Scottish Government
Riaghaltas na h-Alba

# The economic, social, and cultural impact of Scotland's snowsports sector 2022

AGRICULTURE, ENVIRONMENT AND MARINE

social research

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## Acknowledgements

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# Executive Summary

## Introduction

- This research was commissioned by the Scottish Government to explore the economic, cultural and social impact of the Scottish snowsports sector.
- The primary objectives of the research were to:
  - Produce an analysis of the economic, cultural, and social value of the Scottish snowsports sector.
  - Understand the impact of the Coronavirus (COVID-19) pandemic on the snowsports sector.
  - Consider the long-term sustainability of the snowsports sector in Scotland.
  - Recommend how the snowsports sector may be strengthened.
- The research was conducted between January and August 2022 and combined a review of existing data and research alongside primary research with snowsports operators, their customers, and other stakeholders. 38 stakeholder consultations were conducted, along with a survey of 1,530 visitors to mountain centres and artificial slopes, a club survey (10 responses), a business survey (12 responses), and a group discussion with 10 local businesses.
- It is important to note that parts of the analysis were constrained by gaps in the data provided by snowsports operators, and by challenging weather conditions affecting on-site primary research with snowsports participants. As a result, some of the data should be treated with a degree of caution.
- The research was commissioned in January 2022, and over the course of this year the funding, policy, and operating environments have continued to evolve, not least because of the impact of the cost of living crisis and additional pressures on public sector budgets.

## Scotland’s snowsports sector

- The Scottish snowsports sector comprises five mountain centres and 14 artificial slopes located across Scotland.
- The sector is small relative to its competitors in Europe and in growing markets such as the US and China. The sector remains heavily dependent on domestic visitors with a short and weather dependent season.
- Even prior to the pandemic there was little evidence of growth at the mountain centres. The uncertainty of the Scottish weather, combined with the low elevation of the mountain centres, results in unpredictable snowfall and a highly volatile trading environment.
- The number of visitors to the mountain centres in 2021/22 was 66% lower than in 2015/6, and 70% lower than in 2010/11, when the last economic assessments were undertaken. Late snowfall, poor weather conditions, and the COVID-19 pandemic, have all impacted on visitor numbers.

- Domestic demand for snowsports is not likely to increase in Scotland, and combined with a non-existent international visitor base, this means that the Scottish snowsports sector may become increasingly vulnerable and unsustainable.
- Demand has, however, been more stable for the artificial slopes, but there is still a mixed picture for their sustainability. For example, Snow Factor in Renfrew went into administration in November 2021, and appointed a voluntary liquidator on 7 November 2022.
- The sector has made efforts in recent years to reduce its reliance on unpredictable weather conditions by diversifying beyond snowsports.
- The sector has benefited from £7.6 million in investment between 2016 and 2022 from a range of sources, including significant investment from the Enterprise Agencies. Among other things, this funding has supported diversification, uplift infrastructure, and snow-making capability. For example, the Nevis Range Mountain experience now offers a year-round range of activities and has invested considerably in a new hotel and conference facilities to diversify their income.
- This, alongside the £7 million COVID-19 financial support provided by the Scottish Government, has undoubtedly helped and for now at least, the financial position of much of the industry appears relatively stable.
- However, most operators are concerned about the future as costs continue to rise and wider economic conditions deteriorate. The outlook over the medium-term is challenging. Recruitment and retention of staff is difficult, and the impacts of climate change are a significant threat to the future of snowsports in Scotland.
- Public finances continue to be under significant pressure, not least because of external factors such as the coronavirus (COVID-19) pandemic and cost of living crisis. The Scottish Government and Enterprise Agencies, amongst others will face tough decisions when setting investment priorities, and there will be limited scope to fund interventions that are not considered a top priority.

## Economic impact

- The snowsports sector in Scotland was estimated to have generated £20.1 million of gross value added (GVA) in 2022. This is circa 2.3% of the estimated adventure tourism market as a whole in Scotland.
- This accounts for 510 full-time equivalent (FTE) jobs. This compares to 189,000 jobs in the Sustainable Tourism growth sector in 2020.
- This is a modest overall level of economic impact. Whilst it is true that 2022 cannot be considered a typical year, due to both late snowfall and the ongoing effects of the COVID-19 pandemic, snowsports has always been a relatively small sector within the overall tourism market.
- This also represents a reduction of 68% in off-site impacts when compared to the 2016 assessment. The previous assessment did not consider on-site impacts but did include the off-site impacts of non-snowsports activities at the five mountain centres.

- The calculation estimates the total net impacts of the sector. It takes account of any economic impacts that moved activity from other parts of Scotland to the snowsports sector, or that would have leaked out of Scotland. It also considers any indirect effects from expenditure by suppliers and by those employed in the sector.
- Due to data issues, it does not include the artificial slopes. Therefore, it is possible the overall sector generates a slightly higher value than estimated here, although one of artificial slopes has now closed.

## Social and cultural impacts

- Snowsports participation remains dominated by higher socio-economic groups, and this lack of socio-economic diversity ultimately limits the sector's potential for wider social impact. The existing evidence base for the social impacts of snowsports is limited, but what does exist is generally positive particularly in terms of the potential for health and wellbeing benefits for the limited sector of society which participates in this sport.
- The top reason for participation in snowsports according to the research was the social and health benefits, followed by enjoyment.
- Evidence of the cultural impact of snowsports is strong in the communities that surround some of the mountain centres and should be considered as assets to be nurtured. It is displayed through the expression of shared interests and sense of valuing the natural environment and passion for outdoor activities, including snowsports.
- The snowsports sector, and in particular the mountain centres, have helped to shape the social fabric of local communities. Many people who move to or return to live in these communities have a shared passion or interest in the natural environment and for outdoor activities. These year-round natural capital cultural assets may also help to attract visitors to the area.

## Impact of COVID-19

- The coronavirus (COVID-19) pandemic led to an immediate shutdown in business across the snowsports sector through the periods of lockdown and travel restrictions (2019/20 and 2020/21).
- The numbers visiting the mountain centres have not yet recovered. Demand at the artificial slopes has recovered better, now running at or above pre-pandemic levels.
- The worst of the financial impact of the pandemic was largely mitigated by government support. However, the sector faced unfavourable weather conditions in 2022 after COVID-19 funding ceased. This has constrained recovery, and all providers are forecasting significant cost pressures ahead (including fuel costs, staff costs, repairs and maintenance). Coupled with the risk of poor snow conditions in future, the outlook for the sector could be very challenging.

## Future sustainability

- The long-term sustainability of the Scottish snowsports sector is challenged. This is due to:

    - Partial financial recovery from the pandemic.
    - Cost of living pressures reducing future demand.
    - Rising costs of energy, staff and essential supplies.
    - Challenges in recruiting and retaining staff because of lack of year-round employment opportunities, housing costs, and the cost of training and qualifications.
    - Unpredictable weather and variable snow conditions which will be exacerbated by climate change.

## Recommendations

- The research identified a range of actions that could help build greater resilience in the snowsports sector, promote longer-term economic sustainability, and increase social and cultural value.
- The funding climate remains challenging, and it will be inherently difficult for the Scottish snowsports sector to secure the level of investment required to implement all the actions outlined below. Prioritisation of actions will be necessary.
- Success will depend on a partnership and collaborative approach between snowsports operators and key partners and agencies, including the Scottish Government, Enterprise Agencies, and Snowsport Scotland.
- The actions have been clustered under five themes: diversification; access and participation; improvement; collaboration; and staffing.
- The Scottish snowsports sector will need to play a leading role in: embracing changes required by climate emergency, prioritising the actions to diversify the sector; harnessing a partnership and collaborative approach where appropriate; and continuing to explore ways to diversify income streams to become less reliant on public funding, and to ultimately become more self-sustaining.

**Diversification**

- Invest in infrastructure which will make year-round access possible.
- Consider introducing new and varied activities during the year that require access to the mountains.
- Consider, where appropriate, the suitability of exploiting changes in snowsports trends, such as back country skiing.

**Access and participation**

- Recognising that snowsports is an expensive and seasonal activity and is never likely to be widespread, encourage the next generation of snowsports participants through programmes of snowsports activities delivered in partnership with schools, Active Schools, Snowsport Scotland, and artificial slope and mountain centre operators.
- Encourage access to existing artificial slope provision. Snowsport Scotland and other partners should consider the feasibility of this action.

- Investigate through regional Destination Management Organisations, ways of better centre integration and promotion with the wider visitor economy.
- Broaden the year-round appeal of the mountain centres to make them more inclusive, particularly in relation to socio-economic diversity.

**Improvement**

- Support the shift towards low carbon/ renewable energy sources.
- Replace existing uplift infrastructure, which must also be considered in the context of plans to diversify.
- Improve ancillary facilities, such as car parking, toilets and changing accommodation, and food and beverage offers. Investment in these also needs to be matched with plans to diversify facilities and activities to ensure sufficient capacity exists to accommodate future demand.
- Improve artificial slopes infrastructure to ensure that they are maintained to a high standard.
- Consider, where appropriate, further private investment to enhance snow-making on nursery/ learning slopes at the mountain centres to ensure a consistent winter offer.

**Collaboration**

- Develop a shared vision for the future of the snowsports sector that has strong community involvement and buy-in.
- Strengthen existing partnerships and developing new partnerships to enhance future sustainability.
- Explore opportunities for mountain centres to learn from each other.
- Improve co-ordination between emergency services, local authorities and operators to enhance customer experience and maintain access to road infrastructure.

**Staffing**

- Consider ways to improve recruitment and retention of staff, including collaborative approaches to on-site accommodation for staff.
- Consider succession planning.
- Develop affordable and accessible training and qualifications for key positions (such as ski instructors).
- Explore opportunities to address year-round employment challenges with local businesses, which may be improved with diversification away from solely snowsports.

# 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 between January and August 2022.

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

## 1.1 Context

The research was commissioned in January 2022, and over the course of this year the funding, policy and operating environments have continued to evolve. The research findings and actions to strengthen the snowsports sector in Scotland should therefore be reviewed in the following context:

- The cost of living crisis: This will affect us all, but the impact will be disproportionately felt by those who are already struggling to make ends meet. For many individuals and families, it will mean struggling to meet basic needs, such as rent, food, clothing, and heating. With less, or no, disposable income, tough decisions will need to be made and household budgets cut accordingly. Many will focus on necessities rather than luxuries. Sports and activities which are free or cheap to access are likely to be more appealing. Snowsports activities can be expensive, and participation is likely to be impacted negatively by the current crisis.
- Climate change: Scotland is getting ever warmer and wetter and this trend looks set to continue. Decreasing predictability of weather patterns continues to threaten the sustainability and viability of the mountain centres. The levels of snowfall are declining and becoming less predictable which may result in declining demand, and this increases the snowsports sector's vulnerability.

The pressures placed on Scottish public finances have been significant for several years, and continue to be under significant pressure, not least because of external factors such as the coronavirus (COVID-19) pandemic and cost of living crisis. The Scottish Government and enterprise agencies (and others) will face significant challenges when setting budgets in the short- and medium-term. This will mean difficult decisions will require to be made that will limit the scope and flexibility to fund interventions that are not considered a top or high priority.

## 1.2 Background

Scotland is currently host to five mountain centres and 14 artificial slopes. The mountain centres are located at Glencoe, The Lecht, Glenshee, Cairngorm, and the Nevis Range.

The 14 artificial slopes are located at: Aberdeen Snowsports Centre; Alford Ski Centre; Bearsden Ski and Board Club; Firpark Ski Centre; Glasgow Ski & Snowboard Centre; Glenmore Lodge; Huntly Nordic and Outdoor Centre; Lagganlia Outdoor Centre; Loch Insh; Midlothian Snowsports Centre – Hillend; Newmilns Snow and Sports Complex; Polmonthill Snowsports Centre; RM-Condor, Arbroath; and Snow Factor.

The enterprise agencies Highlands and Islands Enterprise (HIE) and Scottish Enterprise (SE), first commissioned an independent Scottish Snowsports Strategic Review in 2011. This was in recognition of the continued importance of the snowsports sector to Scotland's rural economy, and the significant contribution it makes in local job creation and visitor expenditure. This research found that snowsports generated an average £30 million a year and supported 634 jobs directly.

Additional findings were that:

- The long-term sustainability of the sector was uncertain.
- Scottish snowsports centres were not growing at the same rate as those in the rest of the UK.
- 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 non-snowsports activities. There has been some further progress in these areas, in particular diversification. However, as outlined later in the report there is still more to be done.

Another review of the snowsports sector in Scotland was commissioned in 2016 by HIE.[1] 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 from the 2011 figures.

## 1.3 Study aims and objectives

This research, which seeks to provide an updated position, is wider and deeper than the previous sector reviews by exploring the wider impacts of the sector and considering the impact of the Coronavirus (COVID-19) pandemic.

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 in Scotland.

[1] The report available on the HIE website in PDF form.

- Recommend how the snowsports 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 consider potential for diversification and resilience to climate change.
- What interventions - if any - may be required to strengthen the snowsports sector in Scotland?

## 1.4 Study method and limitations

### Study approach

The study method involved secondary and primary research as summarised below, across the five mountain centres and 14 artificial slopes providing snowsports options in Scotland.

Primary research:

- 38 semi-structured interviews with stakeholders.
- Mountain centres/artificial slopes visitor surveys (1,530 responses)[2]
- Club online survey (10 responses).
- Business online survey (12 responses).
- Group discussion with businesses (10 participants).

Secondary research:

- Policy, strategy, and existing research review.

### Study limitations

The main limitations involved gathering sector/economic data and elements of the primary research:

- Data request:
    - A data request was issued to mountain centres and artificial slope operators to help inform the sector review and economic impact assessment (EIA).

2 Mountain centres (1,000 target and 1,484 actual). Artificial slopes (400 target and 46 actual).

However, few operators provided data, and where it was provided, this was often partially completed.

    - This issue made comprehensive analysis of aspects such as finance, employment, and demand more difficult. Gaps in data resulted in challenges in providing a robust sector level assessment, including limiting the breadth and depth of analysis that could be undertaken.

- Visitor survey – mountain centres:
    - Scottish Government COVID-19 related guidance prevented research from being undertaken indoors where the number of interviews was more than 50. This meant that on-site interviews had to be undertaken outdoors.
    - The poor weather conditions (such as high winds, snow) presented challenges for both interviewers and interviewees. There were also times when the mountain centres were closed due to the weather conditions (for example, because of no sustainable snow). These issues resulted in fewer in-person interviews on-site than envisaged at the outset.
    - To supplement the number of on-site interviews completed (342), we adopted the following approaches:
        - Hard copy self-completion questionnaires were made available within cafes at the mountain centres (97 responses).
        - The mountain centres distributed an online survey (1,045 responses).
- Visitor survey – artificial slopes:
    - Not all artificial slope operators responded to communications regarding the visitor survey (three of the 14 artificial facilities responded or 21%).
    - In-person interviews were undertaken at three of the facilities and two online survey responses related to another two artificial slopes. This resulted in 46 responses.
- Business survey:
    - Due to an initial poor response to the business survey, we adopted a targeted approach and asked business-facing organisations to help coordinate small group discussions with local businesses. One such discussion took place.

The issues outlined above meant that responses to the visitor and business surveys were collected using a mix of approaches, and the timescales for the primary research were extended accordingly. The data collated provides a snapshot of views and may not be representative of all snowsports visitors and businesses in Scotland.

## 1.5 Report structure

The remainder of the report is structured as follows:

- Chapter 2 – Strategic and policy context
- Chapter 3 – Overview of Scottish snowsports sector

- Chapter 4 – Visitor trends
- Chapter 5 – Economic impact
- Chapter 6 – Social and cultural impact
- Chapter 7 – Conclusions and recommendations
- Chapter 8 – Appendix A

We have also created a dashboard that provides more detailed analysis of the Scottish snowsports sector, which can be found here: Scottish Snowsports Sector Data Analysis dashboard

A separate technical report will be published to provide more of the detail on the methodology, survey content, and data.

# 2. Strategic and policy context

**Key findings**

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

As the climate emergency grows, and levels of snowfall both decline and become less predictable, pressure will increase on the snowsports sector in Scotland to adapt and reduce dependency on activities that are reliant on snow. The sector will also need assistance to make the transition to net zero over the coming years.

Access to high quality facilities and service provision is critical to encourage individuals and families to become more active and participate in sport and physical activity, including snowsports.

Although the snowsports sector is doing some good work at engaging some of those that are under-represented in sport and physical activity, more needs to be done to reduce barriers to participation and to strengthen the sector's approach to equality, diversity and inclusion.

Creating a wellbeing economy is a policy priority, and is essential for building a more prosperous, resilient, equal and sustainable economy. This will be an important consideration for the future development of the snowsports sector.

## 2.1 Introduction

The value of the snowsports sector in Scotland must be viewed in the context of current policy direction and priorities. There is a wide range of strategy and policy documents which help us consider how snowsports fit with, and contribute to, policy priorities. This chapter considers the main policy drivers and their implications for the ongoing recovery, development, growth, and sustainability of the sector in Scotland. Specifically, these are: inclusive growth; active and healthy lifestyles; equality, diversity, and inclusion; and COVID-19 recovery.

The documents reviewed to provide insights are listed below.

- 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).
- VisitScotland (and Partners): Outdoors Scotland Tourism Strategy (currently in development).
- Scottish Government and Convention of Scottish Local Authorities (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 (HIE): Cairngorm Mountain Resort Masterplan (2021).

## 2.2 Inclusive growth

The tourism sector is particularly important to rural Scotland. It protects and creates jobs, and provides opportunities for businesses to grow, particularly micro and small enterprises.

The tourism sector in Scotland is distinctive and diverse. It helps to support the economic viability of communities, and local services and amenities (for example, shops, pubs, restaurants, accommodation, transport) are all supported and sustained by visitors to rural areas.

As such, the snowsports sector can contribute to economic growth at a national and local level by:

- Supporting jobs in rural (and urban) communities.
- Supporting employment across the sector's supply chain.
- Attracting people to the areas where the network of mountain centres and artificial slopes are located.
- Encouraging visitor dwell time and spend in local areas.

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 snowsports sector, in partnership with other agencies, can help to build on.

## 2.3 Active and healthy lifestyles

People derive a wide range of benefits from having an active life, including better physical and mental health, healthy weight, skills development. The Active Scotland Outcomes

Framework and sportscotland's Sport for Life Strategy set out the importance and benefits of being physically active and emphasise the importance of providing opportunities for people of all ages to take part in sport and physical activity. The Draft Snowsports Strategy 2022/26 also sets out a vision, "Snowsports for Life", which recognises the distinct "life stages" of participation in snowsports.

The provision of high-quality sports and leisure is also crucial to encouraging more people to participate in sport and physical activity. Such facilities can help encourage and enable greater activity. The Active Scotland Outcomes Framework, Sport for Life, and Snowsport Scotland's 2022/26 Draft Strategic Plan and 2030 National Facilities Strategy all 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 visitor market alike.

## 2.4 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 the work organisations do. Accessibility and inclusivity are important considerations - there are 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 (such as adaptive snowsports) and being welcoming to all.

Inequality in participation is a long-standing and deep-seated issue and is reflective of broader cultural and societal differences. The Equality and Sport Research report 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. The report also shows that there are a 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 (including geographical locations of the mountain centres), weather conditions, and perceptions of an elitist sport that is not for everyone.

In response to the challenges of encouraging participation, the Draft Snowsports Strategy 2022/26 identifies "Participation and Performance Pathways", defined as "Accessible and inclusive pathways that promote Snowsports for Life and support progression and performance", as one of four priorities for the sector. Building and sustaining effective pathways to entry is essential to encourage participation, retention, and progression.

## 2.5 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 (such as improving physical and mental health, social cohesion). The Scottish Government 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 could make a small contribution here, in terms of supporting people with their physical and mental health and wellbeing, resilience, and connecting with nature.

## 2.6 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 placed on helping people get the most out of Scotland's 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 (for example, health, education, transport, and environment).

## 2.7 Conclusions

The above provides the strategic context for the potential development of the snowsports sector in Scotland. The sector has a limited role to play in helping to achieve the key aims and objectives of a range of national and regional strategies. Therefore, the snowsports sector in Scotland has potential to aid with:

- Providing employment and supporting jobs in rural (and urban) communities, particularly in the winter period.
- Supporting employment across the sector's supply chain.
- Being a part of the attraction of local areas, attracting more people to areas where mountain centres and artificial slopes are located.
- Providing the facilities that allows people to be physically active (particularly during the winter period).
- Playing a role in achieving physical and mental health and wellbeing benefits.
- Helping rural communities and economies recover from the effects of COVID-19.

However, these impacts must be viewed in the context of decreasing predictability of weather patterns and the current cost of living crisis. As such, the real impact that the snowsports sector has on encouraging physical health, or helping to recover from the pandemic, is likely to be very limited. The following chapters test these possible impacts, assessing the potential for the snowsports industry to contribute to Scotland's economy, culture and social structure.

# 3. Overview of the Scottish snowsports sector

**Key findings**

The sector is made of a diverse range of stakeholders with different structures and priorities. This can lead to challenges around establishing a clear and shared vision for the future. All mountain centres are account managed by an enterprise agency and benefit from capital investment.

Income levels vary between mountain centres. Several factors are at play, including differences in: visitor numbers; snow levels; days when skiing is available; and the level of dependency on snowsports activities.

Cost pressures, such as fuel costs, staff costs, repair and maintenance, coupled with poor snow conditions and the cost of living crisis, are creating very challenging financial conditions for the mountain centres. Artificial slope operators were reasonably optimistic about the future, but also acknowledged cost pressures.

Mountain centres are seeking to diversify and create demand for alternative activities throughout the year that will ultimately reduce their level of dependency on snowsports activities. Those centres that have successfully diversified and are less dependent on snowsports have been able to maintain levels of income.

Recruiting and retaining employees is challenging. There are also a range of investment needs across the snowsports sector (such as infrastructure, ancillary facilities, and services).

## 3.1 Introduction

This chapter provides an overview of the Scottish snowsports sector, detailing the governance, finance, and investment, and staffing, and the ongoing challenges associated with each.

It should be noted that the findings within this chapter were heavily dependent on availability and quality of data provided by the mountain centres and artificial slope operators. While some data was provided by the five mountain centres, limited data was forthcoming from the artificial slope operators. This limited the analysis, particularly in areas such as finance, demand, staffing and investment.

## 3.2 Governance

A range of governance structures are in place across the snowsports sector in Scotland. Although collaboration across the sector continues to improve, there are still elements of the sector working in isolation. As such, the range of stakeholders with varying degrees of commitment to, and focus on, snowsports is creating a fragmented landscape which could benefit from greater co-ordination.

## Mountain centres

Glencoe, The Lecht, Glenshee, and the Nevis Range are all privately owned, limited companies. Cairngorm is a wholly owned subsidiary company of HIE.

In most (but not all) cases, assets (including buildings and uplift infrastructure) are owned by the operating company. The land that the centres occupy is leased from several different estates on a long-term basis which provides security of tenure to plan and invest for the long-term.

In the case of Glenshee, the lease period is nearing its final years and will need to be extended or renegotiated. Although not assumed to be problematic, lease renegotiations can be a challenging process and can lead to increased costs and more onerous conditions which could create an environment where future snowsports operations could be compromised.

## 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.
- 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.
- One is owned by a private company and operated by a separate private company via a tenancy agreement.

At the time of the research, the tenancy agreement in place at Snow Factor (Glasgow) was under review with the landlord indicating that the lease may not be renewed. This could result in the only indoor artificial snow centre ceasing operations. Snow Factor went into administration in November 2021, and appointed a voluntary liquidator on 7 November 2022.

## Enterprise agencies

Both HIE and SE are engaged with, and have a significant interest in, the snowsports sector in Scotland through the five mountain centres. Of the five mountain centres, four lie in the geographic area covered by Highlands and Islands Enterprise (HIE) and one centre lies in the area covered by Scottish Enterprise (Glenshee).

Enterprise agency involvement is mainly through a dedicated account management approach for ambitious companies with which there is a strategic relationship. These strategic relationships have been crucial and will continue to be going forward.

The account management service provides access to a range of support, including:

- Developing business strategies.
- Advice and support to help build strong and effective leadership and management practices.
- Tailored support packages.
- Connecting companies with, and maximising available funding from, business support partners.
- Introducing companies to like-minded businesses and industry networks relevant to companies' future ambitions.
- Introducing companies to specialist advisors who can help businesses plan and implement changes.

Cairngorm Mountain (Scotland) Ltd (CMSL), which operates the Cairngorm centre 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 area covered by HIE but do not receive revenue funding from the enterprise agency. They do, however, benefit from capital investment from HIE periodically in support of a range of capital projects.

Glenshee operates within the geographic area covered by SE but do not receive revenue support from the enterprise agency. They also benefit from capital investment from SE periodically for 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. Members include 33 clubs, organisational members (such as snowsports centres and Disability Sport UK), and individual members.

Snowsport Scotland plays a pivotal role in working with and collaborating closely with operators 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 valuable financial support for the sector to ensure its survival.

Other sporting governing bodies that have an interest in the snowsports sector include Scottish Disability Sport, Disability Snowsport UK, Mountaineering Scotland, and Scottish Cycling.

## Other agencies

Other agencies and organisations that play a role in the snowsports sector include:

- Environmental agencies, which are concerned with how land and the environment is used, maintained, and developed around mountain centres.

- Tourism agencies, which focus on Scotland as a domestic and international tourism destination and the range and quality of the tourism offer.
- Local organisations, such as chambers of commerce and local authorities. These engage closely with centres to develop local participation, improve the quality and range of the offer, attract investment, and improve promotion and marketing.

## 3.3 Finance

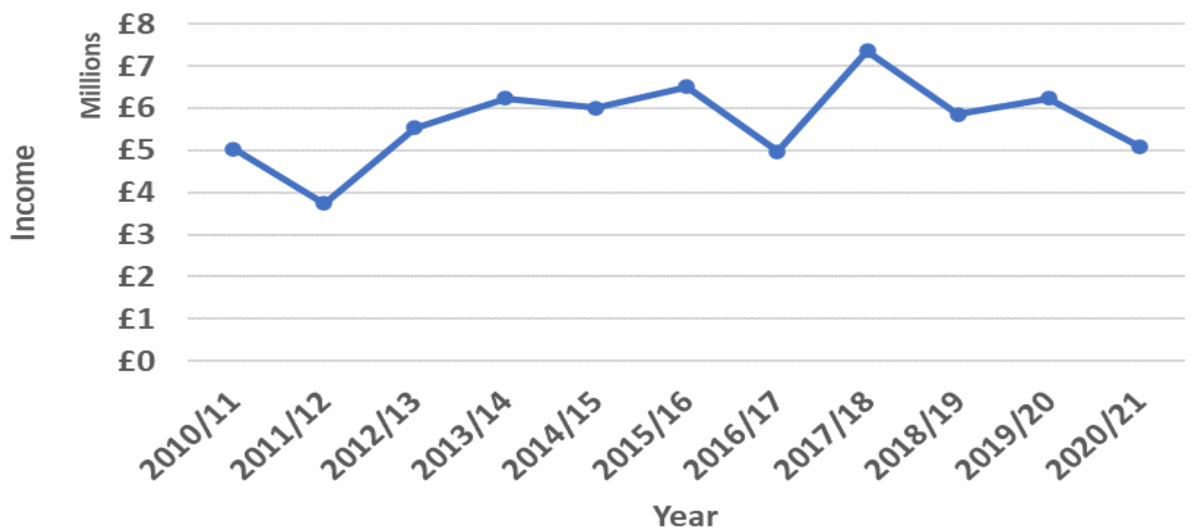
The financial analysis of the sector was limited by the lack of data available from the mountain centres and artificial slopes. Of the five mountain centres, three were able to provide complete financial information. Of the 14 artificial slopes, only one was able to provide a complete and reliable financial data set. For confidentiality reasons, these centres are not named in the analysis.

### Income

Income levels vary between mountain centres. Some of this variation is most likely due to differences in visitor numbers, levels of snow, and days when skiing was available. Different income levels may also be due to the varying dependency on snowsports and non-snowsports activities for generating income.

**Figure 3-1** shows that income for three of the five mountain centres has been maintained over the last ten years with a slight upwards trend. A dip in income was experienced in 2016/17 when levels of snowfall were very low. As anticipated, levels of income dipped substantially during the COVID-19 pandemic years (2019/20 and 2020/21), when most businesses had to shut down fully for a prolonged period.

**Figure 3-1: Income by year (for three of the five mountain centres)**




Source: Data provided by mountain centres.

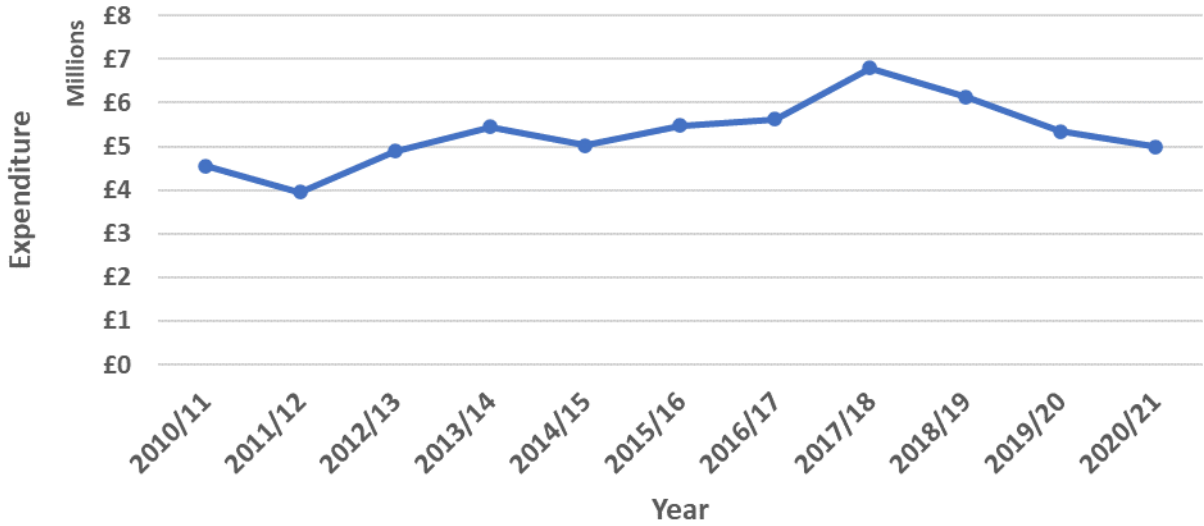
The mountain centres that have successfully diversified and are less dependent on snowsports have been able to maintain levels of income. It should be noted that the extent to which each mountain centre can successfully diversify and attract more visitors from outside the domestic market will vary. Factors include: location, existing provision, visitor numbers, levels of available investment, and land and suitability for development.

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

**Expenditure**

**Figure 3-2** shows that for three of the five mountain centres, expenditure levels increased between 2010/11 and 2017/18, from £4.6 million to £6.8 million. However, since 2017/18, costs have been decreasing steadily.

**Figure 3-2: Expenditure by year (for three of the five mountain centres)**




Source: Data provided by mountain centres.

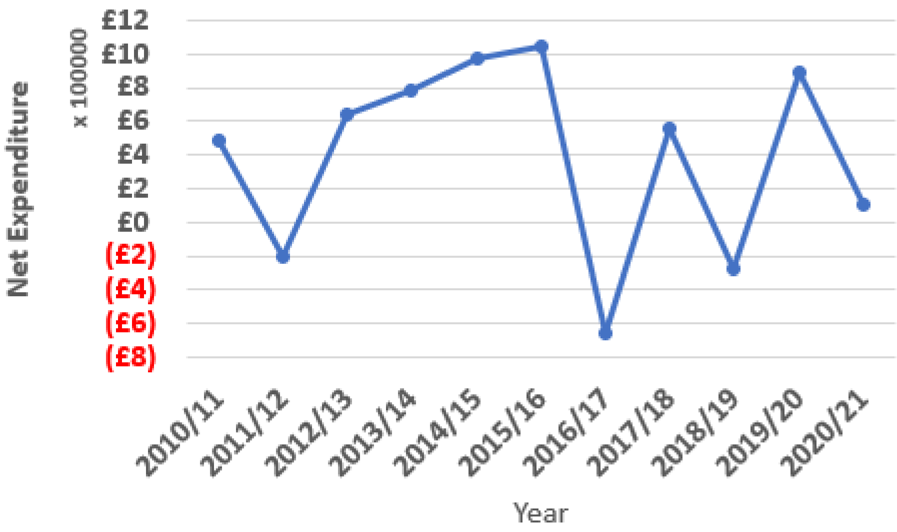
Some of the decrease in costs are aligned to years with reduced snowfall and therefore reduced levels of business. The years 2019/20 and 2020/21 reflect the significant downturn in business, and therefore costs, due to the COVID-19 pandemic.

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 centres made a profit or loss. **Figure 3-3** shows the years the net expenditure of the mountain centres between 2010/11 and 2020/21. It shows that in 2011/12, 2016/17 and 2018/19, the centres incurred an overall loss. These losses correspond to years with fewer snow days and lower visitor numbers.

**Figure 3-3: Net expenditure by year (for three of the five mountain centres)**




Note: Negative net expenditure, i.e. a loss, is denoted in red and brackets on the y-axis.
Source: Data provided by mountain centres.

From stakeholder consultations, snowsports centres considered the current financial position as reasonably stable. In part, this reflects the positive impact of the Scottish Government COVID-19 funding. However, most stakeholders also acknowledged significant concerns for the future.

For the mountain centres, snow levels have affected their financial position. 2019/20 was one of the best snow years in recent times. Under normal circumstances, that year would have allowed the mountain centres to generate enough income to provide a cushion to sustain them through more challenging years. However, due to pandemic this did not happen.

Investments in snow-making, online ticketing, improvements to uplift and machinery, and diversification have all helped to financially strengthen a number of the centres. However, all centres are forecasting significant cost pressures in the future, primarily due to the increase in fuel costs, staff costs, repairs and maintenance, amongst others.

These pressures will be felt across the sector. Poor snow conditions and the cost of living crisis could create very challenging financial conditions ahead. Some centres felt that in five to ten years, it is unlikely that the current five centres will continue to deliver snowsports activities.

COVID-19 funding support provided by the Scottish Government has undoubtedly ensured the survival of many organisations through the pandemic. Without this, it is likely that some centres would have ceased trading. However, in some cases, this support was in the form of loans which could create longer-term pressures as companies must service these debts and manage 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 operators were reasonably optimistic about the future but again expressed concerns over current and future cost pressures.

In some cases, artificial slopes have been more successful in attracting levels of external funding particularly to support programmes and activities aimed at under-represented groups, including those who live in deprived communities.

## 3.4 Investment

The analysis of investment has again been limited by the lack of data made available both by the mountain centres and artificial slopes. Of the five mountain centres, three provided partial data. Of the 14 artificial slopes, four provided partial data.

The sector has benefited from at least £7.6 million in investment between 2016 and 2022.[3] This includes funding from a range of sources, including Highlands and Islands Enterprise (HIE), Scottish Enterprise (SE), LEADER, Local Authorities, Lottery Funding, Scottish Council for Voluntary Organisations (SCVO), and the European Regional Development Fund (ERDF).

Appendix A provides a summary of investment that has been made in some of the mountain centres and artificial slopes over the last few years.[4]

Key points to note:

- Among other activities, this funding has supported diversification, uplift infrastructure, and snow-making capability. Much of this investment has focussed on improving the customer experience and improve operational efficiency and environmental sustainability. For example, the Nevis Range now offers a year-round range of activities and has invested considerably in a new hotel and conference facilities to diversify their income.

- The level of investment in the artificial slopes over the last few years has understandably been less than the mountain centres and has focused on ski matting replacement and ski tow maintenance/replacement. When compared to the mountain centres, the artificial slopes appear to have been more successful in attracting investment from a wider range of sources, for example, LEADER, SCVO, Lottery and other sources.

**HIE investment**

Since 2014, HIE has made significant capital investment into the four mountain centres that sit in their region (excluding Glenshee which is account managed by SE). Funding is generally provided based on the submission of individual business cases with the intervention rate sometimes as much as 75% of total costs. HIE has indicated that this is now reducing to a maximum of 40%. **Table 3-1** below shows the levels of approved investment by HIE in mountain centre projects. It should be noted that some projects did

3 This is not a comprehensive picture of investment to the sector and is likely an under-estimate. It is based on the data received from mountain centres and artificial slopes.

4 Note: comprehensive investment data was not provided by all operators.

not spend their allocation in full, and so the amounts shown do not necessarily reflect actual expenditure.

**Table 3-1: HIE approved capital investment in mountain centres (by year)**

| Year | Investment Approved |
|---|---|
| 2014 | £2.74m |
| 2015 | £0.21m |
| 2016 | £0.01m |
| 2017 | £0.09m |
| 2018 | £0.36m |
| 2019 | £1.44m |
| 2020 | £0.73m |
| 2021 | £3.31m |

Source: HIE.
Note: This is capital and not added to revenue expenditure so does not feature in net expenditure calculations.

Appendix A shows a more detailed breakdown of HIE and SE investment for each of the mountain centres. As shown in Table A-10, Cairngorm Mountain centre received the highest levels of funding from HIE between 2021-22.

**Future investment priorities**

Our consultations identified several priorities for future investment:

- **Diversification of activities** was identified as an important factor to enhance future sustainability. This includes undertaking feasibility studies of a broad range of opportunities and implementing those projects that are viable/most likely to be successful, and that can be operated all-year round.
- The development of staff accommodation to address the shortage of affordable housing in local communities was also considered important. Environmental sustainability, reducing carbon footprint and maximising operational efficiency were other areas mountain centres identified for future consideration and investment.
- 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 ageing infrastructure.
- There may be a need to invest in better snow-making facilities that can ensure a consistent seasonal offer at each of the mountain centres. However, the scale of investment would be significant as it would be required to be environmentally sustainable.

- All centres are engaged in projects to enhance the quality of the customer experience. Investment priorities include improving toilet facilities, catering, and car parking infrastructure.
- 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 are looking to expand their activities and services. Hillend (near Edinburgh) has 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 range of activities alongside skiing. Alford Ski Centre plans to undertake refurbishment of the building and create a new community room, social area and potentially a gym/ fitness room.

In addition, the Scottish Ski Industry Strategic Review (May 2019) makes several comparisons with the 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 "…a chronic low level of investment in marketing in respect of the Snowsports Sector".

## 3.5 Staffing

The mountain centres 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 for those who are visiting the area and are employed on a seasonal basis.

The centres are significant employers which between them employ around:

- 120 full-time staff,
- 35 part-time, and
- 200+ seasonal staff (this can vary significantly based on how good the snow conditions are and how long it lasts for).

This is the equivalent of 185 Full Time Equivalents (FTE)[5].

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 staff,
- 270 part-time staff, and
- 200+ sessional or casual employees.

[5] FTE stands for full-time equivalent, and it measures how many total full-time employees or part-time employees add up to full-time employees your company employs. The calculation of FTE is an employee's scheduled hours divided by the employer's hours for a full-time workweek. For example, when an employer has a 35-hour workweek, employees who are scheduled to work 35 hours per week are 1.0 FTEs. Employees scheduled to work 17.5 hours per week are 0.5 FTEs.

This accounts for approximately 269 FTE.

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

The snowsports sector is experiencing significant staffing challenges, some of which are fundamental to the longer-term sustainability of the snowsports sector. The themes covered below were raised through our stakeholder consultations.

**Recruitment and retention of staff**

Like many other sectors of the economy, the snowsports sector is experiencing significant challenges with 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 was identified as a particular issue with ski instructors although most organisations that were consulted expressed significant concerns about the recruitment and retention of staff across the full range of employment positions.

**Year-round employment**

Increasing unpredictability in terms of weather and the impact of the EU Exit, 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 snowsports sector which again makes the sector less attractive.

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 centres are experiencing challenges in recruiting and retaining staff where they are not able to offer year-round employment.

**Qualification structure and costs**

Several stakeholders 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. There was also considered to be insufficient training courses available for individuals to become qualified.

A lack of coaches/instructors that are qualified to deliver activities for disabled people is also having a detrimental effect on engaging groups that are under-represented in snowsports.

**Succession planning**

Much of the mountain centre provision is owned and operated by small privately owned companies. This means that they typically rely on a few highly motivated and hands-on individuals. Resources and time are therefore often at a premium within these centres, making future planning a challenge.

Such a reliance may make these businesses more vulnerable, for example, if key individuals were to become ill or were not able to fulfil their roles for a period, etc. Thought needs to be given to how these businesses are supported to build resilience and capacity to ensure continuity in the longer-term.

**Cost of living**

The current cost of living crisis is likely to have a significant impact on the sector which is already characterised as a low paid sector of the economy (for example, many jobs are at minimum wage or marginally above it). The cost of fuel for those travelling significant distances to and from work, particularly for those working at more remote centres, may also force some people to seek alternative local employment. Access to affordable housing in many areas is also an issue which will affect some mountain centres' ability to recruit and retain staff.

In addition, the cost of living crisis, in addition to events such as the COVID-19 pandemic, have placed increased pressure on Scottish public finances. It remains a challenging financial environment, and it will likely be difficult for the snowsports sector to secure the levels of public funding required to address all future investment priorities.

## 3.6 Sustainability and net zero

Scottish Government is committed to taking action to reach net zero emissions by 2045. Global temperatures continue to rise and weather patterns are less predictable. 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. While there has been some warming, this has been limited to the spring and summer seasons, with 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, which has 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 context, a recent forecast by The James Hutton Institute and Scotland's Rural College (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 from the same 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.

The report concluded that “warming will continue meaning snow cover and depth is likely to decrease on Cairngorm Mountain from the 2030s”. This raises serious challenges for snowsports both in Scotland and beyond as these findings are reflective of global challenges.

There is a degree of uncertainty with these forecasts as ongoing efforts to mitigate climate change may reduce the severity of impacts. The report also emphasised that these predictions are subject to a large amount of uncertainty, with snow being particularly complex to model. However, “even higher emissions rates (for example, due to ecosystem carbon releases) may further increase impacts” (The James Hutton Institute and SRUC, 2020; Climate Xchange, 2019).

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 is a clear threat to the viability of mountain centres (as in, there is a greater risk of less snow in future years as temperatures rise).

Greater investment in snow-making machines could help to mitigate the impacts of climate change on both Scottish and international snowsports businesses. The use of snow-making machines to mitigate the impact of shorter and more inconsistent seasons has been used in Austria, for example, which invested €1 billion in snowmaking over the past decade. The US government has also provided grants to purchase snow-making equipment to a variety of snowsports centres.

The Scottish Ski Industry Strategic Review report therefore argues that an uplift in investment in marketing and snow-making equipment is necessary to boost the Scottish snowsports industry. Snowsport Scotland’s National Facilities Strategy (2020) also suggests all five mountain centres should invest in further snow-making facilities.

The negative impact of snow-making is well documented as it relies on a significant amount of water and energy. Some organisations have looked to ‘greening’ their snow production. For example, the Lecht relies on water supplies from its own sources and power supplied through its own wind turbines for producing its snow.

In addition, there are opportunities to explore newer, innovative snow-creating alternatives which use significantly less energy. Efforts are being made to make the sector more sustainable. For example, the Nevis Range has achieved Carbon Neutral Status and is attempting to achieve net zero. It is doing so by: installing a Hydro Plant which provides the majority of the mountain centres’ energy; banning single use plastics from cafes; composting left over food; and installing Electric Car points in its carpark.

However, such efforts are inconsistent across the sector. Some mountain centres may be better placed than others to explore and adopt such opportunities. Feedback from the consultations undertaken as part of this research confirms that information on best practice is shared between operators. There are also likely to be examples of where a more cautious approach is taken to information sharing (such as, where information or data is regarded as commercially sensitive).

## 3.7 Conclusions

The mountain centres and artificial slopes have benefited greatly over the years with investment from a range of sources, including from the Scottish Government and Enterprise Agencies. The strategic relationships with the Enterprise Agencies will continue to be key, and given the pressure on public sector finances, securing the significant funding required to address future investment priorities will remain challenging. This means that the Scottish snowsports sector must:

- Prioritise actions and identify which investment priorities are the most important and which have the biggest impact.
- Continue to explore ways to diversify, become less reliant on public support, and aim to become self-sustaining.

The mountain centres also face wider significant challenges, including:

- unreliable snowfall,
- the level of dependency on snowsports,
- cost pressures,
- staffing pressures, and
- the ongoing cost-of living crisis.

Climate predictions pose challenges for the Scottish snowsports industry, with lower overall amounts, and greater infrequency of snow likely over the coming decades. Greater investment in snow-making machines could help to mitigate these impacts to a certain extent.

The mountain centres continue to explore options to diversify and create demand for alternative activities throughout the year to reduce, in some cases, a high level of dependency on snowsports activities. Those centres that have successfully diversified and are less dependent on snowsports have been able to maintain levels of income and attract people from further afield.

However, the five mountain centres are at different stages in terms of diversification, and the extent to which they can successfully diversify and attract more visitors from outwith the domestic market will vary due to a range of factors. This includes: location, existing provision, visitor numbers, levels of available investment, and land and suitability for development.

# 4. Visitor trends

**Key findings**

The latest survey data available from the Ski Club of Great Britain (2020) shows that the most popular destinations for skiing holidays are France (55%) followed by Austria (26%) and Italy (18%). Scotland was not identified by any respondents as a destination for a skiing holiday. Future sector growth is predicted to take place outside of western markets, such as in Eastern Europe and China.

The coronavirus (COVID-19) pandemic has had a significant impact on the international snowsports market with reduced attendances and fewer international visitors.

The Scottish snowsports sector is small relative to its competitors in Europe and in other growing markets. Between 1989 and 2015 there has been a clear decline in snowsports visitor numbers at the mountain centres. Demand has, however, been more stable for the artificial slopes.

The Scottish ski market is heavily dependent on domestic visitors. Almost all visitors come from the UK (99%) with only 1% from overseas. This is likely because Scotland has a network of snowsports facilities that make physical access to centres possible for the vast majority of its population.

There are opportunities for the market, both in Scotland and internationally, to further diversify and capitalise on the growth of the adventure tourism sector. For example, the Scottish adventure tourism industry was estimated to have grown to £848 million in 2015.

## 4.1 Introduction

This chapter provides an overview from secondary data sources of the key trends in the worldwide snowsports market. It also examines the UK snowsports market, the Scottish tourism market, and uses primary data collected by demand and visitors to Scottish mountain centres.

## 4.2 Worldwide snowsports market trends

The global ski market continues to be dominated by the Alpine region[6], which accounts for 79% of major ski centres, 37% of all ski centres, 38% of all lifts, and 43% of worldwide skier visits, according to the International Report on Snow & Mountain Tourism (2021).

However, future growth in the industry is predicted to take place outside of western markets. The main factors for this are:

- the high level of competition from other leisure activities,
- demographic issues due to most current skiers being older and retiring from the sport, and younger generations being less engaged with snowsports, and

6 The Alpine region is made up of Austria, France, Italy, Liechtenstein, Slovenia, and Switzerland.

- recent economic trends, which have led to a stagnation in western middle-class incomes, the primary market for snowsports.

Growth is therefore more likely to be concentrated in Eastern Europe and in Asia, particularly China. The International Report on Snow & Mountain Tourism (2021) also shows that growth in ski visitor numbers in China in recent years has been very strong, with more than 20 million visitors in 2018/19. This is 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.

## 4.3 UK ski market trends

The latest Ski Club of Great Britain Consumer Survey Report (2020)[7] found that:

- The bulk of respondents are experienced skiers who regularly have skiing holidays, with 42% having had 30 or more weeks experience in skiing.
- The age profile of respondents is predominantly older, with over three-quarters aged 40 or older. This may be due to older people being more able to afford the costs of skiing.
- Whilst most respondents (64%) 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 (26%) than decrease (9%).
- Of those respondents who skied in the 2020 season, the vast majority (97%) planned to ski in the following season. Of those whose holiday was affected by the pandemic, 98% planned to ski in the following season.

It should be noted that this survey took place against the background of the COVID-19 pandemic. The full impact of the pandemic was felt from late March 2020 onwards, and 24% of survey respondents reported that their skiing holiday had been affected by the pandemic.

The Ski Club of Great Britain produced a more recent, but smaller scale, survey in May 2022 entitled State of the Snowsports Market.[8] This 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 accommodation.
- 52% of respondents reported that snowsports holidays had become more important to them since the COVID-19 pandemic.

7 The full report was unavailable and information in this section is based on a summary infographic.
8 The report was received privately and is not publicly available.

- 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.

## 4.4 Tourism in Scotland

Scotland's tourism sector includes a range of sub-sectors, including recreational activities. Sustainable Tourism sector was identified in Scotland's Economic Strategy (2015) as one of the growth sectors in which Scotland can build on existing comparative advantage and increase productivity and growth. Gross Value Added for the Sustainable Tourism growth sector was estimated at £2,541.1 million in 2020, and employment in the Sustainable Tourism growth sector stood at 189,000 in 2020, accounting for 7.4% of employment in Scotland (Growth Sector Briefing – Sustainable Tourism, 2022).

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

**Table 4-1: 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 International and Domestic insights

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

### Adventure tourism

Adventure tourism consists of a variety of activities including snowsports, as well as 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 in Scotland is also identified as a key contributor to visitors to Scotland, with the industry estimated to have grown by £89 million to £848 million over the period from 2008 to 2015 (Tourism Scotland 2020 strategy).

### Mountain biking

Many of the snowsports centres offer, or plan to offer, mountain biking facilities. The strategy for Scottish Mountain Biking 2019-2025 indicates that the mountain biking industry was worth £105 million in Gross Value Added (GVA) in 2015.

The strategy has set a vision for Scotland to be recognised as a leader in European mountain biking. To achieve this, the industry aims to: increase the number of annual visits on mountain bikes to Scotland's countryside by 33% to two million; have a Scottish world champion or world series winner in every mountain bike discipline; and, as noted above, increase the GVA of the industry by 51% to £158 million by 2025.

## 4.5 Snowsports demand in Scotland

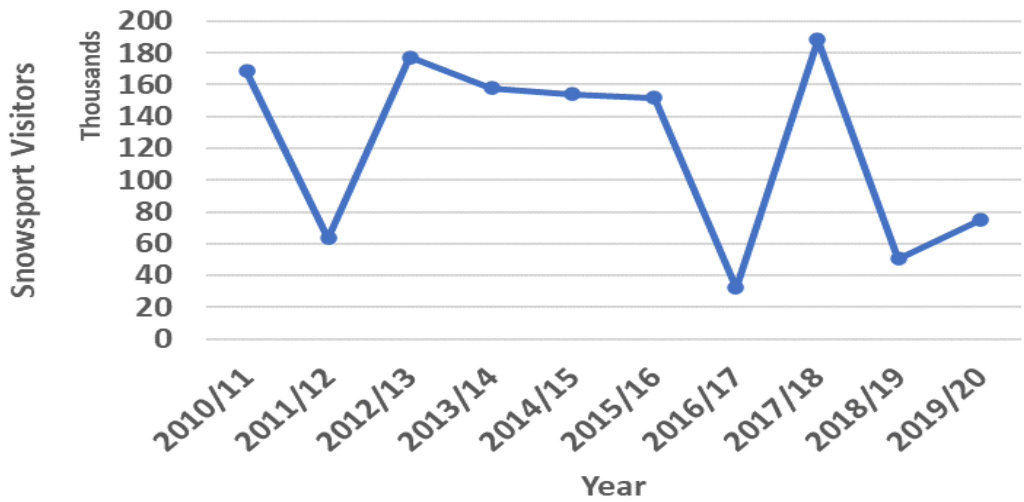
For snowsports, the analysis of demand uses numbers of visitors to the mountain centres taking part in both snowsports and non-snowsports activities. Again, the analysis of demand for the artificial slopes has been constrained by the lack of data.

**The number of visitors to all five of the mountain centres in 2021/22 was 89,473.**

In comparison to previous economic assessment, this is 66% lower than in 2015/16, which recorded 203,625 visitors, and 70% lower than in 2010/11, which recorded 298,373 visitors.

**Figure 4-1** also shows snowsports visitor data from four of the five mountain centres.[9] The chart shows a clear declining trend in numbers of visitors.

**Figure 4-1: Snowsports visitor numbers by year (for four of the five mountain centres)**




| 2010/ 11 | 2011/ 12 | 2012/ 13 | 2013/ 14 | 2014/ 15 | 2015/ 16 | 2016/ 17 | 2017/ 18 | 2018/ 19 | 2019/ 20 |
|---|---|---|---|---|---|---|---|---|---|
| 168,575 | 63,393 | 177,371 | 157,877 | 154,113 | 151,615 | 32,218 | 188,189 | 50,711 | 74,971 |

Source: Data provided by mountain centres.

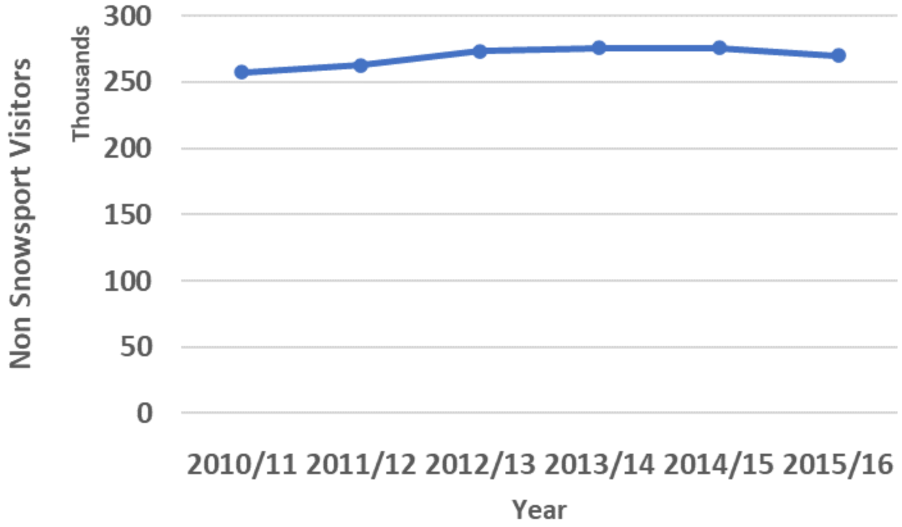
There are three years where the level of snow was particularly low, and this impacted considerably on visitor numbers (i.e. 2010/11, 2016/17 and 2018/19).

9 Data for the years 2016/17, 2017/18, and 2018/19 was only available for four of the five mountain centres. Furthermore, no data is available for 2020/21, hence the chart only shows visitor numbers up to 2019/20.

Appendix A also shows a marked decline in visitor numbers at Cairngorm, Glenshee and the Nevis Range. The scale of decline is also significant at The Lecht but less so for Glencoe.

For the three centres that provided non-snowsports visitor data, numbers are steadier than snowsports visitor numbers (see **Figure 4-2**). Only partial data was provided for 2016/17 onwards and has therefore not been included. The most recent full year with data available, 2015/16, shows mountain centres attracted just over 270,000 visitors.

**Figure 4-2: Non-snowsports visitors (all mountain centres)**




| 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|
| 257,354 | 262,876 | 273,688 | 276,175 | 276,083 | 270,198 |

Source: Data provided by mountain centres

Non-snowsports activities tend to be more resilient and not subject to the same level of variation. This also highlights some of the benefits of diversifying the range of activities on offer within the mountain centres.

All mountain centres and artificial slopes are reliant on the domestic market for customers, albeit to varying degrees. For example, it is our understanding that the Nevis Range has undertaken a targeted marketing campaign to focus on Chinese tourists.

Our visitor survey (1,530 responses) found that:

- 99% of visitors came from the UK, with the vast majority from Scotland.
- 1% came from countries outside the UK.

The survey also indicated that 81% of visitors from Scotland were within a three-hour drive to the mountain centre. A more detailed breakdown of the visitor numbers and drive-times is provided in **Appendix A**.

## 4.6 Accessibility

Given the high degree of focus on the domestic market, understanding catchment areas and how accessible these facilities/venues are, is critical to the sector's future sustainability.

Analysis of census data shows that:

- Within a 60-minute (one-hour) drive of all mountain centres there is a combined population of around 92,000 people.
- Within a 120-minute (two-hour) drive, this increases to over 3.5 million people.
- Within a 180-minute (three-hour) drive, there is a combined population of over 5 million people.

**Table 4-2: 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 |

Note: Drive Time Calculations are derived from Census populations, analysed through Alteryx Data Platform and Travel Time App.

The main gaps in population with access to a mountain centre within a two-hour or three-hour drive exist in the far North of Scotland and in the South East and South West of Scotland.

In the case of artificial slopes, census data shows that:

- There is a population of almost 2.8 million within a 30-minute drive of at least one facility.
- This rises to almost 4.5 million within a 60-minute drive.

Appendix A shows the 30-minute and 60-minute drive time populations for all artificial slope facilities including the indoor slope at Snow Factor in Glasgow.

Although access to artificial slopes is reasonably good, there are gaps in population with 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.
- The South West and South East of Scotland.
- 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 Inverness, and the North East around Dundee to maximise accessibility.

## 4.7 Effect of COVID-19 on demand

Like most sectors of the economy, the worldwide snowsports 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 most ski centres for periods of time and, when allowed to open, reduced attendances due to restrictions such as social distancing and 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. In addition, there was year-on-year growth in skier numbers from 2015/16 to 2018/19, indicating the underlying strength of the industry prior to COVID-19.

Whilst statistics are not currently available for 2020, it is also likely that Scotland experienced a decrease in tourists due to the pandemic-related restrictions and associated reductions in domestic and international travel. It remains to be seen how well the Scottish tourist industry recovers post-pandemic.

## 4.8 Conclusions

The worldwide snowsports market has been profoundly affected by the COVID-19 pandemic which caused the closure of most of the world centres. Despite this, the overall trend is positive with strong year on year growth in skiing numbers from 2015/16 up to the pre-pandemic position. Future growth in the market is predicted to come from outwith western centres, with Eastern Europe and Asia, particularly China the likely future growth markets.

A survey of UK skiers indicates that whilst most skiers are committed and enthusiastic, they are getting older, with three-quarters of skiers over the age of 40. This may be due to older people being more able to afford the costs of skiing.

The Scottish ski market is heavily dependent on domestic visitors, and wider research also shows that Scotland is not viewed as a skiing destination. Demand is not likely to increase in Scotland to any great extent, and combined with a limited international visitor appeal, the Scottish snowsports sector may become increasingly vulnerable and unsustainable.

The Nevis Range has, however, undertaken targeted marketing in China. This is particularly pertinent as there has been a clear decline in snowsports visitor numbers at the mountain centres. Demand has, however, been more stable for the artificial slopes.

The snowsports facilities are accessible to much of the Scottish population when different drive-time measures are examined. The main gaps in population with access to a mountain centre within a two-hour or three-hour drive exist in the far north of Scotland and in the South East and South West of Scotland. There may also be opportunities to encourage access to artificial slope provision in the North of Scotland around Inverness, and the North East around Dundee.

# 5. Economic impact

**Key findings**

The Economic Impact Assessment (EIA) estimates that the snowsports sector in Scotland generates (2022):

- £15.3 million in net wages.
- £20.1 million in net Gross Value Added (GVA).
- 510 net full-time equivalent (FTE) jobs.

On a like for like basis, there has been a reduction of 68% in the economic impact created by visitor spend (£5.2 million in net GVA) when compared to the 2016 assessment. The number of visitors to the mountain centres in 2022 was 66% lower than in 2016.

It should be noted that there is an element of uncertainty surrounding these figures due to the data collection issues outlined in Chapter 1.

The snowsports sector in Scotland 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 centres and artificial slopes are located, and encouraging visitor dwell time and spend.

## 5.1 Introduction

An EIA has been undertaken to estimate the economic contribution that the snowsports sector makes to the Scottish economy. This has been measured in three ways:

- GVA, which measures the overall contribution to the economy[10].
- The total level of wages paid to employees in the sector and employees of businesses supported by the sector.
- FTE jobs supported by the sector. 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 several part-time or seasonal positions.

The economic impact has been calculated from two sources:

- The on-site impact of employment at Scottish snowsports facilities, gathered through stakeholder consultation undertaken as part of this research.

10 Simplistically, it is the value of the amount of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production. As noted in the National Performance Framework, it is the Scottish Government's preferred metric for measuring economic output.

- The off-site impact of visitor spend in local economies in and around snowsports facilities, gathered through a visitor survey.

## 5.2 On-site employment impacts

On-site 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 artificial 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 disaggregated by function. We have therefore estimated that 10% of employment at these sites was snowsports related.

**Table 5-1** outlines the levels of employment at each snowsports centre. Levels of employment have been converted to FTE. 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 position for one-quarter of the year (as in, one-quarter of an FTE).

**Table 5-1: Employment by snowsports site**

| Venue | Type | Full-time | Part-time | Seasonal | FTE jobs |
|---|---|---|---|---|---|
| Cairngorm | Mountain Centre | 34 | 6 | 50 | 50 |
| Glenshee | Mountain Centre | 14 | 2 | 40 | 25 |
| Glencoe | Mountain Centre | 23 | 19 | 40 | 43 |
| The Lecht | Mountain Centre | 7 | 0 | 16 | 11 |
| Nevis Range* | Mountain Centre | 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** |

Note: Facilities marked * have had their employment levels estimated due to a lack of data return

## Wages and GVA coefficients

Wages and GVA were estimated using coefficients from Scottish Annual Business Statistics (SABS). These coefficients were estimated by comparing the total GVA in the sector by the number of FTE jobs in the sector. This provides an estimate of the level of GVA and wages generated through one job in the sector.

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 per FTE.

## Gross impacts

Applying these coefficients to the employment data results in gross on-site employment impacts as outlined in **Table 5-2**.

**Table 5-2: Gross on-site employment impacts**

| FTE jobs | Wages | GVA |
|---|---|---|
| 448 | £16.1m | £19.6m |

## Net impacts[11]

Before we can establish the economic impact of the snowsports centres, it is first necessary to adjust from gross impacts to net impacts.

This means estimating the additional jobs, wages, and GVA in Scotland that would not happen in the absence of these venues.

This means we need to consider additionality factors to determine the ‘true’ economic impact. These factors are displacement, leakage, and multipliers.

### Displacement

Displacement is the extent to which activity under consideration will reduce activity elsewhere in the target area.

For example, opening a new snowsports facility will likely lead to new people becoming involved in snowsports. However, it is also likely that some skiers will use the new facility at the expense of other facilities, thus ‘displacing’ activity from other snowsports facilities. Therefore, the economic activity generated by the new facility will lead to a reduction in economic activity at other facilities.

For operational impacts of the snowsports sector in Scotland, displacement is considered as medium as it is likely that many tourists would holiday elsewhere in Scotland in the absence of the centres. Our visitor survey found that around 30% of respondents would continue to holiday in Scotland in the absence of snowsports facilities. Furthermore, the

11 Net impacts are calculated based on HM Treasury Green Book guidance (and Scottish Enterprise EIA guidance).

local labour which snowsports facilities make use of would otherwise be used in other local industries.

### Leakage

Leakage relates to the residence of the businesses/employees and estimates the proportion that will occur outwith the defined spatial area – in this case Scotland. For example, a person who lives in Carlisle, but works in Dumfries, would have a significant level of leakage from Scotland as much of their spending would take place in England.

For the snowsports sector, 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 outside of Scotland in the off-season, although we lack specific data on this.

### Multipliers

Multipliers relate to the impact of new business and employee spend that occurs because of the activity through additional income, supplier purchases, and longer-term effects.

Spend on wages and suppliers will have knock on effects on the economy as suppliers and staff will then spend their income in the local economy, generating further economic activity.

Type 2 Multipliers are available at the Scottish level from Scottish Government Input-Output Tables based on the relevant sector, in this case, Sport and Recreation.

Summary details of additionality factors can be found in **Table 5-3**.

**Table 5-3: 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 5-4**.

**Table 5-4: Net on-site economic impacts**

| FTE jobs | Wages | GVA |
|---|---|---|
| 340 | £12.3m | £14.9m |

## 5.3 Off-site impacts

Off-site impacts are based on data provided by visitors to snowsports venues during the 2022 season. The original aim was to gather a total of 1,000 face-to-face interviews across the five mountain centres and an additional 400 at the artificial slopes.

However, several issues prevented these targets being met, with only 342 interviews being undertaken at the mountain centres and 29 at the artificial slopes. For the mountain centres, this was largely due to Scottish Government COVID-19 guidance which required interviews above a certain number to take place outdoors. A combination of poor weather conditions (high winds, snow) and centres being closed due to lack of sustainable snow, prevented additional face-to-face interviews being achieved. For the artificial slopes, a poor response from operators meant that the number of interviewer days were extremely limited.

Due to the low number of face-to-face interviews completed, the mountain centres distributed an online survey and hard copy self-completion questionnaires on-site. A total of 1,530 responses were received across all survey methods. There were less than 50 responses from visitors to artificial slopes in total which is too few for a robust EIA to be undertaken at this level. These responses have therefore been excluded from the off-site impacts analysis.

It should be noted that the use of online surveys and self-completion questionnaires are generally not recommended for conducting EIA, primarily due to issues with the respondent profile. The use of face-to-face/in-person interviews allows for a random selection of visitors, while online and self-completion methods are inherently self-selecting. We discuss how this was dealt with in further detail below.

### Gross impacts

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

**Table 5-5: 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

These figures have been broken down by visitor segment, (by snowsports centre visited, whether there was an overnight stay and place of residence) and then divided by the total number of survey responses received from that segment.

For example, there was a total spend of £9,958 by day visitors to Glencoe resident in Scotland and there was a total of 212 survey returns from this visitor segment. This equates to an average spend £47.

Average spend of visitors by centre and visitor origin are presented in **Table 5-6**.

**Table 5-6: Average spend by centre and visitors' origin**

| | Day visitors | | Overnight visitors | | |
|---|---|---|---|---|---|
| | **Scotland** | **Rest of UK** | **Scotland** | **Rest of UK** | **Outside UK** |
| Nevis | £33 | - | £352 | £345 | £323 |
| Lecht | £57 | £45 | £458 | £849 | - |
| Glenshee | £51 | £75 | £412 | £654 | £641 |
| Glencoe | £47 | £59 | £297 | £506 | - |
| Cairngorm | £29 | £90 | £433 | £567 | £936 |

N=1,481

It should be noted that there were clear outliers from some visitor segments, specifically Nevis Range day visitors from the rest of the UK and Glencoe overnight visitors from outside the UK. This was due to only gaining a single response in these visitor segments.

In these cases, these visitor segments have not been grossed up separately, with figures added to the next most appropriate visitor segment.

### Grossed up impacts

The impacts are grossed up to the total visitor population which has been provided by the snowsports centres for 2021/22. Grossing up refers to the process of applying the impacts derived from the survey respondents to the entire visitor population.

This is calculated based on the inverse of the proportion responding to the survey (e.g., a response rate of 1% generates a grossing up factor of 100%/1% = 100). Therefore, if the survey sample has an impact of £100, grossing up will result in a total impact of £100 x 100 = £10,000.

Total visitor numbers are presented in **Table 5-7**. The proportion of day and overnight visitors was derived from the visitor survey returns. For these estimates we have only used data from face-to-face interviews as they are more representative of the visitor population.

**Table 5-7: Total visitors**

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

Individual visitor segments by snowsports centre are grossed up separately and summed, as in, day visitors and overnight visitors are grossed up separately for each snowsports centre. The number of visitor survey respondents, total visitor population, grossing up factors and total visitor spend for each snowsports centre can be found in **Table 5-8**.

It is notable that that around 70% of gross spend is accounted for by overnight visitors, who make up only 20% of total visitors. This indicates that local economic impact is primarily driven by overnight visitors.

**Table 5-8: Grossing up factors**

| | Visitor segment | Number of survey respondents | Visitor population | Grossing up factor | Total spend |
|---|---|---|---|---|---|
| Nevis Range | Day | 67 | 4,773 | 71 | £0.2m |
| | Overnight | 64 | 1,627 | 25 | £0.6m |
| Lecht | Day | 94 | 13,574 | 144 | £0.8m |
| | Overnight | 33 | 2,489 | 75 | £1.7m |
| Glenshee | Day | 316 | 30,668 | 97 | £1.6m |
| | Overnight | 124 | 4,889 | 39 | £2.5m |
| Glencoe | Day | 224 | 13,586 | 61 | £0.6m |
| | Overnight | 136 | 2,491 | 18 | £0.9m |
| Cairngorm | Day | 242 | 9,155 | 38 | £0.3m |
| | Overnight | 183 | 6,221 | 34 | £3.1m |
| Total | Day | 943 | 71,757 | - | £3.4m |
| | Overnight | 540 | 17,716 | - | £8.8m |

After grossing up to the total visitor population, total gross visitor spend is **£12.2 million**. It should be noted that visitor numbers are solely presented for snowsports visitors, as there was insufficient data returned to include non-snowsports visitors.

### Net impacts

As with the on-site employment impacts, net impacts are derived by adjusting for displacement, leakage, and multiplier effects. Displacement was judged on the following:

- How important snowsports was to their visit to the snowsports centre. The higher the level of importance, the lower the level of displacement.
- What they would have done in the absence of their visit to the snowsports centre. Respondents who would have stayed home or would have visited somewhere else outside of Scotland were judged to have zero displacement. Whereas those who would have visited elsewhere in Scotland were judged to fully displace activity from elsewhere in Scotland.

Based on these responses we have assumed the levels of displacement as set out in **Table 5-9**.

**Table 5-9: Displacement**

| | Day visitors | | Overnight visitors | | |
|---|---|---|---|---|---|
| | **Scotland** | **Rest of UK** | **Scotland** | **Rest of UK** | **Outside UK** |
| Nevis | 66% | - | 58% | 56% | 29% |
| Lecht | 33% | 0% | 38% | 37% | - |
| Glenshee | 37% | 0% | 41% | 36% | 56% |
| Glencoe | 36% | 18% | 38% | 43% | - |
| Cairngorm | 51% | 58% | 52% | 54% | 59% |
| Average | 43% | 37% | 45% | 46% | 53% |

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 and Recreation, Food and Beverage activities, and Retail of 1.53 was used. For accommodation spend, the Accommodation multiplier of 1.47 was used.

Applying these displacement, leakage and multiplier factors to the gross spend of £12.2 million gives a net overall spend of £10.2 million.

### GVA, wages and jobs

Estimating GVA, wages and jobs requires us again to use coefficients from SABS. SABS present a variety of statistics for each industry in Scotland including employment, turnover, GVA and wages. Using these statistics, we can estimate GVA, wages and employment, visitor spend (turnover).

This is calculated separately for accommodation and non-accommodation spend due to the different sectors involved.

Coefficients for day spend and overnight accommodation spend are presented in **Table 5-10**.

**Table 5-10: Impact coefficients**

| | Spend to GVA ratio | Spend to wages ratio | GVA to job ratio |
|---|---|---|---|
| Non-accommodation spend | 44% | 29% | £31,000 |
| Accommodation spend | 61% | 30% | £30,800 |

Applying these coefficients equates to total economic impacts related to off-site expenditure, as shown in **Table 5-11**.

**Table 5-11: Off-site visitor spend net economic impacts**

| | Net spend | Net GVA | Net wages | Net FTE jobs |
|---|---|---|---|---|
| Non-accommodation spend | £6.2m | £2.7m | £1.8m | 90 |
| Accommodation spend | £4.1m | £2.5m | £1.2m | 80 |
| **Total** | **£10.2m** | **£5.2m** | **£3m** | **170** |

## 5.4 Total economic impacts

Total economic impacts combining on-site and off-site impacts are presented in **Table 5-12**.

**Table 5-12: Total economic impacts**

| | FTE jobs | Wages | GVA |
|---|---|---|---|
| Onsite employment | 340 | £12.3m | £14.9m |
| Off-site visitor spend | 170 | £3m | £5.2m |
| **Total** | **510** | **£15.3m** | **£20.1m** |

## 5.5 Comparison with other sources

Comparing these results with the 2011 and 2016 studies suggests a significant downturn in economic value, due mainly to the lower number of visitors to the mountain centres. The number of visitors to the mountain centres in 2021/22 was 66% lower than in 2015/6, and 70% lower than in 2010/11. Comparable figures also indicate a 68% reduction in economic impact from 2016.

However, there are some important methodological differences to note to make meaningful comparisons. Firstly, the 2016 report does not include the GVA impact of on-site employment. Therefore, only the £5.2 million GVA impact of off-site visitor spend in this report (2022) can be considered comparable to the £14.2 million impact for snowsports visitors in the 2016 assessment. This represents a reduction of 63% in economic impact.

However, if we adjust the 2016 impact to 2022 prices, this equates to a GVA impact of £16.3 million, a reduction of 68%. However, the 2016 report includes snowsports and non-snowsports visitors to the five major snowsports centres. For the 2022 report, we have not included non-snowsports visitors as there was insufficient data returns from the centre operators.

The reduced level of impact is largely attributable to the 66% reduction in total snowsports visitor numbers to the five snowsports centres since 2015/16. 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 this. This includes 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-19 risks.

With these caveats in mind and considering the 66% reduction in visitors and the 68% reduction in impacts, 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.

In terms of job contribution, according to a recent Growth Sector briefing, employment in the Sustainable Tourism growth sector stood at 189,000 in 2020, accounting for 7.4% of employment in Scotland. Employment in the snowsports sector therefore represents a very small proportion of tourism employment overall in Scotland.

## 5.6 Conclusions

The snowsports sector in Scotland was estimated to have generated £20.1 million net GVA in 2022 and £15.3 million in net wages, accounting for 510 FTE jobs.

This has been estimated in two ways: on-site employment impacts derived from consultation with snowsports centres and off-site visitor impacts derived from a visitor survey. Compared to previous studies on a like for like basis, this represents a 68% reduction in economic impacts. This is largely due to the number of visitors to the mountain centres in 2022 being 41% lower than in 2016.

The snowsports sector continues to play a role in the economic growth and visitor economy by supporting jobs in rural communities, supporting employment across the supply chain, attracting more people to the areas where the network of mountain centres and artificial slopes are located, and encouraging visitor dwell time and spend.

# 6. Wider social and cultural impact

**Key findings**

Whilst the social and cultural value of sport and physical activity is well documented in the existing evidence base, little has been written specifically about the value and impact of snowsports.

Anecdotal evidence from programmes such as Snow Camp demonstrate that participation in snowsports can have beneficial impacts on mental wellbeing.

Ongoing programmes at Newmilns Snowsports Complex and other artificial slopes show how snowsports can provide a stimulating learning environment for young people and have a positive impact on attitudes towards learning, confidence levels and self-esteem.

The visitor survey found that ‘improving physical and mental health and wellbeing’ is an important reason for individuals’ participation in snowsports, and that snowsports participation provides an important opportunity for people to socialise and spend time with friends and family.

Barriers to participation in snowsports are high and more needs to be done to encourage participation from those that are under-represented in sport and physical activity if snowsports are to have any measurable impact on health outcomes. Only 6% of visitors came from the most deprived areas in Scotland.

Culturally, snowsports has played a significant role in helping to shape communities around the mountain centres. This provision helps to provide a sense of identity and brings people together who have a shared interest in snowsports, outdoor activities and the natural environment.

This culture impact is an intangible asset which is part of the broader visitor offer and plays a role in attracting visitors to the communities in and around the mountain centres.

## 6.1 Introduction

This chapter presents analysis of research and literature into the wider social and cultural impacts of snowsports at a Scotland and UK level.

The evidence base for snowsports is relatively limited with a narrow focus. This required a broader look at studies into sports, physical activity, and outdoor activities to draw conclusions. International studies and learning have also been used to inform this review.

The extent of the existing evidence base for various outcomes (such as, health, social, educational, cultural) is also relatively uneven. This is not unique to snowsports and is applicable across sport, physical activity, and outdoor activities where the evidence base strongly focusses on physical and mental health outcomes. (Davies, Taylor, Ramchandani & Christy, 2021).

Despite this, the wider evidence base suggests that snowsports may offer benefits to individuals, families, and communities in a variety of ways. It should also be noted that these wider benefits do not operate in isolation but rather support each other. For example, 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".

## 6.2 Physical and mental health and wellbeing

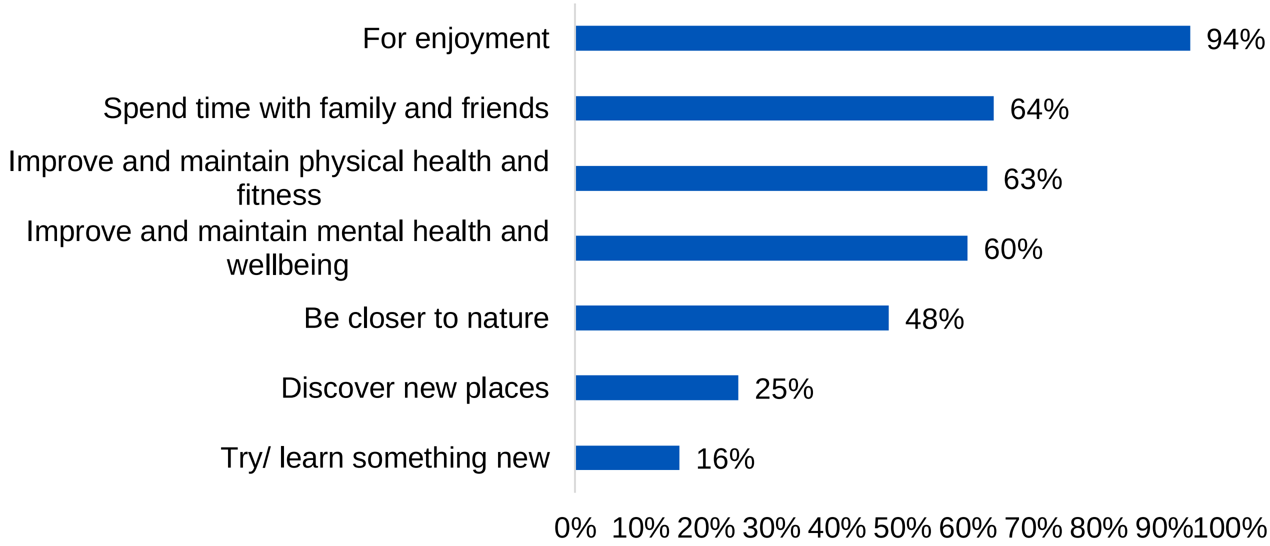
Across all ages and abilities, there is extensive research that shows increased participation in sport and physical activity leads to positive health outcomes at individual and population levels.

Several studies highlight that snowsports have potential to make a contribution to health benefits and outcomes (Burtscher et al 2019). 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". Snowsports could also be an "important antidote to increasingly sedentary, indoor and urban lifestyles" (Winter Wildlands Alliance, 2018), if they are accessible.

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.

**Figure 6-1** and **Table 6-1** below highlight the reasons for participation in snowsports that respondents chose in both the visitor and club surveys. Almost all respondents to both surveys indicated that the main reason for participating in snowsports was for enjoyment. Additionally, over 60% of respondents reported that they also participate to enhance their physical and mental health and wellbeing.

**Figure 6-1: Visitor survey reasons for snowsports participation**




N=1,510.
Multiple response question where respondents could select more than one option and all that applied.

**Table 6-1: Club survey reasons for snowsports participation**

| Reasons for participating | Number |
|---|---|
| For enjoyment (e.g. something like to do, enjoy it) | 10 |
| To improve and maintain physical health and fitness (e.g. overall fitness and stamina, to lose weight, to be more physically active, to have more energy) | 7 |
| To maintain and improve mental health and wellbeing (e.g. to relax, to unwind, to ease any worry, stress, tension or anxiety) | 7 |
| To be closer to nature (e.g. to enjoy scenery and wildlife, to have access to nature) | 6 |
| To spend time with family or friends (e.g. to socialise, to connect with others, to have shared experiences) | 5 |
| To try or learn something new (e.g. a new recreational activity, improve skills and technique, learn new skills) | 3 |
| To discover new places (e.g. sightseeing and/or getting to know a new area, cultural interests) | 3 |

N=10.
Multiple response question where respondents could select more than one option and all that applied.

A high number of respondents also highlighted that one of the most important reasons for participation in snowsports was to spend time with family or friends, to socialise, connect with others, and have shared experiences.

## 6.3 Social

The existing evidence base on social impact of snowsports is less extensive compared to health and wellbeing.

Research has shown that sport, in general, can have positive impacts on "life skills… and social cohesion" particularly amongst young children (UNICEF, 2021), as well as "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."

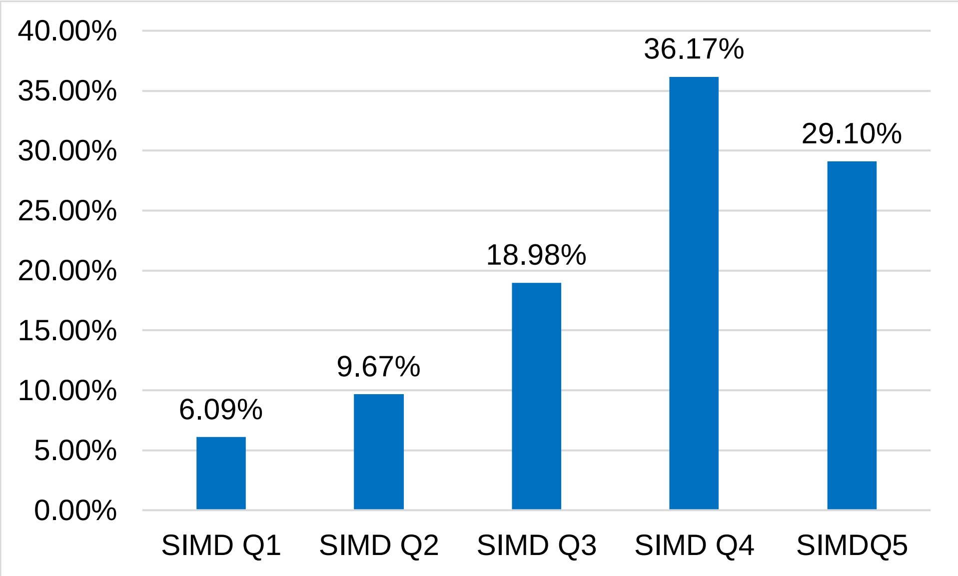
Actively engaging in sports provides an opportunity for individual and community development which can address inequalities. In the context of COVID-19, research from Sport England (2021) found that "existing inequalities have been widened, with some population groups hit much harder by the pandemic than others". This includes women, young people, disabled people and people with long-term health conditions, and those living in urban areas also found it harder to be active. Developing channels for inclusion in sport is critical to addressing these 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."

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".

This is confirmed through visitor survey data, which showed that only 6% of visitors came from SIMD Quintile 1 (the 20% most deprived areas of Scotland) (see **Figure 6-2**).

**Figure 6-2: Percentage of Visitors (by SIMD Quintile)**




N=1,117.

Almost 85% came from Quintiles 3 to 5. This shows that there is significant under-representation in snowsports when compared to the population as a whole and suggests that there is more to be done to make mountain centres more accessible to those individuals, families, and organisations from more deprived communities. The limited socio-economic diversity of visitors will also limit the wider health and social contribution of the snowsports sector, not least considering the relationship between deprivation and health. Widening the participation base should therefore be a priority for the sector.

This has been recognised as an issue in the sector, and operators continue to seek to create opportunities for people from most deprived communities to access and participate in snowsports.

The aim of the Equality, Diversity and Inclusion (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 (such as, subsidised junior membership to SSS, a card for an open free practice session at a selected artificial slope). There are already several EDI focused programmes running already in several of the artificial slopes. These include Newmilns, Bearsden and Glasgow Ski Centres.

## 6.4 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 (e.g. improved grades, school engagement, behaviour and reduced absenteeism) or indirectly (e.g. by enhancing skills such as self-control and concentration, team working and time management)" (COSLA, Public Health Scotland and **sport**scotland, 2021).

The inclusive nature of sports can allow it to become an equaliser for education. For example, this UNICEF (2021) report notes that "sport is an effective tool for engaging most children, especially the most vulnerable, in activities that benefit their social and personal development". The report also stressed the power of sport as an inclusive means of helping children improve their health and develop their social, educational and leadership skills.

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 slopes in partnership with local schools shows how impactful these activities can be for young people and how learning to ski can have beneficial impacts on attitudes towards learning and many other social skills, such as confidence and self-esteem.

## 6.5 Culture

The review found very limited existing literature exploring the cultural benefits of snowsports. 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

Sport has been shown to bring people together and give people a sense of identity. It also provides a unique insight for other people into the values held by sports-playing communities. Sport 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.

Looking more specifically at snowsports in a Scottish context, events such the Winter Olympics, Paralympics and World Championships have shown the significant impact of snowsports on Scottish culture. 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."

In Aviemore, for example, a strong snowsports culture has flourished from people moving into the area with a shared passion for snowsports, outdoor activities, and the natural environment. The area is now viewed as synonymous with snowsports. This culture remains strong, but is adapting into an outdoor adventure culture. For example, in Aviemore, 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.

Our consultations with stakeholders found 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 (such as landscapes, buildings, tourist attractions, and activities) 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 above 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 centre 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 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.

## 6.6 Conclusions

The evidence base for the wider social and cultural impact of snowsports is very limited.

The social and cultural value of snowsports in Scotland is of some importance to communities in the areas surrounding the mountain centres and is part of the social fabric that knits these local communities together. The mountain centres are an asset that forms part of the "visitor offer" that attracts visitors to the areas and need to be recognised, valued, and nurtured for the future.

There are, however, acute barriers to participation which limit the impact that snowsports have on Scotland's health and society. Within the snowsports sector there are examples of where activities and programmes are being implemented to address these barriers. However, the extent to which the snowsports sector can contribute to health outcomes, in particular for those living in deprived areas, will remain limited. Skiing is an expensive sport and cost remains a barrier to increasing and widening participation, particularly in the context of the current cost of living crisis. Sports and activities which are free or cheap to access will be more appealing to individuals and families.

# 7. Conclusions and recommendations

## 7.1 Introduction

This chapter summarises the main findings and conclusions from the study in line with the research objectives and questions. It considers:

- The economic, cultural, and social value of the Scottish snowsports sector.
- The impact of the Coronavirus (COVID-19) pandemic on the snowsports sector.
- The long-term sustainability of the snowsports sector.

It does so by answering the questions:

- 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 consider potential for diversification and resilience to climate change.
- What interventions - if any - may be required to strengthen the snowsports sector in Scotland?

When considering the main findings and conclusions of the research, it is important to bear in mind the challenges faced by the study team in accessing suitably detailed financial data from snowsports operators and in conducting the primary data collection work on-site. As a result, the quantitative findings should be considered indicative rather than definitive.

## 7.2 The current health of the snowsports sector

Scotland's snowsports sector comprises the five mountain centres and a network of 14 artificial slopes distributed more widely across Scotland. The sector is disparate with a diverse range of stakeholders with different roles, priorities, and interests. It remains fragmented and lacks strategic cohesion with no real shared vision or shared plans to ensure a successful, sustainable future.

While the global market for snowsports is expanding, Scotland is not sharing in this growth. Several factors are at play, including:

- Scotland has a very small share of a global market dominated by the European centres in the Alps (with growing competition from the US and emerging markets like China).
- The snowsports sector in Scotland is heavily dependent on the domestic market, in which growth potential will be more limited.

- The mountain centres are not of sufficient elevation to offer guaranteed snow cover. Changing weather patterns due to climate change are already leading to less snow and less consistent snowfall. Data shows that there has been a marked decline in snowsports visitor numbers due to these and other factors since the 1980s. The Scottish weather is the single most significant driver of demand.
- Good snow years can provide sufficient revenues to protect the mountain centres through more challenging years, but this remains a vulnerable plan.

Demand is therefore not likely to increase in Scotland to any great extent, and combined with factors such as limited international visitor appeal and fewer snow days, the Scottish snowsports sector may become increasingly vulnerable and unsustainable.

Demand is more consistent at the artificial slopes and was reported to have recovered well after the pandemic, even now exceeding pre-pandemic levels at some facilities. 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 broaden, diversity and strengthen the participation base going forward.

Due to limited financial data provided by snowsports operators, it has been difficult to accurately assess the financial position across the sector. However, while the current financial position appears reasonably stable, there are significant concerns for the future not least as wider economic conditions continue to be challenging.

Investment into the mountain centres has mainly come from the Enterprise Agencies, in particular from Highlands and Islands Enterprise (HIE), and from the operating companies themselves. However, more needs to be done, particularly in areas such as upgrading and replacing ageing infrastructure, better snow-making facilities that can ensure a consistent seasonal offer, further 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. This could help to protect and grow the base of participation in areas where demand is higher.

Finally, the snowsports sector also reported significant challenges with the recruitment and retention of staff. Limited opportunities for year-round employment, a lack of affordable housing, high cost of coaching qualifications, EU Exit, and the cost of living crisis are all having an impact. Many of these challenges are not specific to the snowsports sector and may require wider collaboration with external partners to address them.

## 7.3 Economic impact

The Economic Impact Assessment (EIA) took account of both on-site impacts (i.e. those generated directly by snowsports operators) and off-site impacts generated by the expenditure by visitors to snowsports facilities (this includes only those visiting the five mountain centres). **Table 7.1**, below, summarises the total economic impacts in terms of Full-time Equivalent (FTE) jobs, wages and Gross Value Added (GVA).

**Table 7-1: Total economic impacts (mountain centres)**

| | FTE jobs | Wages | GVA |
|---|---|---|---|
| Onsite employment | 340 | £12.3m | £14.9m |
| Off-site visitor spend | 170 | £3m | £5.2m |
| **Total** | **510** | **£15.3m** | **£20.1m** |

This must be considered a relatively modest level of economic impact. For example, adventure tourism in Scotland is estimated to be worth £848 million, suggesting that snowsports accounts for only a small part of this market.

An economic impact of £20 million also represents a reduction of 68% in off-site impacts when compared to the 2016 assessment. The previous assessment did not consider on-site impacts but did include the off-site impacts of non-snowsports activities at the five mountain centres.

At the risk of stating the obvious, the scale of the off-site impacts depends on the number of visitors to the snowsports centres, and two main factors have combined to reduce visitor numbers in 2022:

- Poor weather conditions, including a lack of snowfall and high winds.
- The ongoing effects of the pandemic, impacting on participants' willingness to travel.

In fact, total snowsports visitor numbers to the five mountain centres were 66% lower in 2022 than in 2016. While 2022 (and indeed the two preceding seasons) cannot be considered representative due to the impact of the pandemic, the long-term trend is one of slight decline. The relatively low level of off-site impacts also reflects the heavy reliance on domestic visitors.

The sector does create employment, particularly in more remote, rural areas, and this is important, although the attraction and retention of staff is a consistent challenge.

Businesses local to the mountain centres have varying degrees of dependency on the snowsports sector and in particular the mountain centres. While good snow years mean additional income for local businesses in areas such as hospitality and in adjacent sectors such as outdoor and adventure tourism, the vagaries of the Scottish weather are such that these benefits are not reliable. As a result, many businesses have sought to reduce their dependency on snowsports as a source of business.

It is also worth noting that not all mountain centres are the same in terms of their links and significance to the wider business ecosystem. Cairngorms and the Nevis Range would both be viewed as part of a wider visitor offer/destination where visitors come to the area, may stay for several nights and take part in a range of activities, some of which may be snowsports.

The Lecht, Glenshee and Glencoe are more geographically isolated from wider communities and businesses and cater more to day visitors. This has less of an impact on surrounding businesses and communities.

## 7.4 Social and cultural impact

The social impacts of snowsports are typically framed in relation to social interaction, health and wellbeing and education, the first two of which were found to be important drivers of participation. However, the evidence base for the social impact of snowsports is less well developed than that of sport more generally.

It is also clear that participation in snowsports is dominated by higher socio-economic groups. This lack of socio-economic diversity amongst participants, and in particular the low representation of those from more deprived backgrounds, limits the overall health and social impact of the sector, not least given the connections between deprivation and health.

The research also found that participating in snowsports (as with other sports) is in itself a cultural experience, bringing together people with shared values around a common experience. Places that harness and promote this sense of community, and snowsports as more than a sporting experience, may reap the rewards – Aviemore is one example, but more obviously the alpine centres demonstrate the success of this approach.

## 7.5 Impact of Coronavirus (COVID-19)

The COVID-19 pandemic obviously led to an immediate shutdown in business across the sector through the periods of lockdown and travel restrictions. The financial impact of this was substantially mitigated by government support but emerging from the worst of the pandemic into a year in which weather conditions were less favourable has constrained recovery. All providers forecast significant cost pressures ahead, including fuel costs, staff costs, repairs and maintenance. These will be felt across the sector and coupled with poor snow conditions in future, could create very challenging financial conditions.

## 7.6 Sustainability of the sector

The snowsports sector in Scotland is small and has always been subject to unpredictable snowfall, creating a degree of inherent vulnerability. The outlook for the sector is challenging due to:

- Partial financial recovery from the pandemic (although it has not been possible to assess in full the financial resilience of the sector).
- Cost of living pressures potentially reducing future demand as households and individuals' direct expenditure elsewhere.
- Increased costs for energy and essential supplies.

- Challenges with recruiting and retaining staff.
- Climate change, which will create greater uncertainty regarding the availability (and consistency) of snow.

These challenges suggest a need for action on several fronts, which will be explored in the following recommendations.

## 7.7 Recommendations

This section sets out a range of actions that could be considered to strengthen the snowsports sector, help it successfully adapt to the future, and make it more sustainable in the longer-term. A partnership and collaborative approach will be required between snowsports operators and key partners and agencies as appropriate. Among others, this is likely to include the Scottish Government, Enterprise Agencies, and Snowsport Scotland.

The research findings and actions to strengthen the sector, however, have to be placed within a wider context:

- The funding of public services is facing unprecedented pressure. This will result in a focus on funding core services and difficult decisions/choices in relation to investments that are not integral to these. This means the Scottish snowsports sector is unlikely to benefit from the level of public investment that it has received in recent years and will have to become increasingly self-sustaining.
- The cost of living crisis is putting significant pressure on the snowsports sector (e.g. increased operating costs, reduced demand). Existing and potential customers will also feel the brunt of the crisis, by having less disposable income and needing to prioritise spending.
- The effects of climate change are already having an impact of levels of participation in snowsports in Scotland, and this coupled with a heavy reliance on the domestic market is likely to undermine attempts to grow and widen participation in coming years.

The Scottish snowsports sector will therefore need to play a leading role in: embracing changes required by climate emergency, prioritising the actions to diversify the sector; harnessing a partnership and collaborative approach where appropriate; and continuing to explore ways to diversify income streams to become less reliant on public funding, and to ultimately become more self-sustaining.

### Diversification

- Invest in infrastructure which will make year-round access possible.
- Consider introducing new and varied activities during the year that require access to the mountains.
- Consider, where appropriate, the suitability of exploiting changes in snowsports trends, such as back country skiing.
- It should be kept in mind that the extent to which each mountain centre can successfully diversify and attract more visitors from outwith the domestic market will vary. Support is required to establish the feasibility of opportunities to diversify the

activity offer at each of the mountain centres. 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.

### Access and participation

- Encourage the next generation of snowsports participants through programmes of snowsports activities delivered in partnership with schools, Active Schools, Snowsport Scotland, and artificial slope and mountain centre operators, whilst recognising that snowsports is an expensive and seasonal activity and is never likely to be widespread.
- Encourage access to existing artificial slope provision in the North of Scotland, around Inverness, and the North East, around Dundee, to maximise accessibility. Snowsport Scotland and other partners should consider the feasibility of this action.
- Consider the options to improve and integrate public transport connections to each ski centre from main population areas where demand is highest. This could reduce the number of visitors by car as well as address a barrier to participation.
- Investigate through regional Destination Management Organisations, ways of better centre integration and promotion with the wider visitor economy.
- Broaden the appeal of the sport and work to make it more inclusive, particularly in relation to socio-economic diversity.

### Improvement

- Support the shift towards low carbon/ renewable energy sources.
- Replace existing uplift infrastructure, which must also be considered in the context of plans to diversify.
- Improve centres and existing infrastructure to help the sector to adapt to climate change, allowing more environmentally friendly and sustainable ways to operate, and ensure they match and exceed customer expectations.
- Where appropriate, lay artificial surfaces for some uplifts that currently require snow to function.
- Improve ancillary facilities, such as car parking, toilets and changing accommodation, and food and beverage offers. Investment in these also needs to be matched with plans to diversify facilities and activities to ensure sufficient capacity exists to accommodate future demand.
- Improve artificial slopes infrastructure to ensure that slope surfaces, tow infrastructure and ancillary facilities are maintained to a high standard. If the condition of assets is allowed to deteriorate, the quality of the offer and customer experience will be diminished, and will discourage participation.
- Consider, where appropriate, further investment to enhance snow-making on nursery/ learning slopes at the mountain centres to ensure a consistent winter offer. This must be considered in the context of the environmental impact and financial viability. There may also be opportunities to explore newer, innovative snow-

creating alternatives which use significantly less energy. Enterprise Agencies have made strong investment to date in the sector, including for snow-making capability.

### Collaboration

- Develop a shared vision for the future of the snowsports sector that has strong community involvement and buy-in.
- Strengthen existing partnerships and developing new partnerships to enhance future sustainability. This would include collaborative working with agencies external to the snowsports sector and could build on the role of the Scottish Government Strategic Group.
- Consider the benefits of appointing a strategic lead and advocate for the snowsports sector. This may facilitate improved co-ordination and help the sector to exploit opportunities for collaboration and reduce costs, such as joint procurement, sharing of common functions, and joint marketing. This could be delivered by an Enterprise Agency or through extending the remit of Snowsport Scotland.
- Explore opportunities for mountain centres to learn from each other, notwithstanding commercial sensitivities.
- Strengthen 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.
- Explore further collaboration between schools (including those in deprived areas) and mountain centres to help off-peak season demand.
- Consider 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. Data could be an important asset to the sector and the organisations that represent it.

### Staffing

- Consider how the sector can collectively support smaller, privately-owned, organisations with succession planning and longer-term sustainability. The reliance on a small number of individuals makes these businesses vulnerable. Thought also needs to be given to how they are supported to build resilience and capacity to ensure continuity in the longer-term.
- Consider collaborative approaches to on-site accommodation for staff.
- Explore opportunities to vary the cost, structure and availability of qualifications and training to ensure there are sufficient appropriately qualified staff.
- Explore opportunities to address year-round employment challenges with local businesses, which may be improved with diversification away from solely snowsports.

# 8. Appendix A

## Scottish Market Review

We have also created a dashboard that provides more detailed analysis of the Scottish snowsports sector.

[Scottish Snowsports Sector Data Analysis]

**Figure A-1: Snowsports Visitors (Individual Mountain Centres) - Cairngorms**

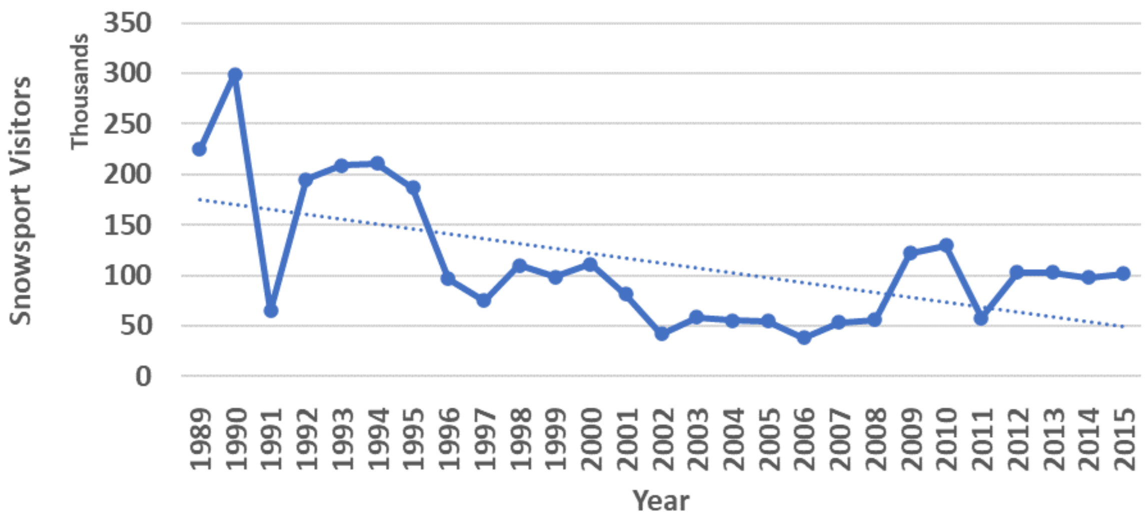


**Figure A-2: Snowsports Visitors (Individual Mountain Centres) - Glencoe**

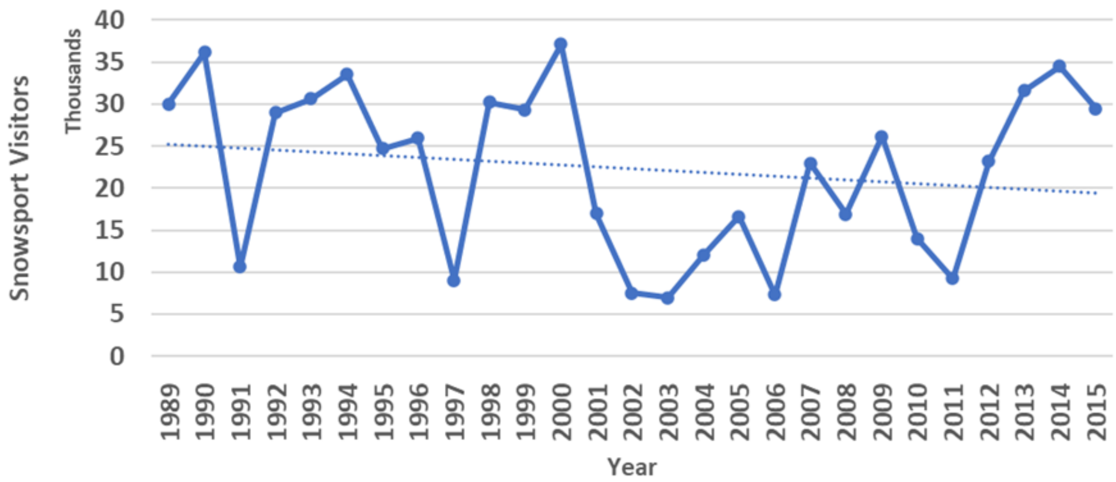



**Figure A-3: Snowsports Visitors (Individual Mountain Centres) - Glenshee**

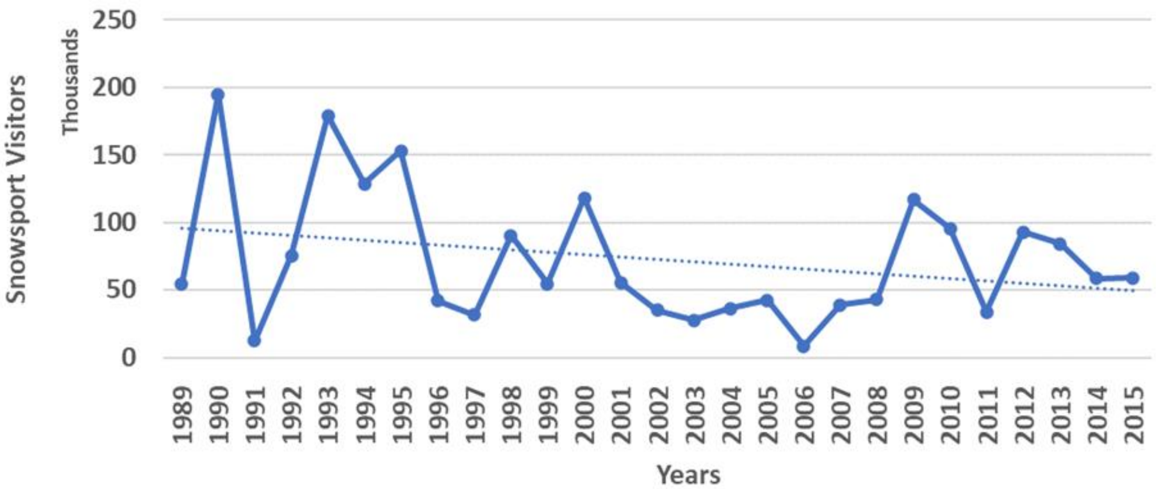


**Figure A-4: Snowsports Visitors (Individual Mountain Centres) - The Lecht 2090**

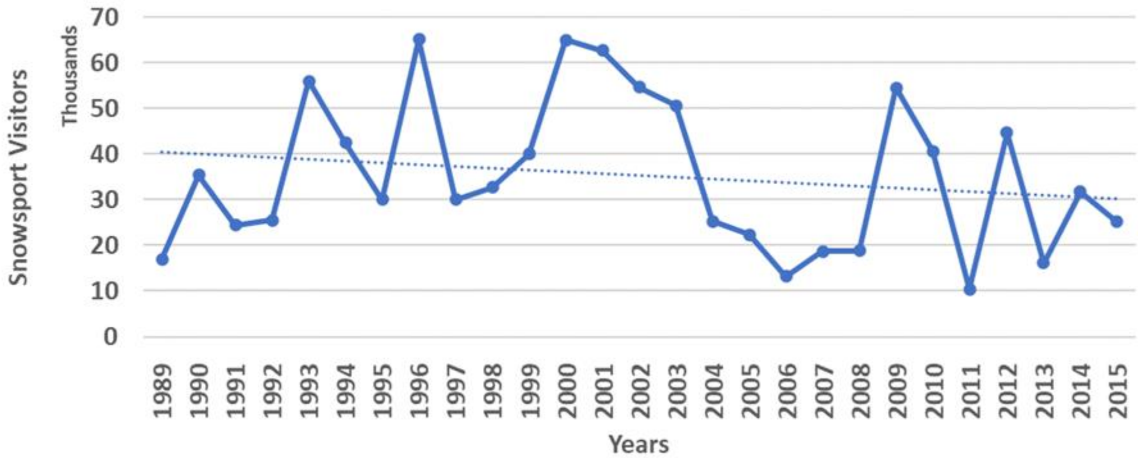
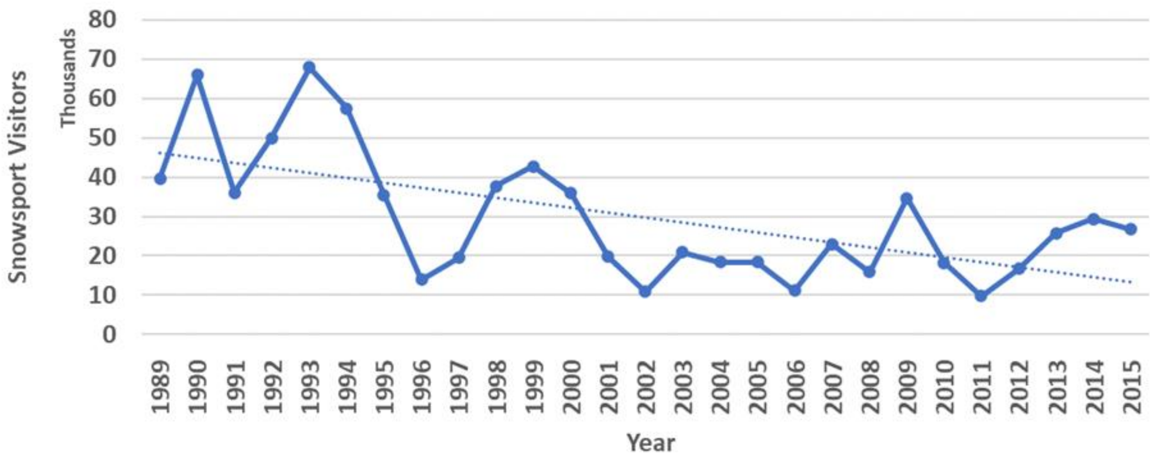



**Figure A-5: Snowsports Visitors (Individual Mountain Centres) – Nevis Range**



## Drive time

### Table A-1: Population with access to a Mountain Centres within 60 Minute Drive

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| Stirling | | 385 | 1,253 | | | 1,638 |
| Perth and Kinross | 1,344 | 2,522 | 5,117 | 9,529 | 3,675 | 22,187 |
| Moray | | | 3,150 | 4,717 | | 7,867 |
| Highland | 1,261 | 2,535 | 10,719 | 16,426 | 767 | 31,708 |
| Argyll and Bute | | | 2,075 | 2,942 | | 5,017 |
| Angus | 864 | 827 | 5,633 | 1,118 | 1,296 | 9,738 |
| Aberdeenshire | | | 2,278 | 6,430 | 4,792 | 13,500 |
| Total | 3,469 | 6,269 | 30,225 | 41,162 | 10,530 | 91,655 |

### Table A-2: Population with access to a Mountain Centres within 120 Minute Drive

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| West Lothian | 16,540 | 31,588 | 24,786 | 22,721 | 20,656 | 116,291 |
| West Dunbartonshire | 35,513 | 25,038 | 14,731 | 9,884 | 4,785 | 89,951 |
| Stirling | 10,756 | 12,648 | 12,847 | 26,812 | 26,869 | 89,932 |
| South Lanarkshire | 49,546 | 46,755 | 33,832 | 33,534 | 35,931 | 199,598 |
| Renfrewshire | 42,755 | 37,474 | 30,680 | 26,807 | 36,724 | 174,440 |
| Perth and Kinross | 8,563 | 20,751 | 30,353 | 51,200 | 35,260 | 146,127 |
| North Lanarkshire | 95,773 | 75,677 | 40,072 | 44,271 | 34,350 | 290,143 |
| North Ayrshire | 11,494 | 5,243 | 5,443 | 3,630 | 2,944 | 28,754 |
| Moray | 2,514 | 14,161 | 30,078 | 34,528 | 11,695 | 92,976 |
| Inverclyde | 32,088 | 10,590 | 8,157 | 4,644 | 6,717 | 62,196 |
| Highland | 18,455 | 28,037 | 53,226 | 59,187 | 17,397 | 176,302 |
| Glasgow City | 257,612 | 99,773 | 78,026 | 71,293 | 71,476 | 578,180 |
| Fife | 55,531 | 65,795 | 60,810 | 65,365 | 69,565 | 317,066 |
| Falkirk | 24,472 | 36,161 | 40,272 | 26,103 | 28,802 | 155,810 |
| East Renfrewshire | 5,305 | 9,701 | 7,630 | 15,674 | 52,088 | 90,398 |

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| East Dunbartonshire | 4,398 | 18,754 | 6,317 | 23,071 | 52,279 | 104,819 |
| East Ayrshire | 270 | 4,812 | 1,562 | 5,579 | 3,455 | 15,678 |
| Dundee City | 54,114 | 28,226 | 17,113 | 23,190 | 23,593 | 146,236 |
| Clackmannanshire | 13,538 | 13,089 | 8,617 | 7,371 | 8,735 | 51,350 |
| City of Edinburgh | 2,133 | 1,104 | 2,802 | 4,868 | 5,777 | 16,684 |
| Argyll and Bute | 4,555 | 10,676 | 22,125 | 19,595 | 7,545 | 64,496 |
| Angus | 8,567 | 24,174 | 34,935 | 33,113 | 14,790 | 115,579 |
| Aberdeenshire | | 11,006 | 40,004 | 80,747 | 67,893 | 199,650 |
| Aberdeen City | 23,049 | 50,938 | 36,279 | 30,082 | 81,602 | 221,950 |
| **Total** | **777,541** | **682,171** | **640,697** | **723,269** | **720,928** | **3,544,606** |

### Table A-3: Population with access to a Mountain Centres within 180 Minute Drive

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| West Lothian | 26,847 | 50,801 | 34,775 | 28,540 | 33,863 | 174,826 |
| West Dunbartonshire | 35,513 | 25,038 | 14,731 | 9,884 | 4,785 | 89,951 |
| Stirling | 10,756 | 12,648 | 12,847 | 26,830 | 26,869 | 89,950 |
| South Lanarkshire | 62,760 | 78,462 | 63,333 | 55,853 | 52,797 | 313,205 |
| South Ayrshire | 19,595 | 25,902 | 25,503 | 16,005 | 25,086 | 112,091 |
| Scottish Borders | 1,749 | 6,745 | 17,116 | 20,007 | 8,514 | 54,131 |
| Renfrewshire | 42,755 | 37,474 | 30,680 | 26,807 | 36,724 | 174,440 |
| Perth and Kinross | 8,563 | 20,751 | 30,357 | 51,200 | 35,260 | 146,131 |
| North Lanarkshire | 112,693 | 91,124 | 46,303 | 50,021 | 36,360 | 336,501 |
| North Ayrshire | 56,430 | 26,107 | 18,111 | 16,339 | 14,640 | 131,627 |
| Moray | 2,514 | 14,161 | 30,128 | 34,533 | 11,695 | 93,031 |
| Midlothian | 6,984 | 30,220 | 19,691 | 13,836 | 12,192 | 82,923 |
| Inverclyde | 34,956 | 11,516 | 10,248 | 11,715 | 11,912 | 80,347 |
| Highland | 18,883 | 33,124 | 68,540 | 63,974 | 17,397 | 201,918 |
| Glasgow City | 261,994 | 99,969 | 78,026 | 71,293 | 71,476 | 582,758 |

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| Fife | 73,412 | 75,467 | 69,694 | 73,600 | 72,609 | 364,782 |
| Falkirk | 24,472 | 36,161 | 40,272 | 26,103 | 28,802 | 155,810 |
| East Renfrewshire | 5,305 | 9,701 | 7,630 | 15,713 | 52,107 | 90,456 |
| East Lothian | 5,461 | 30,000 | 22,851 | 22,175 | 18,953 | 99,440 |
| East Dunbartonshire | 4,398 | 18,754 | 6,317 | 23,071 | 52,279 | 104,819 |
| East Ayrshire | 38,605 | 31,170 | 20,508 | 18,729 | 13,040 | 122,052 |
| Dundee City | 54,114 | 28,226 | 17,113 | 23,345 | 23,593 | 146,391 |
| Dumfries and Galloway | 10,821 | 17,826 | 36,011 | 15,208 | 10,940 | 90,806 |
| Clackmannanshire | 13,538 | 13,089 | 8,617 | 7,371 | 8,735 | 51,350 |
| City of Edinburgh | 55,358 | 64,942 | 65,974 | 78,470 | 211,190 | 475,934 |
| Argyll and Bute | 5,840 | 12,160 | 26,675 | 21,038 | 7,545 | 73,258 |
| Angus | 8,567 | 24,174 | 34,933 | 33,113 | 14,790 | 115,577 |
| Aberdeenshire | 7,927 | 23,048 | 55,633 | 93,183 | 72,577 | 252,368 |
| Aberdeen City | 23,049 | 50,981 | 36,279 | 30,082 | 81,602 | 221,993 |
| **Total** | **1,033,859** | **999,741** | **948,896** | **978,038** | **1,068,332** | **5,028,866** |

### Table A-4: Population with access to an Artificial Slope within a 30 Minute Drive

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| Aberdeen City | 11,959 | 32,144 | 25,733 | 19,723 | 53,802 | 143,361 |
| Aberdeenshire | | 2,453 | 8,062 | 21,849 | 27,852 | 60,216 |
| Angus | 7,703 | 18,851 | 21,060 | 22,287 | 6,239 | 76,140 |
| Argyll and Bute | | | | | 71 | 71 |
| City of Edinburgh | 28,378 | 16,587 | 15,446 | 19,517 | 63,463 | 143,391 |
| Clackmannanshire | 13,538 | 13,089 | 8,617 | 7,371 | 8,735 | 51,350 |
| Dundee City | | | 325 | | 1,345 | 1,670 |
| East Ayrshire | 28,202 | 24,140 | 16,777 | 15,147 | 13,033 | 97,299 |
| East Dunbartonshire | 4,398 | 18,754 | 6,303 | 23,071 | 52,279 | 104,805 |
| East Lothian | 5,415 | 25,071 | 10,840 | 10,076 | 8,883 | 60,285 |

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| East Renfrewshire | 5,305 | 9,701 | 7,630 | 15,675 | 52,092 | 90,403 |
| Falkirk | 24,472 | 36,161 | 40,272 | 26,103 | 28,798 | 155,806 |
| Fife | 4,680 | 8,064 | 12,768 | 13,137 | 6,669 | 45,318 |
| Glasgow City | 261,994 | 99,969 | 78,026 | 71,293 | 71,476 | 582,758 |
| Highland | | | 2,310 | 6,478 | | 8,788 |
| Inverclyde | 797 | | 1,675 | | 2,645 | 5,117 |
| Midlothian | 6,984 | 30,220 | 19,667 | 13,804 | 12,192 | 82,867 |
| Moray | | 1,881 | 2,338 | 3,178 | | 7,397 |
| North Ayrshire | 9,401 | 9,610 | 4,060 | 2,490 | 2,412 | 27,973 |
| North Lanarkshire | 98,116 | 77,477 | 40,559 | 44,595 | 34,067 | 294,814 |
| Perth and Kinross | | | 53 | 2,160 | 721 | 2,934 |
| Renfrewshire | 42,755 | 37,474 | 30,676 | 26,791 | 36,724 | 174,420 |
| Scottish Borders | | | 937 | 348 | 1,547 | 2,832 |
| South Ayrshire | 6,515 | 5,740 | 7,901 | 5,564 | 10,068 | 35,788 |
| South Lanarkshire | 53,418 | 53,563 | 45,892 | 42,769 | 48,487 | 244,129 |
| Stirling | 10,161 | 10,066 | 8,413 | 15,967 | 21,351 | 65,958 |
| West Dunbartonshire | 30,494 | 23,547 | 13,432 | 9,526 | 3,175 | 80,174 |
| West Lothian | 19,134 | 38,727 | 31,231 | 26,476 | 24,493 | 140,061 |
| **Total** | **673,819** | **593,289** | **461,003** | **465,395** | **592,619** | **2,786,125** |

## Table A-5: Population with access to an Artificial Slope within a 60 Minute Drive

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| Aberdeen City | 23,049 | 50,981 | 36,279 | 30,082 | 81,602 | 221,993 |
| Aberdeenshire | | 10,038 | 37,515 | 77,296 | 67,339 | 192,188 |
| Angus | 8,567 | 24,174 | 34,546 | 32,663 | 14,475 | 114,425 |
| Argyll and Bute | 2,132 | 1,267 | 3,445 | 8,186 | 7,545 | 22,575 |
| City of Edinburgh | 48,466 | 61,553 | 63,995 | 75,031 | 208,606 | 457,651 |
| Clackmannanshire | 13,538 | 13,089 | 8,617 | 7,371 | 8,735 | 51,350 |
| Dumfries and Galloway | 2,233 | 1,633 | 447 | 509 | | 4,822 |
| Dundee City | 42,771 | 19,588 | 9,257 | 18,542 | 16,199 | 106,357 |
| East Ayrshire | 38,605 | 31,151 | 20,508 | 18,729 | 13,040 | 122,033 |
| East Dunbartonshire | 4,398 | 18,754 | 6,317 | 23,071 | 52,279 | 104,819 |
| East Lothian | 5,461 | 30,000 | 22,849 | 22,168 | 18,953 | 99,431 |
| East Renfrewshire | 5,305 | 9,701 | 7,630 | 15,713 | 52,107 | 90,456 |
| Falkirk | 24,472 | 36,161 | 40,272 | 26,103 | 28,802 | 155,810 |
| Fife | 72,508 | 70,813 | 57,681 | 51,207 | 50,768 | 302,977 |
| Glasgow City | 261,994 | 99,969 | 78,026 | 71,293 | 71,476 | 582,758 |
| Highland | 1,382 | 3,538 | 8,809 | 23,087 | 10,131 | 46,947 |
| Inverclyde | 34,956 | 11,516 | 10,248 | 11,712 | 11,912 | 80,344 |
| Midlothian | 6,984 | 30,220 | 19,691 | 13,836 | 12,192 | 82,923 |
| Moray | 1,981 | 11,702 | 23,930 | 28,484 | 7,958 | 74,055 |
| North Ayrshire | 56,430 | 26,107 | 18,069 | 16,339 | 14,640 | 131,585 |
| North Lanarkshire | 112,710 | 91,124 | 46,303 | 50,021 | 36,360 | 336,518 |
| Perth and Kinross | 7,088 | 17,976 | 20,847 | 29,544 | 28,599 | 104,054 |
| Renfrewshire | 42,755 | 37,474 | 30,680 | 26,807 | 36,724 | 174,440 |
| Scottish Borders | | 5,674 | 13,003 | 17,748 | 8,349 | 44,774 |
| South Ayrshire | 17,528 | 21,126 | 23,317 | 16,005 | 25,086 | 103,062 |
| South Lanarkshire | 62,760 | 78,435 | 63,301 | 55,853 | 52,797 | 313,146 |
| Stirling | 10,756 | 12,263 | 11,475 | 26,748 | 26,869 | 88,111 |
| West Dunbartonshire | 35,513 | 25,038 | 14,731 | 9,882 | 4,785 | 89,949 |

| Local Authority | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| West Lothian | 26,847 | 50,801 | 34,775 | 28,540 | 33,863 | 174,826 |
| **Total** | **971,189** | **901,866** | **766,563** | **832,570** | **1,002,191** | **4,474,379** |

### Table A-6: Artificial slopes' 30 minute and 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-7: 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% |

| Visitor Council Area | SIMD Q1 | SIMD Q2 | SIMD Q3 | SIMD Q4 | SIMD Q5 | Total |
|---|---|---|---|---|---|---|
| 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% |
| 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-8: Visitor Survey, Percentage Respondents by Council Area and Mountain Centre**

| Visitor Council Area | Cairngorm | Glencoe | Glenshee | Lecht | Nevis |
|---|---|---|---|---|---|
| Highland | 50% | 12% | 2% | 15% | 43% |
| Aberdeenshire | 6% | 2% | 19% | 47% | 2% |
| City of Edinburgh | 5% | 12% | 9% | 2% | 5% |
| Perth and Kinross | 5% | 8% | 19% | | 4% |
| Moray | 4% | | | 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% | | 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 | | 2% | 1% | | 1% |
| East Ayrshire | | 2% | | | |
| West Dunbartonshire | | 3% | | | 2% |
| Angus | | | 8% | | |
| Orkney Islands | | | | | |

| Visitor Council Area | Cairngorm | Glencoe | Glenshee | Lecht | Nevis |
|---|---|---|---|---|---|
| Scottish Borders | | 1% | 2% | | 2% |
| Renfrewshire | | 2% | 1% | | 1% |
| Midlothian | | 2% | 1% | 2% | |
| Na h-Eileanan an Iar | | | | | |
| North Ayrshire | | 2% | | | |
| **Grand Total** | **100%** | **100%** | **100%** | **100%** | **100%** |

**Table A-9: List of Roles within Sector**

Activities Manager
Finance Manager
Marketing Assistants
Ski Hire Technicians
Assistant Manager
General Manager
Mechanics
Ski Patrol
Bookkeeper
Health and Safety Manager
Office Manager
Ski Patrol Manager
Catering Assistants
HR Manager
Operations Director
Ski School Manager
Catering Manager
HSE Director
Party Host
Snow factory Technicians
Chef
Land Manager
Pisting Technicians
Snowsport Instructors
Chief Executive
Leisure Attendant
Ranger Service Head
Ranger
Snowsport Volunteers
Cleaners
Lift Operators
Rangers
Support Assistants
Commercial Manager
Maintenance Director
Retail Assistants
Tech Ops Manager
Community Leisure Officer
Maintenance Technicians
Sales and Events Co-Ordinator
Ticket Office Assistants
Customer Services and Operations Coordinator
Managing Director
Ski Hire Manager
Youth Worker
Duty Officer

## Table A-10: Investment Summary – Mountain Centres 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 increase 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 | Energy Efficiency | £50,029 | HIE | Energy Efficiency | 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 | Ptarmigan Refurbishment | £628,525 | HIE | Ptarmigan Refurbishment | To improve facilities and increase dwell time |
| Cairngorm | 2021-2022 | Replace EPOS System | £6,182 | HIE | Replace 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 Feasibility | £8,000 | SE 50% | Café Feasibility | Realistic Possibilities |

| Venue | Year | Item | Amount | Funding Source | Project Details | Reason for Investment |
|---|---|---|---|---|---|---|
| Glenshee | 2019 | Snow Factory/Canons | £898,500 | SE 40% | Snow Factory/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 Feasibility | £9,962 | LCIPT 50% | Wind Turbine/Energy Storage Feasibility | Reduce reliance on Diesel Generation |
| Glenshee | 2021 | Kassbohrer Winch Cat | £391,451 | SE 75% | Kassbohrer Winch Cat | Upgrade and Replace 30-Year-Old winch cat |
| 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 |

| Venue | Year | Item | Amount | Funding Source | Project Details | Reason for Investment |
|---|---|---|---|---|---|---|
| Newmilns Snow and Sports Complex | 01/12/2021 | Accessible Play Park | £20,000 | Postcode Lottery Fund | Accessible Play Park | Site Development |
| **Total** | | | **£7,606,376** | | | |

It should be noted that the above table includes funding by HIE for third party projects only. This excludes any HIE owned assets that are leased to Cairngorm Mountain Scotland Ltd, including the Cairn Gorm Funicular. It is estimated that the cost of the funicular refurbishment will be around £25 million, with funding being provided by both Scottish Government and HIE.

### Table A-11: HIE Approved Investment in Mountain Centres

| Year of Investment | Cairngorm Mountain Ltd | Glencoe Mountain Limited | Lecht Ski Company Ltd | Nevis Range Development Company Limited | Approval Amount |
|---|---|---|---|---|---|
| 2014 | £139,471 | £1,629,295 | £342,100 | £627,650 | £2,738,516 |
| 2015 | | £126,000 | £72,535 | £10,500 | £209,035 |
| 2016 | | | £14,467 | | £14,467 |
| 2017 | £58,800 | | | £33,800 | £92,600 |
| 2018 | | £140,000 | £208,000 | £15,100 | £363,100 |
| 2019 | £920,852 | | | £521,000 | £1,441,852 |
| 2020 | | £20,000 | £300,000 | £412,975 | £732,975 |
| 2021 | £1,916,261 | £500,000 | £98,125 | £800,000 | £3,314,386 |
| Total | £3,035,384 | £2,415,295 | £1,035,227 | £2,421,025 | £8,906,931 |

### Table A-12: 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** |

**How to access background or source data**

The data collected for this social research publication:
☒ are available via an alternative route on the Scottish Snowsports Sector Data Analysis dashboard

social research



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