely. They also suggest that tourist sites could make more of the long summer days during peak season by introducing longer opening hours and 'Twilight Tours'.

It has also been proposed both by the Orkney Archaeology Society and the Orkney Volume Tourism Management Study that those sites that do not currently charge an entrance fee could do so to raise funds to improve access and facilities. The **Ring of Brodgar**, for example, is on private land to which the owner grants free access. The local authority has provided a coach park and the free site inevitably attracts large numbers of visitors and the damage caused by the high footfall is very evident. The site needs suitable tarmac surfacing and appropriate visitor management to make it sustainable. Given that management of the site is limited (e.g. HES occasionally close parts off), further consideration is being given to preservation measures, and this will involve interaction with the local community. Part of this work includes a project to quantify visits and use patterns to inform future planning. Elsewhere, around £300,000 funding has been allocated to the **Stones of Stenness** site to upgrade car parking facilities and improve the pathways network in order to develop more effective connections between monuments and surrounding areas. Visitor flow management, infrastructure and connectivity will also be considered through a Memorandum of Understanding signed by Historic Environment Scotland, Orkney Islands Council and Highlands and Islands Enterprise to conserve the Heart of Neolithic Orkney site⁵³.

St Magnus Cathedral has taken steps to manage its increased flow of visitors through the development of an app that offers a self-guided tour, and the scheduling of group tours around the Cathedral to provide a better experience, and avoid overcrowding.

Skara Brae is well managed and even with 90,000 visitors last year there was no damage to the site. This suggests that effective site management can raise the carrying capacity of the most popular sites and with information provided locally about when the pressure from cruise passengers is greatest, staying tourists can be encouraged to visit the other islands and help spread the benefits of tourism across the islands⁵⁴. This wider dispersal of visitors was one of the most discussed topics during consultations for the Orkney Volume Tourism Management Study. It was suggested that improving the frequency and integration of public bus services and inter-island ferries could make public transport and independent travel more appealing to visitors, while introducing a traffic management system for coaches and buses on the narrow yet busy roads could also enhance the capacity and quality of Orkney's visitor transport infrastructure. **Highland Park Whisky** has limited the number of coaches from cruises to the site in order to give non-cruise visitors and cruise visitors more tour time and a higher quality experience. Highland Park Whisky has also established a footprint in the centre of Kirkwall (the Highland Park Whisky Store on Albert Street) to ensure that those who cannot visit the site itself can still experience the brand.

Another successful management scheme is the introduction of charging and a permanent site custodian at the **Italian Chapel**. This had previously been suffering from the impacts of an 'open door' policy among visitors, with the chapel's condition worsening and health and safety issues (such as congestion) in the surrounding roads and car park. Cruise companies are aligned with the changes and have adapted to work with the chapel, as well as other destinations, as long as the planning lead-in time is long enough.

A tourism levy or 'tourist tax' has been proposed and is still under discussion.

Recent feedback from local community representatives and businesses⁵⁵ suggests that there are currently a number of actions in place to better manage cruise visitors. For example there is a volume tourism officer in place, there is consultation between the local community and HES and a pre- and post-season meeting for all cruise stakeholders is organised. However, there is some concern that there is still a lack of joined-up thinking amongst business and attractions and other providers (particularly

⁵³ <https://www.scottishfield.co.uk/travel/scotland-travel/over-300000-to-be-spent-on-orkneys-future/>

⁵⁴ <https://blog.placemanagement.org/2017/04/11/orkney/>

⁵⁵ ekosgen online business and community survey, 2020

around flexible opening hours initiatives, which would allow non-cruise visitors to visit sites when less busy) and a concern around the lack of communication and engagement with cruise line companies.

Just over half of business survey respondents are of the view that there is now a strategic approach to destination management specifically for cruise in Orkney, but a third feel that this is not the case at all and at best there is a plan being developed but not actioned yet. However almost 60% think there is a local visitor management strategy in place and two thirds believe it is effective to varying degrees. The majority of businesses think there is a lack of a required engagement with cruise liners, itinerary planners, tour and travel agents and land-based tour operators, a view similar to that held by community representatives.

In summary

Tourism in Orkney has risen in recent years, with cruise tourism in particular on the rise with the total number of passengers more than doubling to over 132,000 between 2014 and 2019. This rise in visitor footfall, coupled with a range of attractions available across the region, has led to a number of visitor management concerns and the development of strategies to cope with these concerns. In a wider sense, the 2017 Orkney Volume Tourism Management Study identified a number of strategies that have been implemented in the last few years, while a number of bespoke initiatives have been undertaken to address concerns at particular sites, including £300,000 investment at the Stones of Stenness to upgrade car parking and infrastructure pathways, with a view to implementing a destination-led approach and championing opportunities for sustainable tourism. Recent community and business feedback suggest that there is still some way to go before Orkney will have resolved some of the challenges that cruise tourism brings to the islands. While these challenges merit careful consideration, it is important to note that the cruise industry brings in economic value to Orkney and is significant to the local economy. Also, given Kirkwall port is managed by the Orkney Islands Council, there is a significant element of reinvestment to benefit the wider community.

Key learnings for Scotland

The undertaking of **volume management studies** for key ports across Scotland, i.e. ports that are seeing increasing calls and passenger traffic such as Invergordon, Edinburgh and Tobermory, can help to identify particular local issues and concerns around visitor management. Consultation with local community organisations, businesses and attractions would help develop a picture of the economic, social and environmental issues around increasing cruise demand. This could identify management approaches through collaboration, partnership working and strategy development to enhance sustainable cruise offerings in regions across Scotland. This will also help to better engage local communities in decision-making processes for visitor management.

Where surrounding infrastructure and transport networks are at risk of becoming overwhelmed by increasing passenger footfall, **passenger limits** guided by port protocols and port capacity could be implemented by harbour authorities. This would be particularly useful where ports are located within or in close proximity to smaller towns with tourist sites and businesses within walking distance, therefore causing street congestion (i.e. Tobermory), or in busier cities where attractions and businesses are geographically concentrated (i.e. Glasgow, Edinburgh).

Ensuring **better dispersal and spread of visitors** at popular attractions and sites would ensure cruise passenger visits are more manageable. This could be achieved through a joined-up approach across popular attractions and businesses, offering a **range of timeslots** (including 'twilight' slots to alleviate peak visit times for non-cruise passengers) and **ticketing systems** to allow passengers to book online in advance. It would also give attractions and businesses more opportunity to plan for visitor volume and take management measures, such as limiting the total number of coaches arriving from cruises per day. **Self-guided tours** complemented by an app or listening device could be implemented for busy attractions to reduce the number of large crowds gathering at any one time. Such an approach should

be taken in collaboration with public sector/strategic and community stakeholders, to maximise engagement and co-ordination.

Adopting a **sustainable traffic management approach** would alleviate congestion at sites and in the surrounding transport infrastructure. Drawing examples of practice in large cities, such as Edinburgh, a more integrated system could see bus lanes connecting the port to popular tourist sites, with taxis also eligible to use lanes to cater for independent operators and passengers or one-way systems could be introduced to allow a steady flow of traffic during peak visit times. This would ensure areas of the town centre remain accessible for cruise and non-cruise visitors, as well as the local community.