Developing Mountain Biking in Scotland

REVIEW OF MOUNTAIN BIKING DEVELOPMENTS AND POTENTIAL OPPORTUNITIES IN THE SCOTTISH ENTERPRISE AREA

Final Report

Centre for Recreation and Tourism Research



Executive Summary

The Centre for Recreation and Tourism Research at the University of the Highlands and Islands (CRTR) has undertaken this study of Scottish mountain biking for Developing Mountain Biking in Scotland (DMBinS), and the members of the Scottish Mountain Biking Development Consortium, to address three principal issues:

- Progress in delivery of the objectives and key targets of the mountain biking national strategic framework, and the activities of *DMBinS*;
- Progress in terms of economic growth, participation and sports development; and
- Recommended future actions for the sustainable growth potential of mountain biking in Scotland.

Through a desktop exercise and a wide-ranging and extensive consultation process, involving face-to-face and online surveys with key stakeholders and organisations, mountain bike businesses and riders themselves, the team sought to establish the progress that has been made in the industry over the past few years, and deliver a series of recommendations for future development.

The team's evaluation of *DMBinS* and the National Strategic Framework for the sustainable development of mountain biking concluded that the project has been managed well, provides value for money, and has delivered, or is in the process of delivering, on a high percentage of its outputs.

The findings from these generally quantitative surveys of riders and key businesses were interrogated in order to allow the team to revisit the 2009 *EKOS* report and estimate the progress that has been made against the targets and scenarios set out in that report. As many of the conditions for 'full growth' of the sector, set out by EKOS, have not been realised, it is postulated that a) the increase in mountain bikers' trips over the past three years has been in the range of 7% - 10%, and b) £5.5 m - £8 m is considered to have been a more realistic estimation of the growth in the economic value of mountain biking in Scotland from 2009 - 2012. This equates to a value for the mountain biking market, where MTB is primary purpose for the trip, of £48.5m - £49.5m per annum.

It was also estimated that, if the conditions set out for EKOS's original 'full growth' scenario are met over the next five years, economic growth will be in the region of £22 m - £26 m. If suggested developments are implemented to a lesser degree, growth over the next five years is suggested to be in the range of £14 m - £18 m.

This analysis fed into the development of a range of recommendations for the sustainable development of Scottish mountain biking, covering: attracting visitors; strategic support and business development; participation; events; and developing bikers and facilities. In

addition to strategic recommendations to drive forward the industry, these endorsements included the following:

Strategic Support

- Continued support for *Developing Mountain Biking in Scotland*.
- Seeking financial support for new *DMBinS* regional officers, to drive forward the regional development of mountain biking.
- Consideration should be given to the designation of a governmental cross-party working group, recognising the importance of mountain biking in relation to health, sports development and economic growth.
- For new trails or associated development in the *Central Scotland Green Network* area, cognisance should be taken of its strategic aims.

Facilities and Business Development

- All Scottish cities, and other major centres, should have their own jump park/pump track/BMX park, one that is easily accessible, without requiring a vehicle, to the majority of their population. This is a core priority.
- These developments should include safe cycle ways from the city/town centres and consideration of supporting public transport infrastructure.
- It is suggested that an audit of pertinent facilities, such as BMX parks, should be undertaken, and responsible bodies such as local authorities encouraged to upgrade them where necessary.
- The development of new trail centres should be prioritised to those areas currently lacking such facilities, for example close to Aberdeen and Glasgow, and in the Highland Perthshire area.
- New trail centre developments should seek to include a range of supporting attractions and facilities to expand their popularity and help to ensure financial sustainability of the centres.
- To facilitate accessibility and encourage use, better signage and development of links and natural trails are required.
- Support should be given at a local/regional level for the organisation and development of local user groups, to aid liaison with landowners for example.

Attracting Visitors

- Better co-ordinated marketing is required, with a comprehensive Internet guide to all key natural trails and trail centres in Scotland, with supplementary trip information.
- Marketing should not only focus on the existing purpose-built centres but also promote the lesser-known centres and Scotland's natural trails.

- A number of *Scotland's Great Trails* offer great potential as iconic cycle routes, but some of their information, as potential mountain bike routes, needs to be improved.
- Make use of the social media generation wherever possible.
- The areas around the cities of Scotland, along with other key mountain biking centres of population, should form the focus of a roll out of mapped trail networks, using the template developed by *DMBinS*.
- These route cards should eventually be rolled out to other towns and appropriate settlements, according to demand.

Events

- Scotland should seek to host more national and international events, requiring a coordinated promotion campaign involving all key agencies.
- A national mountain biking day should be identified, supported at a local level through the development and hosting of events and/or supported rides.
- Each cluster area should seek to organise and host its own mountain biking festival.

Participation

- SMBDC should seek greater levels of co-operation from the multiple agencies involved with mountain biking participation and events to share, publish or undertake statistical reporting.
- Strategic guidance is required to ensure that all agencies align policies to enable participants to move between schemes that promote lifelong participation.
- A gap has been identified for a mass-participation programme to complement all of the existing schemes.
- Participant development should be based upon the concept of development of excellence in different contexts.
- As mountain biking incorporates skills and knowledge which are transferrable to other life situations, qualifications and training should be credit rated to ensure this learning is formally recognised, and offers candidates additional value.
- There is a clear and present need for greater 'joined-up thinking,' with reference in particular to integration between education systems.

Sports Development

A number of strategic options could be investigated during phase two of the *DMBinS* Project to consider the benefits. Two options for consideration are the consolidation and the alliance of agencies. One approach to consolidation has been adopted by *British Cycling*, a cross-departmental approach to bring budgets together to benefit from combined investment. 'Alliance' is an approach anticipated to be launched by mountaineering disciplines, bringing together organisations to develop a more co-ordinated framework.

CONTENTS

Executive Summary

1.	Introduction	1
2.	Methodology	2
3.	Evaluation of Developing Mountain Biking in Scotland and the Mountain Biking National Strategic Framework	5
4.	Progress over the Past Three Years	29
5.	Analysis of Research Findings	46
6.	Recommendations for Measuring Industry Performance	67
7.	Quantifying the Potential for Future Growth	71
8.	Creation of a Scoring Matrix for New Developments	82
9.	Key Recommendations for Future Development	84
10). Conclusions	100
11	.Further Research	103
12	P. Acknowledgements	104

1. Introduction

In May 2012 the *Centre for Recreation and Tourism Research (CRTR)* at the *University of the Highlands and Islands* (UHI) was commissioned by *Developing Mountain Biking in Scotland (DMBinS*) to undertake a research exercise for the *Scottish Enterprise* area, with three principal aims:

- An assessment of progress in delivery of the objectives and key targets of the mountain biking national framework, and the activities of *Developing Mountain Biking in Scotland* over its first three years;
- To assess progress in terms of economic growth, participation and sports development; and
- Recommended future actions to secure the sustainable growth potential of mountain biking in Scotland for sports development, participation levels and tourism.

The study was led by Peter Varley and Steve Taylor at *CRTR*, in partnership with Nicki Diggins at *Inverness College UHI*, and with help from Sophie Varley and Isla Sherrington.

After a brief outline of the methodology (Section 2), this report is structured to examine: the progress that has been made by *DMBinS* over its first three years and progress towards the goals of the mountain biking national framework (Section 3) and an assessment of progress over the past three years in terms of economic growth, participation and sport development (Section 4). Section 5 presents an analysis of the data and findings from a series of research exercises, while recommendations for measuring industry performance form Section 6.

The following two sections detail a quantification of the potential for the future growth and Scottish and regional mountain biking, and outline recommendations for the creation of a scoring matrix for new developments. Key recommendations for future development constitute Section 9, and Section 10 concludes the report. Finally, the team makes recommendations for further research and acknowledges help in developing this report.

2. Methodology

The methodology to undertake the delivery of this report was divided into a number of discrete phases:

- A *desktop exercise* using existing data, where available and appropriate, and consultation with relevant partners and organisations, in order to develop an understanding of the progress made over the past three years in terms of participation, sport development and economic growth in mountain biking in the *Scottish Enterprise* area. This exercise was based upon the methodology utilised by *EKOS* in its 2009 report for Scottish Enterprise on the 'Economic Value of Mountain Biking in Scotland'.
- This was augmented by the development of a *Survey Monkey questionnaire* that was sent to members of both *Peebles Cycling Club* and *Highland Perthshire Cycling*. The aim of this activity was to use the established developments at Glentress/Innerleithen and the more nascent developments at Highland Perthshire respectively as case studies for consequent economic growth and changes in participation and sport development. A total of 21 responses was received.
- A *literature review* was undertaken of all pertinent studies, reports and potential data sources over the past few years, including the 2009 *EKOS* report and the National Planning Framework for Scotland. The aim of this activity was to take cognisance of all relevant information and use appropriately referenced reports to inform the assessment of progress and development of recommendations.
- Appropriate consultation with the members of the Scottish Mountain Biking
 Development Consortium, as well as the DMBinS Project Manager, to enable
 an assessment to be made of the first three years of DMBinS's work and
 associated progress towards the goals set down in the mountain biking
 national framework.
- Two *focus groups* were held with mountain biking businesses, in Glasgow on 24th July and in Perth the following day. The purpose of these events was to facilitate discussion between participants in two broad areas: the progress

made in mountain biking over the past few years, and ways forward for the future development of the sport. The discussions were also used to inform and refine the questions for the following four stages. A total of eight businesses participated.

- On 26th July 14 *qualitative face-to-face interviews* were held with mountain bikers at Glentress trail centre (Glentress having been chosen as Scotland's most popular mountain biking venue). These in-depth interviews used open-ended questions to elicit opinions on a number of topics, again broadly categorised into recent patterns of participation and ideas for future development.
- In a similar vein, on 1st August, 92 *quantitative face-to-face interviews* were undertaken with bikers at Glentress. The aim of this survey was to canvas opinions of a much greater numbers of mountain bikers than the previous research activity, using 'closed' questions that would yield more generalizable findings to support and validate the 'deeper' findings from the qualitative interviews. The questionnaire did also include one open-ended qualitative question. Again, Glentress was chosen as the site most likely to yield significant numbers of interviewees.
- In order to extend the 'reach' of the consultation exercise beyond riders at Glentress, a *Survey Monkey* was created for mountain bikers using the same quantitative questionnaire. The survey was widely publicised by *DMBinS*, through its website and appropriate Facebook and Twitter feeds for example. A total of 360 responses was received.
- Similarly, in order to expand the feedback of businesses from those who participated in the Glasgow and Perth focus groups, a mixed-method *Survey Monkey* for mountain bike businesses and organisations was developed, using an amalgam of questions from the face-to-face interviews and focus groups. The hyperlink to it was sent to 110 pertinent businesses through both *DMBinS* and a general web search. A total of 26 responses was received.
- The *Forestry Commission Scotland's* Forest District Recreation Managers for the districts in the *Scottish Enterprise* area were all contacted to ascertain their views on mountain biking in his/her area.

- The key personnel associated with *proposed mountain biking developments* in the *Scottish Enterprise* area were all contacted with a series of questions pertaining to the development, in order to gauge their potential impact. Nine out of the 12 responded.
- All the data and findings from the research activities described above were
 collated and transcribed (where necessary) for analysis. In straightforward
 terms, the qualitative findings were analysed using an inductive method to
 find key themes, while the quantitative findings from the Survey Monkeys
 and face-to-face interviews were collated on a spreadsheet for electronic
 analysis.
- The team used these data and findings, and findings from the literature review, to inform both the *assessment of recent progress and recommendations* for the future development of mountain biking in the Scottish Enterprise area. Development of the latter was centred on:
 - Gaps in provision;
 - A realistic course of action;
 - Potential barriers;
 - Quantification of the potential for economic growth, increased participation and sport development;
 - A disaggregation of mountain biking tourism and participation growth forecasts at a regional level;
 - The creation of recommendations for a scoring matrix for new mountain biking developments; and
 - The development of recommendations for a performance measurement framework.

3. Evaluation of Developing Mountain Biking in Scotland and the Mountain Biking National Strategic Framework

'The Sustainable Development of Mountain Biking in Scotland: A National Strategic Framework' (the 'Framework') was launched in 2009 and represents the vision of public and voluntary organisations combined with public and business opinion on how best to develop and promote mountain biking in Scotland. The bodies that directly contributed were:

- Convention of Scottish Local Authorities;
- Cycling Scotland;
- Cyclists Touring Club;
- EventScotland;
- Forestry Commission Scotland;
- Highlands and Islands Enterprise;
- International Mountain Biking Association UK;
- Scottish Cycling;
- Scottish Enterprise;
- Scottish Natural Heritage;
- *sportscotland;* and
- VisitScotland.

These organisations (*VisitScotland* excluded) brought together eleven key personnel to establish the *Scottish Mountain Bike Development Consortium* (*SMBDC*). The aim of *SMBDC* was to enable close working partnerships between and among the bodies involved, and to monitor and oversee the implementation planning associated with the Framework. The delivery of the Framework was tasked to a small team (1.5 staff) over an initial three–year project period, facilitated and employed by *Scottish Cycling*. The *DMBinS* project was launched, together with a public portal of information as www.*DMBinS*.com, in 2009.

3.1 Evaluation of DMBinS Project 2009–12

In this section an evaluation is provided of the context of the *DMBinS* project in relation to the policy environment and the rationale for the establishment of the project. This is followed by an evaluation of the project aims and the extent to which they can be considered 'SMART'. To evaluate the success of the *DMBinS* project in meeting its seven aims, the data were analysed relating to the key

performance indicators and each specific objective was reviewed. Qualitative feedback from the *DMBinS* Officer (from an in-depth interview) and quantitative and qualitative satisfaction data from key stakeholders were also evaluated.

3.1.1 Review of Rationale

The key stakeholders (n=11) helped articulate the initial rationale for the *DMBinS* project, which was to plan how best to sustain and grow mountain biking in Scotland in a way which would provide optimum and quantifiable returns in terms of the health of the nation, economic and tourism development, and in terms of sporting participation and success. These quantifiable measures were articulated in the form of Key Performance Indicators (KPIs) and incorporated into the implementation planning documents; they will be evaluated in the next section.

In terms of the future focus for the rationale, 100% (n=9) of respondents felt that tourism and economic development is very relevant over the next three years, stating reasons relating to Scotland's unique access legislation, iconic landscapes and the need for measures to tackle the current economic recession. Similarly, 100% of respondents felt that increased participation leading to improved health and well-being is a very important and valid rationale for the *DMBinS* project in the next three years. Some respondents felt that sporting development and success was relevant (25%) or very relevant (50%), while 25% believed it was less relevant because it was a responsibility more appropriate to *Scottish Cycling*, or difficult to influence and measure. With reference to this first point, it should be highlighted that a range of different players, in addition to *Scottish Cycling*, influences mountain biking.

Increased participation is already being measured by different agencies (club and National Governing Bodies (NGB) memberships; after–school club activity; Go Mt bike awards; course delivery; qualifications uptake; number of commercial providers; events, for example); however currently only *DMBinS* is charged with the responsibility to collate them to provide an overview. This report recommends that the rationale is still current and relevant, although with regards to increasing participation and sport development, *DMBinS* should develop strategic objectives to ensure that multiagency activities are monitored, supported and aligned.

3.1.2 Review of Project Aims and Objectives

The overall satisfaction of the *DMBinS* project by *SMBDC* members is illustrated in Table 1 below.

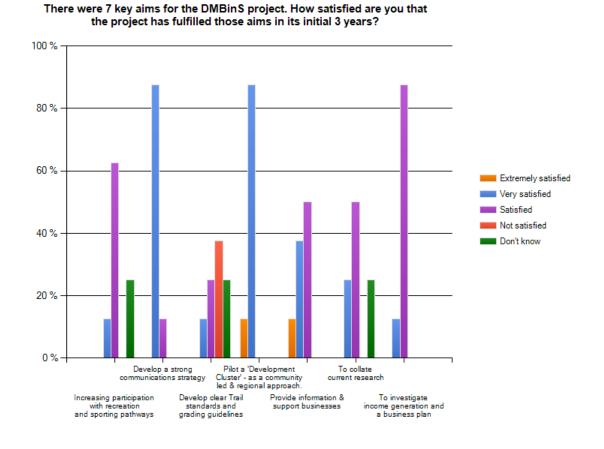


Table 1: SMBDC satisfaction feedback on DMBinS achievement of aims

3.1.3 Evaluation: Aim 1

Aim 1: Increasing participation with recreation and sporting pathways			
Objective:			
"To identify barriers to participation in mountain biking and clarify how we create opportunities for people to participate and develop in the activity at any level and at any stage in life, including where a clear coaching and leadership structure fits within these pathways."	Partial Success		
Key Outcomes			
• Research- was commissioned and presented findings including an audit of			

training and qualifications; Scottish Credit & Qualifications Framework mapping and recommendations relating to education and addressing barriers to participation for the future.

- Case Studies were developed & best practice showcased e.g.; FCS project in Glasgow working with ethnic female groups
- Mini-Downhill Series- was established to provide an opportunity for youth and children looking for a fun experience in foundation downhill riding skills with a race format.

The following target KPIs were requested by *SMBDC* as part of the monitoring process:

- 1. Number of schools providing extra-curricular MTB clubs increases;
- 2. Number of participants in mountain biking events increases; and
- 3. Number of athletes on national or international programmes increases.

However, data relating to these specific KPI targets proved problematic for *DMBinS* to collect. Numbers were not established at the start of the project, and so trends in numbers participating over time were not available either. Data for target (1) should be available from *sportscotland* through its Active Schools monitoring programme, but it relates to generic cycling rather than mountain biking specifically. These data have shown a downward trend over three years, but no analysis was available to determine the cause. Data for target (2) would need to be drawn from event results lists posted by *British Cycling (BC)* and *Scottish Cycling (SC)*, charitable organizations and private event businesses (such as No Fuss Events). Much of this data is incomplete, although the BC database software enabled a filter to identify a limited amount of mountain biking analysis by gender and age. Data for target (3) form part of *Scottish Cycling's* normal monitoring of its athlete development programmes.

It is a recommendation that this analysis is not duplicated, but mechanisms developed to ensure that data are passed on to support the work of *DMBinS*. To address these shortcomings in data availability, *DMBinS* identified alternative KPIs;

for example, the *SNH* outdoor recreation data were used in the Annual Report, which are appropriate alternative measures.

This report concludes that although the KPIs are worthy and topical targets in light of the 2012 Olympic Games' achievements, they are not realistic for the *DMBinS* project at this stage (Year 3). More realistic KPIs at this stage would be the number of case studies of good practice (such as the 'Learn to Ride Event' funded by *FCS*) that could be developed, supported, and promoted and uptake of these initiatives by others. The *DMBinS* Officer recognized the value of a more strategic role and demonstrated this by commissioning research to identify barriers and gaps to increased participation. This was achieved in the HIE area, and is part of this report.

Furthermore, research was commissioned to map all mountain bike training and qualifications from all awarding agencies and presented on the *DMBinS* website to dispel confusion and aid public and employer understanding; this represented the first time that all awards were presented together on one site (a one-stop-shop concept highlighted in the Framework). Other strategic actions have been achieved by the *SMBDC* group members, namely the incorporation of MBLA into the remit and full control of *Scottish Cycling* (Feb 2012), while others are ongoing.

Our recommendation would be to develop new objectives to monitor and support the work of multi-agencies in their role to increase participation and improve sporting performance and encourage awareness and, where possible, alignment of policies and practices. This is more realistic and achievable with the current consortium model (and the 'one-stop-shop' approach facilitated by the *DMBinS* website).

3.1.4 Evaluation: Aim 2

Aim 2: Develop a strong, proactive communications strategy to promot of the Framework and its objectives and to highlight its successes	e the role
Project 1: "Develop a plan utilizing communication tools to effectively communicate to and between all internal and external audiences."	Success
Project 2: "Organize a conference which informs all stakeholders of the successes of the project and looks forward beyond 2012."	On- going
Project 3: "Update the existing 'Off-Road Cycling Guide' and ensure it	On-

is distributed effectively to users."

going

Key Outcomes

The following target KPIs were set and partially or fully achieved:

- 5,000 downloads of new computer game guide target-Due to launch in August, so on-going.
- 500 followers on Twitter and Facebook target 250 followers to date in nine months of operation, so it is considered a realistic target with a further 6-12 months.
- 40,000 visits to the website target. An error led to accidental loss of statistics; however one week in August 2012 had approx. 1000 hits, therefore the target could be seen to be realistic.
- 200 attendees target for 2012 conference (scheduled 26th September 2012) of which 50 will be businesses attending the conference. Feedback from the 2010 conference was positive and a qualified success.

This report concludes that most targets are 'SMART' and where not currently met, activities have been planned and/or instigated and either require a period of time to 'bed in' or are due to be launched within the next two-three months. This aim attracted a clear volume of satisfaction from the stakeholders with 85% expressing that they were very satisfied, and 15% satisfied with performance to date. We concur with the *DMBinS* officer that the greatest success is in the range of audiences that have been engaged, and that there is still work to be done to address the volume of people aware of the project and its resources.

The following KPI is not sufficiently SMART and should be revised accordingly:

Feedback should indicate effective communication with all partners. Available on line for download. Links to full guide and computer game

3.1.5 Evaluation: Aim 3

Aim 3: It is important that Scottish mountain biking has clear standards and grading guidelines that are shared across the country.

Project 1 Nationally agree standards and grading for facilities including information on trail management, design, construction, maintenance, grading and the liability that landowners have when providing mountain bike facilities. Communicate this information in a simple and effective manner.	On- going
Project 2 Develop mountain bike specific trail building and trail management courses. Co-ordinate the development of a trail building and management training structure. Communicate this structure in a simple and effective manner.	Partial Success
Project 3 Develop a guide for producing promoted mountain bike routes, which can be rolled out across the clusters.	Success

Key Outcomes

- CTC Trail repair Course
- · Good Practice Guide
- Guide to creating Route Cards

The following KPIs were set, with some clear success and some on-going action required:

- 1. All partners agree that the collation of standards and grading of facilities is correct and will be utilized by groups across the country; and
- 2. Information to be used by one new group to develop a facility.

The Implementation Plan concerning 'project 1' was modified during the project lifecycle to reflect the difficulties experienced by the project partner (FCS) to deliver. The stakeholders recognized this (35% unsatisfied), but commented that they recognized it was out of *DMBinS* control. Action late in year three is now being considered to deliver on this objective. It is our recommendation that this objective is moved into phase 2, seeking the commitment from partners to set new SMART goals for the realization of this highly desired target.

Project 2 demonstrated significant success, with the agreement of trail designers to establish a Technical Expert Group (TEG) to develop a training and awards structure;

there was interest from a number of agencies (e.g. *CTC* and *Borders College*) to realize its potential with regards to resource development. However, this project is large and could benefit from a co-ordinated and committed (in terms of time) approach. This is not within the remit of the *DMBinS* Officer and requires leadership ideally from an organization with experience of vocational and academic training programme development (an FE or HE Institution) or a commercial operator with skills development experience. It is recommended that the *DMBinS* Officer's role should focus on the strategic management of the agencies required to facilitate this development and plan to hand over to an agreed project leader in phase two.

The *DMBinS* Officer commented that project 3 is largely dictated by the timescale required to establish the clusters. The Tayside and Fife cluster produced a set of laminated maps with way marked bike routes, which will be used as a model of good practice; insufficient time since launch has not enabled constructive feedback to date.

3.1.6 Evaluation: Aim 4

Aim 4: To pilot a 'development cluster', audit the current levels of mountain
biking activity within each development cluster and aid community groups who
wish to develop mountain biking facilities.

Project 1: Imp	plement the action p	olan the cluster -	Tayside and Fife.	Success
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Project 2: Implement the action plan for the cluster - Highlands.

Success

Project 3: Involve partners and set up an action plan for central cluster.

Ongoing

Key Outcomes

Highland Cluster

- Audit of existing provision
- Gap analysis
- Recommended course of action
- Quantification of action
- Draft Development Plan

Central Cluster

- Consultation evening
- Initial meeting
- Audit
- Pathways analysis
- Joint promotion
- Regional Events Series

Tayside & Fife Cluster

- Promoting facilities (route cards/ 'Explore Tayside & Fyfe' resource)
- Schools linked with clubs
- Cluster wide youth races
- Volunteer welcome nights
- Links with Scottish Cycling
- Business Development Group

All Clusters - Advocacy Pack: A Guide for local authorities, businesses and land owners

Ninety per cent of key stakeholders were extremely satisfied, and 10% very satisfied that *DMBinS* had met its targets relating to cluster development and facilitation. It is our recommendation that phase two of the *DMBinS* project makes the establishment of the Central Cluster a priority, to capitalize on the opportunities afforded by the Central Scotland Green Network. To achieve this, a mechanism will be required to support the clusters already established by way of leadership. It is not realistic for one officer to provide the level of support in time and travel that clusters will need once established. A key stakeholder, who commented, gave this view:

"The concept of development clusters has been vigorously pursued, and the outputs have been well received. It is acknowledged that the cluster model would benefit from more staff resource to aid co-ordination and the development of a regional identity, and the project is exploring ways to make this happen in phase 2".

3.1.7 Evaluation: Aim 5

Aim	5:	Provide	information	and	support	to	businesses	to	develop	mountain
biki	ng l	ocally, re	gionally and	natio	nally.					

Project 1: Organize a workshop in Central cluster to bring the Tourism Intelligence Scotland (TIS) mountain bike guide to life.

Success

Project 2: Work in partnership with Mountain Biking Knowledge Transfer Project (MBKT) to provide support and advice to potential start-up businesses and businesses who wish to develop new mountain biking products.

Success

Key Outcomes

The following targets were set:

- 60 businesses to attend workshop.
- 20 businesses to be engaged in MBKT Project.

All key performance targets were met by *DMBinS*. Furthermore, 100% of key stakeholder respondents were satisfied with the achievement of the aim to support businesses to develop (12.5% extremely satisfied, 37.5% very satisfied and 50% satisfied).

3.1.8 Evaluation: Aim 6

Aim 6: To investigate what existing surveys and research are available to gather monitoring and evaluation statistics from and the possibility of conducting research into the effect of the development clusters in three target areas. Establish a format and monitor current projects KPIs and higher level aims

Project 1: "Investigate what existing surveys and researches are Success available to gather statistics from."

Project 2: "Establish a format and monitor current projects KPIs and higher level aims."

Partial success

Project 3: "Review and identify the key areas for development by

clusters and the potential for mountain biking to meet its aims of tourism and economic development, increasing participation and sporting development and success."

Success

Project 4: Independent evaluation of project.

Success

Key Outcomes

Agreement from partners (SNH/CS and SC) that the project is being monitored and evaluated in an effective manner.

Table 2 Illustrates that 100% of the key stakeholder respondents felt that the project delivery has been more than acceptable, with 62.5% stating that they were very happy, while 25% were extremely happy with project management delivery, administration and the delivery mechanisms established.

Project Delivery: the project is delivered by 1 Full-time Officer and 0.5 (full time

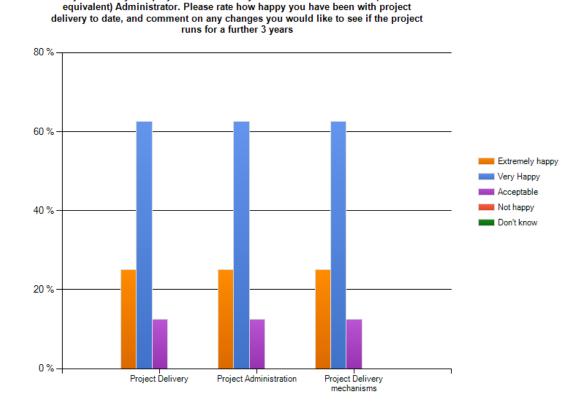


Table 2: SMBDC Feedback relating to DMBinS project delivery

3.1.9 Evaluation: Aim 7

Aim 7: Investigate what existing tools and resources could be expanded to generate income and to develop business plans for the most viable solutions.

Project 1: "Investigate a mountain biking 'membership' scheme to On-develop sustainable mountain biking in Scotland."

Project 2: "Investigate the options to develop a mountain biking On-computer game."

Key Outcomes

The following KPIs were met:

- Income generating options eg Rider Contribution Scheme.
- Feasibility study produced.

The sustainability of the *DMBinS* project was an agenda item for the National Mountain Biking Conference held in Perth on 26th September 2012. The audience was comprised of businesses (39%), national agencies (29%); local authorities (10%), volunteers (4%) and others (18%). Audience consultation ranked the highest priority for income generation in the future should be to bring in additional funding partners from both the public and private sector (38%). Other options were considered, however, to ensure that *DMBinS* is sustainable by creating income generating opportunities (34%) and to establish regional clusters on the basis that they would be self–sustaining (28%). The interests of different audience categories are highlighted in Table 3 below:

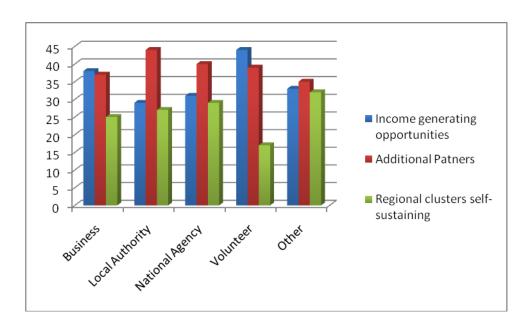


Table 3: Ranking of financial options for future funding of *DMBinS*

A workshop session was held during the conference to debate and brainstorm options for income generation and sustainability in general. These discussions generated new ideas and options that have been collated, and are currently being evaluated, by the *DMBinS* Officer. This evaluation (and the ideas that it generated) and the fully drafted detail of the 'rider contribution scheme' would be useful for wider public debate.

3.1.10. Evaluation of Feedback on Inputs, Activities and Outputs

Inputs refer to the resources relating to finance, people and time that are committed to the implementation and operation of the *DMBinS* project. Activities refer to the products, services and interventions which are designed and delivered. Gross outputs are defined as the direct effects of the intervention that can be monitored – factors that are in direct control of the delivery.

3.1.10.1 Inputs: Evaluation of Finance

There are four funders (*FCS*, *sportscotland*, *Scottish Enterprise* and *SNH*) providing £15,000 each per year, and in addition, one providing £5,000 (*CTC*), representing an annual funding package of £65,000, and total project funding of £195,000 for the three years of phase one. Total actual spend as of January 2012 (early in year three) was £99,076.48. This sum covers the costs of 1 full–time Project Manager (37.5 hrs. per week) and 0.5 FTE Administrator. Staffing costs represent approximately £50,000 per annum, leaving an operating budget of £15,000 per

annum for project delivery. The next highest spend is on research costs followed by overheads. In our assessment of budgetary accounts there is clear evidence of spending on appropriate projects and, in our opinion, value for money for project outcomes.

3.1.10.2 Inputs: Evaluation of Management and Delivery

The SMBDC agreed to meet four times per annum as a full group, and as and when required for project specific meetings. This objective was achieved during the first two years, with additional implementation planning meetings each quarter. All partners played an active role in setting up the required structures, and feedback has been positive. In the third year of the DMBinS project the Project Manager amended the meeting schedule to reflect the requirement for greater autonomy to get on with the job in hand and to bed projects in. The overall opinion of SMBDC is that it has supported this approach.

Key stakeholders and partners have remained engaged throughout the three years with new ones invited as required. *VisitScotland* came on board from the start, and decided that although the *DMBinS* project did not meet its specific funding criteria, it would continue to engage and support where possible. The line-management responsibility was assigned to *Scottish Cycling*, which has overseen the funding application and human resource functions (staff personal performance planning and salaries management). Feedback indicates that this arrangement has been well managed. A brief period of difficulty was experienced when *Scottish Cycling* underwent re-structuring, resulting in additional demands on few experienced staff, but this appears to have been resolved at this stage of the evaluation.

Feedback indicates that the management and delivery challenges ahead for the *SMBDC* are to qualify the ambition of group; in the words of the Project Manager: "to see if they [*SMBDC*] would do bigger, wider initiatives".

Timescales set for the *DMBinS* project, as articulated in the Implementation Plan, are currently 50% complete, with approximately 33% further on–going and partially successful projects due to be completed before the three–year end date. Evidence that the *SMBDC* group recognized that the Framework timescales were not realistic is reflected in the annual Implementation Planning documents.

Finally, this research team concurs with the Project Manager's view that any future evaluation should articulate achievements from two different perspectives:

- 1) Direct *DMBinS* outcomes, as specified within its implementation planning documents; and
- 2) Indirect quantifiable outcomes, for example, those projects being developed by the *SMBDC* stakeholders themselves (and others), where the Project Manager has an indirect involvement.

The research team, however, also identifies two further levels of evaluation which should be recognized in relation to outcomes not directly pertaining to the implementation plans:

- 1) Some outcomes are unquantifiable but may still have some significance. An example of this concerns the current negotiations to align *British Cycling* and *Scottish Cycling* mountain biking leadership awards. Although the *DMBinS* project is not directly involved in this debate it has been suggested that the two initiatives benefit from working towards the same objective, through the indirect encouragement of the mountain biking community to become more active and engaged (a domino effect).
- 2) Some successfully achieved outcomes may continue to need monitoring and support. For example, the definitive aim of the cluster concept is to be self–sustaining and not dependent on *DMBinS*. *DMBinS* input should aim to enable the clusters to develop their own leadership, autonomy and project delivery methods to provide an effective and efficient means for the Scottish regions to realize their full potential. It would also represent the best use of the Project Manager's time. It may also be the case however, that independent cluster groups may need assistance, strategic guidance or monitoring at any time, and the availability of the *DMBinS* Project Manager staff resource to deliver this should be recognized.

Overall, the *SMBDC* has been satisfied with the management of the *DMBinS* project to date and rated it as very successful (75%) or acceptable (25%), while the views on monitoring is more mixed: 37.5% suggested that monitoring was successful and 37.5 % suggested that it was acceptable.

Project Management & monitoring: The Project is managed by the Scottish Mountain Bike Development Consortium (of which you play a role). In your opinion, please rate how successful this approach has been in the last 3 years, and comment on any future management issues, or changes for the next three years

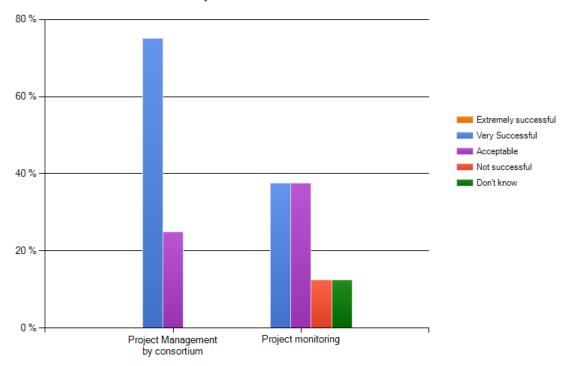


Table 4: Satisfaction with project monitoring and management

Concerns that the project was not successful relate to the membership:

"Membership needs to be clarified. We still have places that don't attend and some sectors that are not clearly represented. Fully considered monitoring procedures will be essential to assessing the success of the project."

There are a number of other pertinent opinions:

"We need to be more realistic on timescales and workloads moving forward. Using the knowledge of the project to date to focus on specific targets. It's also the job of the consortium to shout about the success of the project I think we could do more of this."

"The SMBDC in itself is testament to the membership orgs' commitment to the Strategic Framework, and the project, as is the consortium's willingness to operate in the absence of a signed Memo of Understanding (an outstanding issue for the last two years). In terms of

future management issues: two options should be explored in autumn 2012 (ie. when organisations are shaping their programmes and budgets for the next financial year). More SMBDC member organisations should be asked to directly fund the project; and, all member organisations should be asked to actively contribute, through their own work plans, to support the project's key tasks."

"A focus on communicating the successes of the project not only to partners in the consortium but to a wider audience would be beneficial"

3.1.10.3 Activities

Activities are defined as the services and support provided directly by *DMBinS*, its partners and stakeholders associated directly with the project, as well as the new developments that are devised, planned and led. Services and support devised, developed and led by the project include the following:

Service Type	Outputs				
Research Facilities, provision and participation audits (regional					
	Qualifications and training audit				
	Qualifications mapping				
	Sport development and participation audits				
Events	Conferences				
	Public awareness campaigns				
	Workshops				
	Participation events (Fort William World Downhill Championships/Tweedlove/ Scottish Outdoor Show)				
	Photo competition				
Communication	Communication tools development				
	Cluster planning group meetings				

	Cluster consultation evenings				
	Networking (e.g. technical expert group: trail build and design)				
Information and	Website (One Stop Shop)				
Guidance/Advice	Social media (Twitter/ Facebook)				
	e-newsletter				
	Trail etiquette (Do the Ride Thing)				
	Trail maintenance and checking guides (draft)				
	SATIN				
	Where to ride guides				
	Qualifications				
	Funding				
Business Support	Promotion				
	Funding information sources				
Monitoring and	Budget reports (four per year)				
Evaluation	Implementation plans (annual)				
	Annual Reports (2010; 2011)				

3.1.10.4 Outputs

Outputs by nature are quantifiable; however, outcomes can be described in both quantifiable and in non-quantifiable terms. These may relate to perceptions and/or opinions. The opinions of the key stakeholders were canvassed and summarized in the table below.

The success of each project aim is monitored using the following key performance indicators, and their rate of increase. How useful are each of these measures for the project in the next 3 years? and comment on any gaps in performance measures.

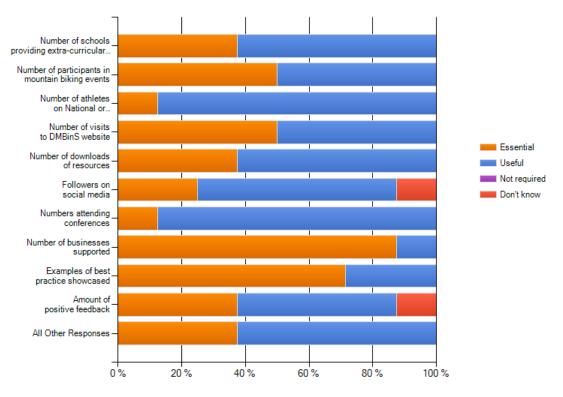


Table 5: Opinions of key stakeholders

3.2. Evaluation of the Mountain Biking National Strategic Framework

3.2.1 Review of Context

The Framework sits within a number of key government policy areas including: economic, tourism and sport development; sustainability; and equality; health and well-being. As such, the context is deemed highly relevant. The *Scottish Government's* second National Planning Framework (NPF2 – 2009) guides Scotland's development to 2030, setting out strategic development priorities to support sustainable economic growth.

These priorities are to ensure that each part of the country is able to play to its strengths in building a Scotland that is wealthier and fairer, smarter and greener, healthier, safer and stronger. Of these key development priorities, a number stand out of particular significance and relevance to the *DMBinS* project. More recently,

the focus on sport development and participation has gained greater political recognition as part of the legacy discourse following the London 2012 Olympics.

3.2.1.1 Greener Scotland

The Framework concurs with government policy that the environment is one of Scotland's chief assets: a source of natural capital that can drive broad-based sustainable growth. The Framework similarly recognizes that economic development must be closely integrated with the promotion of environmental quality and the sustainable management of environmental resources. There is clear evidence that stated Framework aims are translated into action by the *DMBinS* project, with a good example of this context evidenced in the 'Do the Ride Thing' guide to responsible mountain biking.

There is good evidence of policy and objective alignment amongst partner agencies and *DMBinS*. For example, *Scottish Enterprise* and *VisitScotland* have been charged with the responsibility under NFP2 to develop a 'city region approach'. This means that cities are seen as hubs of wider regional economies and that the complementary assets of their surrounding towns and rural areas offer opportunities for a wide range of economic, cultural and recreational activities.



Similarly, the concept of 'hubs' has been adopted within the *DMBinS* project as a mountain biking development model, where *Scottish Enterprise* and *VisitScotland* play an active role as partner agencies, with the *7stanes* development being an example of good practice.

Another example of policy and objective alignment relates to the Scottish Forestry Strategy, which contains a commitment to expanding and improving the quality of

woodlands around settlements to provide an improved landscape setting and widen recreational opportunities. The cluster concept within the *DMBinS* project, for example, provides a mechanism for mountain biking initiatives to feature within these forest developments. Furthermore, local authorities are tasked to promote

open space networks, facilitate countryside access and develop core path networks, and their engagement with the *DMBinS* project provides an avenue to plan for this.

3.2.1.2 Central Scotland Green Network

The Central Scotland Green Network is a strategic network of woodland and other habitats, active travel routes, green space links, watercourses and waterways, providing an enhanced setting for development and other land uses and improved opportunities for outdoor recreation and cultural activity. It is located throughout central Scotland, from Ayrshire, Inverclyde and Dunbartonshire in the west to Fife and East Lothian in the east. The *DMBinS* project, through its cluster concept, is well placed to address one of the key elements covered by designation, also noted as in need of development (NPF2 p126):

"The development of footpath and cycleway networks and other facilities and attractions will contribute to a more sustainable transport network and expand the range of recreational opportunities close to major centers of population, helping to encourage active travel and healthier lifestyles"



Figure 1: Government strategic objectives relating to the Central Scotland Green Network concept

3.2.1.3 Healthier and Safer Communities

In line with NFP2 policy, the mountain bike cluster concept is designed to enable community empowerment and facilitate local initiatives, which are identified as essential elements of successful place making. The policy document states that tackling derelict land, improving physical infrastructure and upgrading environmental quality can help to promote environmental justice and provide

employment opportunities for those less equipped to participate in the knowledge economy.

The consultation draft of the Framework was made widely available during the summer of 2008. Over 880 formal responses were received. Of these responses, 67% indicated that they thought nothing had been omitted from the draft Framework. The consultation draft (2008) also stressed that continuing engagement of all the relevant organizations and individuals would be essential to the effective implementation of the Framework. This has been demonstrated by the expansion of the number of partner agencies involved, and rider and business representation on the *Scottish Mountain Bike Development Consortium (SMBDC*).

The *Scottish Government's* plan 'Developing a World Class Sporting System (2011–15)' has a focus to develop and consolidate a world class sporting system at all levels. There are two specific outcomes that are highlighted as of greatest significance: increased participation (more people taking part in sport) and improved performance (with specific mention of more Scots winning medals). Similarly, the *DMBinS* project aligns itself with the policy context, demonstrating currency and relevance.

Government policy to reduce emissions from transport sources will involve measures to improve the accessibility of education, employment and services and encourage a shift to more active and sustainable modes of travel and transport. For people, this means a shift from car-based travel to walking, cycling and public transport, indicating that off-road cycling developments are both relevant and current. Similarly government policy documents state that the promotion of compact settlements, mixed use development, effective active travel networks and efficient public transport systems can play an important part in reducing the need for car-based commuting.

The *DMBinS* project has a good fit with the Government Economic Strategy (GES), particularly with respect to three key areas of the strategy. The 'learning skills and wellbeing' component in the Strategy refers to the 'supply of education and skills which is responsive to, and aligned with, actions to boost demand, which has been a strategic focus of the Framework. The 'infrastructure development and place' component in the GES refers to 'making connections across and within Scotland...seeking to maximize opportunities for employment, business, leisure and

tourism.' The 'supportive business environment' component of the GES refers to 'a broader approach to business innovation in Scotland that moves beyond viewing innovation as the domain of science and technology alone'.

3.2.1.4 Wealthier and Fairer

A principal aim of Scotland's development strategy is to "contribute to a wealthier and fairer Scotland by supporting sustainable economic growth and improved competitiveness and connectivity" (NPF2). Sustainable economic growth is considered to be at the heart of both this report and the work of the *DMBinS*, witness two of the Framework's core objectives: to increase both visitor numbers and domestic participation.

Concerns over equity, for example, along with the need to break the 'macho' image of mountain biking, as well as appealing to under-represented sectors of society, are acknowledged in the Framework. These are also recognised as key issues in this study. The cluster approach taken by *DMBinS* is also indicative of the need to be fairer, in that people are empowered to plan and work with a regional/local focus. The Framework, meanwhile, has also made a real effort to get public opinion represented through consultation exercises and the hosting of conferences, for example, to bring together businesses, agencies and members of the public together to discuss issues and voice opinions.

3.3 Conclusions and Recommendations

The team's evaluation considers that the context and rationale for the *DMBinS* and the Framework are both relevant and current. Opportunities for further alignment are evident in a number of key areas however:

- The 'city-region' approach advocated in NPF2 is a model which could be further utilized by *DMBinS*. For example, the *DMBinS* project could aim to establish an example of good practice demonstrating the four-stage 'sport development model' proposed in this report. This model for development could then be rolled out in other cities throughout Scotland, fulfilling a cityregion recreation remit.
- Closer alignment with agencies engaged in the establishment of active travel routes, particularly within the areas identified within the Central Scotland Green Network. This could include, as applicable: traffic; environmental;

core path; utility cycling agencies; *SUSTRANS*, for example. These active travel routes may also serve the interests of novice and recreational mountain bikers, or provide safe link routes to natural trails beyond city boundaries for other target groups. The *SMBDC* could reflect this in its membership for some future projects.

Participation and sport development has experienced greater political and public recognition in recent months following on from the successes of cycling in the 2012 London Olympics. Any planning to meet the needs of mountain biking (and cycling) requires co-ordination of multiple agencies with regards to monitoring and evaluating trends in both participation itself, and workforce development (teachers; trainers; instructors; leaders and coaches). Strategic objectives for *DMBinS* should reflect the need to address how this co-ordination will be achieved.

The evaluation considers that the objectives for the *DMBinS* project – in terms of its intended outcomes – were mostly 'SMART'. The main issue with slippage related to timescales which were not realistic. A key recommendation for the future is that, as the projects develop in complexity and size, it would be unrealistic to expect the *DMBinS* Project Manager to oversee the leadership of certain objectives, and the planned handing over of roles to identified agents should be strongly considered. These have been identified as:

- Cluster leadership; and
- Trail building qualifications and training development.

The levels of satisfaction from the Consortium are generally very high. In terms of governance, the *SMBDC* was established, and operated successfully in most instances. A Memo of Understanding should be re-considered to establish the full and future commitment of the group however.

In conclusion, it is believed that the *DMBinS* project has delivered, or is in the process of delivering, on a high percentage of its outputs and activities, as identified in the Implementation Plans. To that end the project has made a significant contribution to the objectives of the Framework and the actions outlined therein.

4. Progress over the Past Three Years

One of the aims of the study was to quantify the progress that has been made in delivering the a) economic growth targets of the 2009 *EKOS* report, b) increased participation and c) sporting development. This section is consequently split into three sections, using case studies of *Peebles Cycling Club* and *Highland Perthshire Cycling*, to inform the findings.

Glentress and Innerleithen Case Study

Members of the Pebbles Cycling Club were asked their opinions regarding, among other things, the impact of mountain biking in their locality over the past three years. When asked how many more riders there had been in the local area over the past three years, 38% considered the number to be between 10% and 25%, while 23% of respondents felt that there had been a more than 50% increase and 23% thought between 25-50% more bikers. Seventy-nine per cent of respondents felt that the two trail centres had been very important for the local economy; the remainder rated their impact as important.

When asked how the developments had impacted the local economy, the responses were varied but unanimous. The impact of the two centres was felt to be considerable, witness the large number of bikers staying in local accommodation. A common response pertained to the large number of people coming from further away and spending money in a wide range of supporting services, from cafés and supermarkets to guides and coaches. The high profile events were also praised, with Tweedlove singled out as a great means of both generating local revenue and bringing together both locals and tourists with a common interest.

One respondent determined that building good quality trails is the key to the success, and once people start visiting the area the secondary businesses, relating to food and accommodation for example, will naturally follow.

4.1 Economic Development: Interrogation of Data Sources

Although the 2009 *EKOS* report 'Economic Value of Mountain Biking in Scotland' set out growth targets for mountain biking's development to 2014, it was agreed with the client that, due to implications relating to time and cost, the EKOS methodology would not be repeated. Instead, it was agreed that other pertinent sources of data would be interrogated to try to ascertain the increase in the number of mountain bike trips over the three years to 2011-12. These data would supplement surveys with mountain bike-related businesses riders themselves, to ascertain both riding patterns over the past three years and changes in the business environment over the same time frame.

4.2 Determining Mountain Biking Patterns

There is a paucity of secondary data concerning mountain biking in Scotland. To be able to ascertain general patterns over the past three years, therefore, the

primary data gathered from this research were interrogated, in particular from the

quantitative surveys of mountain biking undertaken at Glentress and on *Survey Monkey*, along with the *Survey Monkey* survey of businesses. The findings were then applied to the economic growth figures set out in the 2009 *EKOS* report, in order to yield estimated growth patterns.

From the *Survey Monkey* responses it is apparent that 38% of bikers are doing more rides now compared with three years ago and 28% said they are doing a lot more. Twenty-one per cent are riding about the same as three years ago, while only 13% reported that they are doing fewer or a lot fewer rides. A similar pattern is apparent from the Glentress riders interviewed: 33% are doing more mountain bike rides and 40% a lot more. Thirteen per cent reported similar levels of riding, and only 13% are doing fewer or a lot fewer than three years ago. It is apparent therefore that those who mountain bike are generally riding more than three years ago.

In terms of how much money people are spending on biking trips compared to three years ago, 8% of *Survey Monkey* respondents stated that they are spending more (10% a lot more). Forty-two per cent are spending the same amount as three years ago. Of the Glentress respondents, 40% of bikers are spending more (26% a lot more); 29% say they are spending the same as three years ago. Interestingly, 45% of the Glentress interviewees were from Edinburgh, Glasgow and the Borders, while the remainder were from further afield, including 34% from England. Only 33% were at Glentress as locals or day-trippers or locals; the majority were in the area as tourists, staying in the locality at least one night.

From the results it is apparent that only a small minority has reduced its spending on mountain biking compared to three years ago, while considerably greater than half are spending more. As the majority of the 92 Glentress interviewees were mountain biking tourists, a general pattern of increased expenditure for day trippers and tourists alike emerges.

There are major caveats pertaining to these findings however. The cost of travel, especially petrol/diesel, has increased greatly over the past few years; as our research has shown, many mountain bikers are willing to travel considerable distances to ride great trails or visit high quality trail centres (54% of the riders on *Survey Monkey* would travel over 100 miles to do so) and travel costs can be a considerable burden. Therefore many people have to spend more to access riding opportunities.

Additionally, even if, for example, accommodation or food prices haven't increased, many people's salaries have not risen with inflation in the last few years and there is both a perception, and the reality, that costs have increased in real terms. Furthermore, the recent weakness of the pound against a number of key currencies (for example the yen) has resulted in price increases in a range of bike components (Shimano for instance). It is acknowledged, however, that there has been a meliorating effect, to a degree, from the popularity of the Cycle to Work scheme.

In addition to surveying riders, the opinions regarding the past three years of mountain bike-related businesses were the subject of a *Survey Monkey*. Asked how the industry has fared over that timeframe, 54% considered that the industry had grown by about 10% and 4% by around 20%. Conversely, 9% felt that the industry had remained static while 32% stated that the industry had contracted in size. The respondents were also asked how their own business had fared over the past three years. Seventeen per cent stated that it had experienced negative growth, 25% of businesses had seen no growth, while 29% each saw either 10% or 20% growth.

The businesses were also asked how much money their customers spend compared with three years ago. Only 5% answered a lot more and 24% stated that people spend more money. Thirty-three per cent stated that there had been no change in their customers' spending patterns, while 38% believed that there had been a contraction in spending.

When quizzed on some of the trends in the industry a number of responses pertained to the increasing popularity of road riding, riders' desires for one do-it-all mountain bike, the increasing popularity of beginners' and children's bikes, and the rise of enduro, and to a lesser extent cyclo-cross, as a mountain biking sub-culture. (Responses from the *Survey Monkey* of riders confirmed the popularity of the generic mountain biking style, although the self-classification of 32% of riders into all-mountain and 30% into trail rider, compared with 25% with the traditional cross-country genre, appears to verify the rising importance of longer-travel do-it-all bikes, as well as the expansion and blurring of mountain biking genres. Only 4% of mountain bikers calling themselves downhillers confirms its continuing niche status).

The findings of the business *Survey Monkey* are therefore rather more equivocal than those for the mountain bikers themselves. While the greatest proportion of

respondents (54%) considered that the industry as a whole had grown over the previous three years and 58% reported growth in their own business, only 29% felt that customers were spending more money. In general terms this would appear to suggest that, while individual spending may not have risen, the number of customers for mountain biking businesses has increased in that time.

A wide range of secondary data sources was consulted in order to supplement the primary research findings; it was apparent, however, that there needs to be more, and better, industry data in order to inform such research. For example, *Scottish Natural Heritage's Scottish Recreation Survey* estimates that mountain biking accounts for around 9% of the estimated 18 million trip to the countryside where cycling was the main activity, and cycling on paths or tracks another 48% (without defining the boundaries between the two). *SNH* acknowledges, however, that the data relating to mountain biking are based on small samples; meaningful patterns cannot therefore be ascertained.

Forestry Commission Scotland car park counter data for the four *7stanes* sites at Glentress, Mabie, Kirroughtree and Glentrool for 2008 and 2011 were also analysed. The data however were not used to ascertain growth patterns for two principal reasons:

- While there are car park data for car numbers, and validated visitor numbers from agreed ratios, each of the four sites has activities other than mountain biking and data are therefore for overall numbers; and
- Data were missing for a number of months at each site for these key years and were therefore not deemed to be particularly comparable.

Trail counters are too recent an introduction at some *7stanes* sites to yield usable data.

Other data sources, for example *sportscotland's Active Scotland: Household Targeting Tool* and *The British Cycling Economy* report from the *London School of Economics* were too general in scope, focused on cycling for example rather than mountain biking, or, in the case of the latter, reporting too few comparative data to be of relevance to this study.

4.3 Revisiting the 2009 EKOS Report

Among its aims, *EKOS*'s 2009 report sought to both establish the current (2009) economic impact of Scottish mountain biking and estimate future growth patterns up to 2014. The report estimated that growth over the five-year period would be in the order of 35% across Scotland, comprising growth of 50% at trail centres and 20% on wilderness rides, or natural trails.

This level of overall growth was predicated upon the following regional scenarios:

- A fairly mature market in Southern Scotland (around the *7stanes*) with a possible new bike park at Innerleithen. *EKOS's suggested growth potential* 2009–14 of 10%:
- A relatively unknown situation in the Central Belt and west Scotland, with opportunity for trail centre development. Suggested growth potential 2009– 14 of 103%;
- Planned developments in the Highlands, potential collective branding and a significant natural trail element. Suggested growth potential 2009-14 of 70%;
- No major trail centre in Aberdeenshire, despite evidence of demand. Suggested growth potential 2009–14 of 101%;; and
- Potential trail development in Tayside, Fife and Perthshire. Suggested growth potential 2009–14 of 165%.

It is acknowledged that these figures may have been realistic estimates for Scotland in 2009 and were proposed on the basis of planned or probable developments. It is suggested, however, against a backdrop of a paucity of usable industry data, that these figures have not been achieved. This assertion is made on the basis of the following principal factors:

- Most pertinently, the global recession started in the UK in mid-2008 (BBC News, 15.11.08), about the time when the *EKOS* report would have been written. This has naturally shaped the economic patterns of individuals and families across Scotland and beyond.
- The lack of implementation of many of the aforementioned planned developments in the regions. There have been no major developments in that time across Scotland with perhaps the exception of the Glentress Peel development and new trails at Callendar Estate, Falkirk and only a small number of official new trails have been constructed in the past three years.

• In 2007/8, Forestry Commission Scotland stopped developing new trails and trail centres. There had been intense 'organic' growth in the development of mountain biking trails in the years 2001 to 2007/8 with an estimated £10 million of investment, nearly all from the public purse. These developments were driven primarily at a local level, on Scotland's national forest estate, without a national development plan. These developments were stopped in order to assess the existing trails and to address a number of issues arising from this initial period of intense growth. Following on from this, there were significant pressures for changes in public expenditure arising from the downturn in economic circumstances.

These issues included the questionable sustainability of trail centres, particularly the cost of management and maintenance, and the requirement to boost the professionalism of the industry, to ensure it was on a robust footing for the future. It was at this point that the national strategic framework was commissioned, by the embryonic *SMBDC*. Since then *FCS* investment has continued in managing and maintaining trails together with investment in trailhead infrastructure which was becoming increasingly unfit for purpose and not befitting a world class visitor experience (please cross refer to Section 9.2.3).

• A slight decrease in the number of international tourists to Scotland, from 2.5m in 2008 to 2.4 m in 2010, and only a slight rise in domestic tourists from 12.1 m to 12.4 m over the same timeframe (*VisitScotland*, 2012). It is acknowledged that there has been a slight rise in international visitors in the first half of 2012. Anecdotal evidence from discussions with accommodation providers, for example, suggests that the tourism numbers across the board have been relatively flat for the past couple of years.

It is also clear that *EKOS* understandably made a number of assumptions in the generation of its own estimates, a factor which renders meaningful comparison even more difficult a process. Its delineation of riders into 'singletrack' and 'non-singletrack off-road' is arguably outmoded since the increased development of easier singletrack trails demanded by beginners to create a more exciting alternative to forest roads.

In a reiteration of the results from the primary quantitative data collection exercises in this study (at Glentress and on *Survey Monkey*), most mountain bikers stated that they are riding more (33%/38% respectively) or a lot more (40%/28%) than three years ago. It is also apparent that only a small minority has reduced its spending on mountain biking compared to three years ago, while considerably greater than half are spending more. These data, however, do not distinguish between trips to trail centres and rides on natural trails. Nor do they make a distinction between the levels of experience of the riders interviewed. It is assumed, however, that the type of rider who keeps abreast of mountain biking websites (such as *DMBinS*'s own site) and therefore would be directed to the *Survey Monkey* site, is likely to be an enthusiast rather than a beginner.

While *EKOS*'s growth estimates were based on relatively restrained growth increases in existing users, they were also predicated on patterns such as: improving mapping, increased trail centre provision and the range of natural trails across Scotland; and a 35% increase in tourists (from outside Scotland) to trail centres and 50% increase of the same group to Scottish natural trails, through promoting a new integrated trail centre and wilderness product. It is argued that these developments have generally not happened, and the anecdotal evidence supports the flat or contracted numbers of tourists visiting Scotland, for both general tourism purposes and for mountain biking.

Despite the healthy increases found in the riding, and spending, patterns of mountain bikers in this study's primary data, the lack of formal mountain biking development (compared with *EKOS*'s assumptions) and little if any increase in tourist numbers suggest that the growth opportunities set out in the *EKOS* report (35% growth in mountain bikers' trips to/in Scotland from 2009–14) have not been met to date. Accordingly, and taking into consideration the aforementioned caveats (notably in terms of the paucity of relevant data and a methodology which precluded a fuller quantification exercise) it is suggested that growth numbers in terms of trips are more likely to have been in the range of 7–10% from 2009 to date.

In terms of the value of mountain biking to Scotland, the EKOS report estimated that 1.16m mountain biking trips were taken in Scotland, yielding a direct expenditure value of mountain biking in Scotland of £26.8m; total expenditure (including both multiplier effects that account for the increase in supplies purchased and additional

income, from new jobs created, that is spent in the local and national economy) of £46.5m; and employment equivalent to 1,360 full-time equivalent jobs.

Three scenarios were postulated by EKOS:

- A 'full-growth' scenario where the value of Scottish mountain biking would increase if these conditions could be satisfied:
 - o Providing more green and blue single track trails;
 - o Improving linkages between trail centres and the countryside;
 - Signing, mapping and grading routes in the countryside;
 - Filling the geographic gaps in trail centre provision;
 - Creating specialist niche products such as bike parks;
 - Creating family-friendly cycling venues;
 - Boosting access to the sport in urban areas and the grassroots;
 - Continued improvement in the sector's promotion and marketing;
 - The existing trails continue to be maintained, refreshed, upgraded and evolved: and
 - o There is a more strategic approach at the national level.

Case Study: Highland Perthshire

Bikers in *Highland Perthshire* Cycling were asked the same set of questions as members of the Peebles Club above. In response, half of those who responded felt that there had been between 25-50% more mountain bikers over the past three years; a further 25% thought that there had been over 50%. Half of the respondents, however, felt that the off-road bike trails had been of little importance for the local economy, only a quarter believing they had been very important.

Asked how mountain biking developments had enhanced the local economy, it was felt that compared to Glentress or the other *7stanes* centres the impact had been negligible. The presence of good quality trails near to Perth was believed to have been good for the local bike shops and other MTB-related businesses. Kinnoull Hill was considered to have been a big draw, but required trails that would withstand year-round use better.

The second scenario is a 'do-nothing', where there could be a decline of 12.5% in Scottish visitors and а 25% decline in non-Scottish visitors (EKOS' estimated figures). This decline, rather than just stagnant growth, would result from increasing competition, particularly from centres being developed in the north of England, at Whinlatter. Kielder. Hamsterley and Dalby for example, all of

- which have seen expansion in the past few years.
- A 'partial-growth' scenario that assumes that developments/initiatives that would have to be implemented completely to realise 'full growth' are only developed at a scale of 50%.

In terms of the conditions required for growth potential, on the positive side *DMBinS* fulfils the strategic objective, the existing trails (at FCS trail centres for examples) *are* maintained, and a number of green and blue single track trails, and therefore family-friendly routes, have been created. However, while some small scale developments are acknowledged, great strides have not been made in the other areas, most notably in terms of filling geographical gaps in provision and promotion/marketing. It is therefore postulated that the supposed growth conditions required to meet even the 'partial–growth' scenario have not been met.

Conversely the research undertaken as part of this study has illustrated that mountain bikers are generally riding more than three years ago, and that *EKOS*'s proposition for the 'do-nothing' scenario, of a 12.5% decline in Scottish visitors, has not materialised. Although there is no evidence from the surveys regarding tourist numbers, the anecdotal evidence would suggest a general picture of no growth rather than decline, even if the surveys do suggest that mountain biking tourists are individually spending more (perhaps due principally to the rising costs discussed above). The 'do-nothing' scenario is therefore not supported and an actual growth scenario below 'partial growth' is therefore proposed.

The current economic impact of mountain biking in Scotland is therefore suggested to fall below EKOS's 2009–12 cumulative 'partial growth' scenario figure for potential future net expenditure of £11.3 m. Accordingly, economic growth in the range of £5.5 m – £8 m is considered to be a more realistic estimation of the growth in the economic value of mountain biking in Scotland from 2009 – 2012. This equates to an annual value for the mountain biking market, where MTB is the primary purpose for the trip, of £48.5m – £49.5m per annum.

Table 6: SCQF Credit-rated learning programmes & qualifications currently available in Scotland

Modules	No of centres offering awards	Numbers achieved 2007-8	Numbers achieved 2008-09	Numbers achieved 2009-10	Numbers achieved 2010-11	Awarding body	Approved Providers
Sporting Activity : Mountain Biking Intermediate 2	12	63	113	103	35	SQA	FE Colleges/ schools
Sporting Activity Mountain Biking - Intermediate 1 (10) -	2	0	0	0	17	SQA	FE Colleges/ schools
Sporting Activity Participation and Performance Mountain Biking - Intermediate 2 (11) -	3	0	0	49	23	SQA	FE Colleges/ schools
Sports Officiating and Organising - Recreational Mountain Biking - Intermediate 2 (11) -	0	0	0	0	0	SQA	FE Colleges/ schools
Sporting Activity - Mountain Biking - Intermediate 2 (11) -	5	41	46	27	2	SQA	FE Colleges/ schools
Sporting Activity : Mountain Biking Higher	2	0	12	15	19	SQA	FE Colleges/ schools
NPA (G8R5 45) Sports Coaching: Cycling (marketed as L2CCC Certificate in Coaching Cycling)	1	0	0	14	22	SQA	Scottish Cycling
Plan and Prepare a Series of Coaching Sessions: [cycling]	1	0	0	14	22	SQA	Scottish Cycling
Coach Participants and Develop Personal Practice: [cycling]	1	0	0	14	22	SQA	Scottish Cycling

Data courtesy of SQA

Table 7: Active Schools 2008-11 - Participant Sessions* in Cycling

	2008/09	2009/10	2010/11
Participant Sessions	45,897	42,394	37,945

^{*}Participant Sessions are the number of "visits" pupils make to active schools sessions. These figures do not show the number of pupils involved in Active Schools activity, and should only be taken as indicative of participation trends. (Data courtesy of sportscotland)

4.4 Participation and Sport Development - Progress in the Last Three Years

Access to quantifiable data has proved difficult for the *DMBinS* project team; therefore the key performance indicators – numbers participating in/out of school, numbers of events and numbers on performance programmes – have not been presented. This means that trends or patterns in participation have not been analysed to date. Data presented below illustrate trends in SCQF credit–rated provision of mountain bike specific educational programmes, and some out–of–school generic cycling activities.

In general, data in table 6 reveal a progressive rise in those achieving L2 coach, but indicate that the total number of candidates (22) was a small quota of coaches for Scotland by the end of 2011. Data documenting achievement rates for performance units (mountain biking) reveal a general upwards trend until 2009–10, followed by a gradual decline in numbers. There may be many reasons for these trends that can only be speculated. For instance, the 'sporting activity: mountain biking performance' unit descriptors were devised in 1999, and were replaced very recently by new descriptors. The decline could be indicative of a general loss of provision, or the start of a new growth opportunity with new units. A further year of analysis would be useful. Table 7 illustrates a declining trend; however there is no analysis to explain the pattern. This is significant in that it warrants investigation to determine the cause and effect of such a decline in provision, so that measures could be put in place to address any problems.

Current learn-to-cycle schemes are delivered by 'coaches' (using the 'In Gear' or 'Go Ride' schemes), 'leaders' (using the MLBA (*Scottish Cycling*) or GoMtBike (*Cycling Scotland*) Schemes; and 'trainers or teachers' (using a range of schemes eg. Bikeability). There are currently no registered UKCC L1 coaches in Scotland which provide generic cycle training, including mountain biking. Roll out of the UKCC Cycle Coaching awards was offered at Level 2 in Scotland. There are currently three approved coach educators in Scotland. The UKCC L3 discipline specific (mountain biking) coaching awards are currently under development.

Although the UKCC qualification scheme has only been available in Scotland since 2010, this clearly represents an area where numbers and spatial distribution of coach education programmes and coach educators should be a recommended priority for future Olympic legacy funding initiatives. Scotland does however have a

significant number of Mountain Bike Leaders, including 9000 registered on the MBLA scheme and 54 active MBLA tutors.

In February 2012 the MBLA was incorporated into the remit of Scottish Cycling, and it is currently working with British Cycling to align leadership qualifications to the UK L1-3 format. It is anticipated that the emergence of a L1 award will greatly influence the uptake of training (at a more inclusive level) and so impact on participation activity levels (through more activity sessions running for example). Finally, people also, somewhat ironically, get started in mountain biking through the on-road training scheme delivered by Cycling Scotland, particularly in the initial stages (Bikeability 1) when Ride Leaders develop broad experience activities with participants. Cycling Scotland also administers the GoMtBike proficiency scheme. There are 151 Approved GoMtBike approved centres (15 in the HIE area and 62 in the SE Area, making a total of 77 in Scotland). At this stage an analysis of the geographical distribution of approved centres for all awards and proficiency schemes has not been conducted. Unfortunately data are not available to document trends in qualification uptake, or how active the cycle workforce is, which would signify growth. However, it is highly likely that increasing these numbers will have a beneficial effect and positively influence participation.

One of the key characteristics of mountain bikers is their propensity to undertake their activities within a number of contexts which makes quantification problematic:

- They create informal mountain biking groups, without membership or engagement in the National Governing Body of their sport and/or the traditional club structure. These participants ride together as 'friendship groups' or are associated with their local bike shop or with their local communities. A future role for *DMBinS* would be to develop a package of benefits for these groups that may encourage them to affiliate to a joint cause and have a voice that is represented. It is understood that this is an objective that will be discussed at the national conference in September 2012.
- Guided rides & commercial instruction there is no requirement to document how many participants pass through these businesses, although it is clear that many companies are viably operating within the *Scottish Enterprise* area. *DMBinS* has provided a space on its website, and should continue to

- encourage providers to link to it. This will enable a greater understanding of the market, and the trends within it.
- Off-road cycling and utility cycling (using a bike as a means of transport) are
 not generally classified as 'mountain biking', and yet may involve the use of
 the same design of bike. Many participants ascribe the term 'mountain biker'
 to someone who rides in technical terrain, and yet the spectrum of activity is
 vast.

The research team at CRTR suspects that these groups actually represent a substantial part (perhaps 75%) of mountain biking activity in the UK, and yet also acknowledge that their expectations, aspirations and experiences are rarely captured.



Figure 2: British Cycling Long-term Rider Development Model (LTRD)

4.4.1 Sports Development

The *British Cycling* Long-term Rider Development (LTRD) Model (2009) outlines the pathways riders may go through as they develop from beginner through to experienced or elite level.

Traditionally in Scotland, the provision of pathways and opportunities for participants has been not only provided by the National Governing Bodies – *British Cycling* and *Scottish Cycling* – but also shared by a number of other organisations and agencies, many of whom developed their own brands of training, proficiency schemes and mountain biking qualifications. The information pertaining to each scheme is well documented on each organisation's website, but because of their

need to develop a market position, they have not provided the participant/user groups or employers with an overview of the whole field. During the last three years the *DMBinS* project has collated the information to achieve a holistic overview and presented this information via the *DMBinS* website in 2011.

Table 8: Audit of agencies/organisations providing mountain bike qualifications

National Governing Bodies – British Cycling (BC), Scottish Cycling (SC), etc. Government Funded Agencies – (which may also be companies and/or registered charities) i.e. Cycling Scotland.

Not for Profit Organisations or Clubs – funded through its membership or donations e.g. Mountain Bike Leadership Association (SMBLA, although recently MBLA, and incorporated into SC in 2012); Cycle Touring Club (CTC, formerly Off–Road Training Consultancy [OTC]). SportsLeaders UK is another members association which is considering developing off–road biking leadership awards of its own. The International Mountain Bicycling Association (IMBA) is a not–for–profit, publicly–supported organisation, which also endorses a professional trail building company (Trail Solutions).

Commercial Training Providers – e.g. CyTec & Velotech, dealing solely with cycle maintenance. For coaching and leadership there are commercial operators such as British Off-road Biking (BOB) or the Mountain-bike Instructors' Award Scheme (MIAS), as well as a significant number of sole traders or small businesses offering training and education for mountain biking.

Education – Scottish Colleges & Higher Education Institutions have developed or are considering developing mountain bike specific or generic cycling qualifications (eg. BASES Downhill Programme); the *British Schools Cycling Association* (BSCA, formerly the *English Schools Cycling Association*); *SQA* Performance Units, etc.

Local Authorities – have been involved in off-road cycle maintenance training as part of their encouragement of cycling as a transport alternative or in support of health initiatives.

This is the first time that this information has been brought together to assist participants and employers in their understanding of opportunities. In addition an audit of all the awards and training schemes has been mapped against the Scottish Credit and Qualifications Framework, with the aim of identifying where parity between awards exists. The outcome of this research was to highlight that very little training and few qualifications have been formally credit rated. While this is

not significant in itself, it does mean that recognition of awards across boundaries (eg. other parts of Europe) is difficult to validate or difficult to use in accrediting prior learning. The outcome for the participant is that training can be duplicative and expensive, both in terms of cost and time.

4.4.2 Progression within and between Disciplines

Participation in mountain biking incorporates a range of disciplines associated with participant development (cyclocross, enduro, BMX, XC, downhill, for example), all sitting within the generic sport development context of 'cycling'. There are a number of trends and issues that have become apparent within the cycle disciplines in the last three years:

- Enduro (defined elsewhere as the competitive side of 'all-mountain' riding) is presenting a trend of increasing popularity. Enduro-style races tend to have a wider customer base, so can be more popular (there can be a whole car full of bikers who may be of all ages and all can race). Enduro is becoming hugely popular in the events side of biking. Landowners are becoming happier to have events organised on their land, whereas it is more difficult for some trail centres, as some tracks cross a multitude of landowners. Under S.11 of the 2003 Land Reform (Scotland) Act, Forestry Commission Scotland, and indeed all landowners, have the power to close certain paths to allow races to go on.
- *Cyclo-cross* (bikes similar to racing bikes, essentially, but modified for off-road use) is making a big comeback one bike for all purposes.
- *Downhill* has been struggling (especially racing) in the last two years. It is very expensive down-hilling especially tends to be young people with either themselves funding or their parents. Down-hill bikes are very expensive. The Fort William downhill course costs more in upkeep than it gets from income.
- Enduro downhill is an emerging discipline, which requires riders to pedal uphill, and get timed on the downhill section of a circuit, much akin to car rallying in stages. There has been a surge in both numbers participating and events. The most likely reasons for this surge have been described as being: the use of a more versatile, cheaper bikes (all-terrain); uplift at the venue not being required; and that it appeals to participants as a radically new development.

- A potential feeder sport for mountain biking, *BMX* has become an Olympic sport. The bikes have been produced at all price ranges and purchased from a wide range of outlets from supermarkets to specialist bike shops. It has a cool image in youth culture and is the bike of choice on the streets and at dirt jumps/bike parks for children.
- Cross-country is an Olympic discipline which saw the development of a new purpose-built race facility in the south of England. There is a significant potential for a boost in interest. XC bikes are produced in a wide range of prices and specifications to suit the market, although high end bikes are a significant expense.

There are some significant issues and, as yet, unanswered questions relating to the influences and barriers to getting started in mountain biking:

- Increasing and broadening participation is key women, those with poor health, disabilities or low incomes are key groups that need to be considered; and
- Who bikes? The less privileged are less likely to bike, especially at trail
 centres, as equipment is too expensive and they need transport. Dirt parks,
 however, can attract people from all backgrounds; there is a need to pull in
 this user segment to the trail centres.

4.4.3 Performing and Excelling in Mountain Biking

Current research suggests that participant development in mountain biking should be viewed as dynamic and non-linear because there are multiple pathways that individuals may take as they progress in their activity (Abbott *et al.*, 2005). Traditionally excellence in sport (and in mountain biking) has been conceptualized in terms of outcome measures in the form of medals and participant numbers in performance programmes. It is also clear from the 2012 Olympic Games' legacy that it has political appeal, which has the added advantage that sport funding is pledged to follow. Current academic thinking, however, is that this is too restricted and does not reflect the growing interest in lifelong participation in physical activity. Miller and Kerr (2002) suggest an expansion of the definition of excellence to include personal participation and improvement. There are other pertinent factors:

• Success at sport level can influence general participation;

- Clubs can have a positive social impact too;
- There are some key areas that we focus on as part of sport development including schools, clubs, coaches, volunteers, athletes/performance and facilities;
- Growth in educational opportunities to contextualize sport studies in both
 Further and Higher Education through the medium of mountain biking (and
 other cycle disciplines), for example: the Downhill Academy at *Borders*College; sport medicine and science services to mountain bikers provided by
 Napier University, and vocational training (MBLA leadership and coach
 education) incorporated into HNC/D and degree programmes and
 frameworks; and
- There has been a growth in sport science research with reference to cycling, which will have a beneficial impact on all cycling disciplines.

5. Analysis of Research Findings

In many ways the core of this report, the identification of gaps in provision and a discussion of a realistic course of action to develop mountain biking in Scotland entailed interrogating all the data and findings from the research process to find the key themes, supported by findings from key studies and reports and the team's own knowledge of Scottish mountain biking.

The section is structured roughly along the headings in the National Strategic Framework, to consider issues of: facilities, attracting visitors, business development, events, participation and sports development. This discussion is illustrated where appropriate with key quotes from participants in the focus groups and surveys. Also drawn from the qualitative surveys are four illustrative case studies; these serve to describe a range of typical mountain bikers and their characteristics and preferences. Participant descriptions help to set the scene.

Many of the findings are discussed in this section, while others have been discussed in the previous section. Full analyses of the quantitative Glentress and Survey Monkey questionnaires are appended to this report.

5.1 Participant Characteristics and Motivations for Mountain Biking

The respondents to both the *Survey Monkey* and Glentress surveys were overwhelmingly male (90%/80% respectively). The greatest proportion of both sets of respondents were aged 26–40 (57%/34%), followed by those in the 41–55 age group (31%/29%). As discussed elsewhere, the majority classed themselves as all-mountain (32%/25%), trail riders (30%/20%) or cross-country (25%/26%).

The interviewees at Glentress hailed from a wide range of locations: 34% from England (many from Newcastle), 25% from Edinburgh and 24% from both the 'Borders' and the 'rest of Scotland'. The following geographical spread of *Survey Monkey* respondents was apparent from a *BatchGeo* postcode analysis:

Glasgow area:	94	Highlands:	20
• Edinburgh area:	78	England:	19
• Tayside/Perthshire:	45	North America:	4
• Borders:	26	• Other:	49
Grampian:	24		



Figure 3:
A Conceptual Framework of Influences on Dedicated Mountain Biking Participation
(Taylor, 2009)

Although not part of this study, a brief examination of both the core motivations for mountain biking and the key factors that influence the decisions that mountain bikers make about where to ride, as well as other factors that influence or constrain participation, is instructive. Taylor's (2009) research sought to develop an

understanding of these factors, using in-depth surveys of bikers in both the UK and New Zealand; Figure 3 illustrates the key findings.

In terms of the key factors that influence where people ride, these findings are supported by Keating (2009), whose UK-based survey found that the most important locational influences on decision-making were (in declining order of importance): quality of the trails; trying something/somewhere new; the number or variety of trails; trail difficulty; convenience; and scenery. Scotland's natural trails and trail centres would appear to cover most of these bases.

5.2 Facilities

From the industry and stakeholder focus groups there was vigorous discussion about the role of facility development in Scotland, and how these facilities help to meet key Government and stakeholder priorities, including widening participation, cycling for health, sports performance and enhanced economic benefits through leisure and tourism. It was apparent from responses that there is both a great desire for high-quality, purpose-built facilities, across all abilities, as well as for natural trails – although the latter preference was perhaps more explicit for more experienced riders.

The type and location of various forms of facilities were addressed. A key point was that the *7stanes* phenomenon is viewed by many as a tremendous success, and has served to raise the profile of Scottish mountain biking as well as attracting visitors from outwith the country. As one participant stated:

"Glentress is Britain's template for trail centres. Every mountain biker wants to visit Glentress at least once a year".

For riders, Glentress is widely viewed as the best trail centre in Scotland, for the range and quality of its trails. Through interviewing riders and their families at Glentress it became obvious that the range of facilities for both riders and non-riders (especially where in the same party) was also a key attraction of the site. Consequently, and in order to attract families and other mixed-interest groups, new centres should seek to include a range of supporting attractions and facilities, from simple walks to a café. These suggestions are commensurate with the findings of *George Street Research* (2010), through its *7stanes* Clinics.

However, a serious criticism was levelled at Glentress, as it was argued by a number of participants that this facility in the Scottish borders has had deleterious effects on operations elsewhere (particularly further north), in terms of public monies spent, inhibiting further development of facilities in other locales. As a participant commented:

"[The] location of trail centres is wrong. Should be something in every county but 7stanes are far too close together... Forestry Commission helped Dumfries and Galloway and most of the funding went down to 7stanes... 12 years later Aberdeenshire, Perthshire, Inverness-shire etc. still all need some kind of trail centre".

In addition, while many riders at Glentress during survey days hailed from the Edinburgh region, there were relatively few from Glasgow, and all but one had access to cars for bike transportation. The point suggested here is that, aside from ongoing maintenance, no further public money should be invested in new *7stanes* developments, and that major wins would be achievable if developments on city margins were supported, along with suitable, sustainable and flexible public transport access, including safe cycle ways from the cities to the trail centres, and facilities that will support and encourage their use by local clubs, schools and coaches for example.

It is important to stress the inherent complementarity of existing centres, exemplified by Glentress, and the development of new centres, and other smaller facilities, elsewhere. The *7stanes* will continue to be a major draw for many riders, both from Scotland and further afield, acting as 'honeypots' for many riders, and it is highly unlikely that new developments will be able to compete with the image, size or variety of Glentress. It is suggested that rather than dwell on the negative displacement implications there needs to be a positivistic business case made for public sector investment in areas such as Glasgow or Perthshire, in order to be able to strengthen Scotland's overall mountain biking 'product' and to help meet the growth targets set out in Section 7; without considerable investment it is argued that these growth targets will not be met. Recommendations pertaining to future development are discussed in Section 9.

The attraction of local trails is confirmed by the Glentress surveys, as 59% of bikers ride once or more times a week from home. Conversely, the need for more local

alternatives and more alternatives to driving to trails and trail centres is supported by the *Survey Monkey* results, which suggest that 54% of people are willing to travel over 100 mile to access trails, 24% are willing to travel 51–100 miles and 17% will only travel up to 50 miles. Results from the Glentress survey suggest a similar pattern. These findings support the notion that this is a carbon–intensive activity in its current form and can require high levels of car ownership, although it is acknowledged that there is, to a certain extent, a culture of car–sharing among mountain bikers.

'Local' developments would maximise the benefits for urban populations, particularly those with low incomes or who are unemployed (comprising major parts of Scotland's population and groups largely unrepresented in current mountain biking communities, which remain predominantly white and middle class). Such facilities should also allow independent travel to the centres/bike parks via safe cycle routes, being within reasonable distance of the city and avoiding the crossing of busy roads.

The popularity of skills loops, jump parks, pump tracks and BMX parks as an attraction in their own right, coupled with the role that they can play in the development of riders, renders them attractive options for these local developments. As well as being excellent facilities for just enjoyment, such places should also offer a serious role: as a coaching facility or a hub for a club. They could also usefully be integrated with other forms of cycling, to create the critical mass required to make them viable and popular facilities. At the very least all the Scottish cities should host such a centre within its perimeter, as well as promoting existing trails. It is suggested that a regional audit of facilities, such as BMX parks in other settlements, should be undertaken, and responsible bodies, local authorities for example, encouraged to upgrade them where necessary.

It is also recognised that in some areas new developments are not necessarily required and less complex and expensive changes may be suitable, along the lines of:

- An upgrading and/or refreshing of facilities;
- An upgrading and promotion of suitable existing multi-use natural trails;

- The addition of new facilities at an existing trail centre from club storage, through toilets and changing rooms to a new café; or
- A change of focus, encouraging local authorities to develop suitable facilities within parks following the example set in Dundee.

A Mountain Biking Facilities Development Ladder

These ideas all fit into what might be viewed as a general four-stage *mountain biking* facilities development ladder, structured as follows:

- The development and promotion of accessible local trails and facilities, such as bike parks, is the first step, as the probable first exposure to biking.
- This is followed by cycle paths to access them, and other trails and attractions, keeping kids in particular off-road.
- The third step would be to develop a bigger-scale trail centre (although, were the right location identified, the bike park could be incorporated into the trail centre).
- Beyond this, the final stage is either deeper specialisation (for example enduro) and/or a move out onto wilder trails with the attendant requirement for navigation, route planning and bike maintenance skills, self-reliance and stamina.

These stages, in effect, serve to 'zone' mountain biking facilities. A relatively limited zone would be created around local facilities such as a bike park. Linear local zones would be the result of creating safe corridors to access these local centres and other key local attractions or facilities.

Trail centres of the ilk of Carron Valley for example would have larger zones, with a greater sphere of attraction, drawing in riders from an extended hinterland. Beyond these lie the major centres, of which Glentress forms the best example. Such a centre acts as an attraction in its own right and draws visitors from within a much larger geographical zone. Finally, natural trails would be sectored similarly to trail centres, with local trails having a limited zone of attraction, perhaps appealing to just local riders, rising through to stand-alone attractions with geographically widespread appeal, such as appropriate sections of long-distance routes like the West Highland Way.

The elements of this ladder are also suggested to be broadly commensurate with the development of mountain bikers themselves, in terms of both how they progress as riders and the types of 'experiences' that they seek (see the 'Qualifications Mapping and Audit: A Study Exploring Mountain Biking Skills and Qualifications' report for *DMBinS*). It is acknowledged however that development may incorporate only some of these stages, while for some developments, and indeed some riders, progression may be a two-way process, and for those lucky enough to live near Glentress this is where they get to spend their formative years as a mountain biker.

A warning was sounded by one participant for potential developments however, especially those in mid-Scotland:

"Even if [trail] centres are close to the city, the gravity that Glentress holds is so strong that it will pull visitors from all over the world. If you have other centres which are lacking in certain things so are only rated mediocre by customers, they will never overcome the gravity that Glentress holds so somehow they have to make themselves stand out through facilities or use their close location to market themselves".

Simply put, Glentress seems to have inspired considerable commitment to both mountain biking in the local communities of Peebles and environs as well as to mountain biking generally, leading to sporting success and enhanced participation levels and grassroots activity. It is therefore suggested that a trail centre of comparable size to others in Scotland, if not Glentress, located close to Aberdeen, Perth/Stirling or Glasgow (or ideally all three) stands to have a proportionately greater effect on social involvement in the sport, and it is these cities which should be targeted and supported as a core priority for *DMBinS*.

The popularity of trail centres is supported by the findings from the *Survey Monkey* questionnaire, with 37% expressing a desire to see new centres. The Central Belt was cited as the area that most needed improvements or developments (62%), followed by Tayside and Fife (41%) and the Highlands (31%). If all the major centres of population were to have easy access to a high quality trail centre, there could be intense inter–regional competition and an active events calendar in which such rivalries might be played out, which would be excellent for sports development and media coverage. From the Perth focus group, pertinent opinions included:

"We need to ensure that people go from jump parks to trail centres and natural trails".

"Jump park is only the start of it - need to have something bigger and better for when the kids grow out of the jump park".

"High schools are getting grants around £10,000 a time to put small trails in the school grounds, or a new set of bikes, or a trailer to take bikes out etc".

"Safe routes to get to better places. Access tracks, two-metre wide. No need for big tracks".

There is a perception that the development of new facilities is at risk (likewise the maintenance of existing tracks) due to *FCS's* policy of no longer funding or allowing new tracks to be built. Consultees' perceptions are that this is due to fears of litigation from users, and maintenance costs for little reward. (please see 9.2.3.).

CRTR appreciates that *FCS* manages and mitigates its financial and reputational risks by managing and maintaining its trails and facilities to professionally recognised standards and making sure they are fit for purpose. Striking a balance between risk and benefit is an important element for any land manager to consider, and it is acknowledged that *FCS* is committed to continue with this responsible approach to the management of its mountain bike facilities.

Indeed, the issue of 'little reward' from mountain biking is an important one, and, during the Perth-based focus group, it was clear that the land agent who was present would take little away from the meeting which would encourage his clients to invest in trails and associated facilities. Unless the estate in question has accommodation to let or a café to fill, there is only the option of parking fees to allow landowners to capitalise on their (substantial) investment. It is understood that the National Access Forum is currently considering this issue. As a participant observed:

"If a private land owner wanted to set up a dirt jump place they would be running the whole thing themselves, running the café, bike/equipment hire, the facilities etc. because access to land will always be free so it is the surrounding facilities that will have to be the earners. You have to make money off every single thing there. Cannot always rely on volunteers as parents will get fed up doing it, kids will grow up and move away to university".

In Section 4, it was stated that responses from the *Survey Monkey* showed 32% of riders self-classifying into all-mountain, 30% into trail rider, 25% as cross-country, and only 4% of mountain bikers calling themselves downhillers. Although it is acknowledged that downhills are a prime motivation for many riders, the development of centres with a focus on uplift facilities is therefore suggested to be a lower priority, especially for the application of public funds, than new trail centre

developments near centres of population. Such expenditure will only serve a niche sector with access to plenty of cash, and one that is shrinking. As one participant put it:

"Scotland can't compete with the Alps in terms of providing uplifts... but can provide a much wider range of off road biking, all different types of biking, so this is where we have to target international visitors".

If one were (quite reasonably) to conflate the figures for the self-labelled all-mountain, trail rider and cross-country bikers, 87% in total, there is a sizeable population who are not only capable of riding *up* the hills prior to hurtling down them, but amongst them a large number who view this as an integral, challenging and enjoyable part of the experience.

5.3 Attracting Visitors

When questioned on *Survey Monkey*, 42% of bikers identified a lack of accessible information as an identified gap in Scottish mountain biking provision, the most popular response. When quizzed about where they do get their trail information from, the results were unequivocal, with two dominant information sources: the Internet and via word-of-mouth. *Survey Monkey* respondents confirmed that 88% of bikers use the internet to get information, with 68% via word-of-mouth. Forty-seven per cent also get information from magazines, while only 13% get their information from books.

Importantly, the single biggest improvement suggested by the businesses surveyed to develop mountain biking tourism in Scotland is better information (65% of respondents). The criticisms/suggestions regarding information include:

"In the Aviemore area finding enjoyable trails can be a frustrating experience for visitors. There needs to be better signage and links between trails, as well as recognition and support for business who devote time and effort providing information to visitors".

"North East Scotland lacks a good trail centre but more needs to be done to ensure hill trails/improvements are MTB friendly".

"More natural trails should be waymarked in order for them to be more user friendly and less intimidating for beginners and families to use".

"The trail centres that exist are great, the specific problems we have... are linking the trail centre with the wider trails network. Better access, working together with local landowners, better signage, and a movement towards more traffic-free long distance routes and networks across the country".

"Better mapping of more challenging trails outside the trail centre network".

These responses suggest uncertainty over trail (and trail centre) information, both in terms of advanced planning (information available on the Internet for example) and route finding on the ground (such as signage and trail-marking on maps). It is therefore suggested in order to attract more mountain biking 'visitors', both those who are tourists and those riding on day trips, a number of key improvements need to be made.

Better co-ordinated marketing, including information promoting guiding companies to help discover Scotland's best singletrack, is required. It is suggested that *VisitScotland* is the best placed organisation to lead such an initiative, through a comprehensive Internet guide to all the key trails and trail centres in Scotland. This should also be used to communicate messages about responsible mountain biking, and would allow businesses to promote their sustainability credentials. Although not perfect, the interactive *1SW adventure cycle map* (http://map.1sw.org.uk), for South West England, provides a great example of how a single web portal for a geographically large region can operate. Supporting activity for *DMBinS* and other key organisations, through trade shows for example, should be supported to raise awareness of such developments.

There have been numerous recent examples of good practice in terms of local trail mapping, for example the *Highland Perthshire* and Angus route cards. The latter include routes for a variety of experience levels, along with pertinent local information such as bike shops and bike-friendly businesses. They form an excellent template for a series of national route cards in key locations, which could

be promoted through a central web site. The cities of Scotland should form the focus of an initial roll out of mapped trail networks, with towns phased in according to demand.

5.4 Business Development

Future mountain bike leisure and tourism businesses will undoubtedly benefit from the development of new trail centre attractions in a wider range of locations across the Central Belt and in the east of Scotland. Many Scottish cities already have well developed infrastructure to support tourism, including transport networks, cafés, restaurants, hotels and other accommodation. The *Survey Monkey* results confirm the attraction of a mountain biking trip with a night away from home, ie. as a tourist. Forty-one per cent of bikers spend 2–5 days per year on overnight mountain biking trips, 17% spend 6–10 days and another 9% 11 days or more.

Perhaps even bigger wins are available for tourism, however, if greater focus is made on the 'natural trails': linking up routes, sorting litigation and maintenance issues, and improving signage and interpretation. Participant suggestions included:

"[Need] promoted, interesting trails within easy reach (ie. without car) of centres of population. Not trail centres, which imply a tourist resource".

"More of a focus on natural trails [needed], trail centres consume most of the tourism, meaning the immediately-local area benefits greatly in terms of tourist spend, when the money could be more widely spread and trail use more diffuse, which would mean quieter trails and a greater sense of wilderness... Tourism is not self-serving, we get tourism massively wrong compared to other nations".

While this might require the efforts of a *DMBinS* 'regional' officer, the development and capital investments costs are far lower than for trail centres, and the appeal of wilder Scottish journeys is undoubtedly a draw for international markets, as are the trail centres. Long journeys by mountain bike in iconic Scottish scenery, with rugged, technical sections and great hospitality along the way are a huge pull. Indeed, such experiences were praised by those who sampled them at the *ATTA* adventure tourism conference in Aviemore in 2010. Participants voiced their suggestions:

"Need access and information about existing places for places like Perthshire and Aberdeenshire. Rights of way [sic] are actually really good in Scotland but there is a huge lack of information about it – people worried of over use. These tracks just need a bit of firming up so that they cope with more people and all weathers".

"Walking tracks are all over wild parts of Scotland but doing up these tracks so that they can cope with MTBs is much cheaper and more sustainable than building new ones".

"Bulk up riding opportunities in middle Scotland - both with new trail centres and better promotion of natural routes".

These initiatives require 'big picture' joined up thinking from a number of enabling bodies for their development. *FCS*, *VisitScotland*, landowners and legal specialists (to address the liability and litigation issues) must co-operate and push efforts toward social media and good, clear route marking (apps, maps and GPS) and signage with interpretation media stands.

Importantly, some of the same strategies can be used to develop easier off-road routes for families, groups of children and beginners. Scotland has a wealth of steadily graded paths and tracks, many of which would work well for these groups of leisure cyclists if there are facilities along the way for café stops and toilet break; thus the integration of leisure and tourism services is crucial to mountain bike development at this level. It was advised by participants that:

"Clients are wanting green and blue grades, they want sustainable tracks, off the forestry roads and off the estate roads. They want them on something that is weather-versatile. Lots of interest for family friendly routes".

"More and more families are biking. A great way to cheaply get out and have fun. Renting allows it to be cheaper too. Wider tracks, easier tracks so all family can join in".

DMBinS should in future be bringing together and persuading public transport providers, landowners, small business operators and supporting bodies, such as *FCS*, *SNH* and *Scottish Enterprise*, to support these developments. The liability issue need not necessarily be a barrier; proper consideration and the apportionment of responsibility by trail builders can mean that these trails and the increasingly

litigious propensity of society can be seen as a business opportunity (rather than a threat) in itself. It is possible that trail builders could underwrite their work, removing liability from the landowner and giving themselves competitive advantage.

It is CRTR's recommendation that these developments must be supported by Government funding, and greater ministerial support, through the designation of a cross-party working group for example. It is suggested that some of the pressing mountain biking-related issues which should be the focus of debate could include: investment requirements to maintain Scotland's competiveness; making the activity (among others) more accessible; pathways to development to increase sporting success; and maintenance and liability issues.

The direct benefits to the Scottish population and economy include:

- Greatly enhanced invisible exports and (tourism) income;
- Greatly improved potential for better health, ameliorating the effects of inactive lifestyles and lack of access to outdoor leisure; and
- The growth of small business activity in and around these developments as part of infrastructural growth.

The *Scottish Government* needs to support the aforementioned 'development ladder' by funding close-to-city trail centres and bike parks, and work with bodies such as *DMBinS* on litigation issues in order to remove perceived barriers to development. In addition, landowners willing to develop their estates for mountain biking and other leisure activities should be tasked with meeting a checklist of criteria for agreed development in order to access support in the form of grant aid. The nub of the issue is that while the benefits of mountain biking are huge for the Scottish economy and Scottish health (the two of course are intimately connected) the direct benefits to those who comprise 'the industry' are generally slight.

5.5 Participation and Sports Development

The research findings relating to participation and sports development involved interrogation of the literature and an in-depth interview with the *DMBinS* Project Manager.

The problem for mountain biking is that our academic understanding of participant engagement and development pathways is still forming. There are many theories and models (for example Balyi's (2001) Long Term Athlete Development and Côté's

(1999) Developmental Model of Sport Participation), which have brought some advances in the understanding of sports participation. One such model (the Three World's Continuum – see Bailey 2010) is useful for mountain biking in drawing attention to the different contexts within which performance and excellence can be measured:

- i. Elite Referenced Excellence (ERE): Excellence as high-level sporting performance, where achievement is measured against others with the ultimate goal of winning at the highest level possible, such as national and international competition (I am the best in XXXX)
- ii. Personal Referenced Excellence (PRE): Excellence as participation and personal performance, where achievement is more personally referenced by, say, completing an Endurance Challenge Event (for example Strathpuffer) or improving one's personal best. (I am getting better than I was)
- iii. Participation for Personal Wellbeing (PPW): Taking part in physical activity to satisfy needs other than personal progression. Typical motivations for PPW might include the improvement of one's social life (e.g. making/keeping friends), the enhancement of one's identity (e.g. being a member of a high-status group or club), personal renewal (e.g. through activity which is both enjoyable and spiritually fulfilling) and the maintenance of aspects of self-esteem, e.g. staying in shape. (I do this because I enjoy it and it makes me feel good).

Bailey *et al.* (2009) contend that, for any sport, a balance of provision between all three is important, and the development of the capacity for individuals to move seamlessly from one goal to another (across the lifespan for example) is a crucial aim. For example, young high-level performers can subsequently stay involved at a participation level whereas late developers or returners can try their luck in the ERE and PRE worlds at any age. Currently, opportunities to achieve these aims for mountain biking are managed across a range of agencies in Scotland, and no pathways mapping is co-ordinated between such agencies.

Miller and Kerr (2002) argue that excellence at elite levels can only be obtained through optimal personal development. Bailey *et al.* (2010), in their 'Review of Pathways Development in Sport', conclude that many of the standard talent development practices are based on dubious assumptions about the predictability of performance over key transitions, the stability of biological indicators, the

underestimation of psychological aspects and the almost total ignorance of sociological and economic mediating factors.

According to these authors, talent development needs to be seen as a long-term strategy, based on mass participation and numerous participation pathways. This strategy contradicts current practice of investing in small numbers of performance athletes. Further research and monitoring of performance programmes is essential to evaluate their value and plan future strategies for talent development.

5.6 Events

Mountain biking events do appear to span the full range of the sport development continuum, including events for novices, recreational events, performance and elite events. These include events involving specific cycle disciplines (and bike design) and mixed events enabling access with any type of off-road bike. Some events involve purely cycling, while other events are duathlons (involving mountain biking and one other activity – usually trail running) and adventure triathlons (involving three different adventure sports). Within this range, events are devised, co-ordinated and administered by different organisations, making monitoring of participation levels and trends problematic.

Table 8: Organisations currently engaged in mountain bike event management

Administering	Examples of events in 2011 (full	Range category	No. in 2011
Agent	year data)		event
Scottish/	Innerleithen Day/Night Enduro	Comp Enduro	59
British Cycling	The Winter Series	Competitive DH	24
, ,	Mini DH series (5 in series)	Grassroots DH	105
	St Filian's MTB Challenge	Recreational	No data
	Scottish Downhill (5 in Series)	Competitive DH	111
	Grantown XC Race	Non-ranking	No data
	Highland Youth MTB series (5)	Competitive XC	110
	U16 stage race	Non-ranking all	461
	Scottish XC Series & Champs (6)	Elite XC	213
	GoMt Bike series (5)	Grassroots XC	No data
	Dirt Crit (5 in series)	Competitive XC	No data
	Marathon series (4)	Competitive endure	No data
	UCI World Cup (series)	Elite	No data
Not for profit	Strathpuffer 24 (2012)	ERE	362
SPORTident	Puffer Lite	ERE	362
(Single entries)			
		-	•

Commercial	No Fuss Events. Eg. 2012		
Enterprise &	Endurance downhill	ERE	118
sponsored	10 under the Ben (5 in series)	ERE	557
events eg: <i>No</i>	Winter Feast Duathlon series	ERE	189
Fuss	The Big Ben Triathlon	ERE	Forthcoming
	Highland warrior Triathlon		Forthcoming
	Relentless 24	ERE	No data
	Gore Winter Series	ERE &	175
Charity	<i>Alzheimers Society</i> Cycle		Forthcoming
	challenges		
Clubs	Eg. Trailquest/Scottish Mountain		No data
	Bike orienteering series (7 in		
	series)		

These events include those organised by National Governing Bodies (eg *Scottish Cycling* and *British Cycling*), International Federations (eg *UCI*, Olympic, & Commonwealth committees), membership associations, charities and commercial enterprises. Table 8 highlights a sample of the organisations currently engaged in mountain bike event management, and some examples of events and numbers participating:

Conducting an 'all mountain biking' events search on the *British Cycling* website identifies the number of events where online entry is facilitated and therefore monitored. A filter can be applied to specify 'Scottish events' and can stretch back to 2005, although participant data tend to be available from 2009 onwards. The site includes all events, whether competitive or recreational, and can filter by categories such as age and gender. Not all events have data, and so an accurate count of participation numbers does not appear possible through this route.

Case Study: No Fuss

Taking one event (Ten Under the Ben – established in 2007), where mountain bikers ride a ten-mile circuit over ten hours duration to record the highest number of laps, on May 26th 2012 115 solos, 105 pairs (210 participants); 52 trios (156 participants) and 19 quads (76 participants) completed the event. This makes a total of 557 participants in this event, which is part of the '10' series held at other venues around Scotland, and beyond.

The *No Fuss* events list has shown a fast growing upward trend since its one inaugural event in 2007, with 3 in 2008, 7 in 2009, 12 in 2010, and 19 & 18 in 2011 and 2012 respectfully. *No Fuss* does state that there is a very recent decline in numbers of participants, resulting in it having to cancel three events in 2012 and a c.20% drop in race subscriptions.

A full analysis has not yet been possible as it is too early to detect a pattern, but the organisers suggest the cause is most likely to be the increasing costs of travel and accommodation in the current economic climate, together with a long period of bad weather. However, the cause could equally be an overcrowded events scene with higher participant capacities. Further research would be helpful to gauge the market for events.

What is evident, however, is that there appears to be as many people participating in what has traditionally been classified as 'recreational' mountain biking events as are engaged in the more formal structures of National Governing Body and club competition, with its associated benefits of membership and access to training and coaching. This is a significant finding, as it suggests that a large share (maybe 20%) of the mountain biking community is actively competing, but not accessing the traditional routes to sports development. While there may be no definitive data on the actual numbers competing, there is no doubt that mountain biking events can draw in large numbers of riders, and associated support crews and spectators, with significant direct and indirect local economic benefits.

5.7 Illustrative Case Studies

From the team's discussion with mountain bikers, and their families, in the Glentress Peel café a number of interesting vignettes of rider characteristics and desires became apparent.

Max, below, was an untypical individual on the day. He had used public transport to get to Glentress, hired a bike (an Orange 5) and an onsite wigwam for accommodation. He is not currently working, has no network of support other than the early influence of his uncle and does not know other people to ride with. Indeed, on the day in question he had persuaded a mate from his area to come and 'have a go'. Max is an example of the potential for mountain biking development

for social groups residing in large centres of population, with a relatively low level of education and little money but a real passion for riding. He is 'time rich, cash poor'. He keenly wants to compete, and to inspire others known to him to get involved. Notes from the interview transcript are provided below:

Max

- Came on his own
- Enjoys adrenalin rush of pumping down the hill
- Orange 5 downhill rented bike
- Stayed in the Wigwams. From Penicuk
- Renting is a good service
- Like blacks and reds
- Hopes to do it professionally
- Rides every day
- Got into mountain biking via his uncle 3 years ago
- Mountain biking in Scotland perceived as dirty and wet
- Uses a heart monitor: aiming to improve fitness
- Barriers: needs more places and better communications
- Facilities loves the craic good people/sense of community
- Natural or designed? All of it, but jumps are good
- It's all about the quality of the ride
- Has no organisational back-up no club. Just on his own
- Would like to set up own business

How do we increase his participation? He has a perception that cross-country is boring - hard work (uphill) etc. - discounted taster sessions might change his opinions. He wants a bit of guidance and coaching. He definitely wants to go racing

The family, below, and the next three cases which follow, provide powerful evidence of the potential impact for mountain biking in Scotland. Most were local (Peebles families), enjoying the biking on their own account, developing healthy attitudes toward sport among their children, and keen to encourage their kids to do more. All families had kids on club waiting lists in the area, and the researchers learned that the clubs are really active, run by enthusiasts who have regular rides, school sessions and competitions.

While these families were all fairly competent cyclists, all called for more blue and green runs to be developed, and for proper cycleable access to Glentress to be developed which avoided the need to cross the fast, busy open road which runs past its gates. Clearly, Glentress is a most encouraging model, and one which has stimulated activity which meets with the ideals of bodies such as *sportscotland* in terms of improving competitiveness (local riders are national champions, who cut their teeth in the local club and at the local trails), encouraging activity in the general population and fostering grassroots involvement in sport.

Unfortunately, these wins are nowhere near as big as they might have been had the centre been built close to Aberdeen or within easy, safe riding distance of another large Scottish city: there are not enough people nearby. Those that do live close by are largely in work, well-educated, middle-class, have their own cars and, from their discussions around the Glentress tables, seem to understand the importance of sport and health determinants such as exercise and nutrition.

These families are not representative of a country with one of the lowest life expectancy rates in Europe and the highest (and rising) incidence of non-communicable disease-related deaths. What is key here is to take the lessons learnt at Glentress and apply them in a wider, more impactful context further north.

One such example is a sometimes overlooked component in many sports developments: Glentress delivers fun, surprise and challenge – the trick is for Glentress is to continue to do so for its regular customers, and for Scotland to provide these opportunities for its wider and less privileged population elsewhere.

The Iones

- A local family
- Mother and 2 daughters, 13 and 18, (of a family of 5)
- We use the forest all cycling. Go Ape. Walking
- Mountain bike reds and bits of black
- Barriers:
 - o Lack of beginner's routes. Big climb
 - o Expensive
 - Access to the trail centre need a parent to drive
- Where have you ridden in Scotland the other 7stanes, Fort William, Laggan

- Like Wolftrax good practice area, same at Fort William and Glentress Newcastleton has more for younger kids
- Natural or purpose built? Now more natural as they are fitter. But they like a bit of both. Trails a bit sanitised
- Clubs/schools? School has MTB club, Curly trails early learning about technical stuff, local school is very good
- Café very good but needs better atmosphere
- Untapped potential in the north more Glentresses needed, and more natural trails mapped and signed
- On the move they will rent a cottage with bike store/wash
- MTB racing, centres for fitness, road racing for fitness
- Need access to a car from rural backgrounds
- More cycle cross. Access code such a boon

The Smiths

- A local family Dad, boy (6) and girl (9)
- Family. New spot to kids
- Just biking with Dad (Dad also cycles with mates)
- Live in Dunblane. Holiday house in Aviemore
- MTB in Scotland outdoor experience and geography
- What does it lack? There's not much for new juniors (hence the visit to Glentress)

 Need easier trails. Looking for routes other than trail centres Rothiemurchus a

 great example of non-trail centre provision
- Attraction of the technical curves etc for kids to have FUN
- Bike club girl is on waiting list
- Bike club, Wallace Warriors really popular
- Learned on balance bikes. Can use them on trails
- So much amazing territory for MTB in Scotland

The Dads and Lads

- Kids both aged 7
- Local families
- Like downhill (uphill sometimes), jumps and bumps
- Blue routes
- From Peebles MTB made a massive difference to the community

- 50% cycle off road and other places. Peebles cycling club: races, Saturday morning group rides
- Physical barrier crossing the road for young kids, big hill unless using the old railway
- Have biked elsewhere in Edinburgh, the Lake District
- Better trails and facilities, etc here:
- More people can enjoy the centres. More predictable, more convenient. All year, all weather
- Peebles Cycling Club's youth section is already producing champions

Rory 3, Fergus 6, another aged 8 and Mum - local family

- Mountain biking waiting list for Peebles cycling club
- Heavy local presence. It is a multiuse place
- Women's (friends) group. Crèches or age specific groups help families
- Excellent green route, but the ride back to the top is really hard
- Always take bikes on holiday. But really they cycle because it's HERE and such a good facility
- Half of children cycle to school peer pressure and general
- Safe trails a major opportunity for MTB development and more use of existing rights of way connecting to trail centres
- "Cool" is so important amongst peers. Challenges, rewards etc
- Very busy at weekends difficult for locals and therefore don't go at weekends
- Bad carbon footprint effect -it's close enough to travel by day from many cities and drive home
- Inner city requirements safe routes and skills loops
- Commodity fetishism bikes, bling and the language of biking helps keep youths interested but can also raise barriers to participation
- Good website for second hand and cheap, accessible bikes will undoubtedly help

6. Recommendations for Measuring Industry Performance

A further objective for the study was to develop recommendations for the development of a performance measurement framework, which could be used to monitor economic growth, growth in participation and sports development on an annual basis. The final version of a mountain biking barometer would naturally require consultation with the industry to ascertain the most pertinent indicators, before revision and piloting prior to adoption. *CRTR* is in the process of developing a monthly business barometer for *Outdoor Capital of the UK*, and would be pleased to work with *DMBinS* in the development of such a framework. The list later in this section illustrates recommendations for each of these three key growth elements for mountain biking.

6.1 Economic Growth

In order to be able to measure the growth in the contribution that mountain biking makes to the Scottish economy, it is suggested that a wide-ranging set of indicators are developed. The aim of the indicators would be principally to take account of visitor numbers (tourists and day trippers), through accommodation and food providers and on the trails for example, and their associated spend. In addition to quantitative, and therefore easily measurable and comparable, data, it is proposed that other qualitative information, that captures opinions, thoughts and beliefs about Scottish mountain biking, would engender a more complete picture about the health of the mountain biking sector in Scotland and, equally pertinently, where attention and resources may need to be focussed.

6.2 Participation Growth and Sport Development

To measure and monitor participation growth and sport development, it is important to clarify the definition of the terms with specific reference to mountain biking. For the purpose of this report 'participation' will refer to the taking part in the physical activity as a participant or competitor while 'sport (or participant) development' will refer to pathways and processes designed to improve performance (irrespective of motivation and competition).

6.3 Suggested Indicators

Monitoring of growth in each of these domains could be achieved through the use of the following performance quantifiable measures, along with the facility to express, where appropriate, issues to address.

6.3.1 Economic Growth

- Trail centre trail counter data.
- · Counters on key natural trails.
- Bike shops: bike sales.
- Bike shops: equipment sales.
- New employment figures in MTB-related businesses.
- Guiding companies: customer numbers.
- Guiding companies: customer spend.
- Hits on relevant mountain biking web sites.
- Accommodation in key locations (towns close to trail centres or key natural trails):
 - Occupancy level
 - Average price per booking
 - Seasonal breakdown of figures
- Restaurants and cafés in key locations:
 - Covers
 - Spend per head

The 2012 report by *MVA Consulting* on monitoring cycle use would be an obvious source of information regarding collation of usage data.

6.3.2 Participation

- National Governing Body event registration data with a facility to enable filtering of data to identify gender, geographical distribution, age, cycle discipline. (as available through *British Cycling*, although not currently consistent in all disciplines).
- Other organisations' event 'entry lists' (commercial, public body, charitable trusts for example). *DMBinS* has an opportunity to encourage all organisations to document participation numbers and supply this information, possibly using incentives.

 Active School cycling session data (investigate with *sportscotland* ways to make this data more informative, and whether evaluation of trends could be incorporated into the annual reporting mechanisms already established and delivered by *Active School* or school sport co-ordinators).

6.3.3 Sport/Participant Development

- Number of active generic cycling and discipline specific (mountain biking) coaches in Scotland (including level of expertise).
- Number of coach educators and courses delivered (this will need analysis to identify factors which may influence the data, such as cost, geographical distribution, mode of delivery, for example).
- Number of Mt Bike Leaders (including level of expertise).
- Number of MBL tutors and courses delivered (this will also need analysis to identify factors which may influence the data, such as cost, geographical distribution, mode of delivery, for example).
- Number of teachers & trainers (relevant to foundation or novice participant development).
- Number of cycle teachers or trainers and courses delivered (again, this will need analysis to identify factors which may influence the data).
- Number of mountain bike proficiency awards (GoMtBike) and qualifications (SQA; NGB; commercial; vocational) awarded to candidates and the data analysed to identify barriers or trends.
- Numbers of performance mountain bikers supported through programmes (including impact analysis of goals and targets set).

6.3.4 Additional Potential Indicators

It is also suggested that an annual/biannual/quarterly survey of mountain bikers (both enthusiasts and more casual riders) could be undertaken to complement the industry data; the following are sample questions:

- How would you classify yourself as a mountain biker?
- How many MTB rides do you do compared to last year?
- How much money do you spend on an average trip compared with last year?
- How much money do you spend on an average mountain bike day-trip?
- How much money do you spend on an average mountain bike overnight-trip?

- How would you rate Scotland as a mountain biking destination?
- What gaps do you think still exist in MTB provision?
- If we could improve one thing to increase participation what would it be?
- Where do you get your trail information from?
- Have you been involved in organised means of participation in mountain biking in the past year?
- In what capacities, in a mountain biking context, have you volunteered in the past year?
- Where do you live?
- How far would you be willing to travel to access trails?
- Gender.
- Age.

7. Quantifying the Potential for Future Growth

In order to address client requirements to quantify the potential for economic growth, increased participation and sports development, this section is split into six sub-sections:

- Quantification of economic growth across Scotland;
- Disaggregation of economic growth figures across the four Scottish Enterprise regions;
- A brief examination of Scotland's international competitors;
- Quantifying the potential for increased participation across Scotland;
- Quantifying the potential for increased participation in the Scottish Enterprise regions; and
- Quantification of sports development opportunities across Scotland.

7.1 Economic Growth across Scotland

In order to be able to develop a range of estimates for future potential economic growth across the whole of Scotland, the 2009 *EKOS* report was revisited, and the conditions for the attainment of its 'full growth' scenario appraised and evaluated in lights of the recommendations being made for developing Scottish mountain biking in this study. In order not to overduplicate sections, the specific opportunities for this future growth potential are discussed in Sections 5 and 9.

In order to ascertain the potential for future growth, however, it is worth restating these conditions for full growth. *EKOS* stated that potential market growth would be achieved through the following:

- Providing more green and blue single track trails;
- Improving linkages between trail centres and the countryside;
- Signing, mapping and grading routes in the countryside;
- Filling the geographic gaps in trail centre provision;
- Creating specialist niche products such as bike parks;
- Creating family-friendly cycling venues; and
- Boosting access to the sport in urban areas and the grassroots.

It also stated that market growth would be dependent on three other factors:

- Improvement in the sector's promotion and marketing;
- The existing trails continue to be maintained, refreshed, upgraded and evolved; and
- There is a more strategic approach at the national level.

As stated in Section 4, only some of these conditions for growth have been achieved. Predictions for future economic growth of the mountain biking industry are therefore predicated upon satisfaction of most or all of *EKOS's* recommendations over the next, say, five years. CRTR believes that the following need to be developed over this time period to work towards realistic achievement of those growth targets:

- Filling the gaps in trail centre provision, for the Central Belt, Perthshire/Tayside and Aberdeenshire;
- Improving links between trail centres and both the surrounding countryside and nearby centres of population, as well as ensuring that future developments take these accessibility issues into account;
- A wider geographical spread of family/beginner-friendly green and blue trails:
- Improvements to mapping and signage of natural trails for all abilities, following good practice established by *Highland Perthshire*, for example; and
- Better co-ordinated marketing and promotion, both at a national and a regional level.

It is also suggested that a more strategic approach to mountain biking development is adopted at a regional level, through consideration of *DMBinS* regional coordinators for example, to drive forward regional activity and development, and complement the activity of local authority cycling development officers.

Accordingly, CRTR postulated that the lack of progress, in some quarters, to meet the conditions set for the 'full growth' scenario, coupled with other externalised factors, such as the economic recession, has suggested more likely economic growth in the range of £5.5 m - £8 m to 2012.

Against a backdrop of predictions for continued recession for the foreseeable future, sizeable future economic growth predictions are commensurate with EKOS's own predictions and estimates. Therefore, using that study's economic predictions and conditions for growth as a basis, it is suggested that if all the conditions for growth are met, economic growth of the mountain biking sector in Scotland will be in the region of £22 m - £26 m over the next five years. If a more realistic growth scenario is adopted, and the developments are only implemented at a level of around 50%, economic growth of the sector is predicted to be in the region of £14 m - £18 m over the next five years.

7.2 Economic and Visitor Growth in the Regions

It was stated in Section 4 that the growth in mountain bikers' trips (both recreationalists and tourists) is considered to have been in the range of 7 – 10%, across Scotland for 2009–12, rather than the 35% predicted by *EKOS*, albeit for the five years to 2014. In light of the continuing recession it is considered that *EKOS*'s ambitious targets for regional growth will not be met, even if the conditions for the 'full growth' scenario were to be met. The following regional forecasts for the next five years are therefore made by CRTR (based on the aforementioned conditions for regional growth in Section 4.3):

- South Scotland: 10% growth, based principally on continued maintenance and refreshment of existing trails;
- Central Belt (and West Scotland): 30% growth, based principally on an assumption of a major trail centre development in the Glasgow area;
- Aberdeenshire: 30% growth, based upon the development of a regional trail centre;
- Perthshire, Tayside and Fife: 50% growth, based principally upon a major trail centre development and continued progress in smaller developments and mapping/signage; and
- (The Highlands: 20% growth, based principally on the recommendations made in the 2012 Highland cluster study).

In terms of economic growth, *EKOS*'s baseline figures for mountain bike participants in the regions were used to disaggregate the above economic predictions for Scottish growth, with a suggested 8.5% increase (as the mid-point of

the 7% – 10% growth estimate from section 4.3) to take the figures from 2009 to *current* levels. At the heart of this assumption is the consideration that *EKOS*'s ambitious growth predictions for the Scottish regions have not been met, particularly for West and Central Scotland, the North East and Deeside and Perthshire, Fife and Angus, where most of the 'conditions for growth' have not materialised. CRTR applied the above growth predictions to *EKOS*'s baseline figures to yield the following predicted number of annual trips in five years' time:

South Scotland: 1,082,306 (10% growth);

• Central Belt (and West Scotland): 150,265 (30%);

• Aberdeenshire: 97,905 (30%);

• Perthshire, Tayside and Fife: 39,536 (50%); and

• (The Highlands: 287,585 (20%)).

Employing the same methodology suggests that the *national* growth in mountain biking trips over the next five years could be in the region of 15%. Applying the above growth scenarios to the current estimated value of mountain biking trips in Scotland, the following increase in the *annual* economic value of mountain biking in each region between 2012 and 2017 is suggested by CRTR, based on meeting the aforementioned conditions laid down for 'full growth', albeit tempered by an anticipated continuation of the underlying economic conditions:

Table 9: Increase in annual economic value of MTB in regions, 2012-17

	Current annual value (m)	Annual value 2017 (m)	Increase in annual value (m)
South Scotland	£32.98	£36.28	£3.30
Central Belt (and West Scotland): Aberdeenshire	£4.36 £2.91	£5.67 £3.78	£1.31 £0.87
Perthshire, Tayside and Fife (The Highlands	£0.97 £7.76	£1.46 £9.31	£0.49 £1.55)

7.3 Scotland's International Competitiveness

As part of the research for this report, 452 mountain bikers were surveyed, both via *Survey Monkey* and face-to-face interviews at Glentress. Respondents were asked how they rated Scottish mountain biking and how good mountain biking in Scotland is compared to other countries in which they had ridden. It is notable that 41% of Survey Monkey respondents stated that they had not ridden in another 'country' – although it is unclear if this included England and Wales for example.

Thirty-one per cent of *Survey Monkey* respondents (76% of Glentress participants) suggested that Scotland is better or much better than other countries, 15% (20%) about the same, 14% (4%) worse or much worse. Strangely, when asked how they rated various aspects of Scottish mountain biking the results were more positive. Eighty-eight (91%) per cent of riders rated the trail centres as 'excellent' or 'good', while 82% (68%) rated Scotland's natural trails likewise. Less positively, 39% thought that the facilities at trail centres generally were merely 'average' (71% at Glentress deemed them 'good' or 'excellent', although their opinions may have been influenced by the quality of the facilities at that particular site), while 31% (15%) considered trail information to be 'average' and 10% (5%) 'poor' (the results from Glentress are considered to be perhaps less representative of all trails *and* trail centres due to the high standard of signage there).

Mountain biking businesses and other related organisations were asked the same questions, again via *Survey Monkey*. Sixty-four per cent considered the trails at trail centres to be 'good', 80% rated natural trails as 'good' or excellent', 44% thought that facilities at trail centres are 'good', although the same percentage considered them to be 'average' or worse. Trail information was not so highly rated, however, only 36% rating it as 'good' and a significant 48% as 'average'.

These businesses and organisations were asked with which countries or areas, popular with mountain bikers, Scottish mountain biking is competing. Eighty-eight per cent of respondents considered that Wales is a competitor, although only 67% thought that England is. Seventy-five per cent and 58% respectively also considered Spain and the Alps are competitors. North America and other destinations were not considered such by the vast majority of businesses (67% and 92% respectively).

In a critical assessment of Scotland as a mountain biking tourism destination, it is apparent that while there are generally lingering issues regarding the standard of some accommodation and food providers, and a perception of such, and often over-stated issues associated with the weather and midges, Scotland as both a general tourism and mountain bike destination certainly has a number of great advantages, which may be regarded as unique selling points (USPs):

- 2012 *VisitScotland* research confirms that the two most important motivations for tourists to Scotland are the landscape (58%) and the culture (31%);
- Scotland is also relatively accessible, compact and affordable, compared to competing countries;
- It has some of the best mapping in the world in *Ordnance Survey* (*OS*) maps and a wealth of information available on the Internet (even if it is not especially well integrated), which makes route-planning relatively easy; and
- The country is well-known, in both the UK and internationally, for both the quality of its trail centres and its liberal access legislation, even if its IMBA 'hottest place to ride' status is rather dated now.

A web-based desktop exercise confirms that a paucity of mountain biking data also exists in competing countries. In terms of potential mountain biking tourism competitors, the following pertain to Scotland's success as a destination:

7.3.1 England and Wales

England may have been a late starter in terms of trail centre development, but there were numerous developments in the early part of the century. The north is a strong competitor in this respect, with Grizedale, Whinlatter, Kielder, Hamsterley and Dalby all seeing development in the last five years or so.

The Welsh trail centre system is a relatively mature product, more akin to the Scottish model than the English, with Coed y Brenin being the pioneering trail centre in the UK (in the late 1990s). However, many of the centres have received trail upgrades in the past few years (eg. Llandegla and Coed y Brenin) or major new facilities (eg. Cwmcarn and Coed y Brenin), and there are also major new developments planned, most notably a new downhill and freeride trail centre at

Blaenau Ffestiniog (due to open 2012); this has been financed by the local authority, *Welsh Assembly* and the European Regional Development Fund, among others. It is suggested that a short desktop exercise to discover the rationale for and funding of such developments elsewhere in the UK would be useful, in order to better comprehend opportunities for Scottish mountain biking.

England (and Wales) may have more outdoor access issues compared to Scotland but, as raised in the research exercise, the advantage of restricting MTB use to bridleways (for example) is that the routes are all mapped out on *OS* maps; this situation is in contrast to Scotland where, while there is in theory much freer access to the countryside for mountain bikers, there is perceived to be a lack of suitable 'waymarked' routes on maps. It is recognised, however, that many people may use *Google* Maps or clips on YouTube to access trail information. For some riders, part of the attraction of mountain biking in Scotland may be in finding routes which may or may not be shown on maps and the satisfaction of 'discovering' a great new trail.

7.3.2 Mainland Europe

A web search and anecdotal evidence suggest that a great deal of the mountain biking activity that takes in the Alps, particularly that which appeals to UK riders, is either through commercially organised trips or on autonomous trips, in both cases where the focus is terrain accessed through ski lift systems. Similarly, mountain biking in Spain is usually centred, for UK riders, on organised bike holidays. Spain has developed a good reputation over the past decade for the quality of its riding, in terms of its singletrack for example, and coupled with a reputation for sunshine it is a popular tourism destination for UK riders. While other countries, Norway and Sweden for example, are less well developed in terms of specific mountain biking provision, developments there, such as the Swedish Áre Bike Park, are receiving more exposure and becoming more well-known to UK audiences.

7.3.3 Beyond Europe

Many North American mountain biking destinations have long had a great reputation, and had a great image, for UK riders: Whistler and Moab have traditionally been the big destinations, but Fruita and Rossland are developing great reputations. The distances involved and subsequent costs, not to mention the

currently poor exchange rate with Canada, mean that they naturally require a much greater commitment as a mountain biking holiday destination.

7.3.4 Maintaining Competitiveness

Keating (2009) examined where mountain bikers ride in the UK, with a brief comparative analysis. He concluded that in Scotland, trail quality, difficulty and trail variety are highly regarded; however, location, convenience and the cost of travel or accommodation were the least highly regarded elements of mountain biking in Scotland. Of the 69% who hadn't been to Scotland in the last 12 months, location – cost and distance – was the main barrier to going. The proliferation of competition for mountain biking tourists, for many riders elsewhere in the UK for example, coupled with factors such as the strengthening pound against the euro in 2012 and the perception of Scotland, by many UK bikers, as a distant, and correspondingly expensive destination – at least in terms of travel – suggests that many European mountain biking destinations are competitors for Scotland.

It is therefore apparent that in order to maintain competitive advantage Scottish mountain biking needs to fulfil the conditions set for 'full growth', notably in terms of filling the geographical gaps in trail centre provision and more co-ordinated mapping, signage and marketing of natural trails, for all abilities. These developments are needed, not just from an economic/tourism perspective but from a sports development/health angle.

Despite some trail development and upgrade, Scotland's mountain biking 'offer' has suffered a degree of stagnation over the past five years, and if new developments aren't forthcoming Scotland will lose ground against international, and domestic, competitors. Acknowledging the importance of the international market, both extant and potential, it is suggested that part of *DMBinS'* role should be to work with organisations such as *VisitScotland* to market mountain biking internationally. Section 9 discusses the steps that need to be taken to try to maintain and enhance Scotland's reputation and image as a mountain biking destination.

7.4 Quantifying the Potential for Increased Participation across Scotland

Analysis of all data sources suggest an increasing trend in mountain biking participation rates across Scotland until 2010, but a very recent slight decline in activity; the major caveat is that as much as 75% of mountain biking activity is being undertaken informally or through other unquantifiable avenues. Indeed the research undertaken for this study suggests greater informal participation levels. The potential for increased participation is already being demonstrated outwith Scotland where recent investment in cycling projects has brought huge increases in cycling participation. For example, the *Sport England* 'Active People' survey (June 2012) reveals a sharp increase in cycling participation, showing 161,000 more people (including 54,000 more women) cycling than only six months previously. This success is largely attributable to the Sky Ride (mass traffic–free bike rides) and Breeze (aimed at encouraging women to ride) initiatives. However, *Sport England* operates under a 'Whole Sport Plan', which enables monitoring of all cycling activity and makes data accessible.

7.5 Quantification of Sports Development Opportunities across Scotland

Cyclocross: The *Scottish Cyclocross Association* was formed by racers in 2007. There are eight to ten events in the Scottish Series & Championships each year. In 2011 a random and typical event (Irvine, 2nd Oct 2011) attracted 47 under–12s; 29 youth and 82 senior participants. This equates to approximately **1,422** competitive entries in 2011

BMX: Scottish BMX racing is dominated by two clubs - the *Western Titans* based at Clydebank track, Glasgow and the *Cumbernauld Centurions* (re-established after a break of 20 years in 2009). All but one competitor winning places in the 2012 series were members of these two clubs (the one exception resides in England). The potential for BMX success appears to correlate with benefits that membership to these key clubs can provide. Whether that relates to accessibility to facilities, coaching or other factors would require further research. In 2012, 39 competitors entered Round Five held in Clydebank. Data were not recorded for other years, but if 2012 is typical, then it would equate to 312 competitor entries in Scotland each year in *British Cycling* registered events. In the rest of the UK, the three rounds of the British National BMX series saw 2,242 riders competing in all three events.

Round Three had 542 competitors across all the categories. Of the 542 riders, 387 of them were aged 16 and under and nearly all of those were from one of the 30 Go-Ride clubs present at the event.

Downhill The *Scottish Downhill Association* has five rounds throughout Scotland, in addition to the Scottish Championships at Fort William held consistently each year. There were a total of 17 other DH events in 2011, making a total of 23 registered events via *British Cycling*. There were also 23 events in 2010, up from 14 events in 2009. Taking a random event and tracking competitor numbers shows numbers have remained fairly static:

2009	281 competitors Round Five	Innerleithen
2010	260 competitors Round Five	Fort William
2011	263 competitors Round Five	Peebles

Taking the mean number of competitors for this randomly selected event, would equate to **6,164** competitor entries in 2011.

A recent development in this discipline which has demonstrated small but growing levels of interest is the mini-downhill series for juniors. A forthcoming event on 26th August 2012 has attracted 35 entrants in all age categories. There have been five events to date in 2012, equating to approximately 175 competitive entries within this grassroots scene.

Enduro events registered with *British Cycling* have shown a steady increase from one-two events each year categorized as enduro from 2005–2010, to six events in 2011 and seven in 2012. A random event was selected (Fetish Gravity Enduro series, 25th March 2012), which attracted 333 entrants. This would equate to approximately **2,331** competitor entries in 2011.

Cross-country events register via *British Cycling*:

28 in 2008

30 in 2009 (Round Five attracted 192 competitors)

32 in 2010 (Round Five attracted 277 competitors)

42 in 2011 (Round Five attracted 162 competitors)

Taking the mean number of entries to a randomly selected XC event, and multiplying it by the number of events held in 2011, would make an approximate number of competitor entries as **8,834** in 2011.

7.5.1 Generic Cycle Trends

British Cycling has also seen a sustainable growth in the number of people taking part in sportives and competitive cycling. Over 20,000 people are now regularly racing across all disciplines and almost 3,500 competitive cycling events now take place each year. Cycling events for young people are also on the rise. One hundred Go-Ride clubs have signed up to take part in the Go-Ride Games – a national summer festival of cycling for young people. Last year, British Cycling delivered over 100,000 opportunities for young people to get into cycling. Membership of British Cycling has grown by 1,000 in July 2012 – taking the total membership count to almost 50,000. As to whether this is a trend that is evident in Scotland is difficult to quantify, as data are not available.

8. Creation of a Scoring Matrix for New Developments

To inform future, sustainable strategic mountain biking investment opportunities a study objective was to develop recommendations for a scoring matrix. The following indicators are suggestions for such a matrix, to complement other means of assessing developments such as a Cost Benefit Analysis and Environmental Impact Assessment. It therefore presupposes that such elements are assessed as separate exercises.

Attracting visitors/facilities

- Who is your targeted consumer?
- How far is your development from a major centre of population?
- What public transport infrastructure or off-road routes exist to connect your development to local settlements?
- How will the development be linked to 'natural trails' in the area?
- How will your development attract tourists as well as local users?
- What tourism infrastructure already exists in the area that will support the development?
- How will you market the development?
- What impact will your development have on international tourism?
- What scope does the development offer to integrate or work with other mountain biking businesses?
- What scope does the development offer to collaborate or engage with regional *DMBinS* cluster activity?

Management

- Who will own and manage the trails?
- Who will maintain the trails?
- Who will own, manage and maintain related facilities?
- What are the short/medium/long-term vision/objectives?

Sports development/events

• Do you plan to allow your development to be used in mountain biking events? If so, how?

- How will you encourage your development to be used by local clubs/events/schools?
- What links do you have or propose to have with local schools?
- What provisions are you making for coaching and training?
- How will the development join up with local sport development programmes and initiatives?

Participation

- How will you ensure that the development is suitable for all ages and abilities?
- How does your development involve local, and other, businesses?
- How will you involve the local community?
- How have you ensured that your development has the support of the local community?
- How is your development commensurate with local authority strategies/policies?

9. Key Recommendations for Future Development

The objective of this section is to provide *DMBinS*, and the members of the consortium, with a realistic set of recommendations to maximise the growth potential of mountain biking in Scotland. It is structured to, first, set out these recommendations, followed by a consideration of potential barriers to development and how these barriers may be addressed.

9.1 A Recommended Course of Action

Section 5 was focussed on an analysis of the findings from the research exercise, which included: two industry focus groups, separate qualitative and quantitative face-to-face interviews at Glentress, discrete *Survey Monkeys* of both mountain bikers and related businesses, *Survey Monkeys* of cycle club members, as well as individual e-mail and telephone contact with pertinent businesses and organisations, from consortium members, through proposers of mountain bike developments to regional managers in *Forestry Commission Scotland*. In all, the recommendations put forward in this section represent the views of about 520 mountain bikers and related businesses and organisations across Scotland. The *BatchGeo* analysis of the 350+ *Survey Monkey* responses from riders suggests a relatively predictable geographical spread of responses, with a heavy concentration in the Central Belt and smaller numbers in the Borders, Tayside/Perthshire and further north.

It is apparent that mountain biking in Scotland offers a great deal of maturity in terms of catering for the more advanced or experienced mountain bikers. Keating's (2009) study supports many of the findings in this study: that Scotland has many high quality trails, a great variety of trails, many good trail centres with quality facilities, and magnificent scenery in many locations that adds an aesthetic edge to trail riding. In addition, the sheer variety of the settings, whether natural trails or trail centres, the liberal tenets of the outdoor access legislation, and the iconic status of the *7stanes*, as exemplars of the trail centre art, define Scotland as a mountain biking destination.

It is apparent, however, that numerous gaps in provision do currently exist, and these recommendations are focussed on filling these gaps, creating a more geographically harmonious product, and one that caters for a wide range of different biking abilities and styles. Also clear is the need for a more integrated approach to marketing mountain biking across Scotland, drawing upon lessons from elsewhere in terms of providing clear, consistent and accessible information that makes planning rides and vacations alike an easier and more engaging experience.

More specifically, while mountain biking is a potentially accessible and sustainable way for people to recreate in Scotland's great outdoors, barriers to this activity becoming much more widespread include:

- The key activity centres being some distance from large towns and cities;
- A lack of useable forms of bike-friendly public transport, and often inaccessible information about services where they do exist;
- The generally high cost of purchasing equipment and clothing for those with little disposable income;
- The cost of fuel and car ownership (currently a precursor for many to access trails);
- Few mechanisms to introduce children to the sport in some areas;
- Inadequate mapping and/or signing of natural trails;
- A socio-economic demographic profile which is relatively wealthy, mobile and middle aged or family-bound, thereby restricting or discouraging youth/teenage participation (much of the academic literature supports this);
 and
- A lack of dirt parks, skills loops, BMX parks or pump tracks at or near centres of population, which would encourage a youth culture around biking activities, where participants are allowed to 'hang out'.

Consideration of the gaps in current provision, informed by the views and opinions of the survey respondents and participants, has led to a number of recommendations for the development of mountain biking, both across Scotland as a whole and in the regions of the *Scottish Enterprise* area. These are recommendations that can be adopted at a regional level, and those that need to be dealt with as more strategic issues, as a result of either the scale or the complexities inherent in finding a solution.

It is suggested that these recommendations are viewed in the context of a mountain biking development ladder, introduced in Section 5 (although reworded here to pertain to the development of riders not trails/facilities, with the caveat that not all riders will necessarily follow this development model):

- *Step one*: starting to ride at accessible bike park facilities;
- *Step two*: riding cycle paths or other off-road routes to access these facilities, and other attractions
- Step three: progressing onto bigger and harder trails at trail centres; and
- *Step four*: with increasing confidence engendered by progress up the ladder, a move onto natural trails, with their attendant breadth of opportunities and challenges.

The following recommendations are put forward for developing mountain biking in terms of: facilities and business development, participation and events, sports development and attracting visitors. Driving all these aspects forward would be made easier and more effective through the first set of recommendations:

9.1.1 Strategic Support

- Continued support for *Developing Mountain Biking in Scotland*.
- Consideration should be given to the designation of a governmental crossparty working group, recognising the importance of the mountain biking to both the Scottish economy and Scotland's tourism profile.
- Continued support for and further development of regional clusters.
- Seeking financial support for new *DMBinS* regional officers, to drive forward the regional development of mountain biking (including a clear remit to encourage excluded urban groups to engage with the activity).
- Seeking Scottish Government financial support for the aforementioned 'development ladder' through: funding trail centres; designation, signing and promotion of key natural trails; and bike park facilities near/in centres of population.
- For new trails or associated development in the *Central Scotland Green Network* area, cognisance should be taken of its strategic aims in ensuring that these developments are of strategic importance or priority, and complement, fit or enhance its route network.
- Where appropriate, consideration needs to be given to how the public sector can pump-prime new mountain biking trails or facilities to remove barriers to economic growth.

• FCS, VisitScotland and landowners, for example, should be encouraged by DMBinS to co-operate in order to create better integrated route marking, signage and interpretation, and promotion of responsible mountain biking.

9.1.2 Facilities and Business Development

- All Scottish cities, and other major population centres, should have their own skills loop/jump park/pump track/BMX park, one that is easily accessible, without requiring a vehicle, to the majority of their population. These facilities should be developed in conjunction with local communities, and include projects that support and encourage their role as a local coaching centre, through clubs and schools for example. This is a core priority.
- These developments should include safe cycle ways from the city/town centres and consideration of accessible supporting public transport infrastructure.
- It is suggested that an audit of pertinent facilities, such as BMX parks, should be undertaken, and responsible bodies such as local authorities encouraged to upgrade them where necessary.
- Such an audit would feed into an appropriate facilities strategy. It should consider where cost-effective changes to existing facilities might be implemented, such as:
 - Upgrading facilities;
 - New supporting infrastructure to widen the appeal of existing facilities; or
 - A change of focus, encouraging local authorities to develop suitable facilities within urban or country parks - following the example set in Dundee.
- The development of new trail centres should be prioritised to those areas currently lacking such facilities, in order to harmonise the geographical spread of facilities and encourage new users, whether recreational riders or tourists with potential spin-off activities and benefits. New centres located in the North East and, in particular, in Glasgow and the Highland Perthshire area, will have a proportionately greater effect on participation, sports development and economic growth of the sport, and should be supported as a priority (albeit one with a considerable potential cost implication and

- requiring demonstrable demand and financial sustainability through a business model).
- New trail centre developments should seek to include, where feasible, a
 range of complementary, revenue-generating attractions and facilities, from
 Go Ape type attractions to a café or focussed retail opportunities. Including
 such activities, as well as onsite walking trails, would serve to expand their
 popularity to families/groups with non-mountain biking members.
- Dialogue with public transport operators should try to overcome the barriers, both perceived and real, associated with taking bikes on buses and trains.
- It is clear from the consultation undertaken in this study that there is a desire for more and better promoted (natural) trails, for all abilities, within easy reach of centres of population, where a car is not required for access, and also close to trail centres (where the best parts of purpose-built and natural trails can be combined for a richer experience, and one which helps progression up the development ladder). To facilitate accessibility and encourage use, better information, signage and development of natural trails and links are required.
- Consideration should be given to how routes can be better marked on mainstream maps. It has previously been suggested that in England and Wales rights-of-way are all mapped out on OS maps, but in Scotland there is a perceived lack of suitable 'waymarked' routes on maps, which can make interpretation of mapping for suitable routes difficult.
- Using the example of Rothiemurchus as good practice, such routes would work well for leisure cyclists if there are facilities along the way such as cafés, or other attractions, where the quality of the trail is not the only determinant of a good experience.
- Support should be given at a local/regional level for the organisation and development of local user groups, so landowners, including *FCS*, can deal collectively and openly with users as they become more involved in trail development, maintenance and promotion in an organised and sustainable manner (from discussions with an *FCS* manager).
- As the context of the Framework is fully aligned with current national government strategy, an opportunity for the clusters (the Central Belt cluster in particular) would be to broaden their focus to engage other cycling interest groups in the development of active travel routes, and safe (off-

- road) routes to mountain bike venues (bike parks, trail centres and natural trails) as advocated in the Central Scotland Green Network strategic plan.
- Consideration needs to be given on how best to engage with mountain biking-related businesses to encourage a more industry-led approach to DMBinS cluster activity.

9.1.3 Attracting Visitors

- Better co-ordinated marketing is required, with a single web site providing a
 comprehensive Internet guide to all the key natural trails and trail centres in
 Scotland. The ISW adventure cycle map (http://map.lsw.org.uk/) provides a
 good practice example. This resource should include a great deal of
 supplementary information regarding accommodation, places to eat, and,
 crucially, information on complementary activities to extend the appeal of
 trail centres and biking 'hubs' for mixed-interest groups and families.
- Many of the trail centres, the *7stanes* especially, are well-known domestically and internationally, at least in mountain biking circles, and greater emphasis in such marketing should be placed on lesser-known centres and Scotland's natural trails. It is felt that, outside of the Highlands, Scotland lacks an iconic natural trail the identification and promotion of such, as a 'halo' product, could help recognition of other natural routes.
 - It is suggested that *VisitScotland* or *SNH* may be the best placed organisation to lead such an initiative.
- A number of *Scotland's Great Trails* offer great potential as iconic cycle routes. Their promotion as potential mountain bike routes needs to be improved, where appropriate, as it appears rather inconsistent in catering for cyclists. The home page of the Fife Coastal Path, for example, markets the trail as a walking route, yet one of the authors can verify that long sections of it make a diverting off-road bike route.
- Make use of the social media generation wherever possible as a focus group participant put it: "inform the kids (via Facebook etc.) and they will inform each other".
- The areas around the cities of Scotland, along with other key mountain biking centres, should form the focus of a roll out of mapped trail networks, using the template developed by *DMBinS*, and associated route cards for *Highland Perthshire*, Dundee and Angus as good practice examples. These

- should be accessed and promoted through the aforementioned central web site.
- These route cards should eventually be rolled out to other towns and appropriate settlements, according to demand.
- In 2006 Scotland was cited as a global superstar as a mountain biking destination, although this is now a rather outdated award. There is currently no international aspect to *DMBinS's* activity. Consideration should therefore be given to developing an international strategy workshop in conjunction with *Scottish Development International*, to help inform future project priorities.

9.1.4 Events

- *SMBDC* should seek greater levels of co-operation from the multiple agencies involved with mountain biking participation and events, to share, publish, or undertake statistical reporting. As Scotland's national events agency, the role of *EventScotland* should be considered in more effective and wide-reaching promotion. A key objective for the *DMBinS* project in phase two should remain the collation, evaluation and identification of trends to inform reliable policy decisions.
- Each cluster area has the potential to organise and host a mountain biking festival, as demonstrated in the south (ie. Tweed Love) and Tayside and Fife (Highland Perthshire Cycling Festival). To develop a geographical spread of opportunity this would entail holding and promoting festivals in central Scotland, the Highlands and the North East.
- Scotland has the appropriate environment and infrastructure to host national and international events, with particular strengths in downhill, endurance and cross country terrain. It would not be unrealistic to plan to deliver two inspiring cross country events per year (eg. British Champs, World Cup or MTB marathon championships). The downhill World Cup is well placed in Fort William and could be delivered at this location on an annual basis. Such events require a co-ordinated promotion campaign involving all key agencies which should incorporate the national series (SXC & SDA) and key endurance events (10 Under the Ben, Relentless, Strathpuffer, to name current iconic events).

• A national mountain biking day, or biking week, should be identified, which should be supported at a local level through the development and hosting of events and/or supported rides.

9.1.5 Participation

- Strategic guidance is required to ensure that all agencies and organisations align policies to enable participants to move between schemes to promote participation during all lifestages.
- Participant development should be based upon the concept of development
 of excellence in different contexts. This could be achieved through the
 development of a pathways model which enables articulation between
 schemes and which is 'participant centred'.
- A National Mountain Bike Recreation scheme should be considered to ease progression routes for people as they get started, progress, specialise or gain expertise within all disciplines involving a mountain bike. There should be a co-ordinated drive to promote and articulate the well-respected awards schemes currently on offer in Scotland – namely the Go MTB scheme & MBLA Awards.
- As mountain biking incorporates skills and knowledge which is transferrable to other life situations (leadership, teaching and communication, for example), qualifications and training should be credit rated to ensure this learning is formally recognised, and offers candidates additional value.
- There is a clear and present need for greater 'joined-up thinking,' with reference in particular to integration between education systems (for example compulsory and post-compulsory education, and governing bodies of sport and government agencies at local and national level).

9.1.6 Sports Development

It is recommended that in order to continue and enhance the great work that has been done to date in terms of developing mountain bikers, and to capitalise on the geographical agglomeration of high-quality sporting and coaching activity, a 'centre for excellence' for mountain biking is developed close to the Central Belt, easily accessible to a wide range of active and potential participants and coaches.

It is also suggested that a number of strategic options are investigated during *DMBinS* Project phase two to consider the benefits of bringing together the multiple

organisations involved in the delivery of sports [cycling] development in Scotland. Two options for consideration are consolidation or alliance of relevant organisations.

9.1.6.1 Consolidation

One approach to consolidation has been adopted by *British Cycling* and is articulated as its 'The Whole Sport Plan: 2009–2013'. This cross-departmental approach would bring budgets together to benefit from combined investment opportunities, with an objective to provide:

"A cocktail of funding from DCMS, via Sport England, Department of Health (DoH) and Department of Transport (DfT) to fund integrated interventions to drive up participation in all forms of cycling which through our participation pathway, will drive up participation in sport and underpin medal success."

The impetus for *British Cycling* to adopt this strategy is explicit within this plan:

"The message is very clear from funding partners – if sports deliver (their targets) there is potentially more investment to come – if sports don't deliver it will be reinvested into those sports that can."

However, this political impetus is not currently evident in Scotland, suggesting other strategies are open for consideration.

9.1.6.2 Alliance

Another model involves 'alliance', an approach anticipated to be launched by mountaineering disciplines in 2012; please see the case study below.

In this setup, each autonomous organisation agrees to work together under one banner. Benefits of this approach have been identified as:

- Holistic overview of all schemes found in 'one stop shop';
- Database consolidation and compatible data management systems;
- Efficiency savings on administration;
- Location for CPD records in one place, which aids the quality assurance process;
- Potential for shared quality assurance processes;

- Clear pathways both within and between schemes;
- Cost efficiencies with credit rating of awards; and
- Aids national and international recognition of qualifications.

MOUNTAINEERING (GOOD PRACTICE CASE STUDY)

The mountaineering discipline has been characterized by multiple Mountain Leader Training Boards, and multiple training schemes. These were developed and operated independently, without a co-ordinated pathway for progression from one scheme to the other and with incompatible communication systems and quality assurance.

In 2010 discussion was initiated to bring all these organisations around the table to work towards a more co-ordinated framework. It is now close to being launched, with a single website prepared for the five Home Nation boards and MLTA, and invitations for *British Mountain Guides* (BMG), the *Association of Mountain Instructors* (AMI), and *British Association of International Mountain Leaders* (BAIML) to join the website.

The transition from independent status to a co-ordinated scheme was not straightforward. One of the major decisions made involved the agreement to discontinue using the term 'Leader' and redefining and referencing their awards as guiding, instructing and coaching.

One of the key features of the mountaineering group's new alliance is a candidate management system for some 150,000 candidates from all schemes, enabling the consolidation of all the information about an individual in one place.

For cycling there are clear merits to this approach. First, members typically engage in more than one discipline and have records stored in multiple cycling databases. Furthermore, if all candidates could keep their CPD record online as part of that profile (and upload relevant records), this would provide a useful tool for cycling as part of the professionalisation agenda, enable recognition of prior learning, and enable status recognition (instead of courses) for Master Coach accreditation. On a cautionary note, the benefits of an alliance need to explicit and co-ordinated around the professionalisation 'carrot,' as opposed to the financial 'stick' if it is not to antagonize the diverse membership base.

9.1.6.3 Education Institutions

There is the potential for more FE and HE Institutions to develop and support participation in cycle sport/activity in Scotland, by:

• Employing and deploying tutors and managing quality assurance.

- Developing CPD resources, some of which should be offered flexibly as
 distance learning packages. This could be achieved while simultaneously
 delivering training to their own cohort, using a blended approach in a wide
 range of disciplines, including coaching, leadership, land management,
 responsible mountain biking, trail-work and event management; this would
 provide economies of scale.
- Sharing CPD with coaches, leaders, instructors and teachers operating in other outdoor contexts (mountaineering, paddling and climbing, for example). Master Coaches could have a cross-disciplinary focus with emphasis on knowledge and skills to work with the 'stage of development' rather than sport specific learning outcomes.

9.1.6.4 Coaching

The further development of a co-ordinated and structured approach to coaching would benefit from the following supportive measures:

- Regional race series feeding into national series;
- Continued funding support for MTB-specific coaching awards;
- · Regional coaching camps in each cluster area; and
- Support for clubs to develop their coaching expertise.

9.2 Potential Costs and Obstacles to Development

It was apparent from the consultation exercise that there are a number of potential barriers which may constrain or indeed preclude the development of suitable and desirable facilities. Those identified included:

- Costs, finance and sustainability;
- Potential income-generation (or lack of it);
- Forestry Commission Scotland policy;
- Planning restrictions, both too generic and too individual an issue to examine here;
- Perceptions and reality of trail management/maintenance and liability issues;
 and
- Still some misunderstanding or ignorance of *DMBinS*'s role and remit and a perceived lack of strategic support.

9.2.1 Costs, Finance and Sustainability

The issue of financing many of the recommendations discussed above is naturally a thorny and complex issue. It is beyond the remit of the study to consider potential funding sources for individual initiatives, and *DMBinS*'s own work in identifying potential funding sources and applying for funding is suitably authoritative:

http://www.*DMBinS*.com/developing/businesses--3/developing/people--2/funding--5/toolkit-applying-for-funding

http://www.*DMBinS*.com/developing/people--2/funding--5/sources-of-funding

Discussions in the focus groups on the issue of costs and finance suggested that simple local bike park developments, as espoused above, could be developed at relatively low cost, within a budget in the region of £50,000. A budget of £500,000 for a relatively basic trail centre could include all infrastructure and some desirable facilities, such as a modest café and toilets. It was also suggested that a medium-sized centre requires about five people to maintain it, so the running costs can be relatively low.

As a FCS consultee commented, part of the problem with managing mountain bike trails, however, is a misunderstanding regarding how resource hungry they are in terms of time, money and resources. A rough rule of thumb is that you need to spend about a minimum of 10% of the initial capital cost of constructing the trail every year to manage it effectively.

Sponsorship of trails has worked in a number of locations in the UK, while franchising of a facility such as a café would be a possibility, especially in a location near to a large centre of population and with supporting amenities to attract a range of users, beyond just bikers.

9.2.2 Potential Income Generation

The practical impossibility of making money directly from new trails was recognised, along with realisation that a wide range of supporting facilities is required, as these ancillary services – café and bike hire for example – have to be the income–generators. There are therefore big implications and considerations for new developments, in terms of their scale and scope, and their potential viability.

9.2.3 Forestry Commission Scotland Policy

As discussed in Section 4, a general change in *FCS* policy in 2007/8 has resulted in a presumption against any investment by *FCS* in new technical (red, black or orange) trails or new trail centres on the national forest estate, although *FCS* continues to manage, maintain and refresh its existing trails and trail centres. *FCS* policy towards other potential developers of facilities including private businesses, individuals or community-led developments (including mountain biking) aims to support viable developments on the national forest estate with appropriate business rules in place to ensure that the proposed facilities are sustainable and fit-for-purpose. Where local communities may wish to buy or lease the land, opportunities are available under the National Forest Land Scheme (NFLS). Sites need to be suitable and the development compatible with other estate and asset management considerations. These stipulations would also apply to commercial developments.

9.2.4 Developing Mountain Biking in Scotland

It was apparent from some of the qualitative surveys at Glentress that *DMBinS* still has some work to do in terms of making people aware that there is a centrally–funded body that is tasked with a strategic approach to the development of mountain biking. Some people did know about *DMBinS*, but others were ignorant either of its role or indeed its very existence. It is considered that strategic support at a higher level will be required to both understand the role of many of these recommended developments, in terms of (tourism) income generation and addressing the well–publicised health agenda for example, and to secure the necessary financial commitment.

9.2.5 Land Ownership, Access, Maintenance and Responsibility for Trails

The issues relating to access to trails, ownership, liability and maintenance are recognised as an series of interwoven, complex issues, affecting a broad range of parties and encompassing a diverse range of interests. There can appear to be an element of confusion and uncertainty regarding legal requirements and responsibilities towards trails and the provision of access and trail maintenance. It is also clear that the importance of these issues can differ according to a number of different variables. It is suggested that being core to the development of mountain biking across Scotland it will warrant further investigation. A number of key issues need to be considered.

9.2.5.1 Responsibility for Trails

The creation of informal grassroots trails is considered in some respects to represent the lifeblood of the sport, in terms of youth development and enabling local participation, and a plethora of such trails exists. While 'guerrilla' trail development will probably always occur, irrespective of the number of formal trails created, it is difficult to acknowledge its development, as it may conflict with the issue of responsible access under the Access Code. There is no doubt it is a concern to many landowners with many legitimate concerns such as potential liability, environmental damage, build quality and potential conflict with other users. As every trail can be very different depending on location and scale it would be difficult to produce detailed guidance for landowners however it should be possible to provide some guiding principles to help landowners manage their land in a responsible manner.

These routes do indicate, however, the importance of local activity which shouldn't be ignored. It is suggested that there is a need to develop local multi-stakeholder groups to bring together relevant and interested parties, from landowners and managers to local residents and trail riders, to overcome the challenges and find workable solutions that may satisfy all parties. A body similar to the *Whistler Off-Road Cycling Association* could be appointed to act as a go-between and communication point for all stake holders/interested parties. This approach has been taken elsewhere, for example at Learnie, with some success. It is proposed that the *National Access Forum* may be a suitable body with which to collaborate on this issue.

There have been reports of individuals and small groups making 'ad hoc' small scale representations to landowners, with limited evidence of key government/other organisations (for example *SNH*, *FCS*, the *Cairngorms National Park Authority*, *HIE*, *VisitScotland*, Destination Management Organisations) on board to support ideas and proposals. In other cases, a number of representations from mountain biking groups to landowners have failed, leaving a feeling that official developments are unlikely to succeed, whereas mountain bike activity can go on because wild, unofficial trails and developments seem to be tolerated. However, the impact of this is twofold:

- There is limited impetus for some to 'rock the boat', as it is working for local riders with the local knowledge; and
- Landowners might prove to be weary of approaches, as they have rejected previous attempts.

It is therefore suggested that any further discussions with landowners would benefit from a more strategic approach involving key partners who have had an involvement in the shaping of strategic plans.

9.2.5.2 Liability

There needs to be greater awareness of the issues of liability, relating to accidents that occur on trails, in the context of existing legislation: (Occupiers Liability (Scotland) Act 1960; Land Reform (Scotland) Act 2003); and the Scottish Outdoor Access Code. Previous discussions with land managers have indicated unwillingness to signpost some existing trails because of the implications that can have in terms of engendering liability upon the land manager, as well as raising issues of trail maintenance. There needs to be clarity on the reasonable steps landowners should engage in so that they are clear on the duty of care they have towards mountain bikers who take access on their land, especially so if there is an accident on the informal trails on their land and to what extent they might be liable for the accident.

IMBA UK has acknowledged the issue and published generic guidance to inform land managers. Landowners have a duty of care to all those on their land, but for those undertaking an inherently risky activity, the well-established principle of "user beware" is relevant, as is the requirement under Scottish access legislation for users and land managers to behave responsibly. SNH has also published 'A Brief Guide to Occupiers' Legal Liabilities in Scotland', which helps clarify a landowners' duty of care when their land is being used by the public in relation to access rights.

9.2.5.3 Maintenance

A number of great purpose-built trails have been constructed across the Highlands, using European funding for example, but the rather more prosaic issue of maintaining the trails can be an expensive and unwelcome one in many areas. In the eyes of mountain bikers a new trail is a 'sexy' and exciting entity - novelty can be a key motivation for riding - but trail maintenance is often/usually something

that is taken for granted; hence this 'disconnection' in many mountain bikers' eyes, talked about elsewhere, between riding the trails and paying for the privilege.

It again is a local issue that needs national recognition. Currently, in many locations, mountain biker expenditure on local support services – cafes, bike hire and accommodation for example – can provide funding for maintenance, but not all land management businesses can directly provide this range of services. The appropriateness of car parking fees, as a means to help pay for trail maintenance, is discussed elsewhere.

In terms of other solutions, it is apparent that at some trail centres, such as Hamsterley and Kielder in England, the use of volunteer groups has been successful in trail maintenance. Any new trail construction or maintenance/development of existing trails requires knowledgeable, appropriate construction and maintenance. The problem has been with defining competence, and at present, can only be based on previous experience, giving no guarantee of the quality. This results from a lack of formal qualifications or pathways for any forms of mountain bike trail work, other than the specific construction trade qualifications in chainsaw and power barrow handling and digger driving, for example. Having qualified people can only help in raising the profile of this issue, and perhaps go some way in addressing responsibility and liability issues discussed above.

Design and trail build management can be described as a niche market with fewer than 20 sole operatives or small companies, alongside *FCS*. The sector was approached in December 2011, and has agreed to work towards a professionalization agenda which plans to develop a suite of training courses in trail building, checking and maintenance, and project management, including programmes that work specifically with volunteers. The issue of qualifications and practical courses in trail maintenance is the subject of another report for *DMBinS*.

10. Conclusions

CRTR has undertaken this study of mountain biking in Scotland for DMBinS, to address three issues:

- Progress in delivery of the objectives and key targets of the mountain biking national strategic framework, and the activities of *DMBinS*;
- Progress in terms of economic growth, participation and sports development;
 and
- Recommended future actions to achieve the sustainable growth potential of mountain biking in Scotland.

Through a desktop exercise and a wide-ranging and extensive consultation process, involving surveys with key stakeholders and organisations, mountain bike businesses and riders themselves, the team sought to fulfil these objectives.

The findings from these generally quantitative surveys of riders and key businesses were interrogated in order to allow the team to revisit the 2009 *EKOS* report and estimate the progress that has been made against the targets and scenarios set out in that report. As many of the conditions for 'full growth' of the sector have not been realised, it is postulated that a) the increase in mountain bikers' trips has been in the range of 7% - 10%, and b) economic growth in the range of £5.5 m – £8 m is considered to have been a more realistic estimation of the growth in the economic value of mountain biking in Scotland from 2009 – 2012.

Having examined recent economic growth, the future potential for the sector, in terms of economic growth (value and rider numbers), participation and sports development, has also been estimated. Again, using the *EKOS* methodology and data and findings from the wide-ranging consultation exercise, the team estimated that if the conditions set out for *EKOS*'s original 'full growth' scenario are met over the next five years economic growth will be in the region of £22 m - £26 m. If suggested developments are implemented to a lesser degree, growth over the next five years is suggested to be in the range of £14 m - £18 m.

Regional forecasts for both mountain biker trips and economic growth for the next five years were generated through disaggregation of national data, again using EKOS's figures and predictions as baselines. Consideration was then given to

Scotland's mountain bike tourism potential, through a qualitative examination of the most likely competitors, in the UK and overseas. It is felt that Scotland is in danger of losing its competitive edge if key developments are not made and the pace of progress not picked up.

In-depth analysis of all the findings and data enabled discussion of the issues and opportunities for the industry and recommendations for future development. A number of case studies helped to illustrate the needs and desires of typical mountain bikers (and their families).

This analysis fed into the development of a range of realistic recommendations for the development of Scottish mountain biking, covering attracting visitors, strategic support and business development and facilities. These endorsements ranged from the development of new, easily accessible small scale bike park-type facilities in all the cities and major settlements, to filling in the gaps of trail centre provision and the signage and promotion of key natural trails. A number of strategic recommendations were suggested to help drive forward developments, along with integrated national marketing to make information more readily accessible.

It was apparent that data regarding sports development and participation over the past few years are hard to come by, exacerbated by the fact that the majority of mountain biking in the UK is undertaken as informal activity. The role that *DMBinS* has played in consolidating pertinent qualifications information in this area is acknowledged. Accordingly, a number of recommendations were made for both realistic and implementable actions for future progress in increasing participation, events and developing bikers, and creating indicators of achievement for their measurement.

CRTR considers that the context and rationale for the *DMBinS* project are both relevant and current. While opportunities for further alignment may be evident in a number of key areas, and it is suggested that as the projects develop in complexity and size, the handing over of roles to identified agents should be strongly considered, especially in terms of cluster leadership and trail building qualifications and training development. The team's evaluation of *DMBinS* and the National Strategic Framework for mountain biking concluded that the project has been managed well, provides value for money, and has delivered, or is in the process of delivering, on a high percentage of its outputs and activities.

In order to be able to assess the state of the Scottish mountain biking industry on an annual basis, a number of recommendations have been made for measuring the economic performance of the industry. Use of these indicators will allow a more robust analysis of the industry. It was also proposed that regular surveys of mountain bikers will complement the industry data and help to inform strategic decision–making.

To enable key organisations to make informed decisions about proposals for new mountain biking developments, recommendations for a scoring matrix were set out. These suggested assessment of indicators, from how proposals have involved the local community to how they will be linked to both natural trails in the area and to nearby settlements.

11. Further Research

It has become apparent during the development of this report that there is a general paucity of data regarding, for example, mountain biker numbers and spending patterns. It is therefore suggested that further, in-depth research is required to elicit these types of data and enable a more complete picture of the industry, and its progress, to be realised.

At a higher level, annual, or more frequent, monitoring of the industry is suggested, using the indicators suggested for the performance framework in Section 8 to establish a barometer of the industry's health and progress.

In addition there is scope for further research to more fully comprehend the following:

- Grassroots activity the role of informal trails and parks as an introduction to the activity and the development of mountain bikers;
- Landowner/trailbuilder liability and trail maintenance issues; and
- An interrogation of the mountain biking consumer/user experience in Scotland.

Overcoming these serious shortages in the quantity, and quality, of data available for the Scottish mountain biking industry is key for accurate monitoring of performance, while further research will only help to develop our understanding of the characteristics, needs, motivations and desires of a wide range of mountain biking groups and sub-cultures, whose participation drives the industry.

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DMBinS Mountain Biker Survey: Glentress

How mountain bikers classify themselves		
Cross-country	31	
Downhill	16	
Freeride	11	
All-mountain	30	
Trail rider	24	
Dirt jumper	2	
Beginner	4	
Enduro	1	
Number of MTB rides done nowadays compa	red with three year	rs ago
Lot more	36	
More	30	
Same	25	
Fewer	4	
Lot fewer	3	
Amount of money spent nowadays on an ave	rage trip compared	d with three years ago
Lot more	22	
More	34	
Same	25	
Fewer	4	
Lot fewer	1	

Main factors that constrain riding

Time	59
Money	25
Family	19
None	12
Lack of friends	1
School/Uni	2
Ability	2
Health	2
Distance to trail	4
Transport	5

Rating of Scotland as a mountain biking destination on terms of different aspects (as shown). 1 is poor, 5 is excellent.

	1	2	3	4	5
Trails at trail centres	0	0	1	44	47
Natural trails	0	0	17	40	28
Facilities at trail centres	0	2	19	41	30
Trail information	1	5	15	35	34
Clubs Support for the development of mountain	2	7	23	18	8
bikers	0	9	24	25	15

How Scotland compares as a riding destination compared with other countries

Much better	9
Better	32
The same	11
Worse	2
Much worse	0

Gaps existing in mountain bike provision

Trail centres	24
Natural trails	26
Information	27
Family-oriented provision	21
Clubs	21
Competitions and events	11
Skills training for novices	1
What one thing can be done to increase partic	cipation
More natural trails	16
More trail centres	17
More family/beginner friendly trails	14
Wider range of trails	12
More accessible trails at trail centres	2
More accessible trails outside trail centres	12
Better facilities at trail centres	3
Better information	10
More organised events and competitions	4
Improved clubs	0
Awareness	2
Female focus	1
Where trail information is obtained from	
Word of mouth	53
Magazines	37
Books	6
Internet	57
At centre	1

Organised means of participation that people have been involved with

Clubs	26	
Schools	10	
After-school	5	
Youth project	1	
Events	21	
Time spent staying in the area		
Day trip	19	
Live here	10	
1 night	21	
2 nights	3	
3 nights	4	
4 nights - 1 week	19	
Over one week	11	
Where people live		
Edinburgh	22	
Glasgow	6	
Scottish borders	12	
Highlands	4	
Rest of Scotland	10	
England	30	
Wales		
Europe	1	
Rest of world	4	

Distance people would be willing to travel to access a trail centre like Glentress Up to 10 miles 1 11-25 miles 5 26-50 miles 22 51-100 miles 23 Over 100 miles 38 Gender Male 80 Female 18 Age <18 9 18-25 24 26-40 24 41-55 20 56-70 2 >70 0 How people most often cycle Alone 19 With a friend 32 With more than one friend 20

1

14

How often people mountain bike from home

With a club

With family

More than once a week	32
Once a week	23
Twice a month	9
Once a month	5
Less than once a month	17
How many days people mountain bil away from home	ke on a day trip
More than once a week	10
Once a week	17
Twice a month	12
Once a month	19
Less than once a month	27
How many days people mountain bil	ke on an overnight trip away from home
More than once a week	4
Once a week	0
Twice a month	5
Once a month	9
Less than once a month	65



DMBinS Mountain Biker Survey Monkey

7.8%

Q1. How would you classify yourself as a mountain biker? (Tick one box)

Answer Options Cross-country Downhill	Response Per cent 25.0% 3.6%
Freeride	1.9%
All-mountain	31.9%
Trail rider	29.7%

Other (please specify)

Q2. How many MTB rides do you do compared with three years ago?

					Lot
Answer Options	Lot fewer	Fewer	Same	More	more
	5	41	77	136	100

Q3. How much money do you spend on an average trip compared with three years ago?

					LOT
Answer Options	Lot less	Less	Same	More	more
	4	27	150	147	30

Q4. What are the factors that constrain your riding? (Tick all that apply)

	Response Per
Answer Options	cent
Time	76.0%
Money	29.6%
Family	44.4%
None	5.0%
Other (please specify)	19.3%

Q5. How would you rate Scotland on a scale of 1-5 as a mountain biking destination, in terms of the following? (1 being poor, 5 being excellent)

Answer Options	1	2	3	4	5
Trails at trail centres	0.3%	0.8%	10.1%	41.4%	47.3%
Natural trails (i.e. none purpose-built)	0.3%	2%	15.8%	34.4%	47.6%
Facilities at trail centres	1.1%	5.9%	38.8%	41.6%	12.6%
Trail information	1.7%	10%	31.2%	43.6%	13.5%
Clubs	4.3%	22.4%	47.2%	20.2%	5.9%
Support for the development of mountain					
bikers	7.6%	24.1%	43%	19.8%	5.9%

Q6. If you've ridden in other countries, how does Scotland compare as a riding destination?

					Much
Answer Options	Much better	Better	Same	Worse	worse
	16	90	51	44	3

Q7. What gaps do you think exist in MTB provision? (Tick all that apply)

Response Per
cent
36.9%
38.9%
42.2%
29.2%
25.4%
23.3%
24.8%

Q8. In which geographical areas do improvements need to be made? (Tick all that apply)

	Response Per
Answer Options	cent
Southern Scotland	19.2%
Central belt	62.3%
Tayside and Fife	41.2%
Aberdeenshire	25.5%
Highlands	31.1%
Comments	

Q9. If we could improve ONE thing to increase participation what would it be? (Tick one box)

	Response Per
Answer Options	cent
More natural trails	13.8%
More trail centres	17.4%
More family/beginner friendly trails	12.1%
Wider range of trails	14.6%
More accessible trails at trail centres	2.8%
More accessible trails outside trail centres	15.7%
Better facilities at trail centres	3.7%
Better information	10.1%
More organised events and competitions	4.8%
Improved clubs	5.1%

Q10. Where do you get your trail information from? (Tick all that apply)

	Response Per
Answer Options	cent
Word-of-mouth	66.9%
Magazines	43.1%
Books	14.4%
Internet	84.4%
Other (please specify)	9.4%

Q11. Have you been involved in organised means of participation in mountain biking? If yes, which? (Tick all that apply)

	Response Per
Answer Options	cent
Clubs	33.7%
Schools	4.9%
After-school	4.1%
Events	43.3%
None	37.5%
Other (please specify)	9.0%

Q12. Do you currently volunteer in any of these capacities? (Tick all that apply)

	Response Per
Answer Options	cent
Club	50.0%
Coach	13.3%
Leader	28.9%
At school	11.1%
Other (please specify)	33.3%

Q13. What is your postcode?

N/A

Q14. How far would you be willing to travel to go mountain biking?

	Response Per
Answer Options	cent
Up to 10 miles	0.8%
11-25 miles	4.5%
26-50 miles	17.0%
51-100 miles	24.2%
Over 100 miles	53.5%

Q15. Gender:

	Response Per
Answer Options	cent
Male	88.0%
Female	12.0%

Q16. Age

	Response Per
Answer Options	cent
18-25	8.6%
26-40	55.4%
41-55	33.7%
56-70	2.2%
Over 70	0.0%

Q17. Do you most often cycle:

	Response Per
Answer Options	cent
Alone	28.8%
With a friend	26.5%
With more than one friend	30.2%
With a club	6.4%
With family?	8.1%

Q18. How often, on average, do you mountain-bike from home?

	Response Per
Answer Options	cent
More than once a week	35.9%
Once a week	25.5%
Twice a month	15.1%
Once a month	7.0%
Less than once a month	16.5%

Q19. How often, on average, do you mountain-bike on a day trip away from home?

	Response Per
Answer Options	cent
More than once a week	6.7%
Once a week	20.6%
Twice a month	22.6%
Once a month	29.8%
Less than once a month	20.3%

Q20. In an average year, how many days do you mountain-bike which involve an overnight trip away from home?

Response Per cent
None 19.4%
1 8.6%
2 - 5 40.8%
6 - 10 16.9%
11 - 20 8.6%
More than 20 5.6%