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COST Action E 51

Integrating Innovation and Development Policies for the Forest Sector

**COUNTRY REPORT
United Kingdom**

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Abstract

This document covers the requirements of the COST E51 Country Report for Scotland. Scotland has a devolved government, and as such issues relating to innovation in the forestry sector partly relate to Scotland and partly to the UK as a whole, depending on the devolution settlement. Wherever possible, the Scottish documents are used as the basis for the information derived. The following documents are analysed in this country report: Scottish Forestry Strategy; Roots for Growth - A Strategic Framework for Action for the Scottish Forest Industries; Rural Scotland: Better Still, Naturally; Smart Successful Scotland; Choosing our Future: Scotland's sustainable development strategy; and Securing a Renewable Future: Scotland's Renewable Energy. Some of these documents represent the strategic vision of government and some comprise a more detailed review of the sector/issue. Overall, it can be seen that the Scottish forest sector is dynamic and responsive to wider policy changes but that innovation is promoted actively in some documents and is less evident in others. There is a gulf between a strong and explicit innovation orientation in the wood processing sector, the progressive vision of forestry in the Scottish Forestry Strategy and the much weaker innovation in relation to territorial development. However, the inclusion of forestry measures within the Rural Development Plan for Scotland indicates the incorporation of forestry support under a much broader suite of policies than in the past and offers potential for a more integrative territorial vision for rural Scotland.

Contents

1 Introduction

1.1 Forest resources in Scotland

In Scotland there are about 1.34 million hectares of woodland, of which 65% is managed by private owners and voluntary, charitable and public sector organisations other than the Forestry Commission. Forestry Commission Scotland manages the remaining 35% on behalf of Scottish Ministers.

Between 1905 and 2007, the forest area in Scotland was increased from 4.5% to 17.1% and Scotland is now the part of the United Kingdom where the percentage of woodland cover is highest. The increase is mostly the result of concerted planting efforts over the past 75 years in response to new policies in the wake of the First World War, primarily with introduced conifers such as Sitka spruce, Lodgepole pine and Japanese larch.

Scotland plans to expand the forest area until reach about 25% of its land area. OECD (2008) considers that this forest expansion will be possibly followed by new development goals and will help in the revitalization of depressed urban areas by improving their visual attractiveness and creating a new "sense of space".

Table 1: Changes in woodland in Scotland

Year	Forest Scottish area	
	1000 ha	%
1905	351	4.5
1924	435	5.6
1947	513	6.6
1965	656	8.4
1980	920	11.8
1995	1281	16.4
2004	1330	17.0
2007	1341	17,1

Source: Forestry Commision (http://www.forestry.gov.uk/ , accessed in 22/01/08)

Table 2: Total woodland in England, Scotland, Wales, Northern Ireland

Country	Area (000 ha)
England	1124
Scotland	**1341**
Wales	285
Northern Ireland	87
United Kingdom	**2837**

Source: Forestry Commission (http://www.forestry.gov.uk/ , accessed in 22/01/08)

Management of Scottish national forests

Scotland's national forests are managed on behalf of Scottish Ministers by the Forestry Commission and its agency Forest Enterprise since April 1, 2003, after the Ministerial announcement on the outcome of the review of the options for decentralising forestry policy and management in United Kingdom in the wake of the devolution settlement. The review considered the administrative arrangements for delivering sustainable forestry policies in England, Scotland and Wales and the

UK's international forestry commitments including options for further devolution of such arrangements.

Forestry Commission Scotland has a statutory duty to achieve a reasonable balance between timber production and environmental issues. The *Nature Conservation (Scotland) Act 2004* also introduced a general duty on public bodies to further the conservation of biodiversity as far as it is consistent with the exercise of their functions, to further the conservation and enhancement of Sites of Special Scientific Interest (SSSIs), and to have regard to the Convention on Biological Diversity agreed at Rio.

Social responsibilities are not defined by statute, but are well documented in a range of Scottish Ministers' policy guidelines: A 'People and Forests' panel has been active in guiding Scottish forest policy makers.

Economic importance of forestry in Scotland

Forestry and wood processing contribute with about £650 million each year to the Scottish economy, which represents 1% of the Gross Domestic Product (GDP).

Economic importance of NWFPs

The definition for NWFPs in Scotland is given by http://forestharvest.org.uk/ (accessed in 15/01/08):Non-timber forest products (NTFPs), also known as *Non-wood forest products* (NWFPs), include all materials supplied by woodlands except timber. Scottish woodlands provide a wide range of such products, including wild and managed game, edible and medicinal plants and mushrooms, foliage, seeds, bark, resins, dyes and craft materials. Other NWFPs such as landscape, recreation, hunting and fishing are of great importance for Scotland.

According to OECD (2008), there is a very clear link between forest and tourism with woodlands contributing to the vital landscape backdrop of tourism and helping to support it through the provision of outdoor recreation facilities, such as wildlife viewing, walking or mountain biking. Alone, forest tourism is worth over £160 million each year to the Scottish economy. Scotland has developed global leadership in the use of the public forest estate for mountain biking.

Field sports such as deer stalking and fishing, which generate over £200 million each year for the Scottish economy, represent important economic assets for woodland owners.

A key challenge is to find appropriate ways to generate further financial returns to woodland owners from tourism, to help with the cost of maintaining and enhancing the woodland resource and for that there is a need for business entrepreneurship, new product development and innovation.

The main barriers to entrepreneurship and innovation in Non Wood Forest Products are (Slee *et al.,* 2005*)*:
1) Implications for businesses collecting NWFPs of changing usufruct and landowners' rights resulting from recent legislation in Scotland;
2) The difficulties of creating value from non-market benefits as for example biodiversity, landscape, carbon sequestration and to create returns to the forest owners that provide them;
3) Uncertainties about how private forest owners can be compensated for potential loss of income as a result of extended usufruct rights arising from recent legislation widening public access;

4) Uncertainties about the definition of personal and commercial consumption of NWFPs.

Economic importance of forest industry

According to the Forestry Commission, Scotland's forests are the most biologically productive in the UK, making a significant contribution to Scotland's economy through jobs in the wood processing industry, forest management, wood haulage and associated industries   The development of Scotland's wood-processing industries really took off in the 1980s when the Scottish forests planted during the middle part of the 20th century began to produce significant volumes of softwood.
Most of the timber resource is located in Dumfries and Galloway, the Borders, Tayside, Forth Valley, Argyll, Grampian, and the Highlands and Islands. Scotland currently accounts for 60% of the British conifer harvest (4.8 million m^3) and Scottish sawmills, which are well-represented in all of the above areas, produce 42% of British lumber production. The next largest softwood user is the wood-based panels sector which, together with the pulp and paper sector, account for over 55% of total roundwood consumption in Scotland. There are panel/board manufacturers in Inverness and near Stirling, and paper manufacturers in Ayrshire. The forest industry is well-established with a good track record in investment and a strong reputation.

Scotland's forest industries represent just less than 1 per cent of the economy but if all forestry-related businesses are taken into account, the total value represents about 2 per cent of the Scottish economy.

Total employment in Scotland's forest industries has grown by between 1.5 and 1.8 per cent per year over the past 20 years to reach more than 35,000, or 2 per cent of all jobs in Scotland. This takes no account of those who are self-employed, those working in support services or those working further downstream in timber-using industries such as construction. Overall, it is estimated that more than 40,000 jobs in Scotland depend on the forest industries in this broader sense

Regulation

Forestry in Scotland is regulated primarily by Forestry Commission Scotland, mainly under the *Forestry Act 1967,* which comprised consolidating legislation, and the *Plant Health Act 1967.*
These mechanisms govern:
-   Tree felling and replanting;
-   Plant health (preventing the entry of non-endemic pests and diseases of trees);
-   The use of forest reproductive material (*through the Forest Reproductive Material [Great Britain] Regulations 2002*);

The Commission also has responsibility for administering the Environmental Impact Assessment (Forestry) (Scotland) regulations 1999. More recently, forestry came under the scope of the Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 and the Environmental Assessment (Scotland) Act 2005.

Regulation of any significant amount of tree felling comes under the scope of the *Town & Country Planning (Scotland) Act 1997* through Tree Preservation Orders (TPOs), Conservation Areas and aftercare conditions for mineral workings. National Planning Policy Guideline 14 (Natural Heritage) seeks to protect trees and woodland (particularly ancient and semi-natural woodland) of natural heritage value or which contribute to the character or amenity of a particular locality.

Following a review of TPOs, the Scottish Executive has confirmed its intention to make Forestry Commission Scotland a statutory consultant for applications involving the felling of more than 0.25 hectares of trees. This will increase the protection afforded to important trees and woodlands, particularly those of ancient origin.

Through an amendment to the *Forestry Act 1967* by the *Wildlife and Countryside (Amendment) Act 1985*, Forestry Commission Scotland has a duty to achieve a reasonable balance between "the development of afforestation, forest management and the production of timber, and the conservation and enhancement of natural beauty and the conservation of flora, fauna and geological or physiographical features of special interests." *The Nature Conservation (Scotland) Act 2004* placed further duties on all public bodies, including the Forestry Commission; to further the conservation of biodiversity as far as is consistent with the exercise of their functions and to further the conservation and enhancement of Sites of Special Scientific Interest (SSSIs).

A number of wide-ranging, generic regulations also apply to forestry, such as the *Health and Safety at Work Act 1974* and the *Water Environment and Water Services (Scotland) Act 2003*.

Incentives

Direct revenue from the sale of timber is a primary incentive for many private woodland owners. This market-led mechanism is a key driver for woodland management practices such as thinning or restructuring which, in turn, have wider environmental and social benefits. Adding value to the raw material and capturing new, locally based markets such as wood fuel will be catalysts for good silviculture.

Fiscal incentives apply to forestry. Income from timber sales in the UK is free of Income and Corporation Tax and growing timber is exempt from Capital Gains Tax. After two years of ownership, commercial woodlands qualify for 100% Business Property Relief from Inheritance Tax.

Support for agriculture and forestry is governed principally by the EU's Rural Development Regulation. Measures under these Regulations will be guided by the Scottish Rural Development Strategic Plan and laid out in the Scottish Rural Development Programme. A key feature will be a move towards a more integrated approach, using Land Management Contracts as a single gateway to land-management funding, including forestry and the LEADER approach.

It is anticipated that less EU Funding will be available to the UK and Scotland following EU expansion. However, the principal mechanisms are likely to be: the *European Agricultural Fund for Rural Development (EAFRD)* (the single funding mechanism for rural development measures in the period 2007-2013); *EU Structural Funding; LEADER; INTERREG; and LIFE*.

National Lottery funding is mainly through: the Heritage Lottery Fund (HLF); The Big Lottery; sportscotland; the Scottish Arts Council; Scottish Screen; and Awards for All.

A wide range of other funding sources is also available, such as:
- the Scottish Government (via for example Scottish Natural Heritage), local authorities, the Enterprise network and other public organisations awarding grants;
- trust funding, such as the Esmée Fairbairn Foundation, and the Lloyds TSB Foundation for Scotland; and

- some 500 companies, which give almost £300 million annually to community organisations throughout the UK.

Access to external funding is very often dependent on partnership working, strong community support, and competent administration and control. Forestry Commission Scotland has in-house fundraising expertise and most local authorities, and all Councils for Voluntary Service, offer some form of 'funder search' facility, with appropriate support and advice. Community Planning Partnerships and the many external consultants operating in this field also offer advice and support. The Internet (for example, the Rural Community Gateway website) now provides quick reference to sources of external funding.

Funds for Forestry Commission activities in Scotland come from three main sources:
   a) The Scottish block grant from the UK parliament;
   b) The European Union;
   c) Income generated from publicly owned forests;

Funds for non-Forestry Commission forest activities come from a number of sources. The Scottish Forestry Grants Scheme (SFGS) provides financial incentives to encourage people to manage their woods and forests and to create new ones.
Planting grants contribute towards the costs of establishing (and, where appropriate, restocking) well-designed forest for timber production; new native woodland; riparian woodland; woods in and around towns and post-industrial landscapes; and woods on farms and crofts. There are also 'stewardship' grants for improving the economic, ecological and social value of existing woods and forests

Grants managed and administered by the Forestry Commission Scotland that apply to private forestry in Scotland include:

1) Rural Development Contracts (RDC);

2) Woodland Creation Measure;

3) The Scottish Forestry Grants Scheme (SFGS), now finished and absorbed into

RDP measures);

4) Woodland Grant Scheme and Forest Plans.

Many charitable foundations and public companies also provide funds for forestry-related activities, especially in relation to woodland conservation.

Demand for innovation in Scotland

Tourism
According to OECD (2008), in general, tourism industry is expanding at a high rate of growth and rural Scotland with its distinct identity and resources is well positioned to build upon the growing demand. To take advantage of this potential, specific investments will be needed, training in the tourism industry, new workforce and innovative ideas.

Energy sector
High energy prices and the concerns with climate change have been increasing demand for renewable ways to produce energy. This offers opportunities to rural Scotland which has already the highest rate of renewable energy production, using and projected growth in the UK (OECD, 2008). The Government has already set a target of 18% of renewable energy production for 2010 and 40% for 2040 under the Climate Change Programme. Besides, wind energy and wave and tide power,

Scottish renewable energy generation rely on biomass energy, which offers scope for the exploitation of the extensive and mature forests located in many parts of the Highlands and Islands as a significant supply to maximise the potential of biomass energy. A number of projects using biomass energy are operational or under development across the Highlands and Islands;

Forest industry

The Forestry Commission considers that innovation is vital to the success of Scotland's modern forest industries in a world of global free trade and international competition. It states that wood only has an economic value if it can satisfy the markets which are continuously changing as social changes take place and patterns of demand evolve. Since wood is a highly versatile material, the challenge for Scotland's forest industries is to keep finding innovative ways of making use of this versatile raw material in ways that meet market needs and sustain businesses.

Rural policies

The recent OECD rural policy review (2008) suggests that Scotland's rural policy would benefit from the sharing information about local good practices. It considers that quality and quantity of innovation in rural areas is significant and that advantage should be taken of it. It recommends the sharing of knowledge and information across Scotland's rural areas as well as with domestic and foreign stakeholders. According to this report, the current multi-level governance EU+UK+National framework can be considered as an opportunity to present a more improved and coherent Scottish rural policy with a better image and higher visibility abroad. This would reinforce the recognition by internal stakeholders, contributing to the discussion and transfer of local policy innovation at the global level.

1.2   Issues related to the analysis of documents

This country report was elaborated following the common guidelines for the COST E51 Phase 1 Country reports and following step 1 (important innovation areas and relevant documents) and step 2 (document analysis). The documents were analysed by Marcus Sangster (Forest Policy), Roger Coppock (Forest Based Sector Policy and Innovation Policy), Bill Slee (Rural Development Policy), Suzanne Martin (Sustainable Development Policy), and Gregory Valatin (Renewable Energy Policy).

The seven policy areas required by the common guidelines for the COST E51 are covered in this report. Given that the team is all resident in Scotland, the distinctiveness of the Scottish approach and the relative importance of forests in Scotland, higher than in other nations of United Kingdom, the documents analysed are all at the Scottish level.

Since the 1960s there has been an evolution in Scottish rural policies with several reforms at both EU and UK levels. As a result of devolution in 1999, Scotland has now its own chapter in the UK Sustainable Development Strategy and its own rural development programme.

Some issues should be pointed in relation to the documents analysed:

a) Although the document suggested to be analysed for the Rural Development Policy was the National Rural Development Plan, it was not possible to analyse it because the main document (*Rural Development Strategy for Scotland for the period 2007-2013*) was not available when this report was produced. The only document available was a 29 page summary which proposes key themes and priorities for the Rural Development Strategy for Scotland for the period 2007-

2013. It was decided to analyse instead the document *Rural Scotland: Better Still, Naturally* since it contains higher levels of information about this policy area;

b) The document analysed for the Forest Based Sector Policy area is the document *Roots for growth – A Strategic Framework for Action for the Scottish Forest Industries,* which is a working document of 21 pages prepared by the Scottish Forest Industries Cluster, a partnership between Forest Industries Development Council and Scottish Enterprise;

c) As the innovation policy and the regional development policy come together in Scotland, the same document was analysed for both policy areas. The document is *Smart Successful Scotland*. This document of 33 pages, informed by and dependent on the *Framework for Economic Development in Scotland* (FEDS), concentrates on the promotion of enterprise, on business growth and on the skills of individuals underpinning that;

d) The document analysed for the Renewable Energy Policy is a consultation document prepared by the Scottish Executive with 20 pages which commits the Executive to create policy, economic and planning environment to place the country in the vanguard of a new sustainable energy industry. The document also outlines a set of measures to achieve that objective.

Table 3: Documents analysed for Scotland

Policy area	Document
1 Forest Policy	Scottish National Strategy
2 Forest Based Sector Policy	Roots for Growth – A Strategic Framework for Action for the Scottish Forest
3 Innovation Development Policy	Smart Successful Scotland
4 Rural Development Policy	Rural Scotland: Better Still, Naturally
5 Regional Development Policy	Smart Successful Scotland
6 Sustainable Development Policy	Choosing our future: Scotland's Sustainable Development Strategy
7 Renewable Energy Policy	Our Energy Future – creating a Low Carbon Economy

2 Important innovation areas and policy documents

2.1 Currently important innovation areas in the country

The assessment of the most important innovation areas was done by the national COST E51 team according to the information about the most important research or practical ongoing projects.

Table 4: Innovation areas – United Kingdom

Type \ Area	Territory based services	Value added chain
Product	* Forest schools / education * Health initiatives ('green gym') * Urban Renewal (WIAT, etc) * Pollution/Greenhouse gas (carbon) sequestration * Down-hill mountain biking * The Enchanted Forest * Go Ape. * Social housing	* Wood fuel supply * Sustainable construction * Bio fuel development * Wood composites * New and advanced technologies for wood processing
Process	* Community involvement in woodland management * Involvement of a wide-range of stakeholders	* Energy efficiency * Bio friendly adhesives * Processing poorer logs
Marketing method	* Greenspace research and public engagement *Engagement with mountain bike associations, regional tourist boards, tourism providers, development of specific websites	*Based on environmental sustainability credentials *Selling the UK's timber strengths
Organisational model	*Both top-down and bottom-up	*One that vertically integrates forest owners with the process

2.2 Specification of the documents analysed

The following documents were chosen by the national COST team for analysis. The choice of these documents was according to the COST guidelines suggestions.

Table 5: Documents for task 1: Relevant documents – United Kingdom

Forest Policy (Regional or National Forest Programme):
    Document: Scottish Forestry Strategy
    Publication Date: 2006
    Website: http://www.forestry.gov.uk/forestry/INFD-6AGGZW
    Supplementary documents: The Scottish Forestry Strategy. Implementation Plan

(2007-2008)
Forest Based Sector Policy (Sector Policy Strategy): Document: Roots for Growth - A Strategic Framework for Action for the Scottish Forest Industries Publication Date: 2000 Website: http://www.forestryscotland.com/pages/publications_detail.asp?id=8
Innovation Policy (Regional or National Reform Programme): Document: Smart Successful Scotland Publication Date: 2000 Website: http://www.scotland.gov.uk/library3/enterprise/sss-00.asp
Rural Development Policy (Regional or National Rural Dev. Programme, Forestry Part): Document: Rural Scotland: Better Still, Naturally Publication Date: 2007 Website: http://www.scotland.gov.uk/Publications/2007/03/27152428/0 Supplementary documents: Scottish Rural Development Plan Strategy 2007-2013
Regional Development Policy (Regional or National Regional Dev. Programme): Document: Smart Successful Scotland Publication Date: 2000 Website: http://www.scotland.gov.uk/library3/enterprise/sss-00.asp Supplementary documents:
Sustainable Development Policy (Regional or National Sustainable Dev. Strategy): Document: Choosing our future: Scotland's sustainable development strategy Publication Date: 2005 Website: http://www.scotland.gov.uk/Publications/2005/12/1493902/39032 Supplementary documents: Indicators of sustainable development for Scotland 2003
Renewable Energy Policy (Regional or National (renewable) Energy Strategy): Document: Securing a Renewable Future: Scotland's Renewable Energy Publication Date: 2003 Website: http://www.scotland.gov.uk/Resource/Doc/47034/0014765.pdf

3 Forest Policy

The Scottish Forest Strategy (2006) provides a background to current Scottish forest policy. This document is the Scottish Executive's Framework for taking forestry forward through the first half of this century and beyond. It sets out a vision of a forestry sector that is diverse and strong, in tune with the environment, employing many people in a wide range of enterprises and providing the may other services and benefits that people need, now and for the future. The Strategy is looking ahead to the second half of this century and focuses on the key priorities over next decade.

The Scottish Executive's top priority is to grow the economy in a sustainable way to raise everyone's quality of life. The Scottish Forestry Strategy can help to realise this ambition. Its core principles are based on sustainable development and social inclusion, achieved through a culture of 'forestry for and with people' and delivered in well managed forests and woodlands that integrate effectively with other land uses and businesses.

3.1 Part A — General description

Part A - General document information

Name:	Scottish Forestry Strategy
Adoption: Please mark by whom and at which level the document is adopted	☐ Parliament ☒ Government ☐ Ministry:_____ ☐ Others:_____ ☐ No formal approval Level: ☐ National ☒ Regional: Scotland ☐ Local **Adoption date:** October 9th 2006
Validity period:	Implementation phase: 5 years.
Revision:	The Scottish Forestry Strategy was produced during 2005 and 2006, after an extensive review of the previous strategy (2000). Forestry Commission Scotland, with advice from the Scottish Forestry Forum, considered the need to review the Strategy after **five** years.
Monitoring/ Evaluation:	Yes. Forestry Commission Scotland will have overall responsibility for monitoring and reporting on progress through a series of short to medium-term Implementation Plans that define milestones and indicate the target rate of progress. The first of these was to be produced in 2007 and posted on the Commission's website.
Related documents:	Forests for Scotland – The Scottish Forestry Strategy, 2000; A Forward Strategy for Scottish Agriculture: Next Steps 2006; Framework for Economic Development in Scotland 2004; Changing Our Ways: Scotland's Climate Change Programme 2006; Choosing Our Future – Scotland's sustainable development strategy 2005; A Smart Successful Scotland 2004; A Partnership for a Better Scotland: Partnership Agreement 2003; Scotland's Biodiversity – It's in your hands 2004; Passed to the Future 2002; Improving Health in Scotland – the Challenge 2003; The Lisbon Strategy for Jobs and Growth: UK National Reform Programme 2005; Scottish Tourism: The Next Decade – a Tourism Framework for Change 2006; Custodians of Change: Report of Agriculture and Environment Working Group 2002; Rural Scotland: A New Approach 2000; Rural Development Programme for Scotland 2007-2013. the Strategic Plan.

Geographical scope:	☐ National ☒ Regional; name: Scotland ☐ Local, name:		
Budget:	Not covered, but about €65m annually.		
General description of contents as written in document			
Objective of the document	The objective of the Scottish Forestry Strategy is to help the Scottish Executive's in the achievement of its top priority: the growing of economy in a sustainable way to raise everyone's quality of life.		
Priorities	-to increase the woodland area; - to increase the area of woodlands in active management; - to produce more forest public goods and services; - to enhance people's well being.		
Structure	The document is structured in three parts: - Part I sets the executive's vision for Scottish Forestry; - Part II sets how to achieve the vision in 7 key themes (Climate change, Timber, Business development, Community development, Access and health, Environmental quality and Biodiversity); - Part III states about the delivery process.		
Measure Areas	<u>Social</u> - enhance opportunities for health and enjoyment; - contribute to learning and skills; - assist community participation. <u>Economic</u> - facilitate the development of markets for forest products; - facilitate rural business diversification; - increase the contribution of forestry to tourism; - develop a more efficient and competitive timber supply chain. <u>Environmental</u> - help to tackle climate change; - contribute positively to soil, water and air quality; - contribute to landscape quality; - protect and promote the historic and cultural environment; - help to protect and enhance biodiversity.		
Follow-up / Implementation			
Follow-up measures:	☐ No follow-up activities so far ☒ New or adapted funding programme(s) /budget line; name: ☐ New or adapted regulations/laws; name: ☒ New or adapted informational campaigns/instruments; name: ☐ New or restructured institutions/organisations; name: ☒ Implementation in forest policy: The Deputy Minister for Environment and Rural Development is looking to have Forestry Commission Scotland, along with other partners in government, leading the implementation phase.		
General comment:	The research needs identified are: - Inventory & forecasting systems; - Forestry's contribution to mitigation of climate change - Forestry and adaptation to climate change; - Renewable materials as an alternative to plastics, steel and concrete; - Improve understanding of climate change impacts on woodland ecosystems.		

3.2 Part B -Integration of innovation

Part B - Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods' , 'new business models') in the document	☐ never ☐ sometimes ☒ frequently

	Please mark the frequency of occurrence of the forest sector _'innovation frontier'_ – innovation areas identified in Chapter 3 - in the document	☐ never ☒ sometimes ☐ frequently
	Please mark the frequency of occurrence of the _terms_ that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never ☐ sometimes ☒ frequently **Terms used:** Innovation, competitive, business development, skills, new business, regeneration.
	Further comments on overall innovation orientation of the document: Strong emphasis on innovation and on research.	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☐ No relevance at all ☐ Marginal issue ☐ One issue among others ☒ Important issue ☐ Central issue Comments: A strong theme underlying the entire document. One of the outcomes sought is the competitive and innovative businesses contributing to the growth of the Scottish economy.	
Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry	☐ very general _(innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document)_ ☐ rather general _(innovation is addressed in overall goals, needs are identified but no specification of measures)_ ☒ rather specific _(innovation is addressed in concrete goals, measures are formulated)_ ☐ very specific _(quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)_ Comments: In what is concerned to the Outcome 2: Competitive and innovative businesses contributing to the growth of the Scottish economy, the document specify the objectives regarding innovation.	
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ No role for policy ☐ Traditional science and technology policy ☒ Systemic innovation policy ☐ Others:_____ Comments: The document displays a good understanding of theoretical aspects of innovation, including process elements.	

Goals and objectives:

The document does not address innovation directly but sets out a number of objectives for Outcome 2: Competitive and innovative businesses contributing to the growth of the Scottish Economy, which imply a requirement for innovation. These objectives are:
- to develop a more efficient and competitive timber supply chain;
- to facilitate the development of markets for forest products;
- to facilitate rural businesses diversification and development;
- to increase the contribution of forestry to tourism.

Issues, problems and related topics:

- Skills
- Recruitment
- Safety
- Increased productivity
- Business diversification
- Development of new markets for forest products
- Expand into tourism

Innovation areas:
- Efficient timber supply chain
- Market development
- Business diversification
- Tourism

General comment:
The research needs identified are:
- Forests for health;
- Forestry and climate change;
- Renewable materials & energy.

Part B - Innovation Support Measures

Innovation support measures *Consult classification in chapter 2.2.2*	Research and Development	- Promote innovation, leading edge research and development, collaboration and competitiveness in sector development through mechanisms like the Scottish Forest Industries Cluster (page 28).
	Diffusion of innovation	- Develop predictable and stable supplies of good quality timber; - Encourage improvements to timber quality and yield; - Encourage opportunities for adding local value; - Increase the market share and value of home-grown timber; - Promote the use of timber in sustainable construction; - Encourage farm business diversification; - Capture opportunities for local forestry related enterprise; - Encourage woodland expansion for social, economic and environmental benefits; - Promote forest tourism as part of sustainable rural development; - Increase economic benefits to woodland owners and communities from tourism; - Help to increase the number and variety of visitors to Scotland; - Improve customer focus. (page 18)
	Strengthening the knowledge base	- Help the education sector make greater use of forestry; - Use forestry as an exemplar of sustainable development; - Encourage responsible citizenship; - Encourage new entrants into the forestry jobs market; - Develop a safety conscious, multi skilled forestry sector workforce; - Use forestry to help people acquire practical and transferable skills. (page 17)
	Strengthening interaction	Assist community participation: - Maintain constructive community engagement with forestry; - Develop strong relationships between communities and their local woodlands.
	Demand creation	- Maximise the economic potential of Scotland's timber resources; - Encourage continued investment in timber processing by sustaining a predictable and stable supply of good quality timber; - Promote the use of timber as a renewable, versatile, raw material; - Increase the efficiency of the timber supply chain to improve sector competitiveness, and minimise the social and environmental impacts of timber transport; - Encourage continuing development of the hardwood timber sector in Scotland. The priority is to keep raising awareness of the potential of wood as a versatile and sustainable raw material through procurement and construction guidance, sector campaigns such as wood for good projects. (page 28)
	Improving frame conditions	- Encouraging the development of timber markets, particularly markets based on wood fuel; - Develop the timber transport infrastructure through mechanisms such as Strategic Timber Transport Scheme and through partnerships such as the Timber Transport Forum and Timber Transport Groups. (page 29)

	Comments Some of these measures will support some of the innovation areas identified on table 4 of this report. For example, the measures "Maintain constructive community engagement with forestry" and "Develop strong relationships between communities and their local woodlands" are in the same line than the process "community involvement in woodland management". The measures "Increase the efficiency of the timber supply chain to improve sector competitiveness" and "Encourage continuing development of the hardwood timber sector in Scotland", are in the same line than the innovation area "new and advanced technologies for wood processing".	
Priorities		The priority area for innovation support within the document is the key Theme 2: Timber. Here the word innovation is referred as a priority to be achieved within this area. It is stated on page 28: "Promote innovation, leading edge research development, collaboration and competitiveness in sector development through mechanisms like the Scottish Forest Industries Cluster."
Assessment of overall relevance		The promotion of innovation is mentioned as a priority within the Key Theme 2: Timber, but it is not referred within other key themes (1,3,4,5 and 6). However, one can consider that the document mentions innovative supporting measures for the other key themes even if they are not directly addressed to innovation. Within the Scottish Forestry Strategy innovation is an important issue.
Promotion of innovation		The document refers that innovation should be promoted but that is only mentioned in the Key Theme 2: Timber. The document is considered very important for the policy area. It is the Scottish Executive's framework for taking forestry forward through the first half of the XXI century and beyond.
General comment:		List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

Part B - Cross-sectoral coordination

Policy formulation	
Co-ordination with other processes and documents	- Forestry Commission Scotland is working with Community Planning Partnerships to increase forestry's contribution to wider, local priorities; - Wider science and research co-ordination in the Scottish executive Environment and Rural Affairs Department is undertaken through the Science Co-ordinating Committee. Co-ordination with other processes: - Scottish Planning Policies (SPPs) and Circulars; - Planning Advice Notes (PANs); - Circular 9/1999; - Forestry Frameworks approved in both of Scotland's National parks.
Administrative Co-ordination:	☒ between different sections/departments within the same ministry; specify: ☐ between different ministries, specify: ☐ between ministries and other public organisations / agencies, specify: Minister for Environment and Rural Development of Scotland and Forestry Commission Scotland <u>Comments:</u>
Stakeholder involvement (in no particular order)	☒ Forestry: name most important organisations: Forestry Commission Scotland; The Institute of Chartered Foresters; Forestry Research Co-ordination Committee. ☐ Forest-based industries: name most important organisations. ☐ Agriculture: name most important organisations. ☒ Tourism: name most important organisations. Visit Scotland Scottish Natural Heritage; Royal Commission on the Ancient and Historical Monuments of Scotland. ☐ Energy: ☒ Environment: Scottish Environment Protection Agency and Historic Scotland; Scotland's National Parks. ☐ Other sector: Research: Research Liaison Officer for Scotland. <u>Comments:</u>
Coordination mechanisms:	☐ Formal (central) co-ordination body; name: ☒ Formal co-ordination process: Five broad mechanisms are prepared to help to convert the Scottish Forestry Strategy into action: 1) Information and guidance, 2) Regulation, 3) Incentives, 4) Public sector services, 5) State intervention. ☐ Inter-sectoral working groups ☐ Inter-sectoral advisory body ☐ Formal mandatory consultation process ☐ Formal voluntary consultation process ☐ Informal consultations (please describe _____) ☐ Others: _____
Policy Implementation	
Responsible actors and their roles:	Forestry Commission Scotland along with other partners in government are in charge of the implementation phase; Forestry Commission Scotland will be the Strategy's "champion" and it will also have the responsibility for monitoring and reporting on process through the Implementation Plans. Scottish Forestry Forum - The role of the Scottish Forestry Forum is to advise Forestry Commission Scotland on the regional implementation of the Strategy, and identifying and monitoring their region's issues and priorities.
Level of delegation	☐ Decentralized, ☐ Central, ☐ Outsourced to private actors ☒ Local: Community Planning Partnerships. Long-term planning on the national forest estate will be delivered through each Forest District's Strategic Plans and individual Forest Design Plans. ☐ Regional

	☐ Others
General comment	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

4 Forest Based Sector Policy

This document sets out a strategy and action plan for the Scottish Forest Industries over the next five years. It is the culmination of six months of work by industry representatives (organisations, businesses and individuals), facilitated by Scottish Enterprise, marking an important stage in the development of the industry in Scotland. The Scottish Executive's Scottish Forestry Strategy, published in 2000 provided the context for this document, although this is now superseded by the 2006 Forestry Strategy for Scotland.

4.1 Part A – General description

Part A – General document information

Name:	**Roots For Growth. A strategic framework for action for the Scottish Forest Industries**
Adoption: Please mark by whom and at which level the document is adopted	☐ Parliament ☐ Government ☐ Ministry:_____ ☒ Others: Scottish Forest Industries ☒ No formal approval Level: ☐ National ☒ Regional: Scotland ☐ Local **Adoption date:** Roots for growth, the action plan for the Scottish forest industries was launched in September 2003.
Validity period:	2000-2006
Revision:	No revision planned, but review of Cluster process carried out in 2006 by independent consultants
Monitoring/ Evaluation:	Annual review by the Scottish Forest Industries Cluster
Related documents:	Report of the Cluster Leadership Group visit to New Zealand February 2003
Geographical scope:	☐ National ☒ Regional; name: Scotland ☐ Local, name:
Budget:	£4 million in total between 2000 and 2006
General description of contents as written in document	
Objective of the document	To provide a strategic framework for government and industry to work in partnership to deliver the opportunities arising from the large increase in the volume of timber coming forward to market over the next 20 years.
Priorities	The strategy sets the challenge of creating a strong and competitive timber industry in Scotland adding maximum value to the Scottish wood resource. The cluster goals are to: - Become a demand-led industry that is competitive with the best in the world; - Grow and develop markets for higher value products and services; - Encourage a domestic wood using culture where wood is the natural choice of customers; - Build a connected and innovative industry that understands and responds to new customer demands; - Be recognised as an industry that makes a valued contribution to communities and the environment as well as the economy.

Structure	Foreword -by the Chair of the Leadership group encouraging industry to respond positively to the strategy Introduction – Setting the document in context and outlining the concept of a Cluster approach The Market – A brief assessment of the current global forest products market, and the principal economic drivers shaping future markets. An analysis of the current UK market for timber products and the distribution of home grown wood and wood products to final markets. The forest industry in Scotland – Outline of the situation relating to employment, and current processing capacity. A map of the Cluster community showing the current relationships and critical linkages within the industry. An analysis of the strengths and weaknesses of the industry in Scotland. International comparisons – The results of a series of international benchmarking comparisons indicating how other countries have developed their own forest industries, and where they have managed to do this in the most profitable way. Building a competitive response – Detailing the implications of not addressing the agenda in a proactive way, and outlining the actions required to build a competitive response. Roots for growth – a strategic framework for action – three core themes each with their own set of operational objectives. The emphasis in all three themes is the promotion of innovation. - Promoting innovation - Market and business development - Infrastructure development From strategy to action – A list of actions to be undertaken in each of the three themes above to bring about the changes in the sector which will deliver the vision. Existing Cluster activity – A brief synopsis of areas that the Cluster was engaged in when Roots for Growth was launched.
Measure Areas	- Promoting innovation – This theme recognises that innovation can be stimulated by collaboration throughout the Cluster community, and enabling a shift towards joined up action. Through co-ordinated action on matters such as training, research and knowledge management, innovation throughout the industry can be accelerated and hence enable greater competitiveness; - Market and business development – this theme deals with public awareness of the industry, its value to the economy and the broader sustainability agenda. The need to change perceptions of timber quality and develop the market, and industry's response to it are key elements; - Infrastructure development – This strategic theme concerns the need to influence and develop 'factor conditions' which will make a positive contribution to the success of the industry; Specific targets over the next five years attributable to the plan are: - The creation of over 1000 new jobs; - The stimulation of an extra £100m of investment in new processing capacity - An increase in market penetration from 9% to 15%.
Follow-up / Implementation	
Follow-up measures:	☐ No follow-up activities so far ☒ New or adapted funding programme(s) /budget line; name: Advocated the need for a managed programme of research in the use of timber in construction; ☐ New or adapted regulations/laws; name: ☒ New or adapted informational campaigns/instruments; name: Established network contacts in North America and highlighted examples of "best practice" from which to learn; participated in the UK Forest Research Coordinating Committee; Facilitated contact with forest owners across Scotland to assess the likely future availability of the private sector timber resource; an extensive training needs assessment; securing European funding to enable the Forestry Contracting Association to run a series of training initiatives; .Scottish enterprise has jointly funded with the ‚wood for good' campaign, the delivery of continuing professional development seminars by TRADA to over 100 building industry professionals. ☒ New or restructured institutions/organisations; name: A new Centre for Timber Engineering was to be established at Napier University. ☒ Implementation in forest policy: Industry Leadership Group

General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

4.2 Part B – Integration of innovation

Part B - Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods' , 'new business models') in the document.	☐ never ☐ sometimes ☒ frequently
	Please mark the frequency of occurrence of the forest sector 'innovation frontier' – innovation areas identified in Chapter 3 - in the document.	☒ never ☐ sometimes ☐ frequently
	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐never ☒ sometimes ☐ frequently **Terms used:** competitiveness
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☒ Central issue ☐ Important issue ☐ One issue among others ☐ Marginal issue ☐ No relevance for innovation at all	
Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry	☐ very general *(innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document)* ☐ rather general *(innovation is addressed in overall goals, needs are identified but no specification of measures)* ☒ rather specific *(innovation is addressed in concrete goals, measures are formulated)* ☐ very specific *(quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)* Comments: The promotion of innovation is a core thread running through the whole document, and is central to the three main themes in the action plan. The vision, goals, and targets are pursued through a focus on three strategic themes, each with its set of operational objectives, summarised in the document. The emphasis in all three themes is on the promotion of innovation.	
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ Predominately traditional science and technology policy ☐ Traditional S&T policy with systemic elements ☒ Systemic innovation policy with S&T policy elements ☐ Predominantly systemic innovation policy Comments: There is the recognition that innovation can be stimulated by collaboration throughout the Cluster community and enabling a shift towards "joined up" action. Through co-ordinated action on matters such as training, research and knowledge management, innovation throughout the industry can be accelerated and hence enable greater competitiveness.	

Goals and objectives:

The objectives related to the **promotion of innovation** are:
- Develop product awareness of Scottish Softwood;
- Develop higher added value products and processes;
- Strengthen the design of wood and timber products;
- Enable the industry to make best use of e-commerce;
- Encourage a collaborative approach to training, research and knowledge sharing;
- Improve learning throughout the Cluster;
- Create a better understanding of wood amongst professionals and wood users.

Issues and Problems:

The need to develop far-reaching and powerful networks, to share industry experience and knowledge embracing all aspects of its activity. The need for national and local government to play their role in working closely with all partners in the industry to help it develop. Consideration of the implications and difficulties of effecting change. The challenge for every company and organisation at every level to contribute towards delivering the vision.

Specific weaknesses identified were:
- Domestic industry not well connected to the import-dominated markets;
- Inadequate knowledge within industry of the 'fit for purpose' characteristics of the main species;
- Little research support for innovation in new products and processes;
- Low public profile and awareness of the industry, its sustainability, economic value, and the linkage between the resource and products flowing from it;
- Weakness in logistics, transport, and development site infrastructure.

Innovation areas:

The areas for action in promotion innovation are:
- Develop product awareness of Scottish Softwood;
- Develop higher added-value products and processes;
- Strengthen the design of wood and timber products;
- Enable the industry to make best use of e-commerce;
- Encourage a collaborative approach to training, research and knowledge sharing;
- Improve learning throughout the cluster;
- Create a better understanding of wood amongst professionals and wood users.

General comment:

The research needs identified by the assessment of the activities of the first year of *Roots for Growth* identified the following priorities and needs for the forthcoming year:
- Broadening the enthusiasm and engagement from all parts of the Cluster;
- Encouraging and disseminating innovations and other examples of good practice;
- More events which offer the opportunity for face-to-face contact across Cluster industries;
- Creating new businesses opportunities founded upon adding value;
- Strengthening links between industry and the research community.

Part B - Innovation Support Measures

| Innovation support measures *Consult classification in chapter 2.2.2* | Research and Development | **Incising pre-treatment of Sitka spruce. £29000**
Investigation of the durability and value added through incising timber to promote the absorption of preservatives.
Spruce for cladding. £54000
Investigation of the suitability of Scottish timber for cladding products and the routes to market promotion.
Modifying density of pine and spruce. £23000
Investigation of the benefits of different technologies for modifying the density of pine and spruce.
Private growers and sawmill benchmark innovation work.
Develop new customised benchmark for growers and sawmilling based around DTI benchmark Harvesting Contractors benchmarks being developed.
Post saver
Development of sleeved boot to help preserve timber fence posts.
Pulp mill feasibility.
Economic impact of second pulp and paper line at Caledonian.
Low pressure tyre vehicle (LPTV) developed by Messrs McCormick and McColm,
South Ayrshire.
Tested on 26 June 02 Forest Enterprise and the Cluster have contributed to the development of the LPTV.
Support for hardwoods marketing £10000
Devising the best means of supporting market development for hardwoods through ASHS and SHTMDG.
Insch community heat and power project. £20000
This will develop a business plan for a scheme to provide a community-owned heat and power scheme for the village.
Incising Wood_- Taking to Market. £75,000
High Temperature Kiln Drying £75000 |
| | Diffusion of innovation | **Altener bid.**
A collaborative bid has been made for about €100K of EC funding. The Altener funds would meet the costs of strategy development, technology transfer, skills and funding work associated with the commercialisation of bio energy.
Forests for People. £30000
Baseline monitoring for three pilot community woodland projects FC/FE collaboration with local communities.
Potential for the development of a rail head at the Barony plant, East Ayrshire.
Support for rail freight facilities grant application.
Southwest Scotland local area modelling.
Modelling transport flows.
Pine product research project.
Research in Grampian to develop timber products based on pine.
Spruce for joinery production demo.
Industry working with Jeld-wen to establish viability of manufacturing joinery products from Scottish spruce and perhaps other species.
Door core supplies to Jeld-wen.
Feasibility of supplying door-core material to Jeld-wen.
Mechanical stress grading.
Possible research to establish the best way forward to respond to the implications of Euro code 5 for mechanical stress grading.
Local area modelling.
Proposed modelling in Grampian and Borders (The former to look at rail opportunities at Inverurie and/or Huntly and the latter to investigate further the Waverley line and the potential for rail at Kielder.
Inside out beams £10000
Private sector production forecast. £10000
GIS based five years production forecast to validate current PS forecast by means of a pilot in South Scotland.
McDonald Report on the Institutional and Funding Issues of an Industry-wide representational Body for the Forest Industries. £25,000
Marine piling £20000
UK Timber for Industrial Applications – Piling £8810
Timber transport optimisation study £11500 |

	Strengthening the knowledge base	**Scottish spruce house project.** Demonstration project to build timber frame house out of Scottish spruce and to monitor its performance in construction and use. **Timber cladding. £8300** Study in collaboration with Highland Council under EC Northern Periphery Programme to establish key issues around developing home grown timber for cladding. **Design of garden pavilions from Scottish timber. £20000** Four innovative de-mountable Pavilion designs to be manufactured and erected at IFF Lockerbie (including the Official stand). **Forestry Research in Scotland: A Review by Bill Dyck, Science and Technology Broker from New Zealand** June 2004 £10,000. **UK wood fuel resource study. £35000** This will provide a GIS-based database of available wood fuel to help plan the location of bio energy schemes. **'Woodspec' £15000** Extension of the existing (Irish) Woodspec database and CD/Website for the whole of the UK. **Scots pine market opportunities study £20000** **Non timber forest products inventory study £4000** **Non timber forest products methodology £2500** **Non timber forest products market analysis £10000** **Mapping the forestry supply chain £7210** **Manual of value added opportunities** £8900
	Strengthening interaction	**Non-timber forest products. £20000** Study to establish potential for a variety of NTFPs. **Opportunities for home grown timber in timber frame. £20000** **Pulp mill feasibility.** Economic impact of second pulp and paper line at Caledonian
	Demand creation	**Workforce development study** £5900 **E-Business case studies** £3650 **Forest biotechnology. £10000** Challenge document to indicate key issues for the development of Forest Biotechnology in Europe. **Wood pellets study £20000** Assessment of feasibility of establishing domestic wood pellet manufacturing capacity. **Exporting to the Netherlands.** Detailed investigation of four products with export potential to the Netherlands: Pallets, larch heartwood, engineered products for construction industry and cladding. **Bio energy.** Demonstration project feasibility including funding for Bio energy. **Extractives.** Possible follow-on from the NTFP study. **Mushrooms.** Possible follow on from the NTFP study. FE interested in developing guidelines similar to venison to promote wild collection. Also possible cultivation. **GIS Data standard £20000** Draft report to establish a data transfer standard
	Improving frame conditions	**Feasibility of establishing an e-forum.** Feasibility of establishing an e-business forum for Forest Industries. **Establishing a Forest Industry Investment Vehicle for Scotland** £25,000 **- Development of sustainable harvesting guidelines for mosses and bulbs £6000**

Comments: Some of these support measures overlap with the innovation areas identified in table 4 of this report. For example:
Territory based services:
Process: Community involvement in woodland management ⇔ *Forests for people*;
Value added changed:
Product: Bio fuel ⇔ *bio-energy*; *UK Word fuel resource study.*

Priorities	As can be seen from the projects supported over the years, the approach has been an industry wide one, so all of the categories have had a very high priority for support.
Assessment of overall relevance	The document "Roots for Growth" is almost exclusively about innovation and building competitiveness as a result. The programme was set up with this as the main priority.
Promotion of innovation	The programme has allowed innovation to be promoted and developed in most sectors of the forest industry. The aim is to change industry attitudes to innovation, and help it to become more entrepreneurial and innovative, so that ultimately public support is no longer necessary.
General comment:	Scotland's research needs document has developed in part from the Roots for Growth programme.

Part B - Cross-sectoral coordination mechanisms

Policy formulation	
Co-ordination with other processes and documents	The objectives identified in "Roots for Growth" are closely related to the priorities set in the Scottish Forestry Strategy published in 2000; however there was not formal coordination between the two strategies.
Administrative Co-ordination:	☐ between different sections/departments within the same ministry; specify: ☐ between different ministries, specify: e.g. Scottish Executive and Department for Rural Affairs in England and Wales ☐ between ministries and other public organisations / agencies, specify: Industry representatives and Scottish Enterprise. Comments: The administrative co-ordination of this process is in charge of the Scottish Forestry Industry Cluster which is a partnership between the Forest Industries Development Council and the Scottish enterprise.
Stakeholder involvement (in no particular order)	☒ Forestry: name most important organisations: ☒ Forest-based industries: name most important organisations. ☐ Agriculture: name most important organisations. ☒ Tourism: name most important organisations. ☐ Energy: ☒ Environment: ☒ Other sector: Universities and research institutes; building industries. Comments: The document sets out a strategy and action plan discussed by industry representatives and facilitated by the Scottish Enterprise. The participating organisations were: Scottish Enterprise, Forestry Commission Forest Industries, Development Council, universities and research institutes, saw millers, panel manufacturers, construction and timber frame companies, joiners, house-builders, Scottish Homes, retailers, merchants, importers, paper manufacturers, local authorities, industry and professional associations, advisors, international and Scottish benchmarking consultants, environmental organisations, training/safety organisations, furniture companies, re-cycled fibre companies, engineering firms and testing/agreement institutions, and groups representing tourism/access, rural interests and transport.
Coordination mechanisms:	☒ Formal (central) co-ordination body; name: Cluster Leadership group ☐ Formal co-ordination process ☐ Inter-sectoral working groups ☐ Inter-sectoral advisory body ☐ Formal mandatory consultation process ☐ Formal voluntary consultation process ☐ Informal consultations (please describe _____)

	☐ Others: ___
Policy Implementation	
Responsible actors and their roles:	An industry Leadership Group, facilitated and supported by the FIDC, will co-ordinate the overall action plan development and delivery and take the lead role in pursuing actions through focus and task-specific groups. The SE Network will support the above actions through its network of Local Enterprise Companies (LECs).
Level of delegation	☐ Decentralized, e.g. Forest industries cluster ☐ Central, e.g. ministry, public agency ☒ Outsourced to private actors: The actions and initiatives suggested to the document were taken by the organisations, businesses and individuals in the work of the Cluster and there were not implemented by policies. ☐ Local, e.g. by municipalities ☐ Regional, e.g. by regional public actors ☐ Others
General comment	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

5 Innovation Policy

The document analysed in relation to innovation policy area in Scotland was *Smart Successful Scotland* (SSS). This document is the Scottish Executive's Enterprise Strategy for Scotland and the strategic direction for the Enterprise networks. It was originally published in 2001 and was refreshed in 2004. SSS concentrates on the promotion of enterprise: on business growth and on the skills of individuals underpinning that. It takes forward several of the key priority areas in the Framework for Economic Development in Scotland (FEDS) to provide the enterprise strategy.

5.1 Part A — General description

Part A — General document information

Name:	A Smart, Successful Scotland		
Adoption: Please mark by whom and at which level the document is adopted	☐ Parliament ☒ Government ☐ Ministry:_____ ☐ Others:_____ ☐ No formal approval Level: ☐ National ☒ Regional: Scotland ☐ Local **Adoption date:** December 2005 (date of publication of strategy): 2004		
Validity period:	From 2004		
Revision:	No		
Monitoring/ Evaluation:	Yes. The Joint Performance Team (JPT) ensures rigorous reviews of economic performance and publishes data in *Measuring Scotland's progress towards A Smart, Sucessful Scotland*. These reports assess economic performance relative to OECD countries across a range of indicators relating to the priorities in Smart Successful Scotland.		
Related documents:	Framework for Economic Development in Scotland (FEDS) http://www.scotland.gov.uk/library5/government/fedsm.pdf National Planning Framework for Scotland http://www.scotland.gov.uk/library5/planning/npf04-00.asp Measuring Scotland's Progress Towards A Smart, Successful Scotland, August 2004 http://www.scotland.gov.uk/library5/enterprise/MP%20Report%202004.pdf Highlands & Islands Enterprise Operating Plan 2004-2007 http://www.hie.co.uk/network-operating-plan-04-07.pdf Scottish Enterprise Operating Plan 2004/07 http://www.scottish-enterprise.com/publications/operating-plan04-07.pdf		
Geographical scope:	☐ National ☒ Regional; name: Scotland ☐ Local, name:		
Budget:	€800m		
General description of contents as written in document			
Objective of the document	A Smart, Sucessful Scotland aims to contribute to growth and productivity by focusing on aspects of Framework for Economic Development in Scotland (FEDS), which are key to enterprise under three broad organising themes: - Growing businesses; - Learning and skills; - Global connections.		
Priorities	- Entrepreneurial dynamism in research & development and innovation - Education and skills - Infrastructure, and - The efficient management of public sector resources.		

Structure	The document is structured in the following chapters: 1- Vision for a Smart Successful Scotland; 2- The chalenge faced; 3- The Approach: the Executive and Enterprise Network; 4- The Approach: success through partnership; 5- The priorities: Growing businesses, skills and learning, global connections; 6- The spatial dimension: realising the potential of our places; 7- Cross-cutting themes; 8- Making it happen.
Measure Areas	The document has very few or no measures within it. It sets out the following 'lead indicators' **Overall Progress** - Gross Domestic Product per head of population - CO_2 emissions **Growing Business** - high growth firms (business starts) - percentage of businesses trading online - business research and development as a proportion of GDP - productivity levels in Scottish industry **Global Connections** - cost and coverage of broadband - proportion of employers exporting - graduates as a percentage of the workforce - net migration as a percentage of the population **Skills and Learning** - proportion of the working age population in employment - proportion of 16-19 years old who are not in education, employment or training - reducing the gap in unemployment between the worst 10% of areas and the Scottish average - proportion of those in employment undertaking training.

Follow-up / Implementation	
Follow-up measures:	☒ No follow-up activities so far ☐ New or adapted funding programme(s) /budget line; name: ☐ New or adapted regulations/laws; name: ☐ New or adapted informational campaigns/instruments; name: ☐ New or restructured institutions/organisations; name: ☐ Implementation in forest policy:
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

5.2 Part B – Integration of innovation

Part B - Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the more generic terms 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods' , 'new business models') in the document	☐ never ☐ sometimes ☒ frequently
	Please mark the frequency of occurrence of the forest sector 'innovation frontier' – innovation areas identified in Chapter 3 - in the document	☐ never ☒ sometimes ☐ frequently

	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never ☒ sometimes ☐ frequently **Terms used:** entrepreneuship, Competitiveness
	Innovation is referred through all the document and mentioned in several contexts namely: New businesses, productivity, culture of enterprise, research and development, networks, developing people who are in work, economic growth.	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☐ No relevance at all ☐ Marginal issue ☐ One issue among others ☐ Important issue ☒ Central issue Comments: Innovation is referred as a very important issue. It is pointed that one of the objectives for Scotland is to „be excited by and focused on innovation". The Framework for Economic Development in Scotland (FEDS), in wich this document takes forward several of its key priority areas, also considers innovation as a key factor in contributing to economic growth.	
Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry	☐ very general *(innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document)* ☒ rather general *(innovation is addressed in overall goals, needs are identified but no specification of measures)* ☐ rather specific *(innovation is addressed in concrete goals, measures are formulated)* ☐ very specific *(quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)* Comments: Innovation is set as a very important matter but the document does not specify which are the measures to achieve innovation.	
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ No role for policy ☐ Traditional science and technology policy ☒ Systemic innovation policy ☐ Others:_____ Comments: The innovation is considered across several areas: research and development, commercialisation, technology adoption and implementation.	

Goals and objectives:
- Improve innovation;
- Continuing innovation in products and processes;
- Offer high value products and services embodying innovation;
- Introduce product and process innovations;
- Developing people who are in work in order to deliver innovation.

Issues, problems and related topics:
The document identifies certain problems of Scotland in what is concerned to innovation. For example it mention that:
- Scotland is weak in introducing product and process innovations;
- Business expenditure on R&D in Scotland is still considerably below the UK average;
- Scottish performance is poor compared with other EU countries;
- It is still a challenge for Scotland in getting people to continue developing their skills and learning in work;
- Training courses are not always structured in ways that maximise the potential benefit for businesses or individuals;
- Scotland's business start-up level is low compared to the rest of the UK and many of its international competitors;
- Scotland's demographics is against the increasing on innovation and economic development, since there is an ageing and falling population as well as continuing migration of talented people.

Innovation areas:

1) <u>Growing businesses:</u> Taking forward entrepreneurial dynamism and research & development to deliver innovative companies growing in scale;

2) <u>Skills and learning:</u> Developing skills to make best use of our human capital and to prepare for tomorrow's labour market;

3) <u>Global connections:</u> Taking forward aspects of physical and electronic infrastructure, together with building the global connections of Scottish businesses to create world class locations, part of Europe and connected to the global economy.

General comment:
List research needs you identified, they might be taken up in phase II of COST E51
Name further reference sources used

Part B - Innovation Support Measures

Innovation support measures *Consult classification in chapter 2.2.2*	**Research and Development**	- Industry must increase internal knowledge generation and seek out and access external ideas wherever they exist; - The Enterprise Networks and the Executive are able to provide financial support towards business R&D; - Scottish Universities and research institutes should continue to build on mechanisms to "push" research and technology in ways more easily understood and accessible by the business base, particularly SMEs.
	Diffusion of innovation	- The Enterprise Networks have the role of bringing together businesses with the desire to innovate with those who have knowledge to help each understand the capabilities and requirements of the other; - The Networks should support business networks which promote innovation, quality enhancement and shared good practice.
	Strengthening the knowledge base	- Businesses, individuals and government must invest in skills development and make best use of those skills; - The Enterprise Networks help to inform about the work of learning providers, including schools, colleges and universities, to ensure that people get the skills – both technical and core – needed to match market demand and adapt successfully to changes in demand; - The Enterprise Networks will support businesses to take a strategic approach to the development of their people.
	Strengthening interaction	- It is suggested that a range of organisations work together and contribute to achieve, economic and community development.
	Demand creation	Not mentioned.
	Improving frame conditions	- Create the conditions for people to start and grow businesses; - Encourage and support businesses to act smarter;
	Comments What is described above are the suggestions given by the document to support innovation and economic development. They are not measures in the real sense of the word. Some of the suggestions support some of the examples given for the innovation areas in table 4 of this report. For example, "support business networks which promote innovation, quality enhancement and shared good practice" and "bringing together businesses with the desire to innovate with those who have knowledge to help each understand the capabilities and requirements of the other" are in line with the innovation area identified as "Involvement of a wide-range of stakeholders" in table 4.	
Priorities		The priority seems to be the promotion of innovation and R&D, considered central to the objective of economic growth and sustainability.
Assessment of overall relevance		The document mention that innovation is a way to pursue economic development and suggests the areas where innovation should be promoted in order to increase economic development but does not refer the measures to achieve the objectives mentioned. It only suggests what should be done as well as the role of the Executive and the Enterprise Networks. It states that the measures/suggestions related to innovation are of high importance.

Promotion of innovation	As the support of innovation is very promoted by the document, the relevance for the overall promotion of innovation is very high.
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

Part B - Cross-sectoral coordination

Policy formulation	
Co-ordination with other processes and documents	- The Executive's lifelong learning strategy: *Life Through Learning; Learning Through Life*; - The Executive's enterprise in education strategy: *Determined to Succeed*; - *Modern Apprenticeships*; - The Executive's *Fresh Talent* initiative; - *Meeting the Needs...Priorities, Actions and Targets for Sustainable Development in Scotland*, published in 2002.
Administrative Co-ordination:	☒ between different sections/departments within the same ministry; specify: Ministry for Enterprise and Lifelong Learning ☐ between different ministries, specify: e.g. Scottish Executive and Department for Rural Affairs in England and Wales ☒ between ministries and other public organisations / agencies, specify: Scottish Ministers and the Enterprise Networks. **Comments:** Economic growth is the top priority of Scottish Ministers. This shared objective requires action by all the Ministers, Departments and agencies. Ministers have set the broad strategic direction in the *Framework for Economic Development in Scotland (FEDS)* and their spatial development strategy in the *National Planning Framework*. The Enterprise Networks have a specific contribution to make.
Stakeholder involvement (in no particular order)	☐ Forestry: name most important organisations: ☐ Forest-based industries: name most important organisations. ☐ Agriculture: name most important organisations. ☒ Tourism: Visit Scotland ☐ Energy: ☐ Environment: ☒ Other sector: Cultural organisations (Scottish Arts Council); Equality organisations (Equal Opportunities Commission); Skills (Futureskills Scotland); Business organisations; Social Economy Partnerships, voluntary sector organisations. **Comments:** Many in the public and private sectors have expressed their support for the approach set out in *A Smart, Successful Scotland*. The document refers that this support is welcome and essential because the businesses are the ones that will produce the goods and services that deliver growth, and because insofar as the public sector can support and facilitate enterprise, Scottish Enterprise cannot deliver the priorities in SSS in isolation.
Coordination mechanisms:	☒ Formal (central) co-ordination body; name: Scotland's Executive and Enterprise Networks. ☐ Formal co-ordination process ☐ Inter-sectoral working groups ☐ Inter-sectoral advisory body ☐ Formal mandatory consultation process ☐ Formal voluntary consultation process ☐ Informal consultations (please describe _____) ☐ Others: _____
Policy Implementation	
Responsible actors and their roles:	The Scottish Executive has the following duties: -Set the overall direction in SSS and the lifelong learning strategy; - Discuss and agree Corporate Plans drawn up by the Networks; - Work with the Enterprise Networks to measure progress towards desired

	outcomes; - Work with the Enterprise Networks to evaluate the contribution of Network outputs to outcomes; - Work with the Enterprise Networks on specific policy developments. The Enterprise Networks should develop and deliver projects and programmes which: - reflect the strategic direction set for them by Scottish Ministers; - take into account the results of progress measurement and evaluation; - take into account the roles of, and discussion with, national delivery partners; - take into account Community Planning and the need to address local circumstances; - are presented in Corporate Plans, which include budgetary allocations and key output targets; - achieve outputs that contribute to desired outcomes and economic growth.
Level of delegation	☐ Decentralized, e.g. ☒ Central, e.g. ministry, public agency ☐ Outsourced to private actors ☐ Local, e.g. by municipalities ☐ Regional, e.g. by regional public actors ☐ Others
General comment	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

6 Rural Development Policy (14.5.2005, 13:00 →)

The document that should be analysed for the Rural Development Policy area is the Scottish Rural Development Plan for the period 2007-2013. However, as this document was not available at the time of the preparation of this country report, it was decided to analyse instead the document: "Rural Scotland: Better Still, Naturally". The consultation paper "Rural Development Programme for Scotland 2007-2013", which proposes key themes and priorities for the Rural Development Strategy for Scotland for the period 2007-2013
 (http://www.scottishexecutive.gov.uk/Topics/Rural/RDR/strategicplan), could also be analysed but the first was chosen because it contains more information on strategic thinking in relation to rural development.

"Rural Scotland: Better Still, Naturally" sets the context for rural policy and rural development in Scotland. It has been developed in consultation and discussion with a Working Group of leaders in several rural fields. It focuses mainly on the policies and actions of the Scottish Executive and its agencies: but it recognises the critical roles played by others - across the private, public and third sectors - in taking forward action and in making progress towards our mutual aims for rural Scotland. This document recognises both the existence (and strengths) of diversity while, at the same time, a degree of commonality of issues across rural areas of Scotland: and it seeks to highlight key strategic issues and aspirations for rural Scotland and agreed priorities for action.

6.1 Part A – General Description

Part A – General document information

Name:	Rural Scotland: Better Still, Naturally
Adoption: Please mark by whom and at which level the document is adopted	☐ Parliament ☐ Government ☐ Ministry:_____ ☒ Others: Scottish Executive_____ ☐ No formal approval Level: ☐ National ☒ Regional Scotland ☐ Local **Adoption date:** April 2007
Validity period:	Open ended supercedes 1999 document
Revision:	This is an update of a 1999 document (Rural Scotland: A New Approach)
Monitoring/ Evaluation:	No- it is a statement of policy intent and principle.
Related documents:	Rural Development Plan for Scotland 2007 – 2013. The Strategic Plan (http://www.scotland.gov.uk/Resource/Doc/92748/0022234.pdf); National Scottish Government (http://www.scottishexecutive.gov.uk/Topics/Rural/RDR/strategicplan)
Geographical scope:	☐ National ☒ Regional; name: Scotland ☐ Local, name:
Budget:	Essentially this covers the whole rural budget of SEERAD (Scottish Exec Environment and Rural Affairs) including European funding of the farm budget
General description of contents as written in document	

Objective of the document	This document sets the context for rural policy and rural development in Scotland. It has been developed in consultation and discussion with a Working Group of leaders in various rural fields. It focuses mainly on the policies and actions of the Scottish Executive and its agencies: but it recognises the critical roles played by others – across the private, public and third sectors – in taking forward action and in making progress towards our mutual aims for rural Scotland.
Priorities	- Growing the rural economy - Making the most of (our) heritage - Delivering better services - Supporting thriving rural communities
Structure	This document is divided into three main sections: Setting the Context: Taking stock of problems and challenges; and looking to the future.
Measure Areas	The document seeks to promote an approach to rural economic development – including through key financial instruments such as the Scotland Rural Development, European Fisheries Fund and other Structure Fund Programmes for 2007-13 – that addresses structural weaknesses, builds on natural and other assets, encourages new enterprise and innovation and seeks to ensure sustainable development of our rural businesses and economy; - promote a collective, complementary approach to the provision of services and infrastructures to improve efficiency and affordability of investment; - explore at all levels, including internationally, best practice and approaches to urban-rural linkages, to help exploit opportunities and promote sustainable economic well-being in both urban and rural areas; - work with industry and other stakeholders to develop and deliver sectoral and other strategies, and associated action plans and targets, to provide the desired outcomes and benefits to rural Scotland. Measures cover all areas of the rural economy. Several areas connected to forestry are singled out for mention: forests role in tourism; renewables (including woody biomass); timber production for processing; wood production for carbon storage; In addition, the Scottish government seeks to encourage migration into areas of natural attractiveness (which might be expected to include tree rich areas).
Follow-up / Implementation	
Follow-up measures:	☒ No follow-up activities so far ☐ New or adapted funding programme(s) /budget line; name: ☐ New or adapted regulations/laws; name: ☐ New or adapted informational campaigns/instruments; name: ☐ New or restructured institutions/organisations; name: ☐ Implementation in forest policy:
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

6.2 Part B - Integration of Innovation

Part B – Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods', 'new business models') in the document	☐ never ☐ sometimes ☒ frequently
	Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 – in the document	☐ never ☒ sometimes ☐ frequently

	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never ☐ sometimes ☒ frequently Terms used: new, innovation , innovative, diversification, competitiveness, entrepreneurship (0) BUT note low use of competitiveness and entrepreneurship
	Further comments on overall innovation orientation of the document: Innovation is focused on some economic sectors but quite often has a collectivist tinge – i.e. hints at social entrepreneurship and new partnerships as means of delivering rural development.	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☐ No relevance at all ☐ Marginal issue ☒ One issue among others ☐ Important issue ☐ Central issue	
	<u>Comments:</u> It is there as an issue but it tends to be used rhetorically (as in new) rather than in specific contexts though forest tourism and renewable energy are both given considerable attention.	
Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry	☐ very general *(innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document)* ☒ rather general *(innovation is addressed in overall goals, needs are identified but no specification of measures)* ☐ rather specific *(innovation is addressed in concrete goals, measures are formulated)* ☐ very specific *(quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)* <u>Comments:</u> Innovation is specified in relation to certain specified arenas (e.g. renewable energy, tourism and environment, but the innovation is often framed as inter-institutional activity rather than individualistic activity.	
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ Predominately traditional science and technology policy ☐ Traditional S&T policy with systemic elements ☐ Systemic innovation policy with S&T policy elements ☐ Predominantly systemic innovation policy <u>Comments:</u> It is really a bit of everything. It is neither an S&T approach- though there are bits of this, nor systemic. It contains a lot of indirect allusions to institutional innovation, but all-in-all innovation theory is weakly represented.	

Goals and objectives:

Goals are not stated. This is perhaps the nature of the document which specifies overarching aims but not specific goals relating to innovation.

Issues, problems and related topics:

Most entrepreneurial support lies within the 'Growing the rural economy' section, but it is almost invisible. It is couched in such phrases as 'promoting economic development including through key financial instruments that addresses structural weaknesses and builds on natural and other assets.' And a concluding phrase talks about 'encouraging new enterprises and innovation' (p 3.52) but later admits that 'in practice economic development and growth flows largely form the action of others.' Alluding elliptically to the triple helix model. (p3.54) Bio fuel developments are singled out as an area ripe for innovative approaches. Business development building on natural assets is strongly promoted (and is seen as connected to tourism development and the provision of attractive living space.

Innovation areas:

These are the areas that most explicitly address innovation: bio fuels; activity tourism.
Both appear in the document.

General comment:

Key issues here seem to revolve around the conceptualisation of innovation and the strong public sector, inter-institutional/collaborative approach. The document seems to struggle between a collectivist vision and a dynamic market economy. There is a very strong articulation of the relationship between environmental quality and development, especially in relation to tourism 'Our heritage is key in sustaining rural communities'.(p4.3) Social inclusion runs through the document as an important undercurrent, as does the idea of empowering communities, as does the need to provide appropriate levels of services. It is something of an all-things-to-all-men document, allowing multiple strands in development thinking to be sieved out, but with innovation generally weakly developed.

Part B - Innovation Support Measures

Innovation support measures *Consult classification in chapter 2.2.2*	**Research and Development**	Nothing specific mentioned
	Diffusion of innovation	Widening of support for bio-energy clearly flagged, so too is general support for the development of forest-based activity tourism including mountain biking
	Strengthening the knowledge base	Nothing mentioned
	Strengthening interaction	The document does stress partnership very strongly. Given that this is about the non-farm rural economy (The EU policy bit is covered by the other document) there is very little on fostering entrepreneurship and innovation, although it is not entirely absent, consistent with the UK's neo-liberal economic policy. Scotland however, has never fully embraced the neo-liberal stance as England has and there is much in this document that leans towards innovation within a more collectivist rhetoric
	Demand creation	The need for innovative delivery solutions is stressed in rural services and infrastructure- though it is not specified whether this is public or private. Innovative arrangements for local collaboration are recommended-using the Community Partnerships Model
	Improving frame conditions	No specific actions are signalled but there is a perceived need to support sustainable business. This is partly about compliance with environmental and sustainability desiderata and partly about promoting profitability and market orientation
	Comments The references that are made in the document of "widening support for bio-energy " and "support for the development of forest-based activity tourism, including mountain bike" are in accordance to the innovative products "Down-hill mountain biking" (Territory based services) and "Bio-fuel development" (Value added chains), identified on table 4 of this report.	
Priorities		Innovation except in institutional arrangements (particularly new forms of locally based partnership)
Assessment of overall relevance		Innovation is present but it is not a strong theme in the document. The overarching thinking is much more focussed on institutional innovation than business innovation.
Promotion of innovation		Except in relation to institutional innovation not much.
General comment:		List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

Part B - Cross-sectoral coordination

Policy formulation	
Co-ordination with other processes and documents	*A Forward Strategy for Scottish Agriculture: next steps (2006);* *Scotland Rural Development Strategy and Programme (SRDP) for 2007-2013);* *Scottish Community and Household Renewables Initiative (SCHRI);* *Green Jobs Strategy;* *Scottish Planning Policy (SPP) 15: Planning for Rural Development;* *A Smart Successful Scotland (SSS);* *The Scottish Food and Drink Strategy;* *Biomass Action Plan for Scotland;* *Scottish Forestry Strategy (2006).*
Administrative Co-ordination:	☒ between different sections/departments within the same ministry; specify: Ministry of Environment and Rural Development and Environmental and Rural Affairs department. ☐ between different ministries, specify: e.g. Scottish Executive and Department for Rural Affairs in England and Wales ☒ between ministries and other public organisations / agencies, specify: Ministry of Environment and Rural Development and Scottish Enterprise **Comments:** There are many different partnerships surrounding coordination. Too numerous to mention. In a later version it may be possible to identify those for pertinent topic areas. E.g. greenspace.
Stakeholder involvement (in no particular order)	☒ Forestry: name most important organisations: Forestry Commission Scotland ☐ Forest-based industries: name most important organisations. ☐ Agriculture: name most important organisations. ☒ Tourism: name most important organisations: Historic Scotland, Freshwater Fisheries Forum; Framework Plan for Scottish Freshwater Fisheries; EventScotland, Scottish Enterprise and Highlands and Islands Enterprise. ☐ Energy: ☐ Environment: ☐ Other sector: **Comments:** The document mentions that the strategic cannot be achieved by the Scottish Executive alone and without an active engagement by stakeholders across the sectors.
Coordination mechanisms:	☐ Formal (central) co-ordination body; name: ☒ Formal co-ordination process ☐ Inter-sectoral working groups ☐ Inter-sectoral advisory body ☐ Formal mandatory consultation process ☐ Formal voluntary consultation process ☐ Informal consultations (please describe ____) ☐ Others: ____
Policy Implementation	
Responsible actors and their roles:	Scottish Executive: Scottish Enterprise
Level of delegation	☐ Decentralized, e.g. ☐ Central, e.g. ministry, public agency ☐ Outsourced to private actors ☒ Local: Community Planning Partnerships ☐ Regional, e.g. by regional public actors ☐ Others
General comment	List research needs you identified, they might be taken up in phase II of COST E51

	Name further reference sources used		Comment: Additions needed?

6.3 Part C - Appraisal of the effects

Part C - Appraisal of Effects - General Information

	Whole document (RDP)	**Forestry Part**
Total amount of funding	Amount of budget in mil. €	Amount of budget in mil. €
Total number of projects		
Total number of beneficiaries		
Average amount of funding per project	in €	in €
Median of project funding	in €	in €
Average amount of funding per beneficiary	in €	in €
Median of funding per beneficiary	in €	in €
General comment: incl. research needs and further reference sources used		

Part C - Appraisal of Effects: Funding for private sector innovation

Support for	Research & development	Diffusion of innovation	Strengthening knowledge base	Strengthening interaction	Demand Creation
Volume of funding in €					
Share of funding in overall funding in %					
Number of projects supported					
Share of projects in all projects in %					
Average funding per project in €					
Number of beneficiaries					
Share of beneficiaries in total number of beneficiaries in %					
Average amount of funding per beneficiary in €					

Priorities of funding	Please state which activities were most often supported in this category (see list in chapter 2.2.2)	Please state which innovation areas were most often supported in this category (see list in chapter 2.2.2) and in what stage of adoption	Please state which activities were most often supported in this category (see list in chapter 2.2.2)	Please state which activities were most often supported in this category (see list in chapter 2.2.2)	Please state which activities were most often supported in this category (see list in chapter 2.2.2)

Overall assessment:

Please give an overall assessment on the actual support of innovation by the programme.

General comment:

incl. research needs and further reference sources used

7 Regional Policy

As for Scotland, the Innovation Policy and the Regional Development Policy come together, the same document is considered. This document, *Smart Successful Scotland* (SSS), was already analysed in the chapter related to innovation policy. The objective is economic growth, which, by exploiting opportunities, contributes to regional development and reduced disparities. SSS mention that Scotland's rural areas can and do contribute to Scotland's economic growth. At the same time it points that, there are factors of particular relevance to the rural context, such as those relating to remoteness, scarcity of population and out-migration, which may require additional or different types of assistance to businesses in rural areas.

8 Sustainable Development Policy

The policy document analysed for the Sustainable Development Policy field is "Choosing Our Future: Scotland's Sustainable Development Strategy".
This strategy sets out the measures that will be taken in Scotland to turn the priorities set out in the UK framework for sustainable development, into action.
Scotland is committed to build a sustainable future. Individuals, businesses, local authorities and communities are taking action to change the way the resources are used, the services are planned and developed, and the economic opportunities that sustainable development presents, are seized. Policies and programmes are in place to drive change in key areas: transforming the way the waste is dealt, capitalising on Scotland's sources of renewable energy and taking action on climate change.

8.1 Part A – General description

Part A – General document information

Name:	**Choosing Our Future: Scotland's Sustainable Development Strategy**
Adoption: Please mark by whom and at which level the document is adopted	☐ Parliament ☒ Government ☐ Ministry:_____ ☐ Others:_____ ☐ No formal approval Level: ☐ National ☒ Regional: Scotland ☐ Local Adoption date: December 2005 (date of publication of strategy).
Validity period:	Not specified. Document published in December 2005. Strategic assessment of progress under the strategy due in 2008. New sustainable development strategy will be produced 2010.
Revision:	A new sustainable development strategy will be produced in 2010.
Monitoring/ Evaluation:	An Implementation Plan has been produced and will be regularly updated. The Cabinet Sub-Committee will monitor delivery, supported by quarterly reports on the strategies actions and indicators. The Sustainable Development Commission (SDC) will be invited to comment on progress on an annual basis to the monitoring process. So as to fully assess progress before the new strategy in 2010, the Scottish Executive has invited the SDC to produce a strategic assessment of performance and progress in 2008. Also, the Executive will commission an independent study of Scotland's footprint in 2008. Monitoring arrangements cover the actions set out in the strategy and its eight main delivery programmes. There are progress reports, published June 2006 and March 2007 (see below).
Related documents:	*Choosing Our Future – Scotland's sustainable development strategy: Summary Progress Report – June 2006.* *Summary Progress Report on Implementation Plan Work streams – March 2007.*
Geographical scope:	☐ National ☒ Regional; name: Scotland ☐ Local, name:
Budget:	No total budget is specified. However, some funding streams are mentioned in the document: Through the Quality of Life Fund, £50 million is being provided by the Scottish Executive during 2005/6 and 2006/7 to regenerate local environments. £318 million is available through the Community Regeneration Fund over 2006-2008 to deliver local environmental improvements alongside improvements to employability, education, health and access to local services. £2.5 million is available to support community sector waste projects and indicative awards of £1 billion to 2020 have been made through the Strategic Waste Fund for recycling and composting infrastructure. £1.2 billion is being invested in affordable housing from 2005/6-2007/8 (plus £500 million of private sector finance). £2.3 billion is being invested in the school estate by 2010.
General description of contents as written in document	

Objective of the document	To set out the measures that will turn Scotland's commitment to the UK shared framework for sustainable development, 'One Future – different paths' (signed into by the Scottish Executive in March 2005), into action. It provides the strategic framework for a number of the Executive's new and emerging strategies.
Priorities	Climate change, transport, renewable energy, energy efficiency, green jobs and biodiversity.
Structure	The document is structured in the following chapters: - Introduction - The context for sustainable development - Economy - Travel - Well-being of people - Food - Thriving communities - Environmental justice - Natural heritage and resources - Waste - Scotland's global contribution - Built environment - Learning to make Scotland sustainable - Making it happen - What the public sector will do - Working together for a sustainable future - What individuals and households can do - What businesses can do - What the community and voluntary sectors can do
Measure Areas (with indicators in brackets)	**Well Being** - Health Inequality (life expectancy at birth), Air Quality (Number of Air Quality Management Areas), Economic Opportunity (16-19 yr olds) (16-19 year olds not in employment, education or training) and Economic opportunity - employment (working age employment rate). **Supporting Thriving Communities** - Crime **(**Recorded crimes for (a) vehicle crime (b) domestic housebreaking (c) serious violent crime (d) antisocial behaviour)**,** Community (Adults' rating of their neighbourhood as a place to live and Proportion of people over 16 who have given up time on an unpaid basis for an organisation) and Households (Proportion of children living in low income households and Households assessed as homeless). **Natural Heritage and Resources** - Waste (Municipal waste arisings and percentage recycled or composted), Biodiversity (Composite indicator of bird populations) Marine (Proportion of fish stocks which are at full reproductive capacity) and River Quality (Length of poor and seriously polluted rivers). **Scotland's Global Contribution** - Climate Change (Net greenhouse gas emissions including emissions and removals due to Land Use, Land Use Change and Forestry (LULUCF), and emissions excluding LULUCF), Sustainable Energy (renewable) (a carbon emission indicator), Sustainable Energy (emissions) (Percentage of Scottish electricity consumption generated from renewable sources in Scotland), and Transport (Road Traffic - million vehicle kilometres). **Learning** - Learning (Percentage of schools registering for the Eco Schools programme and achieving Green Flag status). Additional and improved ways of measuring progress are being assessed so as to measure progress in its widest sense e.g. they will capture well-being, quality of life and environmental issues together with economic progress.
Follow-up / Implementation	
Follow-up measures:	☐ No follow-up activities so far ☒ New or adapted funding programme(s) /budget line; name: Increased resources available to support local authorities through the Sustainable Scotland Network. ☒ New or adapted regulations/laws; name: Planning etc (Scotland) Act received Royal Assent in December 2006 (#28) ☒ New or adapted informational campaigns/instruments; name: Guidance on sustainable development in business planning for Departmental business managers, new arrangements for booking Executive business travel to offset and reduce emissions and encourage the use of environmentally accredited accommodation, Environmental performance information on public bodies published in January 2007 (#41). ☒ New or restructured institutions/organisations; name: Funding and staff in place for the *Sus It Out* programme ☒ Implementation in forest policy: Scottish Forestry Strategy launched October 2006. Others: - Publishing *Changing our Ways*, the Scottish climate change programme

	- National Transport Strategy published in December 2006 (#2) - Marine and Coastal Strategy Advisory Group report published March 2007 (#12) - Household Waste Prevention Action Plan published in February 2007 (#16) - Scotland's Climate Change Declaration signed by all Scottish local authorities (#17) - Energy Efficiency Strategy consultation published on 12 March 2007 (#18) - Local ecological footprint project launched February 2007 (#20)
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

8.2 Part B – Integration of innovation

Part B - Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods' , 'new business models') in the document	☐ never ☒ sometimes ☐ frequently
	Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document	☐ never ☒ sometimes ☒ frequently
	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never ☒ sometimes ☐ frequently Terms used: Competitiveness and green enterprise.

Innovation is not generally referred to e.g. as new products or new services, but rather is implicit in the text through specific references to new ways of doing things. Where innovation is mentioned generally, it is linked to creating a vibrant and low-carbon economy, based on high value activity and resource efficiency which will enable Scotland to compete more effectively in global markets. As it is a strategy document it focuses on intended rather than actual innovations. Summary progress reports give an indication of innovations that have occurred.

Forest innovation frontier areas mentioned are:
- Climate change
- Resource efficiency
- Renewable energy
- Environmental improvements and environmental justice in the context of urban regeneration. The Scottish Woodlands In and Around Towns <u>Initiative is referenced as a case study.</u>
- Sport and leisure in the context of health and well-being
- An environment that provides the conditions for health and well-being
- Access to recreation including woodlands
- New partnership approaches to provision of 'breathing spaces'

Terms used that are related to innovation are competitiveness and green enterprise mentioned infrequently. They are used in the context of exploiting business opportunities and high levels of employment, including green jobs. The Going for Green Growth – a green jobs strategy for Scotland document is mentioned and areas in the sustainable development agenda where business and employment opportunities are high are stated as being in sectors like waste management, recycling and renewable energy. It says the strategy highlights that businesses can improve their productivity and competitiveness by using resources more efficiently.

Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☐ No relevance at all ☐ Marginal issue ☐ One issue among others ☐ Important issue ☐ Central issue **Comments:** In terms of general reference to innovation itself, it's a marginal issue but in terms of specific innovations which are not referred to as innovation, they are central.
Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry	☐ very general *(innovation is named in general parts, e.g. preamble, but not related goals, measures, identified needs or similar are addressed by the document)* ☐ rather general *(innovation is addressed in overall goals, needs are identified but no specification of measures)* ☒ rather specific *(innovation is addressed in concrete goals, measures are formulated)* ☐ very specific *(quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)* **Comments:** Innovation is seen as a means to reach other goals – sustainable development objectives. In some places innovation is referred to specifically and in others very specifically. The latter is sometimes not stated by implied through reference to related strategies where goals and measure, budgets and time scales are described.

Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ Predominately traditional science and technology policy ☐ Traditional S&T policy with systemic elements ☒ Systemic innovation policy with S&T policy elements ☐ Predominantly systemic innovation policy
	Comments: There is evidence that innovation, where it is evident (but not described explicitly as innovation) is seen as a complex issue involving a broad range of actors and institutions – e.g. Section 2.7 states, we will achieve these changes in Scotland only by learning and embracing new approaches to the way that we go about things, whether that is as individuals, businesses, communities or government. New partnership approaches are referred to in relation to the creation of breathing spaces in and around cities, towns and villages. Policy instruments are aimed at bringing different actors together to transfer knowledge and create new understanding and action. Innovation is evident (but not discussed explicitly) in relation to a broad range of policy areas, including health and well-being, and supporting thriving communities.

Goals and objectives:

It is stated that innovation should lead to improved resource efficiency. More broadly, sustainable economic development is seen as contributing to sustainable development by improving transport, investing in infrastructure, regenerating communities, protecting our natural resources and releasing the skills and creativity of Scotland's people.

Issues, problems and related topics:

Energy efficiency and waste minimisation are seen as being major issues surrounding increased competitiveness.

Innovation areas:

Innovation areas named by the document are:
- Climate changes
- Waste minimisation
- Travel
- Health and well-being (good quality open spaces and streetscapes, access to 'breathing spaces')
- Housing improvements (including building construction and design)
- Quality of life
- Regeneration
- Greenspace
- Flooding
- Learning

There are a number of forest sector innovation areas which overlap with these key sustainable development innovation areas. These are:

Territorial based services
- Health initiatives e.g. green gym (health and well-being)
- Urban renewal (regeneration, greenspace, quality of life, health and well-being)
- Pollution and carbon sequestration (climate change)
- Downhill mountain biking (health and well-being)
Value added chain
- Sustainable construction (housing improvements and climate change)
- Energy efficiency (climate change)
- Biofuel/wood fuel (climate change, waste minimisation)
- Key areas of overlap are therefore climate change, and health and well-being. There are also strong links with regeneration, greenspace, quality of life, housing improvements and waste minimisation.

General comment:

List research needs you identified, they might be taken up in phase II of COST E51
Name further reference sources used

Part B - Innovation Support Measures

Innovation support measures *Consult classification in chapter 2.2.2*	**Research and Development**	- A new strategic framework to map connections between health outcomes and environmental factors (including the poverty, unemployment and other causes of stress) - Support to DEFRA to investigate the concept of well-being and explore how policies might influence well-being - A review by Communities Scotland of Regeneration Outcome Agreement plans to analyse and share existing good practice and identify areas where further support and guidance is needed in relation to local regeneration - Research to identify critical success factors in environmental improvement programmes - Innovation Fund to develop research and development into minimising food and packaging waste in the retail sector
	Diffusion of innovation	- New partnership approaches to deliver breathing spaces - Community Planning Partnerships - Scottish Community and Household Renewables Initiative - Sustainable Procurement Task Force - Pre-Expenditure Assessments - Quality of Life Fund (regenerating local environments) - Eco Schools Programme - Renewables Obligation (Scotland) – encourage energy suppliers to provide an increasing amount of their electricity from eligible renewable resources. Investment in greenspace and review of funding streams to release funding for greenspace - Strategic Waste Fund - SUST Project (promotes sustainable design in buildings)
	Strengthening the knowledge base	- New Planning Advice on Designing Safer Places. Training and skills development for those taking part in regeneration projects so as to transfer learning on implementation of solutions and spread understanding of connections between issues, problems and solutions - Communication plan for the sustainable development strategy - Sus It Out programme to promote awareness of sustainable development amongst civic society organisations - Sustainable Scotland Network (support to local authorities on sustainable development)
	Strengthening interaction	None identified.
	Demand creation	None identified.
	Improving frame conditions	- Framework for economic development in Scotland - National Transport Strategy - The Employability Framework for Scotland - Air Quality Management Areas - Home Zones - Scottish Land Fund - Community Land Unit - Communities Scotland - Regeneration Outcome Agreements - Waste and Resources Action Programme - National Waste Plan - Scottish Climate Change Programme - Energy Efficiency Strategy - Review of Buildings (Scotland) Regulations - Building Our Future: Scotland's School Estate (vision for well designed, well built, well managed schools) - Homes for Scotland's People: A Scottish Housing Policy Statement - Scottish Housing Quality Standard - Green Jobs Strategy - Low Carbon Buildings programme - Energy Performance of Buildings Directive - National Standards for Community Engagement. Skills Framework for Community Regeneration

	Comments Measures are often not specified but referred to generally as 'support'. Measure areas are also often not clear e.g. they are referred to as topics rather than in terms of whether they specifically address innovation and/or the aspect of innovation they address. For example, the strategy states: 'The Executive will provide support (including funding) for guidance and toolkits, drawing on expertise and advice from the range of partner bodies including the Sustainable Development Commission'.
Priorities	Not mentioned.
Assessment of overall relevance	The distinction between measures aimed at innovation and more general support measures is not distinct enough to enable this assessment.
Promotion of innovation	Innovation, in its broadest sense, is furthered quite significantly.
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

Part B - Cross-sectoral coordination

Policy formulation	
Co-ordination with other processes and documents	Documents with which Choosing Our Future is linked: - Framework for economic development in Scotland - National Transport Strategy - The Employability Framework for Scotland and NEET - Scottish food and drink strategy - Scottish Diet Action Plan - New Planning Advice on Designing Safer Places - Community Planning Partnerships - National Standards for Community Engagement - Skills Framework for Community Regeneration - Waste and Resources Action Programme - National Waste Plan - Scottish Climate Change Programme - Energy Efficiency Strategy - Review of Buildings (Scotland) Regulations - Building Our Future: Scotland's School Estate - Homes for Scotland's People: A Scottish Housing Policy Statement - Scottish Housing Quality Standard - Energy Performance of Buildings Directive - Green Jobs Strategy
Administrative Co-ordination:	☐ between different sections/departments within the same ministry; specify: ☒ between different ministries, specify: e.g. Scottish Executive and Department for Rural Affairs in England and Wales ☒ between ministries and other public organisations / agencies, specify: e.g. Scottish Executive and Forestry Commission. Comments: <mark>Stakeholders have a broad range of roles from setting strategy and policy, to providing information and guidance, and funding to enable practical implementation of actions aimed at meeting policy objectives.</mark>
Stakeholder involvement (in no particular order)	☒ Forestry: name most important organisations: Forestry Commission. ☐ Forest-based industries: name most important organisations. ☐ Agriculture: name most important organisations. ☐ Tourism: name most important organisations. ☒ Energy: Scottish Executive, Forum for Renewable Energy Development Scotland name most important organisations, Scottish Buildings Standards Agency, Scottish Executive. ☒ Environment: name most important organisations: Scottish Natural Heritage, Scottish Environmental Protection Agency, Scottish Biodiversity Forum, Scottish Ecological Design Association, Scottish Executive. ☒ Other sector: Communities Scotland, Community: Community Planning Partnerships ☒ Other sector: Economy - Highlands and Islands Enterprise and Scottish

Comment: I guess she has accidentally placed the same comment twice here...

	Enterprise, Scottish Executive. **Health sector:** NHS Scotland, Scottish Executive. **Education sector:** local authorities, Scottish Executive. Sustainable Development: Sustainable Development Commission, Scottish Sustainable Development Forum, Sustainable Scotland Network, Scottish Executive. Comments: Stakeholders have a broad range of roles from setting strategy and policy, to providing information and guidance, and funding to enable practical implementation of actions aimed at meeting policy objectives.
Coordination mechanisms:	☒ Formal (central) co-ordination body; name: Scottish Executive. ☒ Formal co-ordination process (Implementation Plan) ☒ Inter-sectoral working groups ☒ Inter-sectoral advisory body (Sustainable Development Commission, Sustainable Development Forum). ☐ Formal mandatory consultation process ☐ Formal voluntary consultation process ☐ Informal consultations (please describe _____) ☐ Others: _____
Policy Implementation	
Responsible actors and their roles:	As stated above in stakeholder involvement section of table.
Level of delegation	☐ Decentralized, e.g. ☒ Central, e.g. ministry, public agency ☒ Outsourced to private actors ☒ Local, e.g. by municipalities ☒ Regional, e.g. by regional public actors ☒ Others: Non-governmental organisations (the 'third sector'), communities, businesses, households and individuals.
General comment	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

9 Renewable Energy Policy

In this policy field the document analysed was '*Securing a Renewable Future: Scotland's Renewable Energy*. It is a consultation document that sets out actions that are intended to help to create a policy, planning and economic environment that will support the objective of the Executive of having 40% of Scotland's electricity generated from renewable sources by 2020. According to the Minister of Environment and Rural Development the aim is to develop a policy that takes full advantage of Scotland's renewables potent
ial at an affordable cost to consumers whilst safeguarding Scottish natural heritage. It is a central strategic document since it sets out a strategy for developing renewable energy technologies and use in Scotland, including creation of an action plan to promote the use of biomass, such as from short rotation coppice and residues from timber promotion.

9.1 Part A – General description

Part A - General document information

Name:	**Securing a Renewable Future: Scotland's Renewable Energy**
Adoption: Please mark by whom and at which level the document is adopted	☐ Parliament ☒ Government ☐ Ministry:_____ ☐ Others:_____ ☐ No formal approval Level: ☐ National ☒ Regional: Scotland ☐ Local Adoption date: Not mentioned in the document. The web publication date was March 25, 2003.
Validity period:	Not mentioned in the document.
Revision:	Not mentioned in the document. However it is referred in the website the date of the last modification of the document as being June 29, 2005.
Monitoring/ Evaluation:	The Executive launched the Scottish Community Renewables Initiative (SCRI) which is an advisory service that provides expert guidance, monitoring and aftercare for renewable energy projects.
Related documents:	- Programme for Government 2 (PfG2); - Changing Our Ways: Scotland's Climate Change Programme; - Promoting and Accelerating the Market Penetration of Biomass Technology in Scotland; - Scottish Planning Policy Six: Renewable Energy (SPP6).
Geographical scope:	☐ National ☒ Regional; name: Scotland ☐ Local, name:
Budget:	The total is unspecified. However the Scottish Executive will provide £150 million over 10 years to the Energy Intermediary Technology Institute (EITI), and commitments are made to providing £2.125 million towards the construction of a Marine Energy Test Centre, and £4.7 million over the period to spring 2005 to support the Scottish Community Renewables Initiative (SCRI).
General description of contents as written in document	
Objective of the document	To provide a developing and "balanced and sustainable" renewable energy policy for Scotland. To help create a policy, planning and economic environment that enables the target of generating 40% of Scotland's energy from renewable sources by 2020 to be met. To provide a framework for government and industry to work in partnership to develop renewable energy technologies and their use in Scotland at an affordable cost to consumers, taking advantage of Scotland's large potential while safeguarding its natural heritage.

Priorities	- Identifying, co-ordinating and facilitating development of Scotland's renewable energy industry (including marine, offshore wind, wave and tidal, and biomass energy), to create a strong and competitive renewable energy industry in Scotland; - Reducing Scotland's carbon emissions.
Structure	Forward - by the Scottish Minister for Environment and Rural Development - outlining the consultation process and most respondents'views on prospects for meeting targets of 18% renewables generation by 2010 and the aspiration of 40% by 2020. Policy Objectives – Setting the document in the context of the environmental imperative of tackling climate change, the potential for new economic development, and ensuring security and continuity of energy supply. What has been done so far – including adoption of target of 18% of electricity generation in Scotland from renewables by 2010 (PfG2), issuing revised planning guidelines in 2002 and adoption of the Renewables Obligation (Scotland), placing a legal requirement on each electricity supplier to supply electricity from renewable sources, and the setting up of the SCRI and EITI. A Challenging Target for 2020 – outlining some of the background to the adoption of the 40% target and touching on some of the main issues that will need to be addressed. In support of a 40% objective – sections covering key aspects in more detail. These are: - The Renewables Obligation (Scotland) - The Forum for Renewable Energy Development in Scotland - Marine Energy - Offshore Wind - Biomass The Challenges – outlining some key issues that need to be addressed. Conclusion – stating that the building blocks have been put in place to create a policy, economic and planning environment to place Scotland in the vanguard of the new sustainable energy industry, and that it is up to industry, academia, developers and planners to find innovative ways to overcome existing technical and environmental challenges. Annex A – list of applications for consent for renewable energy developments currently being considered by the Scottish Executive.

Measure Areas	- **Promotion** of energy efficiency and reduction in overall demand for energy – including commissioning a study into energy supply and use to inform development of an integrated strategy for demand side management and renewable generation; - **Renewables Obligation** (Scotland) – including support for existing scheme and review in 2005/6 to ensure it remains responsive to the emergence of new renewable technologies and with a view to possible amendment to ensure the 2020 target is met; - **Establishment of a high level forum** (the Forum for Renewable Energy Development in Scotland) under Ministerial chairmanship to bring together representatives from the new renewables industry, the established energy industry, academia and other stakeholders to play a key role in promoting the development of Scotland's renewable energy industry, supporting and promoting innovation. Its remit includes producing an action plan for the development of a thriving marine energy industry, and an action plan to promote and accelerate penetration of biomass technology in Scotland, with it also envisaged to set target milestones for generation, technology development, jobs and exports; - **Creation of an appropriate consents regime for waters** outwith the 12-mile limit (inter-departmental initiative); - **UK Biomass Infrastructure grants scheme** (introduction to be an inter-departmental initiative); - **Advice and funding** for community renewable energy development projects through the SCRI – including publishing examples of best practice and increasing the numbers of householders and communities securing grant funding; - **Scope potential markets** – including undertaking a joint study with Renewables UK to examine the capability of Scottish industry to meet an expansion in renewables generation and manufacturing; - **Skills audit** – undertake a joint study with Renewables UK to identify the extent of renewable energy expertise available in Scotland; - **Raise public awareness** – by participation in a UK study of public perceptions and awareness of renewable energy to inform further actions, publishing results of a survey of public attitudes to wind farms, sponsoring a programme of seminars to disseminate information and discuss renewable energy matters, and establishing a web-based renewable energy database on existing and planned renewables developments; - **Consultation on improvements in the planning process** – including conducting a series of seminars with Renewables UK for local planners on renewable energy policy, planning issues and renewable technologies.
Follow-up / Implementation	
Follow-up measures:	☐ No follow-up activities so far ☐ New or adapted funding programme(s) /budget line; name: ☒ New or adapted regulations/laws; name: ROS (Renewables Obligation Scotland), (April 2002). It places a legal obligation on every electricity supplier in Scotland to supply electricity generated from renewable sources; In 2000, the Executive published revised policy planning guidelines, which made a more positive provision for renewable energy. ☐ New or adapted informational campaigns/instruments; name: ☒ New or restructured institutions/organisations; name: Scottish Community Renewables Initiative (SCRI); the Energy Intermediary Technology Institute (EITI) (end of 2002); ☐ Implementation in forest policy:
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

9.2 Part B – Integration of innovation

Part B - Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods' , 'new business models') in the document	☐ never ☒ sometimes ☐ frequently Innovation (1)
	Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document	☐ never ☒ sometimes ☐ frequently Energy efficiency (2)
	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never ☒ sometimes ☐ frequently Terms used: competitiveness (1)
	Although the word 'innovation' is used only once in the document (and none of the above synonyms are used), innovation is a core thread implicit in the document.	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☐ No relevance at all ☐ Marginal issue ☐ One issue among others ☒ Important issue ☐ Central issue Comments: Innovation is hardly mentioned in the document and measures related to innovation are not referred but it is something that is implicit in the developing of renewable energies and, because of that, an important issue.	
Degree of specification: Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry	☐ very general *(innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document)* ☒ rather general *(innovation is addressed in overall goals, needs are identified but no specification of measures)* ☐ rather specific *(innovation is addressed in concrete goals, measures are formulated)* ☐ very specific *(quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)* Comments: Innovation is addressed as something that should be promoted by the Government	
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ Predominately traditional science and technology policy ☐ Traditional S&T policy with systemic elements ☒ Systemic innovation policy with S&T policy elements ☐ Predominantly systemic innovation policy Comments:	

Goals and objectives:
Creation of an environment which supports and promotes innovation and enterprise in order to: - Increase to 40% the proportion of electricity generated from renewable sources in Scotland by 2020; - Improve Scotland's economic performance and competitiveness in renewable energy markets.

Issues, problems and related topics:
Key challenges identified by the document are: - Infrastructure (grid upgrading, and matching supply and demand) - Small-scale renewables development

- Economic development and skills
- Public awareness (and the need to increase public support for development of renewables)
- Planning

Need for a 'partnership approach' in order to make progress, requiring co-operation and commitment of diverse stakeholders, including developers, national agencies, local authorities, academic and financial sectors is identified. Innovation-related issues mentioned include improving Scotland's economic performance and competitiveness. Economic and societal changes necessary to reach climate change mitigation objectives are fundamental

Innovation areas:
Renewable energy technology
Energy efficiency

General comment:
  List research needs you identified, they might be taken up in phase II of COST E51

Name further reference sources used

Part B - Innovation Support Measures

Innovation support measures *Consult classification in chapter 2.2.2*	**Research and Development**	- Marine Energy Test Centre, Orkney £2125000. - Scope potential markets.
	Diffusion of innovation	- Scottish Community Renewables Initiative (SCRI), publishing the best practices and encouraging the taking up of grants; - Programme of seminars to disseminate information on and discuss renewable energy matters.
	Strengthening the knowledge base	- Undertaking a skills audit; -Establishment of a web-based renewable energy database containing updated information about existing and planned renewables developments; - Series of seminars for local planners on renewable energy policy, planning issues and renewables technologies, conducted by the Executive in partnership with Renewables UK.
	Strengthening interaction	- Establishing the Forum for Renewable Energy Development in Scotland.
	Demand creation	- Running seminars to raise public awareness of renewables.
	Improving frame conditions	- Improving planning rules – including consents outwith 12 mile limits; - Creation of UK Biomass Infrastructure grants scheme.
	Comments:	These are specific measures created under the strategy "*Securing a Renewable Future: Scotland's Renewable Energy*". They are all related with renewable energy, and one of them, „*creation of UK Biomass Infrastructure grants scheme*" directly related to wood fuel supply and bio fuel development, identified in table 4 of this report as examples of innovation areas.
Priorities		While the approach is very wide, with all categories being a priority for support, the main priority is arguably improving framework conditions.
Assessment of overall relevance		Although scarcely mentioned explicitly in the text, innovation is central to the document *Securing a Renewable Future*.
Promotion of innovation		The document is important for the forestry sector in specifying that an action plan to promote and accelerate penetration of biomass technology in Scotland will be developed and in stating the Scottish Executive's support for introduction of a UK Biomass Infrastructure grants scheme.
General comment:		List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

Part B - Cross-sectoral coordination

Policy formulation	
Co-ordination with other processes and documents	- The Executive is fully committed to the principles underlying the forthcoming British Electricity Transmission and Trading Arrangements (BETTA); - Through the Distributed Generation Co-ordination Group, the Executive will work with the industry to optimise the potential for small-scale distributed generation; - The Executive will work with the SCRI partners, the Energy Saving Trust and Highlands and Islands Enterprise to publish examples of small-scale community renewable energy best practice and to increase the numbers of householders and communities securing grant funding for small-scale renewable energy projects in Scotland; - UK Biomass Infrastructure Grant Scheme prepared by the Executive and DEFRA.
Administrative Co-ordination:	☐ between different sections/departments within the same ministry; specify: ☒ between different ministries, specify: Minister for Environment and Rural Development and the Scottish Executive. ☐ between ministries and other public organizations / agencies, specify: _____ Comments: The Executive is committed to create a policy, economic, and planning environment which places Scotland in the vanguard of a new sustainable energy industry that could bring with it considerable economic benefit to Scotland.
Stakeholder involvement	☐ Forestry: name most important organisations: _____ ☒ Forest-based industries: name most important organisations: Not mentioned by the document ☐ Agriculture: name most important organisations: _____ ☐ Tourism: name most important organisations: _____ ☒ Energy: name most important organisations: Not mentioned ☐ Environment: name most important organisations: _____ ☒ Other sector: Developers; national agencies; local authorities; academic sector; the financial sector : name most important organisations: Not mentioned by the document Comments: The document mentions that the progress made in developing renewable energy in Scotland has only been possible with the advice, support and commitment of the many stakeholders involved and that it is this partnership approach which lies at the heart of the Executive's strategy for securing Scotland's renewable future. Some work was done jointly by Government and the transmission owners to identify the investment that was required.
Coordination mechanisms:	☒ Formal (central) coordination body; name: Not mentioned ☐ Formal coordination process ☐ Inter-sectoral working groups ☐ Inter-sectoral advisory body ☐ Formal mandatory consultation process ☐ Formal voluntary consultation process ☐ Informal consultations (please describe _____) ☐ Others: _____
Policy Implementation	
Responsible actors and their roles:	- Executive put in place the Renewables Obligation (Scotland), (the ROS), which places a legal obligation on every electricity supplier in Scotland to supply electricity generated from renewable sources; - Scottish Executive: Lauched the Scottish Community Renewables Initiative (SCRI); - The Scottish Executive will commission a study into energy supply and use

	in Scotland to inform the development of an integrated strategy for demand side management and renewable generation;
Level of delegation	☐ Decentralized, e.g. ☒ Central, e.g. ministry, public agency ☒ Outsourced to private actors ☐ Local, e.g. by municipalities ☐ Regional, e.g. by regional public actors ☐ Others: _____
General comment	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

10 Conclusions

Forestry is of greater importance to Scotland both in terms of land cover and contribution to economy than the situation in the other component parts of the UK. At UK level, the incoming Labour administration came to power in 1997 on a pro-devolution agenda. The post devolution settlement established a Scottish Parliament in 1999 which constituted a marked change from the Scottish Office which was the Scottish department of the UK government. This created a context in which Scotland often differentiated its policies from those of the UK in a self-conscious strategy of defining national identity through distinctive public policies.

In consequence, a raft of new policy initiatives was launched in the years following devolution, several of which are now in revised form following a first review. These documents have covered many areas of policy including climate change, sustainable development, economic development and include a range of specifically rural documents relating to rural development, a Forward Strategy for Agriculture and the Scottish Forestry Strategy. Most of these documents are relatively short strategic documents. These documents provide the core source materials on which this country report is based.

Scotland has a more overtly productive forest industry in terms of timber production than other parts of the UK. The increased planting of exotic conifers from the 1960s has meant an increasing stream of wood available for processing. Efforts have been made to dynamise the wood processing sector in Scotland through a cluster approach and significant new investment has taken place to make use of the increased supply of wood raw material.

However, forests are also recognised as providing an important recreational resource and forests can be seen as an integral part of the tourism landscape of Scotland. Much of the innovation in recreational provision has been by the public forestry sector, but these efforts, often in partnership with other actors, have created a green infrastructure on which commercial ventures can be and have been built.

The latest forest strategy for Scotland in 2006 argues that forestry can contribute significantly to the climate change policy agenda. The forest sector has capacity to sequester carbon, though there remains a need for robust carbon trading instruments, and to provide wood raw material for renewable energy projects. Given the modest timber quality of some Scottish forests, the renewable energy option offers considerable promise.

With respect to innovation in the forest sector in Scotland, a principal concern must be the degree of disjuncture between regional innovation systems associated with a territorial development model (which often have a strong focus on tourism) and a sectoral innovation model based on wood processing which tends to focus around the need to take a more monofunctional view of forests. At the heart of the dilemma is the observation that innovation in delivering public goods rarely generates income for the provider, whose focus tends to be on market products which are income and employment generating.

Innovation in Scottish forestry does not take place within a coherent and singular innovation system, but within a series of separate policy frameworks that relate to energy, wood production, conservation, tourism etc. Nonetheless there is substantial evidence of innovation in the Scottish forestry sector, both in relation to the wood supply chain and new processes and products and in relation to non-

wood forest products.   The post devolution institutional structures have energised the forest sector in Scotland and created new possibilities.

11 References

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