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RESEARCH INTO THE SOCIAL, ECONOMIC AND CULTURAL VALUE OF SCOTLAND'S SNOWSPORTS SECTOR

AGRICULTURE, ENVIRONMENT AND MARINE

social
research

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Executive Summary

This report presents the findings of research into the Economic, Cultural and Social Value of the Scottish Snowsports Sector.

Overview and Key Findings

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1. Introduction

This report presents the findings of research into the Economic, Cultural and Social Value of the Scottish Snowsports Sector. The research was commissioned by the Scottish Government and was undertaken by EKOS Ltd between January and August 2022.

The research was overseen by a small Steering Group comprising representatives from the Scottish Government and Snowsports Scotland.

Context

Previous snowsports sector reviews

The enterprise agencies Highlands and Islands Enterprise (HIE) and Scottish Enterprise (SE), first commissioned an independent Scottish Snowsports Strategic Review in 2011. This research found that snowsports constitute an important sector for Scotland's rural economy, generating an average £30 million a year and supporting 634 jobs directly.

Wider findings were that:

- The long-term sustainability of the sector was uncertain.
- Although more UK residents overall were taking part in snowsports, fewer were choosing Scottish snowsports centres.
- There was a decline in the number of individual visits to Scottish snowsports centres – with visits falling by one-third in the decade preceding the report.
- Snowsports centres have diversified into non-skiing activities, including sightseeing, mountain biking, climbing and assault courses. Diversification measures had been successful in attracting more than 300,000 extra visitors every year.
- While the rate of decline had begun to slow, the main challenges facing the sector, included: growing customer expectations, driven by overseas skiing experiences; higher UK tax levels (VAT) than overseas competitors; unreliable snow conditions; difficulties in attracting new investment; and ageing equipment.
- Key recommendations included greater collaborative working among Scottish snowsports centres to develop the sector, along with further development of diversified non-snowsports activities.

Another review of the snowsports sector in Scotland was commisssioned in 2016 by HIE (not published). This report estimated that the level of output totalled £44.4 million, 948 jobs and Gross Value Added (GVA) of £23.1 million. This equated to an increase of 15% across these indicators.

Scope of the latest research

The previous reviews, among other things, had a focus on estimating the economic value of the sector. This was in recognition of the continued importance of the snowsports sector to Scotland's rural economy, not least in terms of the significant contribution it makes in local job creation and visitor expenditure.

This latest research, which seeks to provide an updated position, is wider and deeper than the previous reviews:

- While it has a focus on economic impact, it also explores the wider impact and value that the sector has in Scotland. This is in recognition of the growing body of evidence that demonstrates the impacts of sport go well beyond traditional economic measures, such as employment and GVA.
- There is recognition that the snowsports sector in Scotland (and beyond) has been impacted upon by the emergence and rapid spread of the coronavirus (COVID-19) pandemic in late 2019 and early 2020. This resulted in a global public health and economic crisis on a scale not seen for generations.

Study Aims and Objectives

The aims of the research were to:

- Produce an analysis of the economic, cultural and social value of the Scottish snowsports sector.
- Understand the impact of COVID-19 on the snowsports sector.
- Consider the long-term sustainability of the snowsports sector.
- Recommend how the sector may be strengthened.

The detailed research questions were as follows:

- What do we already know about the economic, social and cultural impact of the snowsports sector in Scotland?
- What is the economic contribution of the snowsports sector to the Scottish economy, both directly and indirectly?
- What broader social and cultural value does the snowsports sector and its supply chain contribute to Scotland as a nation?
- What impact has COVID-19 had on the snowsports sector and its supply chain in Scotland and what support is needed to aid its recovery?
- How sustainable is the future of the snowsports sector in Scotland? This should take into account potential for diversification and resilience to climate change.
- What interventions – if any - may be required to strengthen the snowsports sector in Scotland?

Study Method and Limitations

Study approach

The study method involved secondary and primary research as summarised in **Table 1.1**.

Table 1.1: Study method

Secondary research	• Policy and strategy review. • Existing research and literature review. • Market review.
Primary research (remote)	• 38 consultations with a range of partners and stakeholders. • Mountain resorts/artificial slopes visitor surveys (1,533 responses). • Online club survey (10 responses). • Business online survey (12 responses). • Group discussions with businesses (12 participants).

Mountrain resorts (1000 target and 1483 actual). Artifical slopes (400 target and 47 acutal).

Study Limitations

The main limitations were as follows:

- The data request issued to mountain resorts and artifical slope operators to help inform the sector review and economic impact assessment (EIA). Few operators provided the data, and where it was provided, this was often partially completed.
- A range of issues were encountered in undertaking the primary research:
    - Visitor survey – mountain resorts. First, Scottish Government guidance (at the time) prevented research to be undertaken indoors where the number of interviews was more than 50. This meant that onsite interviews had to be undertaken outdoors. The poor weather conditions (e.g. high winds, snow) presented challenges for our study partner IBP Strategy and Research interviewers and for interviewees. There were also times when the resorts were closed due to the weather conditions (e.g. no sustinable snow). To supplment the number of onsite interviews completed (342), we adopted the following approaches:
        - Hard copy self-completion questionnaires were made available within cafes at the mountain resorts (97 responses).
        - The mountain resorts distributed an online survey (1047 responses).
    - Visitor survey – artifical slopes. Not all operators of artifical slopes responded to communication regarding the visitor survey. Interviews were undertaken at 3 facilities and resulted in 47 responses.
    - Business survey. We worked with business-facing organisations (e.g. relevant Chambers of Commerce) to distribute an online survey to businesses. This resulted in few responses, and we are uncertain whether all contacts issued the survey. In response, we adopted a targetted approach and worked with some of the same organisations to help coordinate small group discussions with local businesses.

Report Structure

The remainder of the report is structured as follows:

- Section 2 – Strategic and Policy Context
- Section 3 – Market Review
- Section 4 – Economic Impact
- Section 5 – Social and Cultural Impact
- Section 6 – Summary and Conclusions
- Section 7 - Recommendations
- Section 8 - Appendices

A supplementary report, provides more of the detail that has helped to inform the study. It covers: Policy and Strategy Matrix, Visitor Surveys, Club Survey, and Business Feedback.

2. Strategic and Policy Context

Key findings

A review of the relevant policy and strategic context identify a range of key messages and themes that are relevant to the snowsports sector and where the sector can make a contribution.

- The snowsport sector plays a role in the **economic growth and visitor economy** by supporting jobs in rural (and urban) communities, supporting employment across the supply chain, attracting more people to the areas where the network of mountain resorts and artificial slopes are located and encouraging visitor spend in the local area.
- As the climate emergency grows and levels of snowfall decline and become less predictable, pressure will increase on the snowsport sector to adapt and reduce dependency on snow reliant activities. The sector will also need assistance to make the transition to **net zero** over the coming years.
- **Access to high quality facility** and service provision is critical to encourage individuals, families and communities to become more active and participate in snowsports and other forms of sport and physical activity.
- Although the sector is doing some good work at engaging some of those that are underrepresented in sport and physical activity, more needs to be done to reduce barriers to participation and strengthen its approach to **equality, diversity and inclusion.**
- **Partnerships and collaboration** are critical to encouraging healthier and more active lifestyles and helping people get the most out of our existing sporting system. The sector needs to strengthen its approach to collaborative working to ensure a more sustainable future.

Introduction

The impact of the snowsports sector in Scotland must be considered within the context of current policy direction and priorities. The main policy drivers and their implications for the ongoing recovery, development, growth and sustainability of the sector in Scotland are considered below.

Documents Reviewed

There is a wide range of strategy and policy documents that help to set the scene, and more specifically help us consider how snowsports fits with, and contributes to, policy priorities. This includes those with a focus on the economy, tourism, health and well-being, sport and physical activity, and those directly relating to snowsports. This reflects the many ways that sport and physical activity, including snowsports, touches on a wide range of policy priorities and objectives. While the policy landscape continues to evolve, a clear set of policy drivers are evident including inclusive growth, COVID-19 recovery, wellbeing, fair work, and net zero.

Documents reviewed are presented in **Table 2-1** and the key messages and themes are summarised below.

Table 2-1 Policy Environment

Organisation	Name of policy, strategy or plan
Scottish Government	• Scotland's Economic Transformation Strategy. • National Performance Framework. • Programme for Government 2021/22. • Active Scotland Outcomes Framework. • Scotland's Diet and Healthy Weight Strategy. • COVID Recovery Strategy.
National Council of Rural Advisers	• A new blueprint for Scotland's rural economy: Recommendations to Scottish Ministers.
Scottish Tourism Alliance (and Partners)	• Scotland Outlook 2030 (National Tourism Strategy).
VisitScotand (and Partners)	• Outdoors Scotland Tourism Strategy (in development).
SG and COSLA	• Public Health Priorities for Scotland.
sportscotland	• Sport for Life.
Snowsport Scotland	• 2022/26 Draft Strategic Plan. • 2030 National Facilities Strategy. • 2020/24 Equality Plan.
Highlands and Islands Enterprise	• Cairngorm Mountain Resort Masterplan (2021).

Economic Growth And Visitor Economy

The tourism sector is particulalry important to rurual Scotland, both in terms of the jobs it protects and creates, and the opportunities it provides for business growth, including for those who are self-employed and micro and small enterprises.

The tourism offer, which includes an abundance of natural capital and world-renowned heritage, is also distinctive and diverse, as are the assets and locations where these activities take place. It helps to support the economic viability of communities. Local services and amenities (e.g., shops, pubs, restaurants, accomodation, transport) are all supported and sustained by visitors to rural areas.

As such, the snowsports sector makes an important contribution to economic growth at a national and local level. It does this by:

- Supporting jobs in rural (and urban) communities.
- Supporting employment across the supply chain.
- Attracting more people to the areas where the network of mountain resorts and artificial slopes are located.
- Encouraging visitor spend in the local area.

The national tourism strategy – Scotland Outlook 2030 – highlights the following facts and figure about tourism in Scotland in 2018:

- There were over 15.5 million overnight visitors to Scotland, spending almost £5.1 billion. This includes over 3.5 million visitors from overseas.
- Spending by overnight tourists and day visitors in Scotland was around £10.4 billion. This generated around £12 billion of economic activity in the wider Scottish economy and contributed around £7 billion to Scottish Gross Domestic Product (GDP).

The domestic snowsport market will remain particularly important in a Scottish context. The focus is on continuing to build on areas of competitive advantage and unique strengths across all of Scotland's tourism assets, including natural assets. This is something that the snowsport sector, in partnership with other agencies needs to do.

Sustainability and net zero

The climate emergency is a important policy priority, and the Scottish Government is committed to taking action to reach net zero emissions by 2045. Global temperatures continue to rise and there is decreasing predictability of weather patterns. Consequently, the timing and volume of snow in Scotland throughout the winter season is reducing and is now much less predictable than it used to be. This threatens the viability of snowsports centres (i.e. greater risk of less snow as temperatures rise).

Snowsport Scotland's National Facilities Strategy (2020) suggests all five mountain resorts should invest in further snow-making facilities. However, the negative impact of snow-making is also well documented as it relies on the consumption of significant amount of water and energy. The Lecht has a model for snow production that relies on water supplies from its own sources and power supplied through its own wind turbines.

Preserving and protecting the (natural) environment is therefore hugely important – this will help ensure the longevity of snowsports centres, and ensure provision for current and future generations. In addition, there are opportunities to explore newer, innovative snow-creating alternatives which use significantly less energy. Efforts are therefore continuing to make it more sustainable.

Access to high quality provision

The provision of high-quality sports and leisure facilities - be that the built or natural environment - is crucial to encouraging more people to participate and sustain involvement in sport and physical activity. Such facilities can help encourage and enable the inactive to be more active, and encourage and enable the active to stay active.

The Active Scotland Outcomes Framework, Sport for Life, and Snowsport Scotland's 2022/26 Draft Strategic Plan and 2030 National Facilities point to the need for a strong network of high-quality and fit-for-purpose facilities which are accessible to communities across Scotland. Investment in improving existing infrastructure and facilities and developing new facilities ensures that sport and leisure provision: meets modern day standards; is more energy efficient; is safeguarded over the longer-term; and can meet the changing needs and expectations of the domestic and/or visitor market alike.

Being Active Throughout Life And Pathways

The Active Scotland Outcomes Framework and Sportscotland's "Sport for Life" strategies set out the importance and benefits of being physically active and emphasise the importance of providing opportunities to take part in sport and physical activity for all ages. People derive a wide range of benefits from having an active life and from taking part in healthy behaviours (e.g., better physical and mental health, healthy weight, skills development), regardless of what sport or physical activity people choose to do, where they choose to participate, and at what level (e.g. for fun, to compete). Research has also shown that increased exposure to sport and physical activity from a young age helps to build positive experiences and attitudes to sport and physical activity in children. It can also help them to feel more motivated, confident and able to get (and remain) active throughout their life.

“Snowsports for life” is the vision set out within the Draft Snowsports Strategy 2022/26. Others recognise the distinct “life stages” of participation (e.g., children, young people, adults, and older people).

Building and sustaining effective pathways to support entry into and through sport is essential to encouraging participation, retention and progression. Signposting and developing clear pathways to support individuals into local club infrastructure is a key part of this. The Draft Snowsports Strategy 2022/26 identifies “Participation and Peformance Pathways”, defined as “Accessible and inclusive pathways that promote Snowsports for Life and support progression and performance”, as one of four priorities.

A strong focus on equality, diversity and inclusion

Equality, diversity and inclusion appear strongly in policy documents, often as a cross-cutting issue or underpinning value or principle that guides all of the work organisations do. Accessibility and inclusivity are important considerations - there is considered to be links between the accessibility of sports facilities and the amount of physical activity a person participates in. From a facility design perspective, this means being accessible for all abilities (e.g., adaptive snowsports) and being welcoming to all.

Research (equality-and-sport-research-final-report.pdf (sportscotland.org.uk)) shows that under-represented groups in sport and physical activity in Scotland include: women and teenage girls, older people, disabled people, ethnic minority people, and people living in deprived areas. Inequality in participation is a long-standing and deep-seated issue, and is reflective of much broader cultural, societal and historic differences in society. Research also shows that there are a wide range of barriers (real or perceived) which make it difficult for under-represented groups to participate in physical activity and sport, and that action continues to be required to remove barriers to engagement and to support inclusion.

For snowsports, barriers to entry include cost/expense, access to suitable equipment, transport (e.g. geographical locations of the mountain resorts), accessibility, weather conditions, perceptions that it is an elitist sport and not for everyone, etc. The visitor survey carried out as part of this research showed that of 1,500 respondents, only 6% came from SIMD Quintile 1, the most deprived areas across Scotland.

Supporting COVID-19 Recovery

The impact of the COVID-19 pandemic has been widespread, and the sport and leisure sector (indoors and outdoors) has been severely affected, as has its wider supply chain. This includes loss of income; loss of markets; postponement/cancellation of events and infrastructure developments; and a negative impact on participation and clubs.

Opportunities to take part in physical activity and sport will have a central role to play in Scotland’s recovery from the pandemic (e.g., improving physical and mental health, social cohesion), and during the pandemic there were increases in people taking part in outdoor pursuits (e.g., walking, cycling, running).

The Scottish Government has recently made a commitment, in its COVID Recovery Strategy (2021) to double investment in sport and active living to £100 million a year by the end of the current Parliament. Snowsports can make an important contribution here – in terms of supporting people with their physical and mental health and wellbeing, resilience, and connecting with nature.

Partnerships and Collaboration

The importance of partnership working and collaborative approaches within the sports sector and beyond is identified as critical to encouraging healthier and more active lifestyles. Greater emphasis is now being placed on helping people get the most out of our existing sporting system.

This includes building and strengthening connections with other sports sector providers and facilitating connections between sport and the public and third sectors (e.g., health, education, transport and environment).

3. Market Review

Key findings

- The COVID-19 Pandemic has had a significant impact on the international snowsport market with reduced attendances due to restrictions such as social distancing and fewer international visitors, due to travel restrictions.
- Future growth in the industry is predicted to take place outside of western markets in Eastern Europe and Asia, particularly China.
- The Ski Club of Great Britain 2022 Survey identified the most important factors to respondents when choosing where to book a ski holiday were the size of the ski area, the resort altitude, price and the quality of the accomodation.
- The most popular destinations for skiing holidays were France (55%) followed by Austria (26%) and Italy (18%). Scotland was not identified by any respondents as a destination for a skiing holiday.
- Adventure Tourism is identified as having real growth potential in the Tourism Scotland 2020 strategy, with the industry estimated to have grown by £89m to £848m over the period of 2008 to 2015. This presents opportunities for Scotland Mountain resorts to diversify.
- A recent forecast by The James Hutton Institute and SRUC (2020) into the impacts of global warming for Cairngorm Mountain found that there is “likely to be a decline in snow cover days per year from the 2030s will continue through to the 2080s”. By 2080, there is a “likelihood of some years with very little or no snow”.
- A lack of public transport access to the mountain resorts makes access difficult for those without cars.
- The Scottish Ski Market is very heavily dependent on domestic participants and visitors with 90+% coming from the UK and only 1% from overseas. Of the 90+% UK visitors, almost 90% come from Scotland (EKOS visitor survey 2022).
- Cost pressures in the future e.g., fuel costs, staff costs, repairs and maintenance etc. coupled with poor snow conditions and the cost of living crisis may create very challenging financial conditions ahead for the mountain resorts.
- The centres are also looking to diversify and create demand for alternative activities throughout the year that will ultimately reduce their level of dependency on snowsport activities.
- Staffing across the sector is extremely challenging currently with many organisations reporting real difficulties in recruiting and retaining employees. Lack of year-round employment, low wages, cost of living and housing, cost of training and qualifications and succession planning are issues for the sector.

Worldwide Snowsport Market Trends

Like most sectors of the economy, the worldwide snowsport market has been profoundly affected by the ongoing COVID-19 pandemic, with most countries facing significant restraints on skiing activity. This has led to shutdowns of the majority of ski resorts for significant periods, and when allowed to open, reduced attendances due to restrictions such as social distancing and fewer international visitors due to travel restrictions.

The 2021 International Report on Snow & Mountain Tourism describes the 2019/20 ski season as the worst of the current millennium with the 2020/21 season predicted to be worse still in many countries. Despite this, the pre-pandemic trend was positive with the 2018/19 ski season reported as the best season of the current millennium, with year-on-year growth in skier numbers from 2015/16, indicating the underlying strength of the industry prior to COVID-19.

The global ski market continues to be dominated by the Alpine region, which accounts for 79% of major ski resorts, 37% of all ski resorts, 38% of all lifts, and 43% of worldwide skier visits.

However, future growth in the industry is predicted to take place outside of western markets for a number of reasons:

- There is a high level of competition to skiing from other leisure activities;
- Demographic issues due to the majority of current skiers being older and retiring from the sport, and younger generations being less engaged with snowsports; and
- Recent economic trends have led to a stagnation in western middle class incomes, the primary market for snowsports.

Growth is more likely to be concentrated in Eastern Europe and in Asia, particularly China. Growth in Ski visitor numbers in China in recent years has been very strong, with in excess of 20m visitors in 2018/19, an increase of around 300% since 2010/11. The rapidly developing middle class in China, the strong support of the Chinese government and the recent 2022 Winter Olympics in Beijing indicate that this growth will likely continue in future.

Eastern Europe has also seen significant investment in Ski facilities throughout the 2010s, and although growth in recent years has been lower than expected and some planned developments have not materialised, future growth is still forecast.

UK Ski Market Trends

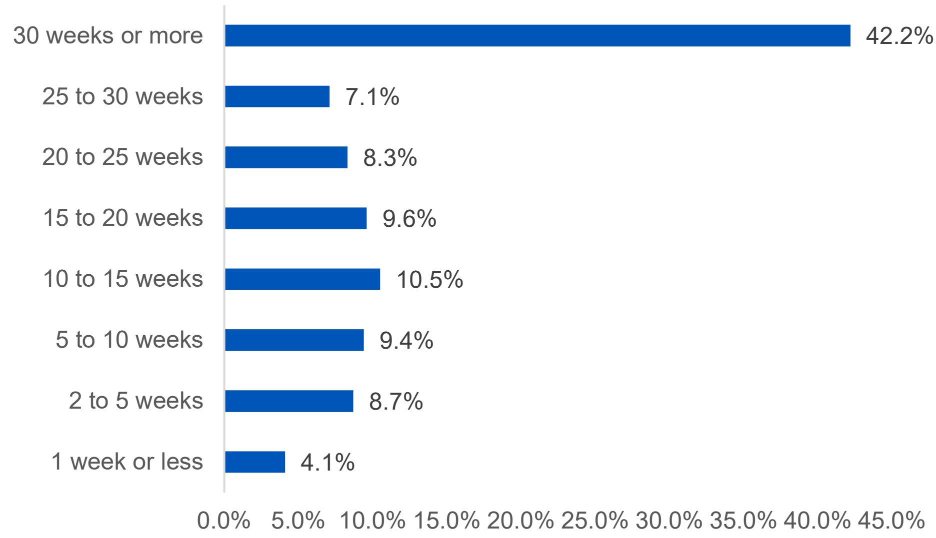
The latest Ski Club of Great Britain Consumer Survey Report was published in 2020 and provides information on the habits, intentions and attitudes of UK skiers. It attracted 19,262 responses. It should be noted that this survey took place against the background of the COVID-19 pandemic which broke out in early 2020. However, the full impact of the pandemic was only felt from late March onwards, and only 24% of survey respondents reported that their Skiiing holiday had been affected by the pandemic.

It should be noted that the full report was unavailable and information in this section is based on a summary infographic.

Skier profile

The bulk of respondents are experienced skiers who regularly have skiing holidays, with 42.2% having had 30 or more weeks experience in skiing, **Figure 3-1**.

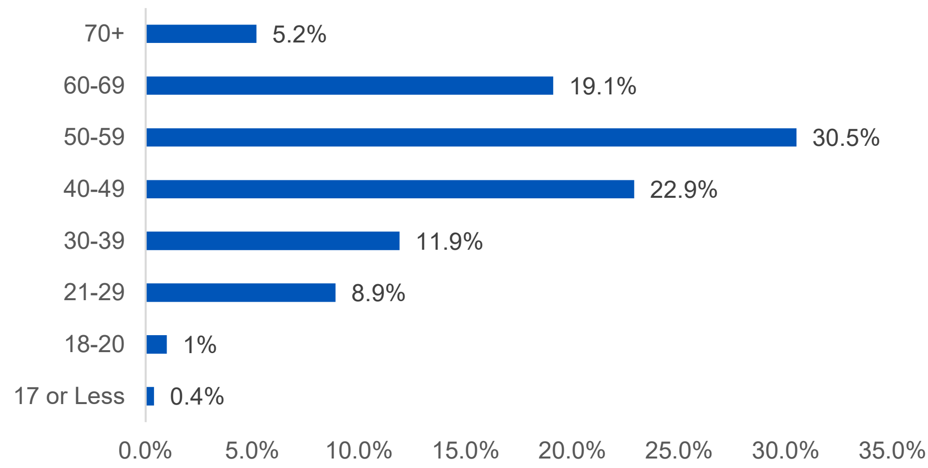
Figure 3-1: Amount of Skiing Experience



The age profile of respondents is predominantly older, with over three quarters aged 40 or older, **Figure 3-2**.

Looking at both **Figure 3-1** and **3-2** together, it is clear that the majority are committed regular skiers.

Figure 3-2: Age profile of respondents

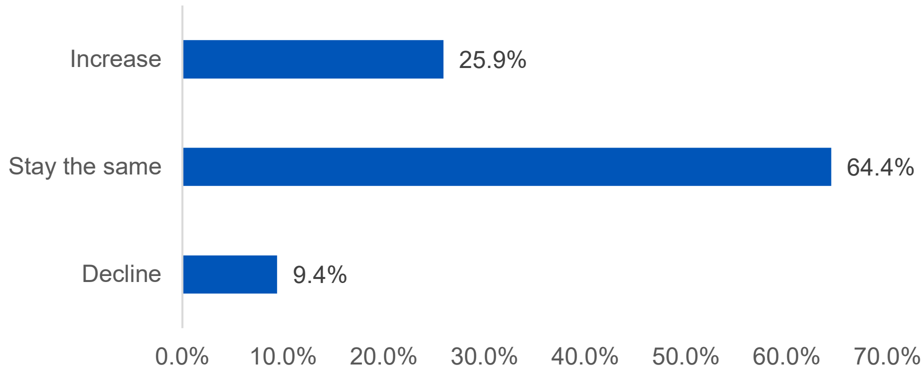


Future Intentions

The future intentions of respondents was very positive for the industry. As outlined in **Figure 3-3**, whilst most respondents (64.4%) expected the number of skiing holidays they will take over the next three years will stay the same, many more people reported that the number of skiing holidays they will take will increase (25.9%) than decrease (9.4%).

Furthermore, of those respondents who skied in the 2020 season, the vast majority (96.7%) planned to ski in the following season. Of those whose holiday was affected by the pandemic, 98.3% planned to ski in the following season.

Figure 3-3: Change in the number of Skiing Holidays over the next three years



The Ski Club of Great Britain produced a more recent, but smaller scale survey in May 2022 entitled State of the Snowsports Market.

The survey found that:

- The most important factors to respondents when choosing where to book a ski holiday were the size of the ski area, the resort altitude, price and the quality of the accomodation.
- 52% of respondents reported that the that snowsports holidays had become more imortant to them since the COVID-19 pandemic.
- The most popular destinations was for skiing holidays were France (55%), followed by Austria (26%) and Italy (18%). Scotland was not identified by any respondents as a destination for a skiing holiday.

Wider and Related Markets

General Tourist Trends

The number of tourists visiting Scotland and their expenditure is given in **Table 3-1**.

Table 3-1: Tourism in Scotland

Year	Visits	Expenditure
2016	14.4m	£4,840m
2017	15.1m	£5,454m
2018	15.5m	£5,143m
2019	17.3m	£5,738m

Source: VisitScotland

The number of visitors to Scotland in 2019 increased substantially from the 2016 level (+20%), with expenditure up 19%.

Whilst statistics are not currently available for 2020, it is highly likely that these figures will be lower than recent years due to the pandemic. It remains to be seen how well the Scottish tourist industry recovers post-pandemic, however, the pre-pandemic trend should give some cause for optimism.

Adventure Tourism

Adventure Tourism consists of a variety of activities including snowsports, but also walking, climbing, cycling / mountain biking, river / marine activities and wildlife / nature watching. Scotland’s natural environment provides an excellent setting for all types of adventure tourism with its large amount of mountainous, coastal and wilderness areas.

Adventure Tourism is identified as having real growth potential in the Tourism Scotland 2020 strategy, with the industry estimated to have grown by £89m to £848m over the period from 2008 to 2015.

Mountain Biking

Many of the Snowsports centres offer, or plan to offer, mountain biking facilties. The strategy for Scottish Mountain Biking 2019-2025 indicates that the mountain biking industry was worth £105m in GVA in 2015, with a target to grow by 51% to £158m by 2025.

The strategy’s vision is for “Scotland to be recognised as the leader of European mountain biking through innovative product development and tourism, participation and sport development, and sustainable trail development and management”.

To achieve this, the Scottish Government aims to increase the number of annual visits to Scotland on mountain bikes by 33% to two million, have a Scottish world champion or world series winner in every mountain bike discipline and increase the GVA of the industry by 51% to £158m by 2025.

Climate and Environmental Trends

The 2021 International Report on Snow & Mountain Tourism reports that over the last 50 years there has been no significant shift in winter temperatures at summit location in the Alps, and while there has been some warming, this has been limited to the spring and summer, with the autumn and winter only seeing mild increases.

However, a number of studies highlight the risks of climate change to the ski market in the future, with potential to reduce snow reliability (Vulnerability of ski tourism towards internal climate variability and climate change in the Swiss Alps), destabilise the winter tourism system (The impact of climate change on ski season length and snowmaking requirements in Tyrol, Austria), and reduce the length of the skiing season(Effects of Climate Change on Alpine Skiing in Sweden).

In a Scottish snowsports context, a recent forecast by The James Hutton Institute and SRUC (2020) into the impacts of global warming for Cairngorm Mountain found that there is “likely to be a decline in snow cover days per year from the 2030s [including at Aviemore which] will continue through to the 2080s”. By 2080, there is a “likelihood of some years with very little or no snow” (Climate Xchange, 2019).

Other key findings in the report, which are in line with results from the UK Meteorological Office and Inter-governmental Panel on Climate Change, include:

- “Large variation between years” with less frequent years that are comparable with past amounts of snow cover.

- Temperatures are projected to continue increasing, with a higher probability of having more days when the temperature is above a threshold of 2°C for snow formation.
- There is an increasing probability of more heat energy input on ground surfaces with an increasing snow melting affect.

As a result, the report concluded that "warming will continue meaning snow cover and depth is likely to decrease on Cairngorm Mountain from the 2030s" which raises serious challenges for the snowsports both in Scotland and beyond as these findings are reflective of global challenges. There is a degree of uncertainty with these forecasts as "successful global efforts to reduce emissions may moderate this impact, whilst even higher emissions rates (e.g., due to ecosystem carbon releases) may further increase impacts" (The James Hutton Institute and SRUC, 2020; and Climate Xchange, 2019).

The report also stresses that these predictions are subject to a large amount of uncertainty, with snow being particularly complex to model.

Lessons from Other Countries

The Scottish Ski Industry Strategic Review May 2019 makes a number of comparisons with snowsports industry in other countries, most notably New Zealand, which has seen strong growth in its Snowsports sector in recent years with a similar number of snowsports centres and population to Scotland.

The most notable difference was the high level of investment in marketing of the snowsports industry in New Zealand compared to Scotland, where there is described as being"*…a chronic low level of investment in marketing in respect of the Snow Sports Sector*".

The other main lesson from other countries was the use of snow making machines to mitigate the impact of shorter and more inconsistent seasons. Austria, for example, has invested 1 billion euros in snow making over the past decade, whilst the US government has provided grants to purchase snow making equipment to a variety of snowsports resorts.

The report therefore argues that an uplift in investment in marketing and snow making equipment is necessary to boost the Scottish snowsports industry.

Scottish Sector Overview

Introduction

This section considers the Scottish snowsports sector including governance, finance, demand, staffing and investment, for the six-year period 2016/17 to 2021/22.

It should be noted that this section of the report was heavily dependent on availability and quality of data that could be obtained from the five snowsports centres and 14 artificial slopes/venues. While some data was provided by the five snowsport centres, little was forthcoming from the 14 artificial slopes/venues. This allows only limited analysis of the sector, particularly in areas such as finance, demand, staffing and investment.

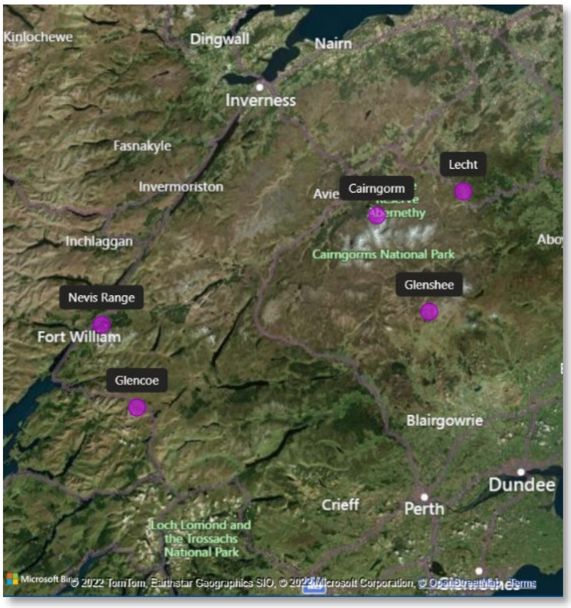
Governance

A range of governance structures are in place across the snowsport sector in Scotland.

Mountain Resorts

There are 5 mountain resorts in Scotland. These are located at Glencoe, The Lecht, Glenshee, Cairngorm and the Nevis Range, **Figure 3-5**. Of the 5 mountain resorts, 4 lie in the geographic areas covered by HIE and one lies in the area covered by SE (Glenshee).

Figure 3-5: Mountain Resorts



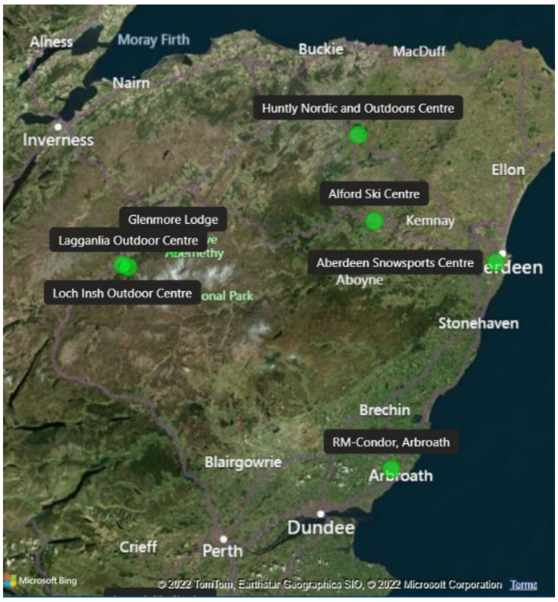
The resorts are all privately owned, limited companies with the excepetion of the Cairngorm which is a wholly owned subsidiary company of HIE.

In most cases (but not all) assets including buildings and uplift infrastructure are owned by the operating company. The land that the resorts occupy is leased from a number of different estates on a long term basis which provides security of tenure to plan and invest for the long term. However, in the case of Glenshee the lease period is nearing its final years and will require to be extended or renegotiated. Although this is not assumed to be problematic, lease renegotiations can be a challenging process and can lead to increasing costs and more onerous conditions which could create an environment where future snowsport operations could be compromised.

Artificial Slopes

There are 14 artificial slopes located at various venues across Scotland, **Figure 3-6**. These are Aberdeen Snowsports Centre; Alford Ski Centre; Bearsden Ski and Board Club; Firpark Ski Centre; Glasgow Ski & Snowboard Centre; Glenmore Lodge; Huntly Nordic and Outdoors Centre; Lagganlia Outdoor Centre; Loch Insh; Midlothian Snowsports Centre – Hillend; Newmilns Snow and Sports Complex; Polmonthill Snowsports Centre; RM-Condor, Abroath; and Snow Factor.

Figure 3-6: Artificial Slopes



The governance structures of the artificial slopes are varied. Six are owned by local authorities, five of which are operated by the local authority and one by a charitable trust. Two are owned and operated by private limited companies. Two are owned and operated by snowsports clubs. One is owned and operated by a small independent charity and one is owned by sportscotland and operated by its trust company which is also a registered charity. One is owned and operated by the Ministry of Defence and one is owned by a private company and operated by a separate private company via a tennancy agreement. At the time of writing, the tenancy agreement in place at Snowfactor in Glasgow was under review with the landlord indicating that the lease may not be renewed which could result in the only indoor artificial snow centre ceasing operations. Snowfactor Ltd also appears to be in administration.

Enterprise Agencies

Both HIE and SE are engaged with, and have a significant interest in, the snowsport sector through the five Mountain Resorts.

Cairngorm Mountain (Scotland) Ltd (CMSL), which operates the Cairngorm resort is a wholly owned subsidiary of HIE and receives funding from HIE through submission and agreement of an annual business plan. CMSL also receive capital funding from HIE through the submission and agreement of formal business cases.

The Lecht, Nevis Range and Glencoe also operate within the geographic areas covered by HIE but do not receive revenue funding from HIE. They do however, benefit from some capital investment from HIE periodically in support of a range of different capital projects.

Glenshee operates within the geopraphic area covered by Scottish Enterprise (SE). but do not receive revenue support from SE however, they also benefit from some capital investment from SE periodically in support of a range of different capital projects.

Snowsport Scotland

Snowsport Scotland is a company limited by guarantee and supported by sportscotland to act as the Scottish Governing Body (SGB) for snowsports in Scotland. It is a membership based body with around 10,500 members which include 33 clubs, organisational members e.g., snowsport centres and Disability Sport UK and individual members.

Although Snowsport Scotland has no oversight of, or strategic leadership role in the mountain resorts and artificial slopes, it plays a pivotal role in working with and collaborating closely on a range of initiatives designed to develop and enhance sporting pathways, promote and increase snowsports participation, improve facilities and events and build capacity in the sector. During the COVID-19 crisis, the governing body played a central role in securing valueable financial support for the sector to ensure its survival.

There are a number other sporting governing bodies that have an interest in the snowsport sector, these include: Scottish Disability Sport,,Disability Snowsport UK, Mountaineering Scotland and Scottish Cycling.

Other Agencies

A number of other agencies and organisations play a role in the sector. Some of these are concerned with how land and the environment is used, maintained and developed within the ecosystems in which the mountain resorts operate.

Some of the agencies have more of a focus on Scotland as a domestic and international tourism destination and the range and quality of the tourism offering of which adventure sports is becoming increasigly important. This represents an area of opportunity for the sector as it begins to broaden its activity offering and diversify to enure longer term survival.

At a more local level, destination management organisations, chambers of commerce and local authorities engage closely with the mountain resorts and the artificial slopes on a wide variety of programmes and initiatives aimed at developing local and visitor participation, improving the quality and range of offer, attracting investment and improving marketing. Although collaboration across the sector is improving, there are still elements of the sector working in isolation.

Through consultation, what is clear is that a multiplicity of stakeholders with varying degrees of commitment to and focus on snowsports is creating a fragmented landscape which would benefit from greater co-ordination to be sustainable.

Accessibility

All mountain centres and artificial slopes are reliant on the domestic market for customers. In our consultation, some stakeholders suggested that more than 95% of particiants/visitors come from the UK. Therefore understanding catchment areas and how accessible these venues are is critical to the sector’s future sustainability.

Figure 3-1 below shows the 60 minute, 120 minute and 180 minute drive time zones for all five of the mountain resorts. Within a 60 minute drive there is a combined population of around 92,000. This increases to over 3.5m within a two hour drive and over 5m within a three hour drive. This suggests that for a sector that is heavily dependent on a domestic market, access to mountain resorts is good.

Figure 3-7: Mountain Resorts 60 min, 120 min and 180 min Drive Time Zones

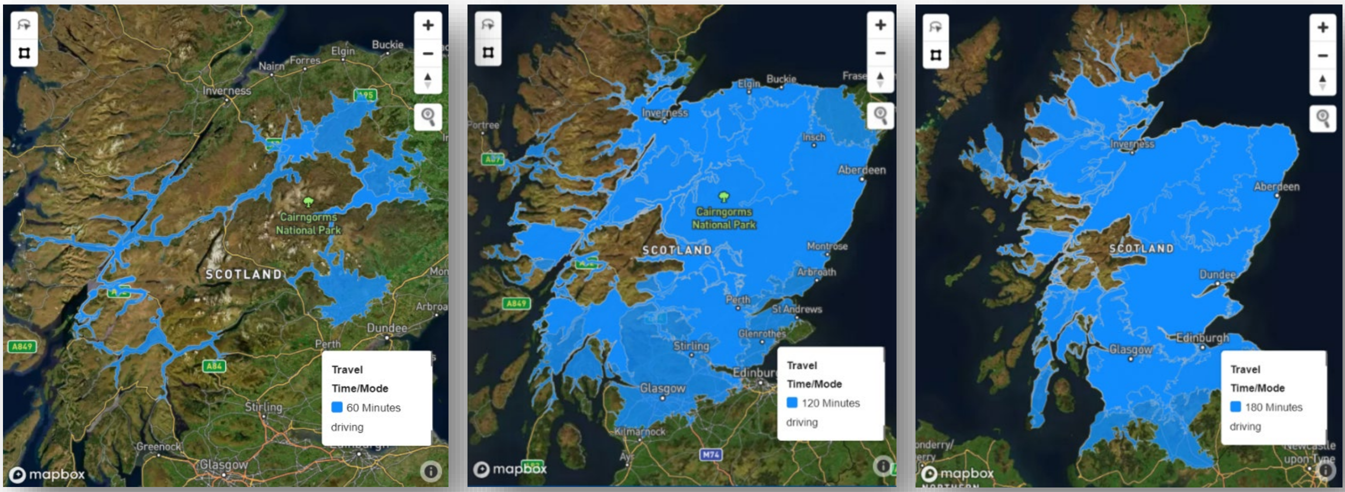


Table 3-2 below shows that of the five mountain resorts, Cairngorm has the lowest population within a 60 minute drive, Nevis Range has the second lowest and Glenshee has the highest. Within a 120 minute drive, Nevis Range has the lowest, Cairngorm has the second lowest and Glencoe has the highest. Within a 180 minute drive, The Lecht has the lowest, Cairngorm second lowest and Glenshee has the highest.

It should be noted that there is a significant cross over of population that will have access to one or more of the mountain resorts particulalry within the 120 minute and 180 minute travel zones. This is less of a feature within a 60 minute drive.

The main gaps in population without access to a mountain resort within a 2 hour or 3 hour drive exist in the far north of Scotland and in the South East and South West of Scotland.

Table 3-2: Mountain Resorts 60 min, 120 min and 180 Drive Time Populations

Venue	60 Minute Drive	120 Minute Drive	180 Minute Drive
Cairngorm	13,597	298,179	2,196,100
Glencoe	21,111	2,343,769	4,495,762
Glenshee	38,821	1,226,042	4,828,874
Lecht	27,487	757,338	2,115,437
Nevis Range	18,464	239,428	3,908,289

Table 3-3 below shows the population that could access one of the mountain centres within a two or three hour drive if for any reason the number of mountain centres was reduced. Within a two hour drive, the loss of Glencoe would see the most significant reduction in the population that could access at least one of the mountain resorts. The loss of the Nevis Range would have the least significant reduction. Within a three hour drive,

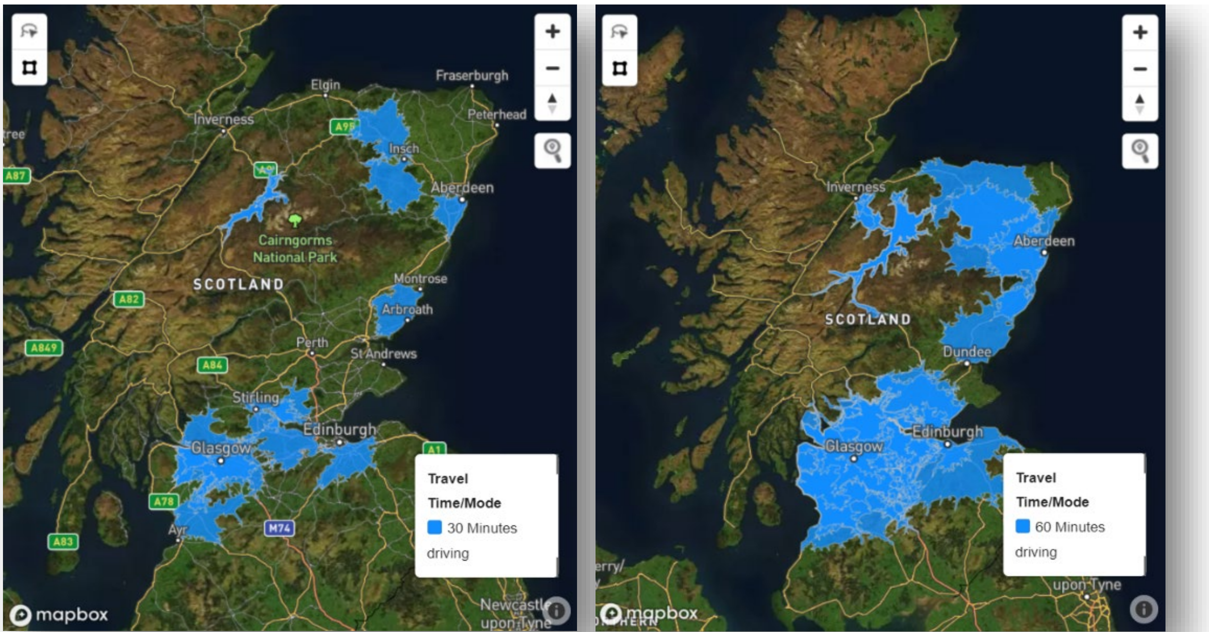
the loss of Glencoe would see the most significant reduction in the population. The loss of the Lecht would have the least significant reduction. It should be noted that this analysis simply shows the impact on accessibility for the population within a two and three hour drive. It does not consider the wider impacts economically or socially should one of the mountain centres cease to operate.

Table 3-2 Loss of Mountain Centres - Impact on Accessibility Drive Time Populations

Venue	120 Minute Drive	180 Minute Drive
All Mountain Centres	**3,544,606**	**5,028,866**
Without Cairngorm	3,536,732	5,027,623
Without Glencoe	1,562,163	4,892,281
Without Glenshee	3,092,423	5,028,717
Without Lecht	3,491,679	5,028,843
Without Nevis Range	3,538,642	5,024,792

Figure 3-8 below shows the 30 minute and 60 minute drive time zones for all artificial slope facilities including the the indoor slope at Snowfactor in Glsgow. There is a population of almost 2.8m within a 30 minute drive of at least one of the artificial slopes. This rises to almost 4.5m within a 60 minute drive.

Figure 3-8: Artificial Slopes 60 minute, 120 minute drive time zones



Appendix A shows that of the 14 artificial slopes, Glasgow Ski & Snowboard Centre has the highest population within a 30 minute drive, Glenmore Lodge has the lowest, Lagganlia has the second lowest. Within a 60 minute drive, Polmont Snowsport Centre has the highest, Glenmore Lodge has the lowest, Lagganlia has the second lowest.

Although access to artificial slopes is reasonably good, there are gaps in population without access to an artificial slope within a 30 minute drive. These are in the North East of

Scotland around Fife, Perth and Kinross, Dundee and Angus areas, along with the South West and South East of Scotland and the far North of Scotland. This data suggests that there may be opportunities to grow and enhance access to artificial slope provision by developing facilities in the North of Scotland around the Inverness Area and the North East around Dundee to maximise accessibility.

Visitor Survey

As part of the study, primary research was carried out with visitors to both the mountain resorts and artificial slopes. Analysis of the 1,532 completed visitor surveys showed that 90% of visitors came from the UK and 1% came from other countries outside the UK (for 9% of respondents it was not posible to identify their location). Of the total respondents that came from the UK, 88% were from Scotland and 12% from other UK areas.

Appendix A shows which local authority area the 88% of visitors from Scotland came from. Highland Council area accounted for just over a fifth of all visitors, Aberdeenshire and City of Aberdeen accounted for almost a fifth, Perth and Kinross accounted for almost 10% and Edinburgh for alomost 8%. Of all visitors from SIMD Q1, almost half came from Glasgow, Dundee, Fife and Highland.

When asked which mountain resort they had visited most recently, 27% had visited the Cairngorms, 23% Glencoe, 33% Glenshee, 9% the Lecht and 7% Nevis Range.

Appendix A shows that of the survey respondents (with valid postcodes in Scotland) that had visited Cairngorm, half had come from the Highland Council area with significant numbers also coming from Aberdeenshire/City, Edinburgh and Perth and Kinross . Of those that had visited Glencoe, significant numbers had come from Edinburgh, Glasgow, Highland, Perth and Kinross, Argyll and Bute and Stirling. For Glenshee, almost one third came from Aberdeen City/Aberdeenshire with significant numbers also coming from Perth and Kinross, Edinburgh, Angus and Fife. For the Lecht, almost two thirds came from Aberdeen City/Aberdeenshire some also came from Highland and Moray. For Nevis Range, almost half came from Highland.

Finance

It should be noted that the financial analysis has been significantly limited by the lack of data available from the mountain resorts and artificial slopes. Of the five mountain resorts, only three were able to provide complete financial data sets and of the 14 artificial slopes only one was able to provide a complete and reliable financial data set.

Income

Figure 3-8 shows that for (3 of 5 sites) income levels have been maintained over the last ten years with a slight upwards trend. A significant dip was experienced in 2016/17 when levels of snowfall were very low. However, when looking across the different mountain resorts some variation is apparent. Some this may be accounted for by differences in levels of snow and days when skiing was available. However, it is also likley that some of the differences can be accounted for by the varying levels of dependency on snowsport and non-snowsport activities for generating income. Those resorts that have successfully diversified and are less dependent on snowsports have been able to maintain levels of income.

As anticipated, levels of income dipped substantially during the COVID-19 period when most businesses had to shut down fully for prolonged periods of time.

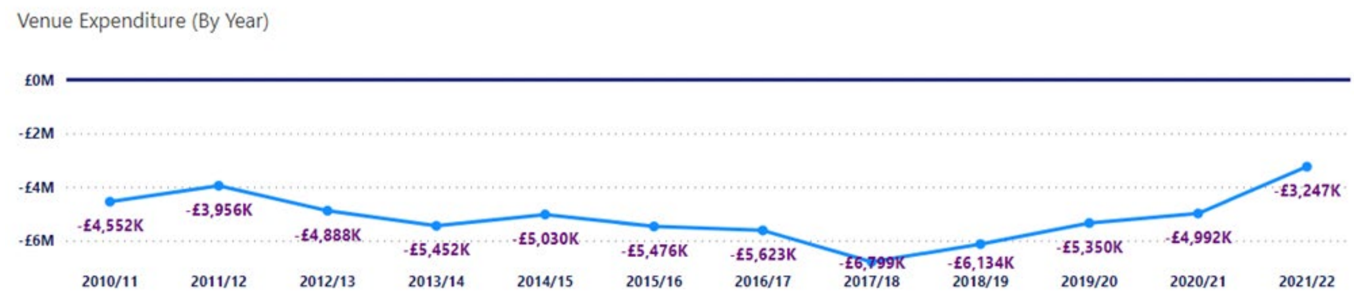
Figure 3-8: Venue Income (by year)

No analysis has been carried out on levels of income for the artificial slopes due to the absence of any reliable data.

Expenditure

Figure 3-9 shows that for (3 of 5 sites) expenditure levels have been increasing between 2010/11 and 2017/18. However, since 2017/18 onwards, costs have been decreasing steadily. Some of these decreases in costs are aligned to reduced snowfall and reduced levels of business as a consequence. 2019/20 and 2020/21 reflect the significant downturn in business due to COVID-19.

Figure 3-9: Venue Expenditure (by year)

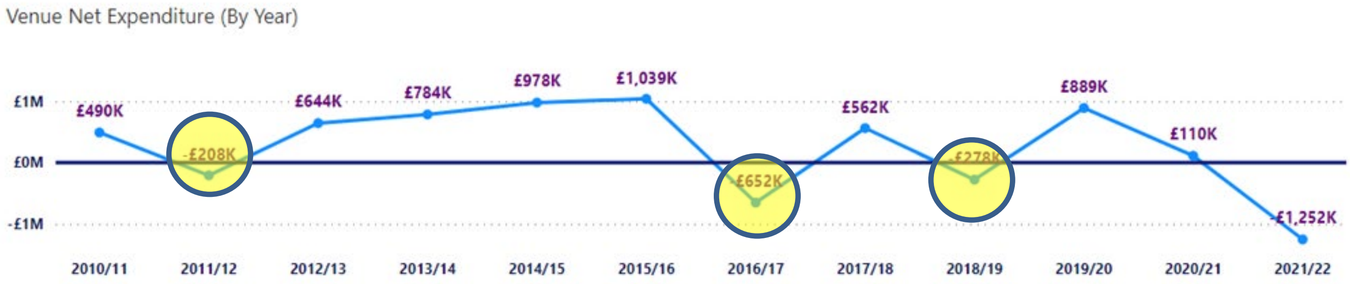


No analysis has been carried out on levels of expenditure for the artificial slopes due to an absence of reliable data.

Net Expenditure

Net expenditure is the difference between income and expenditure and determines the extent to which the mountain resorts made a profit or loss. The years highlighted in yellow when losses are incurred correspond to years with lower snow days and lower visitor numbers.

Figure 3-10: Venue Net Expenditure (by year)



From the consultations, it would seem that the current financial position is reasonably stable but with most stakeholders expressing significant concerns for the future.

For the mountain resorts, finances have been challenging over many years as snow levels vary. 2019/20 was one of the best snow years in recent times and under normal circumstances, this year would have allowed the mountain resports to generate financial surpluses to provide a cushion to sustain them through more challenging years. However, due to pandemic this did not happen.

Investments in snowmaking, online ticketing, improvements to uplift, machinery and activity diversification have all helped to financially strengthen a number of the resorts, however all are forecasting significant cost pressures in the future e.g., fuel costs, staff costs, repairs and maintenance etc. These pressures will be felt across the sector and coupled with poor snow conditions and the cost of living crisis, could create very challenging financial conditions ahead. In fact, some felt that in five to ten years, there is unlikely to be 5 mountain resorts all delivering snowsport activities.

COVID-19 funding support for the sector from the Scottish Government has undoubtely ensured the survival of many organisations through the pandemic. Without this, it is likely that some would have ceased trading. However, in some cases, this support was in the form of loans which could create longer term pressures as companies have to service these debts as well as manage all other financial challenges.

For the artificial slopes, the financial climate has been less volatile as levels of demand for activities are much more consistent, predictable and not dependent on snowfall. Most organisations were reasonably optimistc about their future but again expressed significant concerns over current and future cost pressures. In some cases, artificial slopes were more successful in attracting levels of external funding particularly to support programmes and activities that were targeted at individuals, families and organisations that deal with those that are under represented in sport and/or from more deprived communities.

Demand

The analysis of demand focuses on the numbers of visitors to the mountain resorts taking part in snowsport activities and non-snowsport activities. Again the analysis of demand for the artificial slopes has been constrained by the lack of data.

Figure 3-11 below shows that between 2010/11 and 2015-16, there was decline in the number of snowsport visitors at the mountain resorts. From 2016/17 to 2018/19, there is no data from the Cairngorms resort. However, even when discounting the Cairngorms, the trend still shows a continued decline in snowsport visitor numbers up until 2019/20, apart from 2017/18 which shows a slight increase. As anticipated, visitor numbers drop considerably during the period impacted by COVID-19. It should be noted that the funicular railway at Cairngorm closed down early September 2018 and is expected to reopen in Jan/Feb 2023.

Visitor numbers for non-snowsports remain consistent between 2010/11 and 2015/16. The drop shown from 2016/17 onwards is as a result of no data being provided from Nevis Range and Cairngorm resorts. However, assuming these were of a similar level to the 2010/11 – 2015/16 period, non-snowsport visitor numbers would have remained at a consistent level through to 2019/20 at which point, all visitor activity levels declined due to COVID-19.

This demonstrates that non-snowsport activities tend to be more resilient and not subject to the same level of variation when compared to snowsport activities. This also highlights some of the benefits of diversifying the range of activities on offer within the mountain resorts.

Figure 3-11: Mountain Resort Visitor Numbers

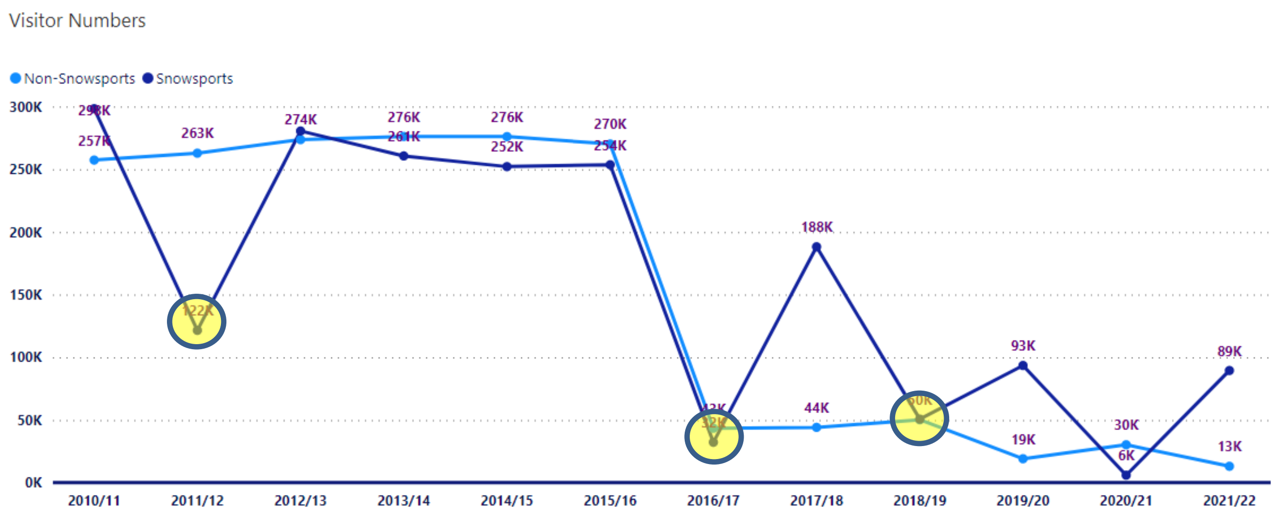


Figure 3-12 below shows a longer term set of data for snowsport visitor numbers between 1989 and 2015. Over this period there is a clear decline. Appendix A shows a marked decline in vistor numbers at Cairngorm, Glenshee and the Nevis Range. The scale of decline is also significant at The Lecht but less so for Glencoe.

Figure 3-12: Snowsport Visitors (all Mountain Resorts 1989 – 2015)

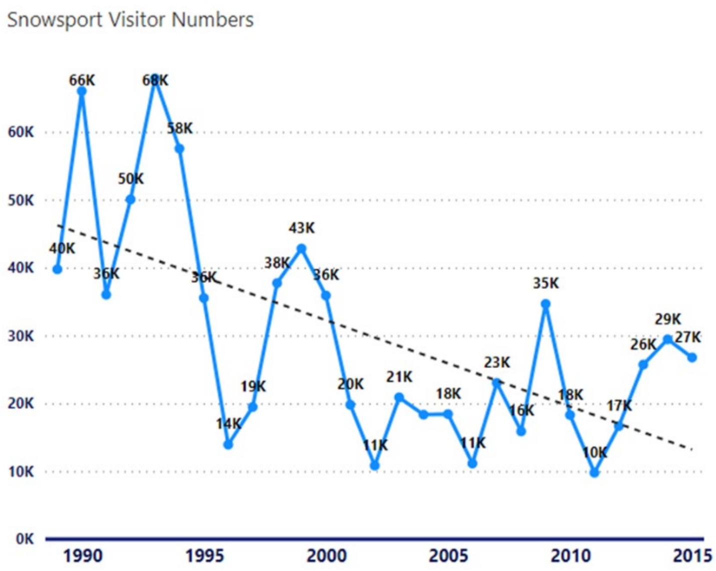


Figure 3-13 below shows the aggregated number of days that skiing was possible within the mountain resorts (3 out of 5) and also the number of days of skiing that were lost due to wind conditions making skiing impossible. The drop in visitor numbers shown in **Figure 3-11** correspond to the years in which there was a reduction in the number of days where skiing was possible. The chart shows that there is a declining trend from 2012/13 through to 2019/20.

Figure 3-13: Ski Days / Days Lost to High Wind

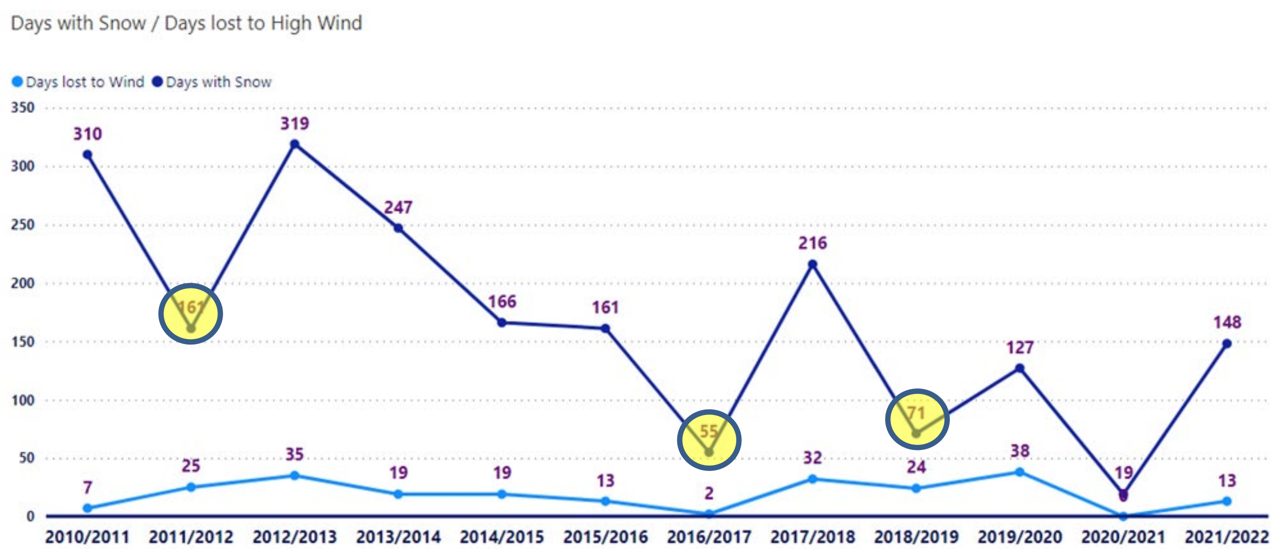
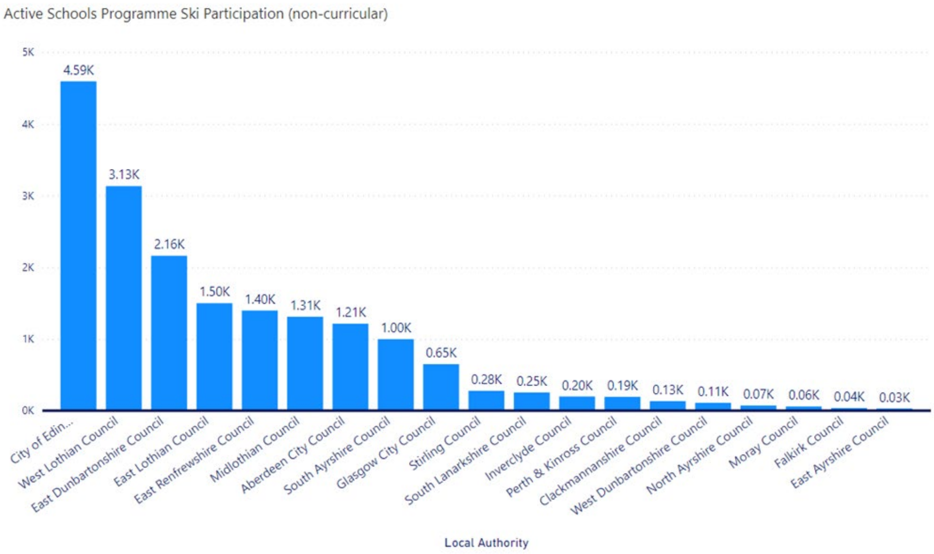


Figure 3-14 below shows the level of ski participation within the Active Schools programme within local authorities across Scotland. This represents the level of non-curricular skiing activity. It does not represent the extent to which snowsports are a feature of curriculum based activity for which there are no data sets available. The numbers represent an average taken across 2017 and 2018 and shows that City of Edinburgh Council has the highest level of participation. There are 13 local authorities who do not offer skiing as part of the Active Schools Programme.

A strong and growing base of participation within schools either as part of curriculm or non-curricular activities should be an important and integral part of future planning to ensure there is a constant stream of individuals learning to ski and providing a sustainable market for the future.

Figure 3-14: Active Schools Programme Ski Participation (average 2017/2018)



The data shows a decline in levels of demand at the mountain centres that is closely aligned to the decline in levels of snowfall. In response to this, the centres have been exploring ways in which they can strengthen and improve their snowsports offer through improving uplift infrastructure and ancillary facilities such as car parking and catering, improvements to online ticketing and payment services and provision of limited snow making etc. However, the impact of these improvements is only realised when there is snow available.

The centres are also looking to diversify and create demand for alternative activities throughout the year to reduce their level of dependency on snowsport activities. The five centres are all at different stages of diversification and the extent to which the different centres can successfully diversify will vary due to a range of different factors e.g. location, accessibility and access to visitor market numbers, levels of investment available, land and suitability for development etc.

There is no reliable and consistent set of demand data for the artificial slopes however, through consultation it has been identified that levels of demand for artificial slopes have been generally more consistent, predictable, and less prone to variation when compared to the mountain centres. Many of the artificial slopes reported that levels of demand had recovered well after the COVID-19 pandemic and in some cases were now exceeding pre-pandemic levels.

The current cost of living crisis is also likely to impact on levels of demand as individuals', families' and organisations' disposable income is reduced, spend on sports and leisure time pursuits is likely to be negatively impacted.

Staffing

The mountain resorts and artificial slopes provide a valuable source of full-time, part-time and seasonal employment opportunities for people who live within local or neighbouring communities and some who are visting the areas and are employed on a seasonal basis.

The resorts are significant employers which between them employ circa 120 full time positions, 35 part time and 200+ seasonal positions, the equivalent of 185 FTE. The number of seasonal positions can vary significantly based on how good the snow conditions are and how long they last for.

The limited data provided by the artificial slopes allows for only indicative employment figures to be estimated. This would suggest that the artificial slopes employ around 80 full time posts, around 270 part time posts and 200+ sessional or casual posts, the equivaluent of 269 FTE.

Appendix A shows the range of employment opportunities within the sector:

Challenges

The sector as a whole is experiencing significant challenges on a number of employement related issues, some of which are fundamental to the longer term sustaiability of the sector.

Recruitment and Retention of Staff

Like many other sectors, the snowsport sector is experiencing significant challenges around the recruitment and retention of staff. These issues have been further amplified by the pandemic with many staff, particularly those on casual and zero hours contracts choosing to leave the sector and seek more stable employment opportunities. This is particularly true of individuals who were employed as ski instructors. However, most organisations that were consulted expressed significant concerns about recruitment and retention of staff across the full range of employment positions.

Year-Round Employment

This is more of an issue for the mountain resorts than the artificial slopes. Increasing unpredictability in terms of weather and the impact of Brexit, removing the freedom for individuals from the UK to work across Europe, is making the sector increasingly unattractive to many who are entering the employment market or seeking more stable employment. These changes are also weakening career paths within the sector which again make the sector less attractive to many.

Businesses within the sector that have successfully diversified or which are larger in scale have been able to offer more secure, year-round employment opportunities. However, several resorts are experiencing challenges in recruiting and retaining staff where they are not able to offer year-round employment.

Qualification Structure and Costs

Through consultation, there were several organisations that expressed concerns about the structure/suitability of coaching qualifications within the sector, the availability of training opportunities and the relative high cost of obtaining qualifications.

For some of the artificial slope operators that deliver basic learn to ski activities, it was felt that the current qualifications required to coach were too onerous and expensive, which makes it more difficult to recruit qualified coaches/instructors. It was also felt that there were insufficient training courses available for individuals to become qualified.

A lack of coaches/instructors that are qualified to deliver activities for individuals with disabilities is also having a detrimental effect on engaging groups that are underrepresented in snowsports.

Succession Planning

Much of the mountain resort provision is owned and operated by small privately owned companies that rely on a few highly motivated individuals to operate and manage. Many of these individuals are very hands on within the business. Within these small organisations, resources and time are at a premium which makes planning for the future a challenge. The reliance on a small number of individuals makes these businesses vulnerable if for any reason these people were not to be in position. Thought needs to be given to how these organisations are supported to build resilience and capacity to ensure continuity in the longer term.

Cost of Living

The current crisis is likely to have a significant impact on the sector which is already charaterised as a low paid sector with many jobs at minimum wage or marginally above. The cost of fuel for those travelling significant distances to work, particularly for those working at more remote resorts, is likely to force some to seem more local employment with less travelling costs.

Access to affordable housing in many areas is also an issue which will affect some of the mountain resort's ability to recruit and retain staff.

Investment

The analysis of investement has again been limited by the lack of data made available both by the mountain resorts and artificial slopes. Of the five mountain resorts, only 3 were able to provide partial data and of the 14 artificial slopes only four were able to provide partial data.

The available data suggests that the sector as a whole has benefited from investment over the years from a number of different partners and agencies including Highlands and Islands Enterprise (HIE, Scottish Enterprise (SE), LEADER, Local Authorities, Lottery Funding, SCVO and ERDF.

Appendix A provides a summary of investment that has been made in some of the mountain resorts and artificial slopes over the last few years. It shows that the Cairngorms has benefited from a level of direct investment from HIE, focused on infrastructure improvements designed to make the customer experience better and improving operational efficiency and environmental sustainability. Glencoe has invested heavily over the last few years to improve uplift infrastructure, snow making capacity and renewing the base station after fire destroyed the facility. Some investment has been received from HIE, some has been self funded and some came from insurance companies. Glenshee has also invested significantly in the last few years focused on improving uplift infrastructure and creating snowmaking facilities. There has also been investment in a number of feasibility studies to consider options to improve the centre and make its operations environmentally sustainable.

The level of investment in the artificial slopes over the last few years appears to be considerably less than the mountain resorts. Much of the investment has been on ski matting replacement and ski tow maintenance/replacement which tends to be done on a rotational basis. Some invesment has been made in creating new areas e.g., a Tubing Track which provides new activities and potential to generate additional income. When compared to the mountain resorts, the artificial slopes seem to have been more successful in attracting investment from a wider range of sources e.g., LEADER, SCVO, Lottery and other sources.

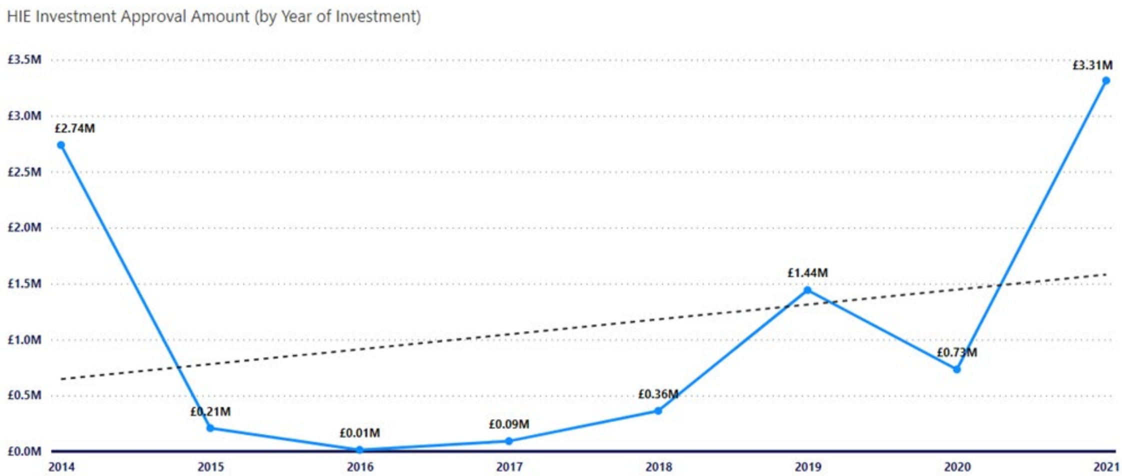
HIE Investment

Since 2014, HIE has made significant capital investment in to four of the five mountain resorts (excluding Glenshee) Funding is generally provided based on the submission of individual business cases with levels of project funding sometimes as much as 75% of total costs. HIE has indicated that this is now reducing to a maximum of 40%.

One of the benefits of the HIE investment model into snowsports is the broader, more strategic view they bring, allowing investment across the centres with more of a sectoral, regional and strategic perspective.

Figure 3-15 below shows the levels of approved investment in mountain centre projects. It should be noted that some projects did not spend their full amounts and so the amounts shown do not necessarily reflect the actual expenditure.

Figure 3-15: HIE Approved Investment in Mountain Centres



Appendix A shows the Cairngorms share of the investment shown in **Figure 3-11.** In 2017, investment was focused on snow factory, snow blower and ancillary equipment. In 2019 more significant investment was made in upgrading catering and other facilities, purchasing assets from the administrators and providing power to snow canons. In 2021, investment increased significantly and included project management costs associated with a variety of projects, new adventure play equipment, provision of camping facilities, upgrading car parking and a variety of other smaller projects.

Since 2014, a further £0.2m of investment was self-funded by Cairngorm or came from other private sources.

Appendix A also shows the level of investment made to Glencoe since 2014. In 2014, investment focused on improvements to uplift infrastructure. Between 2015 and 2020, further smaller investments were made into snow factory equipment and other associated equipment. The increased investment in 2021 was associated with the construction of a new base station. Since 2014, a further £3m of investment was self-funded by Glencoe or came from other private sources.

The Lecht also received investment from HIE and is shown in Appendix A. In 2014, investment focused on improvements to uplift infrastructure. Between 2015 and 2016 further smaller investments were made into uplift infrastructure. Between 2017 and 2020 investment was made into snow factory equipment and other associated equipment. The increased investment in 2021 was associated with COVID-19 support. Since 2014, a further £0.8m of investment was self-funded by The Lecht or came from other private sources.

In 2014, HIE's investment in the Nevis Range focussed primarily on improvements to uplift infrastructure. Between 2015 and 2019 further smaller investments were made into mountain bike tracks and improvement to ticketing systems and broadband infrastructure. In 2020, support allowed investment was made into improving carparking, purchase of equipment and online and contactless booking and ticketing systems. In 2021, further investment was made for funding towards a new base station. Since 2014, a further £4.8m of investment was self-funded by the Nevis Range or came from other private sources. Appendix A.

SE Investment

Appendix A shows the level of capital invested in Glenshee by SE since 2014. The investment model is similar to the one adopted by HIE in terms of the other 4 mountain resorts. The main areas to benefit from investment have included snow making facilities, uplift infrastructure and projects designed to reduce carbon emissions.

Future Investment Priorities

Through consultation across the sector there were several priorities identified for future investment. Many of these areas have already seen investment however, it is evident that more investment is required.

Due to the age of much of the **uplift equipment** across the five mountain centres, there is a continuing need for investment in upgrading and replacing aging infrastructure.

There is also a need to invest in better **snow making facilities** that can ensure a consistent seasonal offer is available at each of the centres. The scale of investment would be significant as it would also have to be environmentally sustainable.

All centres are engaged in projects to enhance the **quality of the customer experience**. These investment priorities included improving toilet, catering, and car parking infrastructure.

Diversification of activities was also identified as an important factor in future sustainability and increasing levels of investment have been identified to examine the feasibility of a broad range of opportunities and then to implement those projects that are most likely to be successful.

Other areas for investment were also identified as being important to future sustainability. This included creation of **staff accommodation** to address the shortage of affordable housing in local communities. **Environmental sustainability**, reducing carbon footprints and maximizing operational efficiency were other areas that all mountain centres identified as having to consider and make investments in future years.

Priority investments for the artificial slopes were mainly focused on replacement of ski **slope surfaces** and **tow infrastructure**. However, in a few cases some facilities were looking to expand their activities and services. Hillend, near Edinburgh, have plans and funding in place to extend facilities to include zip wires and indoor climbing, to create a destination venue where visitors can experience a wider range of activities alongside skiing. Alford Ski Centre are planning a full building refurbishment and plan to include a new community room, social area and potentially a gym/fitness room.

4. Economic Impact

Key findings

- **Total Economic Impacts**
    - Wages - £16.1m
    - GVA - £21.4m
    - Jobs - 550
- On a like for like basis, there has been a reduction of 60% in economic impact of Off-Site Visitor Spend when compared to the 2016 assessment.
- This is largely due to the reduction in total snowsports visitor numbers of 66% to the five snowsports centres since 2016.

Introduction

An Economic Impact Assessment (EIA) has been undertaken to estimate the economic contribution that the Snowsports Industry makes to the Scottish Economy.

Economic Impact has been measured in two ways:

- The onsite impact of employment at Scottish Snowsports facilities, gathered through consultation.
- The off-site impact of visitor spend in local economies in and around snowsports facilities, gathered through a visitor survey.

Onsite Employment Impacts

Onsite Employment data was gathered through consultation with the snowsports centres, with employment categorised as Full-time, Part-time and Seasonal.

There were some significant data gaps with regards to the dry ski slopes, so indicative employment was estimated based on data provided by four venues. Furthermore, three venues were multi-use outdoor facilities and the data provided could not be dissagregated by function. We have therefore estimated that 10% of employment at these sites was snowsports related.

Table 4-1 outlines the levels of employment at each snowsports centre. Levels of employment have been converted to Full Time Equivalents (FTE). This is the level of employment equivalent to one full-time position, defined as 35 hours per week. This could be a single full-time position, or a number of part-time positions. To convert to FTE we have assumed that each part time position will be half of a full time position, and that each seasonal position is a full time positon for a quarter of the year, so will be one quarter of an FTE.

Table 4-1: Employment By Snowsports Site

Venue	Type	Full Time	Part Time	Seasonal	FTE Jobs
Cairngorm	Mountain Resort	34	6	50	50
Glenshee	Mountain Resort	14	2	40	25
Glencoe	Mountain Resort	23	19	40	43
The Lecht	Mountain Resort	7	0	16	11
Nevis Range	Mountain Resort	40	6	50	56
Aberdeen Snowsports Centre	Dry Ski Slope	9	2	58	25
Alford Ski Centre	Dry Ski Slope	1	9	2	6
Bearsden Ski and Board Club	Dry Ski Slope	9	2	58	25
Firpark Ski Centre	Dry Ski Slope	1	9	2	6
Glasgow Ski & Snowboard Centre	Dry Ski Slope	9	2	58	25
Glenmore Lodge	Multi-use outdoor facility	3.5	3.5	10	8
Huntly Nordic and Outdoors Centre	Dry Ski Slope	4	39	0	24
Lagganlia Outdoor Centre	Multi-use outdoor facility	3.5	3.5	10	8
Loch Insh	Multi-use outdoor facility	3.5	3.5	10	8
Midlothian Snowsports Centre – Hillend	Dry Ski Slope	14	73	0	51
Newmilns Snow and Sports Complex	Dry Ski Slope	4	39	0	24
Polmonthill Snowsports Centre	Dry Ski Slope	1	9	2	6
RM-Condor, Arbroath	Dry Ski Slope	1	1	2	2
Snow Factor	Indoor Ski Slope	14	73	0	51
Total		**196**	**302**	**408**	**448**

Wages and GVA Coefficients

Wages and GVA were estimated using coefficents from Scottish Annual Business Statistics. The sector used was Sports Activities and Amusement and Recreation Activities, and after adjusting for FTE employment and inflation, equates to £36,000 in wages per FTE and £44,000 in GVA.

Gross Impacts

Applying these coefficents to the employment data results in gross onsite employment impacts as outlined in **Table 4-2**.

Table 4-2: Gross Onsite Employment Impacts

FTE Jobs	Wages	GVA
448	£16.1m	£19.6m

Net Impacts

Net impacts are calculated on the basis of HM Treasury Green Book guidance (and Scottish Enterprise EIA guidance), taking account of the additionality factors of displacement, leakage and multipliers:

- **Displacement** – the proportion of project outputs (activity/ jobs) that will reduce outputs elsewhere in the target area.
    - For operational impacts, displacement is considered to be medium as it is likely that the local labour which snowsports facilities make use of would otherwise be used in other local industries.
- **Leakage** – relates to the residence of the beneficiaries (businesses/ employees), and estimates the proportion that will occur outwith the defined spatial area – in this case Scotland.
    - Leakage was considered to be extremely low as it is likely that the vast majority, if not all, employees will be resident in Scotland. There may be some limited leakage from seasonal workers who are resident outwith Scotland in the off-season.
- **Multipliers** – relates to the impact of new business and employee spend that occurs as a result of the activity through additional income, supplier purchases, and longer-term effects. Multipliers are available at the Scottish level from Scottish Government input-output tables[1] based on the relevant sector, in this case, Sport & Recreation.

Summary details of additionality factors can be found in **Table 4-3**.

1 https://www2.gov.scot/Topics/Statistics/Browse/Economy/Input-Output

Table 4-3: Additionality Factors

Additionality Factor	Additionality
Displacement	50%
Leakage	5%
Multiplier	1.60

Applying these additionality factors to the gross impacts results in net impacts as outlined in **Table 4-4**.

Table 4-4: Net Onsite Employment Impacts

FTE Jobs	Wages	GVA
340	£12.3m	£14.9m

Off-Site Impacts

Off-site impacts are based on feedback provided by visitors to Snowsports venues during the 2022 season.

The original aim was to gather a total of 1,000 face to face survey responses across the five snowsports centres and an additional 400 at the artificial slopes.

There were a number of issues which prevented these targets being met, with only 342 interviews being undertaken at the snowsports centres and 29 at the artificial slopes.

For the Snowsports Centres this was largely due Scottish Government COVID-19 Guidance which required interviews to take place outdoors. A combination of poor weather conditions (high winds, snow) and resorts being closed due to lack of snow prevented face to face surveys taking place on many days.

For the artificial slopes, a poor response from the slopes meant that the number of interviewer days were extremely limited.

Due to the low number of face to face responses, the mountain resorts distributed an online survey and hard copy self-completion questionaires on site. A total of 1,530 reponses were received across all survey methods.

There were only 49 responses from visitors to artificial slopes, which is too few for robust economic impact assessment. They have therefore been excluded from the off-site impacts analysis.

It should be noted that the use of online surveys and self-completion questionaires are generally not recomended for conducting Economic Impact Assessment, primarly due to issues with the respondent profile. The use of face-to-face surveys allows for a random selection of visitors, while online and self-completion survey are inherently self-selecting. We will discuss how we deal with this in further detail below.

Gross Impacts

Total spend reported by survey respondents was £292,670, **Table 4-5**.

Table 4-5: Total Spend

Spend Category	Total Spend
Accommodation	£146,055
Food	£47,570
Transport	£32,594
Drink	£18,842
Shopping	£14,826
Equipment hire	£13,375
Other	£12,337
Entertainment	£7,071

N=1,481

This equates to average spend by snowsport centre and visitor origin as presented in **Table 4-5**.

Table 4-6: Average Spend By Centre and Vistiors Origin

	Day Visitors		Overnight Visitors		
	Scotland	Rest of UK	Scotland	Rest of UK	Outside UK
Cairngorm	£29	£90	£433	£567	£936
Glencoe	£47	£59	£297	£516	£15
Glenshee	£51	£75	£412	£654	£641
Lecht	£57	£45	£458	£849	-
Nevis	£24	£600	£737	£814	£76

N=1,481

Grossed Up Impacts

The impacts are grossed up to the total visitor population which has been provided by the snowsports centres for 2021/22. This is based on the inverse of the proportion responding to the survey (e.g., a response rate of 5% generates a grossing up factor of 100%/5% = 20).

Individual visitor segments by Snowsports Centre are grossed up seperately and summed, i.e. day visitors and overnight visitors are grossed up seperately for each Snowsports Centre.

It should be noted that visitor numbers are solely presented for Snowsports visitors, as there was insufficent data returned to include non-snowsports visitors.

Total vistor numbers are presented in **Table 4-7** below. The proportion of day and overnight visitors was derived from the survey returns. For these estimates we have only used data from face-to-face surveys as they are more representative of the visitor population.

Table 4-7: Total Visitors

	Total Visitors	% Overnight	% Day	Overnight Visitors	Day Visitors
Nevis Range	6,400	25%	75%	1,627	4,773
Lecht	16,063	15%	85%	2,489	13,574
Glenshee	35,557	14%	86%	4,889	30,668
Glencoe	16,077	15%	85%	2,491	13,586
Cairngorm	15,376	40%	60%	6,221	9,155
Total	89,473	-	-	17,716	71,757

After grossing up to the total visitor population, total visitor spend is **£12.2m**.

Net Impacts

As with the onsite employment imapcts, net impacts are derived by the adjusted for dispacement, leakage and multiplier effects.

Displacement was judged based upon where respondents reside, how important snowsports was to their visit to the Snowsports Centre, and what they would have done in the absence of their visit to the Snowsports Centre. Based on these responses we have assumed the levels of displacement as set out in **Table 4-8**.

	Day Visitors		Overnight Visitors		
	Scotland	Rest of UK	Scotland	Rest of UK	Outside UK
Cairngorm	41%	58%	38%	49%	47%

Glencoe	17%	4%	17%	25%	88%
Glenshee	21%	0%	24%	25%	44%
Lecht	33%	0%	24%	24%	-
Nevis	65%	100%	42%	45%	29%

Table 4-8: Displacement

Leakage was judged to be zero, as impact questions were specifically about spend that took place within Scotland.

Multipliers are taken from the Scottish Input/Output tables. For day spend, the average multiplier for sport & recreation, food & beverage activities and retail of 1.53 was used. For accomodation spend, the accomodation mulitplier of 1.47 was used.

Applying these additionality factors gives a net overall spend of **£12.8m**.

GVA, Wages and Jobs

Estimating GVA, wages and jobs requires us to use coefficents from the Scottish Annual Business Statistics (SABS). Coefficents for day spend and overnight accomodation spend are presented in **Table 4-9**.

Table 4-9: Impact Coefficients

	Spend to GVA Ratio	Spend to Wages Ratio	GVA to Job Ratio
Day Visitor Spend	44%	29%	£31,000
Overnight Visitor Spend	61%	30%	£30,800

Applying these coefficients equates to:

- net additional FTE jobs of 210
- net additional GVA of £6.5m
- net additional Wages of £3.8m

Onsite Employment Impacts

Total economic impacts are presented in **Table 4-10**.

Table 4-10: Total Economic Impacts

	FTE Jobs	Wages	GVA
Onsite employment	340	£12.3m	£14.9m

Off-site Visitor Spend	210	£3.8m	£6.5m
Total	550	£16.1m	£21.4m

Comparison with Previous Economic Analysis

Comparing these results with the 2016 study intially suggets a downturn in economic value, however there are some improtant methodological differences to note.

Firstly, the 2016 report does not include the GVA impact of onsite employment. Therefore, only the £14.2m impact for snowsports visitors in the 2016 assessment can be considered comparable to the £6.5m GVA impact of off-site visitor spend in this report.

This represents a reduction of 54% in economic impact. However, If we adjust the 2016 impact to 2022 prices, this equates to a GVA impact of £16.3m, a reduction 60%.

However, the 2016 report includes snowsports and non-snowsports visitors to the five major snowsport centres. For this report, we have not included non-snowsports visitors as there was insufficent data returns from the centre operators.

The reduced level of impact is largely attributable to the reduction in total snowsports visitor numbers by 66%, to the five snowsports centres since 2016. There are, of course, some reasons for the differences in visitor numbers between the two reporting periods which would account for at least some of the differences. These include the continued closure of the funicular railway at Cairngorm, the late arrival of snow and the higher number of days lost due to high winds and poor weather conditions. The fieldwork was also conducted at a time when many may still have been reluctant to travel due to perceived Covid risks.

With these caveats in mind, and considering the 66% reduction in visitors and the 60% reduction in impacts, it would seem that the centres are in fact delivering a broadly similar average impact per visitor. However, the primary driver of their economic contribution is the number of visitors which is, in turn, substantially dictated by the weather conditions.

5. Wider Social and Cultural Impact

Key findings

- Whilst the social and cultural value of sport and physical is well documented. Little has been written specifically about the specific value of snowsports.
- There is a strong base of evidence that participation in sport and physical activity creates physical and mental health benefits for participants of all ages and stages.
- Participation also enhances individual subjective wellbeing, including life satisfaction and happiness; improves pro-social behaviour and reduces crime and anti-social behaviour, particularly for young men.
- Limited evaluation evidence from programmes such as Snow Camp demonstrate that participation in snowsports can have beneficial impacts on mental wellbeing.
- Data from the visitor survey shows that improving physical and mental health and wellbeing are important reasons for individuals participation in snow sports.
- It also shows that snowsports participation provides an important opportunity for people to be social and spend valuable time with friends and family.
- For many, the barriers to participation in snowsports are high and more needs to be done to encourage participation from those that are already underrepresented in sport and physical activity. Excellent work is already happening in the sector particularly on some of the artificial slopes e.g., Newmilns in East Ayrshire.
- Culturally, snowsports has played a significant role in helping to shape communities around the mountain resorts helping to provide a sense of identity, bring people together who have a shared interest in snowsports, outdoor activities and the natural environment.
- They have also influenced many aspects of life including who chooses to live there, social life, businesses, employment, the economy, and the natural environment.
- The cultural significance of snowsports is also a factor in how these communities and Scotland as a whole portrays itself on the international stage and how we position the visitor offer.

Where possible, the review has analysed research and literature into the wider impacts of snowsports at a Scotland and UK level. This evidence base had a few limitations which required a broader scope to be adopted – namely, that the evidence base for snowsports is relatively limited with a narrow focus (e.g., health impacts relating to injuries) which has required a reliance on more general studies into sports, physical activity and outdoor activities to draw conclusions. International studies and learning have also been used to inform this review.

Another limitation was that the extent of the existing evidence base for various outcomes (e.g., health, social, educational, cultural etc.) is relatively uneven. This is not unique to snowsports and is applicable across sport, physical activity and outdoor activities where the evidence base is much stronger on physical and mental health outcomes. For sport, this limitation was identified by Davies, Taylor, Ramchandani & Christy (2021):

“The strongest and most robust evidence is in health, where there is a consensus that sport and physical activity creates preventative (primary) and therapeutic (secondary) physical and mental health benefits. However, there is also lower grade but significant evidence to suggest that participation enhances individual subjective wellbeing, including life satisfaction and happiness; improves pro-social behaviour and reduces crime and anti-social behaviour, particularly for young men; promotes bonding social capital and collective action, particularly volunteering; and has a positive effect on educational outcomes, including psychological and cognitive benefits.”

It is known that snowsports make a difference to individuals, families and communities in a variety of ways. For example, it provides an opportunity to improve physical and mental wellbeing, encourages a sense of community and cultural belonging, and is a vehicle for educational, personal and social development.
It should also be noted that these wider benefits do not operate in isolation but rather support each other (e.g., greater connectedness with nature can improve mental wellbeing as well as contribute to educational development).
The importance of many of these benefits has been heightened in the context of: COVID-19; urbanisation; insufficient activity levels; sedentary behaviour; increased isolation and loneliness (particularly amongst children and younger people as identified by Sport England); and increased disengagement between people and natural environment. For Eigenschenk et al (2019), the context “*raises the question if and how outdoor sports can be part of the solution*”.

Physical and Mental Health and Wellbeing

Across all ages and abilities, there is extensive research that shows increased participation in sport and physical activity leads to positive health outcomes at individual and population level. For example, the Scottish Government Health Survey 2020 notes that “there is compelling evidence to support the health benefits of regular physical activity for all groups.” In terms of the type of benefits, the most reported benefits identified in the evidence base[2] include:

Table 5-1 Benefits from Physical Activity

Increased fitness	Reduced mortality
Better cardiovascular function (e.g., lower blood pressure, resting heart rate, reduced risk of heart disease)	Reduced risk of and management of many long-term conditions (e.g., type 2 diabetes)
Lower risk of obesity and maintenance of a healthy weight	Enhanced mental health wellbeing and reduced risk of depression, anxiety or

	stress related diseases, dementia and Alzheimer's
Maintained musculoskeletal health	Increased levels of happiness, quality of life, sense of purpose and independence
Enhanced immune response	Reduced health inequalities

The impact of COVID-19 pandemic on physical and mental health and wellbeing is also an important context to consider. Results from a Sport England survey provide "further evidence that active children have higher levels of mental wellbeing [than non-active children] and illustrate the role sport and physical activity can play in supporting them amid rising levels of loneliness and declining mental health during the pandemic." To this end, snowsports can be an "important antidote to increasingly sedentary, indoor and urban lifestyles" (Winter Wildlands Alliance, 2018).

This is allied to NatureScot research which outlines the opportunity for sports, physical activity and outdoors activity to capitalise on behavioural changes as "results from the latest wave suggest that the population is increasingly gaining and recognising the wellbeing benefits of time spent outdoors… Furthermore, when reflecting on the period since the pandemic began, almost three in five (58%) agreed that nature had become more important to their health and wellbeing." Likewise, a report from the Winter Wildlands Alliance (2018) found that "particularly in winter, physical activity outdoors increases metabolism speeds, provides vitamin D [when other seasonal sports may not be available] and can help reduce seasonal affective disorder"

Given the distinct nature and strengths of snowsports, several studies highlight that the sector has the potential to make a significant contribution to health benefits and outcomes. For example, Burtscher et al (2019) reported that the environmental stresses related to snowsports (e.g., high altitude and exposure to the cold) "might provoke adaptations and thus contribute to favourable effects". This is further underlined by the physically demanding nature of snowsports which often requires high intensity aerobic activity at high altitude for an extended period (half / full day rather than a short burst of activity).

Targeted at young people, Snow Camp is a participation programme which offers a range of courses "taking them from beginner to qualified snowsports instructors in one year with volunteering and apprenticeship progression routes available at the end. Alongside learning to ski or snowboard, young people also have access to life skills training and mental health support." Having a mental health component at the core of the programme has had significant impact – of the 943 participants in 2019/20 programme, 95% said they had learnt new tools to look after their mental wellbeing. The initiative operates in Scotland, London, Midlands, and Northwest England

Figures 5-1 and **5-2** below show that respondents to both the visitor and club surveys highlight the reasons for participation in snow sports activities. Almost all respondents to both surveys indicated that the main reason for participating in snowsport activities was for enjoyment. Additionally, between 60% and 70% reported that they also participate to enhance their physical and mental health and wellbeing.

Figure 5-1 Visitor Survey Reasons for Snowsports Participation

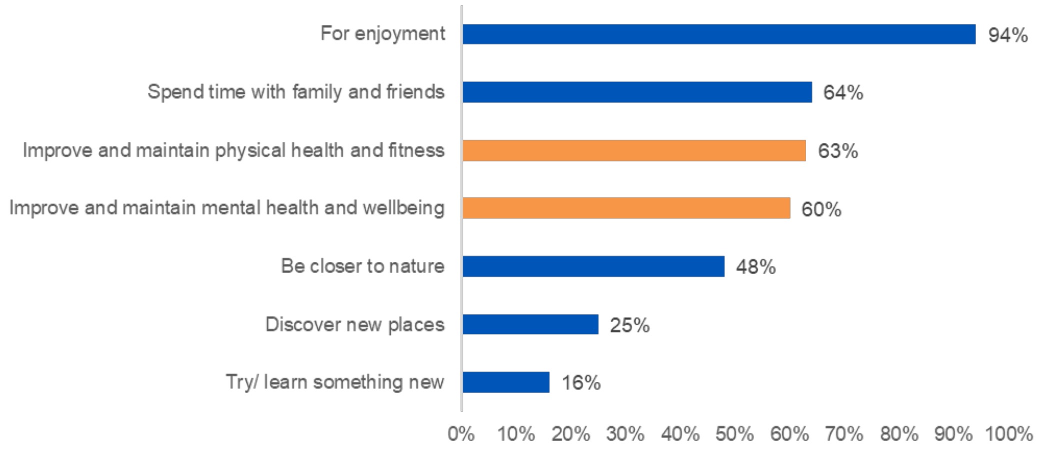
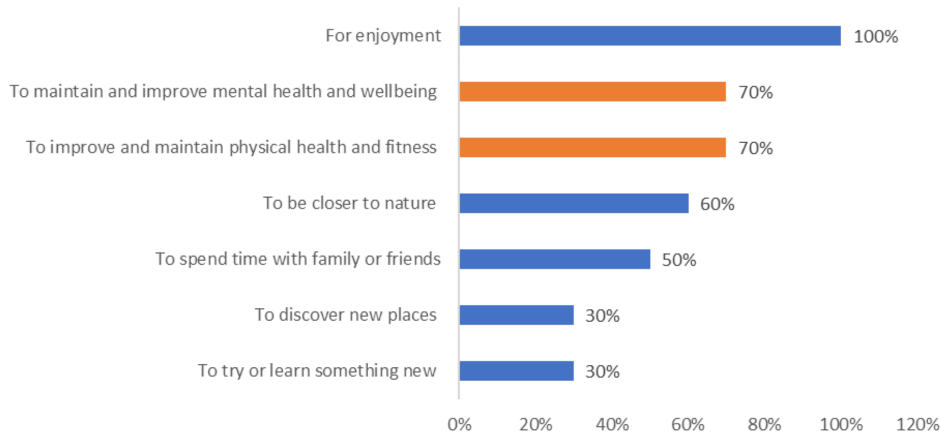


Figure 5-2 Club Survey Reasons for Snowsports Participation



Social

While the existing evidence base on social impact is less extensive compared to health and wellbeing, there are still some useful pointers in this area.

At an individual level, research from UNICEF found that active participation in sport can "increase children's access and participation in initiatives and services that promote equitable outcomes in learning, skills development, inclusion, safety and empowerment." This enables sport to have many "positive impacts on life skills (e.g., perceived self-efficacy, self-confidence, self-esteem) and social cohesion" particularly amongst young children (UNICEF, 2021). Other social skills include "self-control and concentration, team working and time management" (COSLA, Public Health Scotland, **sport**scotland, 2021).

Although the evidence base is relatively limited, active citizenship is another aspect of sports which can support community development. As an individual engages and becomes active in sport, they can also become more engaged and active in their local community and environment.

A joint report by COSLA, Public Health Scotland and **sport**scotland (2021) found that:

"…sport and physical activity can lead to strong, safe and sustainable communities through: Building stronger communities by bringing people from different backgrounds together via participating, volunteering and spectating; Improving community links, levels of cohesion and social capital; Improving residents' sense of belonging in an area; Feeling more connected to your neighbourhood or community; Increasing levels of social trust; Mobilising community assets that enable physical activity increases people's control over their health and promotes equity."

Actively engaging in the natural environment through snowsports provides an opportunity for individual and community development which can address inequalities. In the context of COVID-19, research from Sport England (2021) found that "existing inequalities have been widened, with some groups hit much harder by the pandemic than others (e.g. women, young people aged 16-34, over 75s, disabled people and people with long-term health conditions, and those from Black, Asian and other minority ethnic backgrounds, those living in deprived areas and also those in urban areas found it harder to be active)". Therefore, ensuring sports is as inclusive as possible is critical to address these barriers and widening inequalities.

For example, adaptive snowsports is a key and growing focus within the sector to ensure inclusivity for those with a disability. Organisations such as Snowbility and Snowsports Foundation increase accessibility by adapting equipment and lessons to allow people with a disability to experience snowsports. This allows benefits to be shared by all stakeholders and Labbe (2020) identified that "participation in adaptive snowsports represent an excellent way for people with disabilities to stay active in winter."

This is reflected in several testimonials noted on both Snowsports Foundation's and Snowbility's websites which highlight the unique value of snowsports, some of which include:

"We have simply been amazed at how Toby has got on with his skiing lessons. We've tried everything from tennis to swimming and climbing, but due to his ADHD Toby has never stood still long enough to be taught and quickly lost interest. Without the help of the Foundation we would never have been able to afford the one-to-one lessons and we would never have seen Toby's face as he does a 360 degree turn on the snow. Thanks so much to the Foundation for the funding." – Parent of participant, Snowsports Foundation

"Snowbility is life-changing and life-giving to children with low self-esteem and low self-belief. A life-enhancing experience providing life skills, social skills and a sense of achievement. It is hugely beneficial to the social and emotional wellbeing of those with additional needs. A real blessing." Parent of participant, Snowbility

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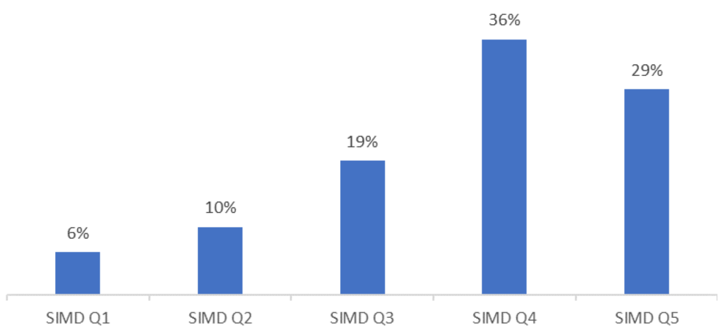
Another barrier to participation in snowsports is deprivation. A key finding of an equality review of Snowsport Scotland's membership (2019) was that "there was an under-representation of SSS Members from deprived areas with SSS Membership increasing against increased affluence as described by the SIMD." To remove this barrier, the sector has created opportunities for people from most deprived communities to access and participate in snowsports.

For example, the aim of the EDI Programme proposed by Snowsport Scotland is to specifically target 3,500 children living within the 20% most deprived communities in Glasgow and Aberdeen to provide them with equal opportunities to access snowsports. This would include three to five ski lessons at a snowsports centre for every child (including free kit hire, uplift, instruction and transport) as well as incentives for continued participation (e.g., subsidised junior membership to SSS, a card for an open free practice session at a selected artificial slope etc.). There are already several EDI focused programmes running already in several the artificial slopes. These include Newmilns, Bearsden and Glasgow Ski Centres.

Analysis from the visitor survey shows that of the 1,500 survey respondents, 6% came from SIMD quintile one (the 20% most deprived areas of Scotland). Almost 80% come Quintiles one to three. This would suggest that there is more to be done to make mountain resorts more accessible to those individuals, families, and organisations from more deprived communities.

Figure 5-3 Percentage of Visitors (by SIMD Quintile)



Figures 5-1 and **5-2** above show that a high number of respondents to both the visitor survey and the club surveys highlighted that one of the most important reasons for participation in snow sports activities was to spend time with family or friends, e.g., to socialise, to connect with others, to have shared experiences.

Education

It is widely acknowledged that participation in sport and physical activity can have a positive impact on education and children's services by "developing physical and health literacy which lays the foundations for life long participation; improving educational attainment, either directly (improved grades, school engagement, behaviour and reduced absenteeism) or indirectly (by enhancing skills such as self-control and concentration, team working and time management)" (COSLA, Public Health Scotland and **sport**scotland, 2021).

In particular, the inclusive nature of sports can allow it to become an equaliser for education. For example, UNICEF (2021) note that "sport is an effective tool for engaging most children, especially the most vulnerable, in activities that benefit their social and personal development" and which can "increase children's access and participation in initiatives and services that promote equitable outcomes in learning, skills development, inclusion, safety and empowerment".

The UNICEF report also stressed the power of sport as an inclusive means of helping children to improve their health, to develop their social, educational and leadership skills, to empower them and to play and have fun". Therefore, as a result of being an effective and inclusive tool which is "accessible and appealing to a very broad audience, the benefits gained are also open for all kinds of stakeholders" (Eigenschenk et al, 2019).

In addition to the need to engage with schools to protect and grow the domestic participation base for the future, snowsports can provide young people with a stimulating and challenging learning environment. Work currently ongoing at the Newmilns and other artificial ski slopes in partnership with local schools shows how impactful activities can be for young people and how learning to ski can have beneficial impacts on attitudes towards learning, and many other social skills e.g. confidence, self-esteem etc. An example of this can be found following the link below.

Culture

The review found the literature exploring the cultural benefits of snowsports to be sparse and extremely limited. However, sport more generally, has a significant impact on culture.

"Sport enhances social and cultural life by bringing together individuals and communities. Sports can help to overcome difference and encourages dialogue, and thereby helps to break down prejudice, stereotypes, cultural differences, ignorance, intolerance and discrimination". Council of Europe Culture and Sport

Sports involve many forms of physical activity, from dancing to boxing. However, to most people sport means more than just a movement of the body. Sports can bring people together and give people a sense of identity. They also provide a unique insight for other people into the values held by sports-playing communities. Sports can affect some of the most important aspects of community life, such as who lives there, education, social life, businesses, employment, the economy, and the natural environment.

Certain sports can be linked to communities and reflect the characteristics, values and traditions of people included. Sharing similarities with others by playing or having an interest in the same sport is an example of having a culture. Sport also breaks down barriers between people of different cultures and allows people to define themselves in a non-confrontational environment.

Sports played by communities are often determined by what is available within or close to a community and influenced by any number of factors, for example by our natural environment, families and peers, equipment, the opinion of elders, or knowledge of rules.

Sports are also cultural because they bring a lot of people into one place. These people share an interest and develop a common skill, just like when playing or listening to music together.

Sports can also be used to promote individual and national representation and says something about who we are individually, but also as a nation and how that portrays to a wider international audience. For example, countries who play only non-contact sports might demonstrate a pacifist culture (non-violent). Individuals who dance might be considered to be artistic, aesthetic and spiritual elsewhere in life, as well as in their context of their sport. Communities that participate in snowsports may be seen as having a passion for the outdoors and value the natural environment. Each of us have a view of certain sports and what it would mean to participate in them. This suggests that sports contain cultural values perhaps without us noticing.

Sport is more than a means of maintaining health and fitness or winning or losing. Being part of sport in some way allows us to have and to share our culture.

Sports is one of the few ways we can truly interact with the culture of another and understand it through participation. Understanding this fact means we can use sports to positive effect. Right for Education

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Looking more specifically at snowsports in a Scottish context, it is easy to see how relevant and influential they may be culturally. From inspirational performances at elite events, such as the Winter Olympics, Paralympics and World Championships to the connections forged within and across communities, snowsports have a significant impact on culture(s) in Scotland and perhaps how it is viewed by some internationally. This is illustrated in the Cairngorm Mountain Masterplan *(2021)* which describes the Scottish Centre for the Mountain Environment as:

"a centre of sporting excellence at the heart of a local culture that has nurtured generations of global competitors and champions."

An example would be Aviemore where there has been a strong snowsports culture that came with people moving into the area that had a shared passion for snowsports, outdoor activities, and the natural environment. The area is now seen as synonymous with snowsports. This culture has permeated through the generations and is still strong but is adapting into more of an outdoor adventure activity culture. Where this culture is strong, snowsports have been adopted as part of the school PE programme to encourage and enable local children to take up snowsports and participate regularly when weather conditions allow.

Consultation has shown that locally this shared culture at an individual, family, business and community level is part of the social fabric that knits communities together. It helps to break down local social and cultural barriers – and is based on a common interest in the environment, snowsports, outdoor activities and adventure sports. At a regional, national, and international level, this local culture is likely to be an intangible asset that when combined with other more physical assets, e.g., landscapes, buildings, tourist attractions, activities etc, forms an important part of the wider visitor offer that attracts visitors to the area who have a shared affinity with this culture.

A study by Roossien (2017) further explored the wider impact of snowsports, specifically skiing, and found that the key driver for participation was the cultural experience on offer:

> “I asked a number of local and tourist skiers the question “why do you like to ski?” The answer that I most often received was, “because it is fun.” Which I expected, but what I did not expect was that when I delved in to why it is fun, I received answers referencing personal freedom, self-actualization, engagement with the natural landscape, and most often, cultural or community involvement. Not one answer from a local or a tourist was about the physical experience of downhill snow skiing, but rather about the cultural experience that the sport offers.”

The quote highlights the potential of snowsports to foster a sense of belonging which further enhances the wider benefits to individuals, families, communities, and visitors.

The cultural make up and identity of the mountain resort areas is a factor that attracts individuals and families to live and work within these communities. It is also likely to be a factor in attracting visitors to an area who have an affinity to or are part of a similar culture elsewhere. To lose this culture could have long term consequences on the sustainability of these rural communities and economies and therefore needs to be recognised as an important asset to be maintained and invested in for the future.

6. Summary and Conclusions

This chapter summarises the main findings and conclusions from the study grouped around the study objectives.

Strategic and Policy Context

There is a clear strategic context for the development of the snowsports sector in Scotland. The sector has an important role to play in helping to achieve the key aims and objectives of Scotland's Economic Transformation Strategy, Outdoors Scotland Tourism Strategy Active Scotland Outcomes Framework, Snowsport Scotland Strategy and a range of other key national and regional strategies. In particular, through:

- Providing employment and supporting jobs in rural (and urban) communities, particularly in the winter period (traditionally the low season for the tourism sector) but increasingly in summer months as mountain resorts begin to diversify to offer all your round activities.
- Helping rural communities and economies recover from the effects of covid-19.
- Supporting employment across the supply chain.
- Being an integral part of the visitor offer, attracting more people to the areas where the network of mountain resorts and artificial slopes are located. Access to the mountains for snowsports or non-snowsports activities is also a point of differentiation when compared to other domestic and international visitor destinations.
- Encouraging visitor spend in the local area.
- Providing the facilities and enjoyment that allows people to be physically active (particularly during the winter period) and has the appeal to encourage children into increased physical activity; and
- The associated physical and mental benefits that come through increased physical activity e.g. Lower risk of obesity, heart and lung disease and an increase in positive mental benefits.
- Providing the essential facilities that support snowsports participation and competition pathways.

The monetary value of the tourist and visitor economy to Scotland is highlighted in the national tourism strategy. However, to maintain and expand the sector benefits in the future, the sector will need investment to help it develop a more economically and environmentally sustainable future.

Market Review

The key messages are that the snowsport market is expanding but not in Scotland and not so much in Western Europe. The cost of living crisis that is likely to depress demand for snowsports and there continues to be growing competition for leisure time and spend.

There is still demand for snowsports through the artificial slopes and mountain resorts when weather conditions are favourable. However, there needs to be a focus on improving the quality of the Scottish offer, integrating it with the wider visitor offer, making it more competetive, and developing the next generation of snowsport participants.

Growth in adjacent markets such as mountain biking and other forms of adventure tourism, are encouraging with opportunities for diversification. This may help to reduce relaince on snowsport activities at a time when the frequency and relaibility of snowfall is reducing.

Scottish Sector Overview

The snowsport sector in Scotland is disparate with many different organisations playing a part. The roles, priorities and interests of these organisations can vary significantly but the sector remains fragmented and lacks strategic cohesion with no real shared vision or shared plans to ensure a successful, sustainable future. This lack of a shared vision and a more cohesive approach to how the sector and its elements are developed risks undermining the longer term sustainability of the sector.

The mountain resorts are wholly dependent on the domestic market for snowsports visitors and participants. Therefore it would be essential for the sector to build on its existing domestic customer base.

In general terms, access for the domestic market is good with 90% of the Scottish population able to reach a mountain resort within a 3 hour drive. 76% can reach an artificial slope within a one hour drive. However, there are some gaps in artificial slope provision in areas of potentially high demand.

At the time of writing, Snowfactor, Scotland’s only indoor snowsport venue is in administration which raises concerns over its future and what impact its closure could have on the sector.

Due to the limited financial data provided by organisations, it is difficult to accurately assess the financial position across the sector. However, it would seem that while the current financial position is reasonably stable, there are significant concerns for the future. The most damaging effects of COVID-19 have been largely mitigated by government support but all providers are forecasting significant cost pressures ahead, e.g., fuel costs, staff costs, repairs and maintenance etc. These will be felt across the sector and coupled with poor snow conditions, could create very challenging financial conditions. Support for the mountain resorts to assess the opportunities for diversification and implement those that offer the best return on investment will be important if all are to successfully adapt to the challenging times ahead.

Demand at the mountain resorts is fundamantally driven by the weather conditions andin particular, by levels of snowfall. In response to this, the centres have invested in limited snow-making facilities and improvements to their offer but there is more to be done. In particular, there is a need to explore ways in which they can strengthen and improve their uplift infrastructure and ancillary facilities, such as car parking and catering, online ticketing and payment services.

Coupled with this there is an urgent need for centres to assess their opportunities to diversify, creating demand for alternative activities throughout the year that will ultimately reduce their level of dependency on snowsport activities and increase their financial resilience.

In terms of artificial slopes, demand has been more consistent, and less prone to variation when compared to the mountain centres. Indeed, many reported that levels of demand have recovered well after the pandemic and in some cases are now exceeding pre pandemic levels. Many are also successful at engaging young people through clubs and partnerships with schools and third sector organisations. However, more needs to be done to engage young people and those individuals, families and communities that are under represented in snowsports, to strengthen and broaden the participation base for the future.

The mountain resorts and artificial slopes provide a valuable source of full time, partt ime and seasonal employment opportunities for people who live within local or neighbouring communities and and some visitors who are employed on a seasonal basis. There are however, significant challenges in terms of recruitment and retention of staff. The lack of opportunities for year-round employment, a lack of affordable housing, high cost of coaching qualifications, Brexit, and the cost of living crisis are all taking their toll. Many of these challenges are not specific to the snowsports sector and may require wider collaboration with external partners to address.

Investment into mountain resorts has mainly come from HIE, SE and from the operating companies themselves. However, more needs to be done, particularly in areas such as upgrading and replacing aging infrastructure, better snow making facilities that can ensure a consistent seasonal offer is available at each of the centres, diversification of activities, improving toilet, catering and car parking infrastructure and projects designed to improve environmental sustainability.

The artificial slopes also need continued investment to upgrade and replace ski slope surfaces and tow infrastructure. Additionally, some consideration should be given to addressing gaps in artificial slope provision in Fife, Perth and Kinross, Dundee and Inverness areas. This could help to protect and grow the base of participation in areas where demand is higher.

The Economic Impact

Although the economic impact of the sector is still considerable, on a like for like comparison with the previous assessment in 2016, there has been a substantial reduction as a result of fewer snowsport visitors at all the mountain resorts. The absence of the funicular railway at Cairngorm, the late arrival of snow, poor weather conditions and the pandemic have all contributed to this reduction. However, the decline in snowsport visitors is in line with the longer term trends and therefore it would seem reasonable to conclude that this trend may well continue.

Due to the absence of data, it was not possible to assess the economic impact of non-snowsport activities at the mountain resorts. However, if the resorts can successfully diversify in the future, it may be possible for them to mitigate the loss of economic value from snowsports through new activities which are not dependent on the presence of snow.

Consultation with local business/supply chain representatives highlighted varying degrees of dependency on the snowsport sector and in particular the mountain resorts. Some organisations have activities and revenues that are highly dependent on mountain resorts, like ski schools. These generally employ fewer people and more on a seasonal basis. Some companies like adventure tourism organisations employ more people and have less of a dependency on snowsports. Accomodation providers, ranging from small self-catering providers to larger hotels, again have less of a dependency on snowsports and benefit from a diversified visitor offer. Outdoor activity companies are increasingly offering a year round set of activities which can take advantage of snow conditions if they are faviourable but have alternatives to snow sports should conditions be poor. These organisations have often quite significant levels of employment. Other types of business, e.g, hospitality (restaurants, bars) provide significant year round employment in local communities. These businesses benefit from increased turnover in good snow years but have lessened their dependency and adapted their business models to ensure sustainability. Many are small lifestyle businesses with little dependency on the snowsport sector and often only operate May to October. Of interest was the fact that most of the businesses involved in the consultation were united by a interest and passion for snowsports, oudoor activities and the natural environment.

The consultation also highlighted that, from a local businesses perspective, the mountain resorts form an important part of the vision for developing and enhancing the areas as a year round destinations for visitors. This links to the idea of mountains providing a world class USP(unique selling point), giving “credibility” to the offer when compared to other visitor destinations. However, many felt that although the landscapes and natural environment are world class, the physical infrastructure including the mountain resorts is not. To maximise this benefit, further investment is required and mountain resort operators need to work in partnership with local businesses, communities and government. Some stakeholders felt that there was more that could be done to strenthen these relationships and that in the case of both the Nevis Range and Cairngorm, much of what was done was in isolation from the local business and wider community. Some stakeholders felt that to fully integrate the Cairngorm resort into the wider community, community management/ownership models should be given consideration.

Not all mountain resorts are the same in terms of their links and significance to the wider business ecosystem. In the case of both Cairngorms and the Nevis Range, both would be viewed as part of a much wider visitor offer/destination where visitors come to the area, may stay for a number of nights and take part in a range of activities, some of which may be snowsports but not all. In the case of The Lecht, Glenshee and Glencoe, these are more geographically isolated from wider communities and businesses and cater more to day visitors This has less of an impact on surrounding buinesesses and communities.

Local businesses felt that improved marketing to promote the areas as year-round destinations would help to drive more people to visit – for snowsports and for non-snowsports activities. There is considered to be further opportunities to tap into the large domestic market.

One of the most significant economic issues affecting the mountain resorts, local businesses and supply chains was the ability to attract and retain people. Among other things, this includes a lack of good quality employment opportunities, appropriate and affordable housing, and social, leisure and recreational opportunities. While these are not skills issues, if they are not addressed, it is felt that mountain resorts and local businesses will be less likely to be be sustainable in the future.

Wider Social And Cultural Impact

Although strong for sport and physical activity in general, the evidence base for the wider social and cultural impact of snowsports is very limited.

Sport, leisure and recreation provision is widely recognised as an important enabler of improvements to economic, social, health and educational outcomes and snowsports are part of this provision. However, there are barriers to participation that need to be overcome that enable those that are under represented in sport to have more access to snowsport activities. Across the country there are great examples of engagement that the sector can learn from and invest in to maximise the wider impacts of the sector.

Feedback from the visitors survey shows that there is a strong perceived beneficial impact on physical and mental health through their participation in snowsports. Some of the limited evaluation evidence that has been done shows that snowsports can have a significant impact on social skills, levels of confidence and learning. It can also help to break down barriers for those that are underrepresented in sport. However, the absence of evidence also suggests that there is more to be done to build the evidence base and expand the reach of snowsports as a vehicle for reducing inequalities in society.

Culturally snowsports are important to the mountain resorts, the communities that surround them, and to visitors. This shared culture at an individual, family, business and community level is part of the social fabric that knits communities together. It is based on a common interest in the environment, snowsports, outdoor activities and adventure sports. At a regional, national and international level, this local culture is likely to be an intangible asset that when combined with other more physical assets - e.g., landscapes, buildings, tourist attractions, activities etc - forms an important part of the wider visitor offer that attracts visitors to the area who have a shared affinity with this culture.

In conclusion, the economic, social and cultural importance of the sector remains strong. However, it is facing an an uncertain future for the reasons discussed previously but particularly its vulnerability to the vagaries of the weather, and the threat of climate change. The longer term sustainability of the sector will depend on its capacity to adapt and successfully diversify.

7. Actions to Strengthen the Sector

The section sets out a range of actions that could be considered in order to strengthen the sector, help it successfully adapt to the future and make it more sustainable in the longer term.

Investment

Investment is necessary to help the sector to adapt to climate emergency, allowing more environmentally friendly and sustainable ways to operate. It is also essential in order to support different parts of the sector to improve the quality of their facilities and customer exeprience, ensuring they match and exceed customer expectations.

- Much of the existing uplift infrastructure is old and needs replaced and increased in scale such that it is capable of getting more people up the mountains more quickly and potentially to higher snow fields. This should also be considered in the context of plans to diversify and how best uplift infrastructure can support this.
- In some cases, there may be benefit to laying artificial surfaces for some uplifts that currently require snow to function.
- Ancillary facilities require further investment to improve the quality of the offer, enhance the visitor experience and meet expectations. Priority areas would be car parking, toilet and changing accommodation, food, and beverage areas. This investment also needs to be matched with plans to diversify facilities and activities to ensure sufficient capacity exists to accommodate any future demands.
- Help and investment is required to enable the sector to shift towards low carbon/renewable energy sources.
- Artificial slopes are often the gateway to participation in snowsports and investment is required to ensure that slope surfaces, tow infrastructure and ancillary facilities are maintained to a high standard. If asset conditions are allowed to deteriorate, the quality of the offer and experience will be diminished and this will discourage participation.
- The data from the accessibility review and visitor survey suggests that there may be opportunities to grow and enhance access to artificial slope provision by developing facilities in the North of Scotland, around the Inverness area, and the North East , around Dundee, to maximise accessibility. Snowsport Scotland and other partners should consider the feasibility of this.
- Further investment should be considered to enhance snowmaking on nursery/learning slopes at the mountain resorts to ensure a consistent winter offer. However, this needs to be considered in the context of the environmental impact and financial viability.
- The uncertainty over the future of Snowfactor, Scotland's only indoor ski slope, should be clarified. An assessment should be carried out, analysing the impact on the sector, should it cease to operate. Should this happen, Snowsport Scotland, in partnership with others should look to initiate a feasibility study into the need for a replacement indoor snowsports facility.

Collaboration

- It is important to develop a shared vision for the future that has strong community involvement and buy-in.

- Better co-ordination between emergency services, local authorities and operators is required to ensure that the customer experience is enhanced and access to the road infrastructure is maintained when conditions are good.

Activities

- The Scottish snowsport sector is almost totally reliant on the domestic market. More needs to be done to encourage the next generation of snowsport participants. To this end, there needs to be an ongoing programme of snowsports activities delivered in partnership with schools, Active Schools, Snowsport Scotland, artificial slope and mountain resort operators. As well as strengthening the base of participation, there are many wider health, social, educational and environmental benefits from this. Closer collaboration between schools and mountain resorts would also be an important way of increasing off-peak season demand.
- Consider the options to improve and integrate public transport connections to each ski centres from main population areas where demand is highest. This reduces the number of visitors by car and addresses one of the existing barriers to participation.
- The mountain resorts are gateways to the mountains. As part of their efforts to diversify the range of activities, consideration should be given to the suitability of environment to exploit changes in snowsport trends e.g. back country skiing.

Diversification

- Further activity diversification is a key opportunity for the future. It can provide greater stability, helping to offset the fluctuations in the snow seasons. Therefore, support is required to establish the feasibility of opportunities to diversify the activity offer at each of the mountain resorts. However, it is important to ensure that diversification is viewed in the context of the wider visitor offer and not in isolation from local communities and partners.

Data and Insight

- Data could be an important asset to the sector and the organisations that represent it. This study has highlighted that there is an absence of sectoral data and insight that could support more informed decision-making across the sector. Consideration should be given as to how stakeholders could develop a data and insight strategy that would provide a better understanding of the changes taking place within the sector and what impact this may have on future actions, performance, investment, demand, etc.

Leadership

- The snowsport sector has many diverse stakeholders which makes strategic leadership and operational co-ordination extremely challenging and has resulted in quite a fragmented sector. Future sustainability will be strengthened through developing more partnership and collaborative working within the sector but increasingly with agencies outside the sector.
- Consideration should be given to whether there is sufficient benefit to there being one organisation appointed to the role of strategic lead and advocate for the sector. This may also enable improved co-ordination exploit opportunities for collaboration to reduce costs - joint procurement, sharing of common functions, joint marketing etc.

Workforce Planning

- The sector and its stakeholders need to consider how best it can support smaller organisations within the sector that are privately owned and managed in order to plan for succession and longer-term sustainability. The reliance on a small number of individuals makes these businesses vulnerable. Thought also needs to be given to how these organisations are supported to build resilience and capacity to ensure continuity in the longer term.
- Staff access to affordable housing is a challenge for several the mountain resorts as it is for many rural communities. Some organisations have explored options to develop on-site accommodation and where this is feasible and financially viable, consideration should be given to support investment. Without access to a supply of suitable staff, even when there is snow, operations will struggle to continue. These challenges are faced by many businesses within rural communities and a collaborative approach is required.
- There is a shortage of suitable qualified snowsport instructors across the sector. The cost, structure and availability of qualifications and training opportunities should be explored by Snowsport Scotland and partners to ensure there are sufficient appropriately qualified staff to support existing programmes and activities and create capacity for future growth.
- The absence of year round employment opportunities is one of the challenges that make recruitment and retention of staff a real challenge particularly for some of the mountain resorts. Supporting the transition to a more diversified range of activities will help to address this issue. However, the sector also needs to explore opportunities in partnership with the wider local business community to explore how this problem may be resolved across multiple employers.

Marketing

- Investigate through regional Destination Management Organisations, ways of better resort integration and promotion with the wider visitor economy.

8. Appendix

A - Market Review

Table A-1 Artificial Slopes 30 minute, 60 minute Drive Time Populations

Venue	30 Minute Drive	60 Minute Drive
Aberdeen Snowsports Centre	174,756.00	360,812.00
Alford Ski Centre	19,413.00	215,194.00
Bearsden Ski and Board Club	496,815.00	2,299,080.00
Firpark Ski Centre	121,796.00	1,643,631.00
Glasgow Ski & Snowboard Centre	1,467,097.00	2,702,789.00
Glenmore Lodge	4,461.00	20,477.00
Huntly Nordic and Outdoors Centre	19,420.00	167,341.00
Lagganlia Outdoor Centre	8,634.00	45,967.00
Loch Insh Outdoor Centre	8,697.00	48,029.00
Midlothian Snowsports Centre, Hillend	279,633.00	1,343,976.00
Newmilns Snow and Sports Complex	194,779.00	2,042,083.00
Polmonthill Snowsports Centre	490,987.00	2,767,898.00
RM-Condor, Arbroath	77,810.00	239,008.00

Table A-2 Visitor Survey, Respondents by Council Area and SIMD Quintile

Visitor Council Area	SIMD Q1	SIMD Q2	SIMD Q3	SIMD Q4	SIMD Q5	Total
Highland	0.72%	1.34%	4.92%	12.80%	1.70%	21.48%
Aberdeenshire	0.09%		1.88%	5.10%	5.82%	12.89%
Perth and Kinross	0.18%	0.72%	2.24%	3.76%	2.69%	9.59%
City of Edinburgh	0.36%	0.45%	1.07%	2.60%	3.40%	7.88%
Aberdeen City	0.09%	0.98%	0.98%	0.98%	3.31%	6.34%
Fife	0.72%	0.63%	0.72%	1.25%	1.61%	4.93%
Glasgow City	0.81%	0.72%	0.36%	0.72%	1.52%	4.13%
Dundee City	0.72%	0.36%	0.63%	0.81%	0.63%	3.15%

Visitor Council Area	SIMD Q1	SIMD Q2	SIMD Q3	SIMD Q4	SIMD Q5	Total
Angus	0.27%	0.45%	0.81%	0.90%	0.27%	2.70%
Stirling	0.09%	0.36%	0.27%	1.25%	0.72%	2.69%
Moray		0.18%	1.16%	0.81%	0.27%	2.42%
Argyll and Bute	0.18%	0.09%	0.98%	0.98%	0.18%	2.41%
South Lanarkshire	0.18%	0.36%	0.45%	0.45%	0.63%	2.07%
East Dunbartonshire		0.18%	0.18%	0.36%	1.25%	1.97%
West Lothian	0.09%	0.36%	0.27%	0.54%	0.45%	1.71%
Falkirk		0.45%	0.18%	0.27%	0.72%	1.62%
Clackmannanshire	0.09%	0.54%	0.27%	0.09%	0.54%	1.53%
East Renfrewshire				0.36%	1.16%	1.52%
Scottish Borders	0.09%	0.09%	0.09%	0.45%	0.36%	1.08%
West Dunbartonshire	0.27%	0.54%	0.09%	0.09%		0.99%
East Lothian	0.09%		0.27%	0.27%	0.36%	0.99%
North Lanarkshire	0.18%	0.36%		0.27%	0.18%	0.99%
Inverclyde	0.18%		0.18%	0.18%	0.36%	0.90%
Midlothian			0.27%	0.36%	0.27%	0.90%
Renfrewshire	0.27%	0.27%	0.18%	0.09%	0.09%	0.90%
South Ayrshire			0.27%		0.45%	0.72%
Dumfries and Galloway	0.18%	0.18%	0.09%	0.09%		0.54%
East Ayrshire	0.18%		0.09%	0.09%	0.09%	0.45%
North Ayrshire	0.09%	0.09%		0.18%	0.09%	0.45%
Na h-Eileanan an Iar			0.09%			0.09%
Orkney Islands				0.09%		0.09%
Grand Total	**6.12%**	**9.70%**	**18.99%**	**36.19%**	**29.12%**	**100%**

Table A-3 Visitor Survey, Percentage Respondents by Council Area and Mountain Resort

Visitor Council Area	Cairngorm	Glencoe	Glenshee	Lecht	Nevis
Highland	50%	12%	2%	15%	43%
Aberdeenshire	6%	2%	19%	47%	2%

Visitor Council Area	Cairngorm	Glencoe	Glenshee	Lecht	Nevis
City of Edinburgh	5%	12%	9%	2%	5%
Perth and Kinross	5%	8%	19%		4%
Moray	4%		0%	15%	
Fife	4%	3%	8%	1%	5%
Aberdeen City	3%	2%	11%	15%	4%
Stirling	2%	5%	1%	1%	5%
Glasgow City	2%	11%	2%		4%
East Dunbartonshire	2%	3%	2%		1%
Clackmannanshire	2%	2%	1%		
South Lanarkshire	2%	3%	1%		4%
Dundee City	2%	0%	6%	2%	4%
Inverclyde	2%	2%			1%
East Renfrewshire	2%	3%	1%		
West Lothian	1%	3%	1%	1%	
Dumfries and Galloway	1%	1%			1%
Falkirk	1%	4%	1%	1%	
South Ayrshire	1%	2%			
Argyll and Bute	1%	7%			7%
North Lanarkshire	1%	1%	1%		2%
East Lothian	0%	2%	1%		1%
East Ayrshire	0%	2%			
West Dunbartonshire	0%	3%			2%
Angus	0%		8%		
Orkney Islands	0%				
Scottish Borders		1%	2%		2%
Renfrewshire		2%	1%		1%
Midlothian		2%	1%	2%	
Na h-Eileanan an Iar		0%			

Visitor Council Area	Cairngorm	Glencoe	Glenshee	Lecht	Nevis
North Ayrshire		2%			
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**

Figure A-1 Snowsports Visitors (Individual Mountain Resorts)

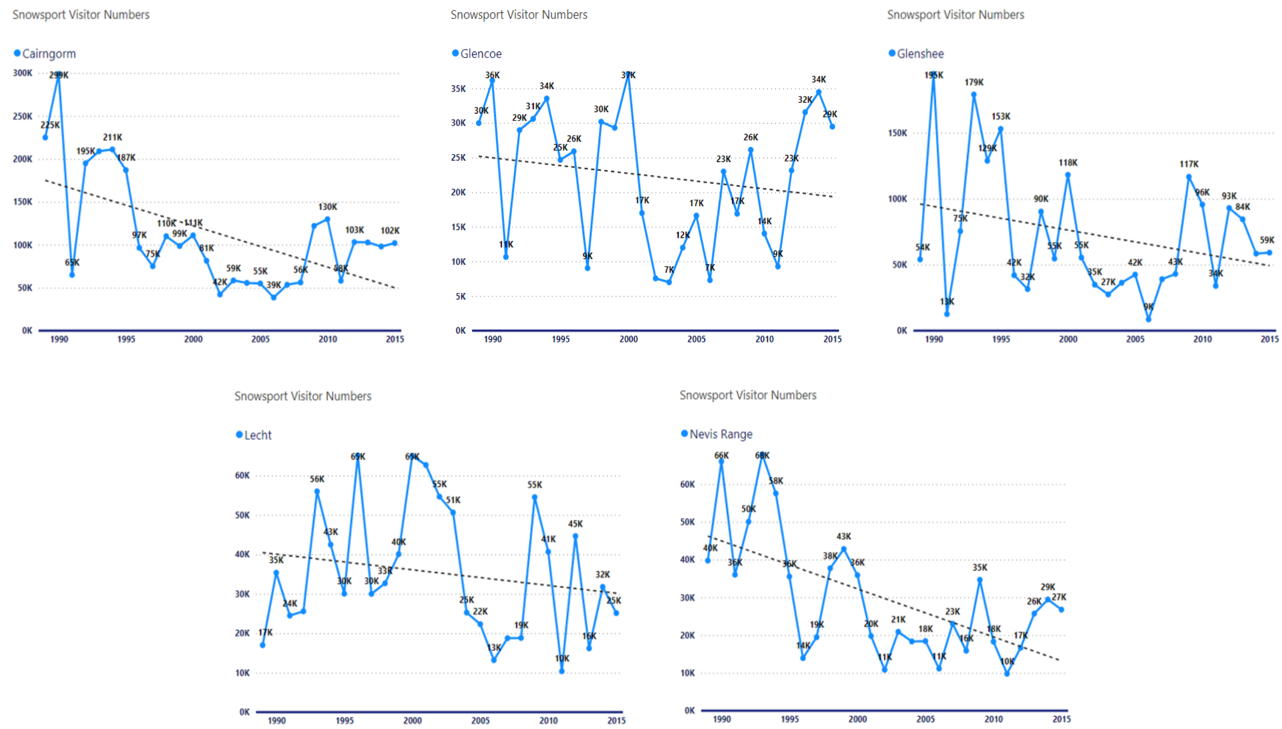


Table A-4 Range of Roles within Sector

Managing Director	Operations Director	Maintenance Director	Chief Executive
Finance Manager	Ski Patrol Manager	Catering Manager	Commercial Manager
Activities Manager	HSE Director	Health and Safety Manager	HR Manager
Land Manager	Ranger Service Head Ranger	Tech Ops Manager	General Manager
Office Manager	Ski Hire Manager	Chef	Catering Assistants
Maintenance Technicians	Mechanics	Ticket Office Assistants	Lift Operators
Ski Hire Technicians	Snow factory Technicians	Pisting Technicians	Ski Patrol
Retail Assistants	Marketing Assistants	Rangers	Book Keeper

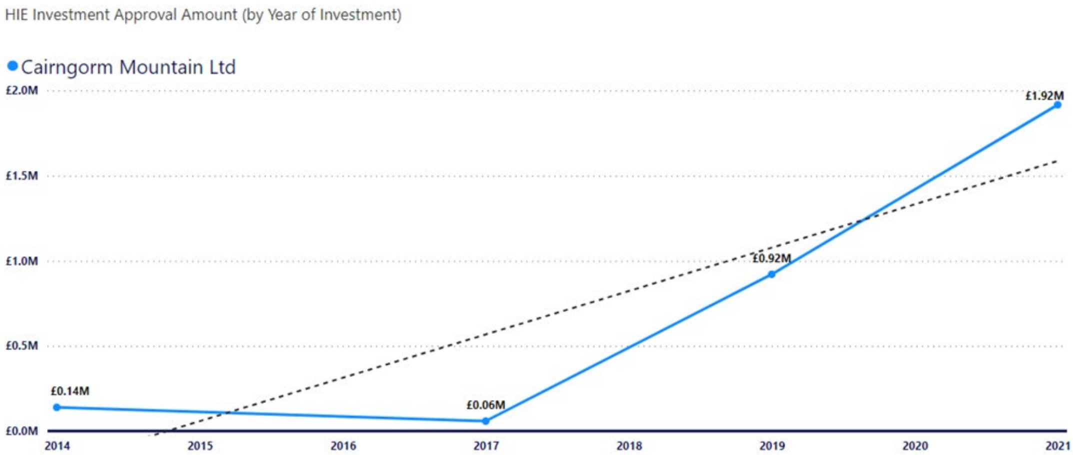
Assistant Manager	Ski School Manager	Duty Officers	Support Assistants
Cleaners	Snowsport Instructors	Youth Worker	Party Host
Community Leisure Officer	Snowsport Volunteers	Leisure Attendant	Sales and Events Co-Ordinator
Customer Services and Operations Coordinator			

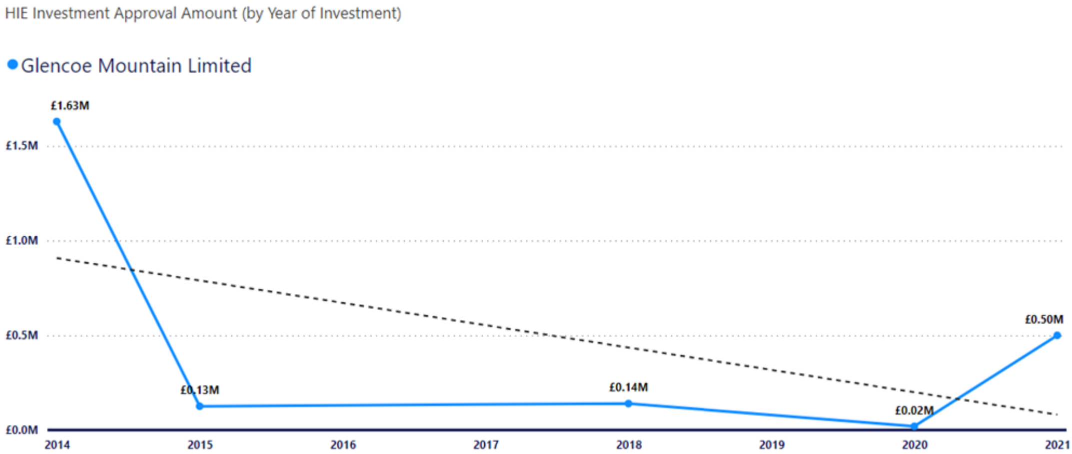
Table A-5 Investment Summary – Mountain Resorts and Artificial Slopes

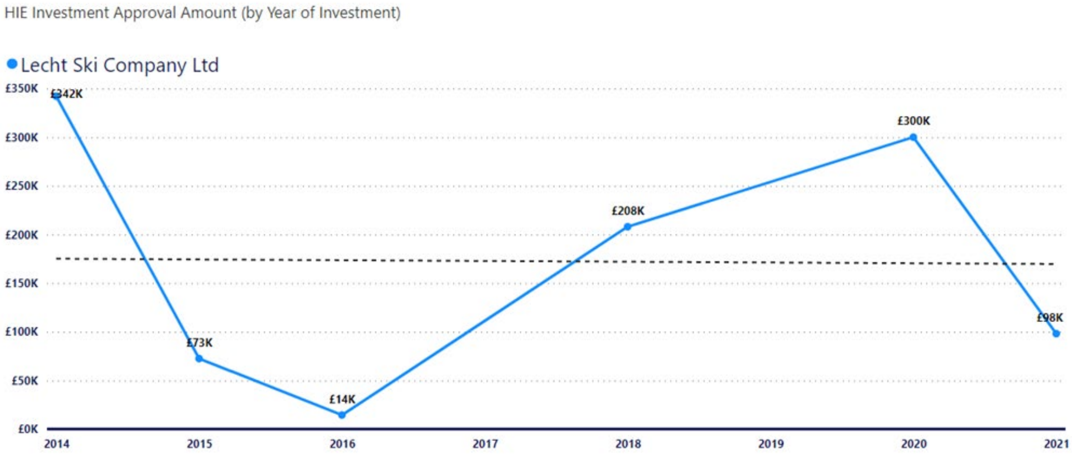
Venue	Year	Item	Amount	Funding Source	Project Details	Reason for Investment
Cairngorm	2019-2020	Exhibition Base Station	£60,000	HIE	Exhibition Base Station	To increase dwell time
Cairngorm	2019-2020	Refurb Cafes in Day Lodge	£27,423	HIE	Refurb Cafes in Day Lodge	To improve facilities and icrease dwell time
Cairngorm	2019-2020	Tubing Slide	£36,151	HIE	Tubing Slide	To provide family activities
Cairngorm	2021-2022	Access Track	£15,186	HIE	Access Track	0
Cairngorm	2021-2022	Addition to Tubing Slide	£110,448	HIE	Addition to Tubing Slide	To enhance the existing experience
Cairngorm	2021-2022	Camper Van Facilities	£60,257	HIE and CNPA	Camper Van Facilities	To reduce pollution from wild camping
Cairngorm	2021-2022	Car Park Barrier System	£34,803	HIE	Car Park Barrier System	0
Cairngorm	2021-2022	Car Park Upgrade	£17,685	HIE	Car Park Upgrade	To improve sense of arrival
Cairngorm	2021-2022	Enercy Effiency	£50,029	HIE	Enercy Effiency	To reduce the carbon footprint
Cairngorm	2021-2022	Equipment Hire	£7,979	HIE	Equipment Hire	Business Improvement
Cairngorm	2021-2022	IT Hardware	£11,268	HIE	IT Hardware	Business Improvement
Cairngorm	2021-2022	Kitchen Equipment	£12,678	HIE	Kitchen Equipment	Business Improvement
Cairngorm	2021-2022	Online Ticketing	£40,790	HIE	Online Ticketing	Business Improvement
Cairngorm	2021-2022	Ptarnigan Refurbishment	£628,525	HIE	Ptarnigan Refurbishment	To improve facilities and icrease dwell time
Cairngorm	2021-2022	Repalce EPOS System	£6,182	HIE	Repalce EPOS System	Business Improvement
Glencoe Mountain	2016 -2017	Coire Pollach Button tow	£200,000	Own Funds and HIE	New Beginners button	Improve beginners experience
Glencoe Mountain	2017 - 2018	New Garage	£250,000	Own Funds and HIE	Large Garage on the mountain	To allow plant to be stored inside
Glencoe Mountain	2017 - 2021	Rannoch Chairlift	£1,100,000	Own Funds and HIE	New 3 man Chairlift on the plateau	To relieve bottle neck and improve experience
Glencoe Mountain	2017 -2018	Snow Factory Purchase	£400,000	Own funds HIE and crowdfunding	Small snowfactory	to guarantee snow on beginners area
Glencoe Mountain	2021 -2022	New Base café after fire	£2,000,000	Insurance (£1m), own funds and HIE	Replace base café after fire on 25th Dec 2019	Original café burnt down
Glenshee	2017	Master Plan	£60,000	SE £13716	Master Plan	Help with Funding
Glenshee	2018	Café Feasability	£8,000	SE 50%	Café Feasability	Realistic Possabilities
Glenshee	2019	SnowFactory/Canons	£898,500	SE 40%	SnowFactory/Canons	Upgrade of Existing Snowmaking Including Snow Factory
Glenshee	2019	Surface Lift Upgrades	£277,000	SE 50%	Surface Lift Upgrades	Upgrade to Variable Speed Drives
Glenshee	2019	Ticket System	£50,000	SE £4200	Ticket System	Obsolete - part funding software only
Glenshee	2019	Wind Turbine/Energy Storage Feasability	£9,962	LCIPT 50%	Wind Turbine/Energy Storage Feasability	Reduce reliance on Diesel Generation
Glenshee	2021	Kassbohrer Winch Cat	£391,451	SE 75%	Kassbohrer Winch Cat	Upgrade and Replace 30 Year Old
Total			**£6,764,317**			

Venue	Year	Item	Amount	Funding Source	Project Details	Reason for Investment
Adventure Aberdeen Snowsports	2019	Installation of new Travellator on tubing slope	£80,000		Installation of new Travellator on tubing slope	Improve product and help allow less able bodied members of the public to participate in tubing
Adventure Aberdeen Snowsports	2020	Ground works. Path Widening	£17,000	Sport Aberdeen	Ground works. Path Widening	Make paths to slope wider during Covid-19
Adventure Aberdeen Snowsports	2021/22	Matting replacement	£130,000		Matting replacement	Slope surface improvement
Alford Ski Centre	2021	Mat replacement, poma upgrade and travelator upgrade, sprinkler system upgrade	£300,000	Council	Mat replacement, poma upgrade and travelator upgrade, sprinkler system upgrade	Mat was almost 20 years old and going bare, needed significant update.
Hillend	No Data	No Data	£0	No Data	No Data	No Data
Newmilns Snow and Sports Complex	01/01/2021	Ski Resort Recovery - Round 1 - March-Dec 2020	£45,000	Scottish Government - Snowsports Scotland	Ski Resort Recovery - Round 1 - March- Dec 2020	Ski Surface Mat Replacement
Newmilns Snow and Sports Complex	01/03/2021	Ski Resort Recovery - Round 2 - Jan - March 2021	£24,726	Scottish Government - Snowsports Scotland	Ski Resort Recovery - Round 2 - Jan - March 2021	Ski Surface Mats
Newmilns Snow and Sports Complex	01/05/2019	Tubing Track	£196,833	Ayrshire LEADER	Tubing Track	Increase Capacity, increase income
Newmilns Snow and Sports Complex	01/06/2021	Communities Recovery Fund	£28,500	SCVO Adapt and Thrive	Communities Recovery Fund	Outdoor Shelter
Newmilns Snow and Sports Complex	01/12/2021	Accessible Play Park	£20,000	Postcode Lottery Fund	Accessible Play Park	Site Development
Total			**£842,059**			

Figure A-2 HIE Approved Investment in Mountain Centres







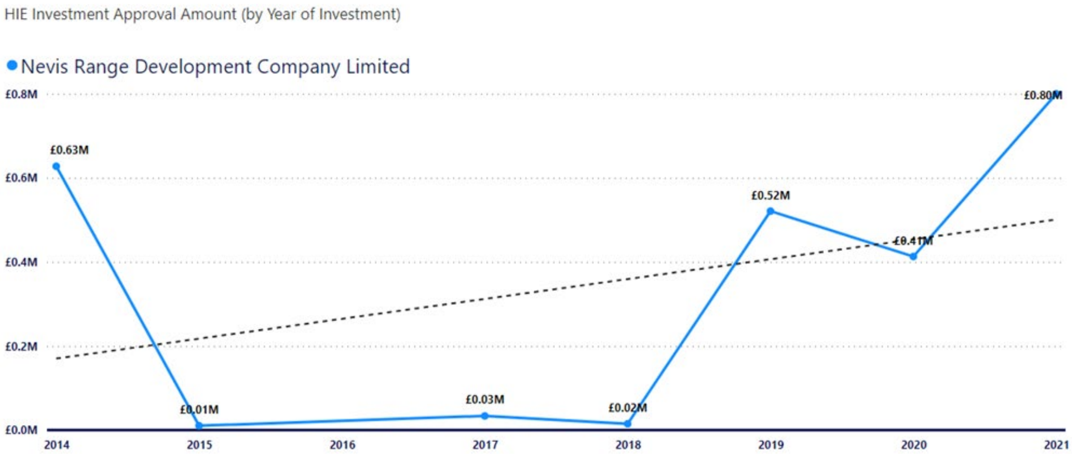


Table B-5 Scottish Enterprise - Glenshee Capital Investment Summary

Item	Amount SE Approved	Investment Paid by SE
Snowmaking Equipment	370,000	300,000
Winchcat	400,000	200,000
Tiger chairlift	635,000	6,000
Cairnwell Tow	1,840,00	476,178
Ground source heat pumps and low carbon ventilation system	200,000	200,000
Lift Infrastructure	56,698	56,698
Small Infrastructure		6,000
Total	**1,605,000**	**1,332,464**

PLEASE UPDATE OR DELETE THIS PAGE AS REQUIRED

This version ISBN 00123456789XX is current as at 01-03-2015

REVISIONS TABLE

	Date	Changes
First Published 1.0	01/01/2012	Update 1.0
Revision 1.1	15/08/2012	Update 1.1
Revision 1.2	01/12/2012	Update 1.2
Revision 2.0	18/05/2013	Update 1.3
2nd Edition 2.0	03/03/2015	Update 2.0

UPDATES PAGE

Update 1.0	01/01/2012	First Published 1.0
Update 1.1	15/08/2012	Revision 1.1
Update 1.2	01/12/2012	Revision 1.2
Update 1.3	18/05/2013	Revision 1.3
Update 2.0	03/03/2015	2nd Edition 2.0

Revisions Detail:
Appendix 1.0
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Update 1.1
Revision 1.1 15/08/2012

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Update 1.2
Revision 1.2 01/12/2012

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Update 2.0
A new edition was published on 03/03/2015 ISBN 00123456789XX

How to access background or source data

The data collected for this <statistical bulletin / social research publication>:

☐ are available in more detail through Scottish Neighbourhood Statistics

☐ are available via an alternative route <specify or delete this text>

☐ may be made available on request, subject to consideration of legal and ethical factors. Please contact <email address> for further information.

☐ cannot be made available by Scottish Government for further analysis as Scottish Government is not the data controller.