

# **COST Action E 51**

## Integrating Innovation and Development Policies for the Forest Sector

## COUNTRY REPORTS PHASE I

## SWEDEN

September, 2007

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## Abstract

The Cost Action E51 runs from March 2006 until March 2010 and aims at developing knowledge that enables the integration of innovation and development policies for a more effective and sustainable development of the forest sector.

In the <u>first phase</u>, running from <u>October 2006 - September 2007</u>, the participants studied the integration of innovation in seven different national policy areas and their effects on innovation in the forest sector. The two tasks in the first phase were:

<u>Task 1:</u> Analysis of existing EU as well as national strategies and programmes and their implementation mechanisms on: innovation, rural development, regional development and sustainable development policies, and

<u>Task 2:</u> Appraisal of effects of these programmes on forestry and forest sector enterprises.

Sweden chose almost exclusively national policies and the analyses were conducted as a text analysis by the authors independently. To achieve consistency of the analysis an initial discussion regarding the guidelines were conducted, as well as an exchange and consistency check of the analysed documents between the authors after the individual analyses.

The policy for the Swedish forestry is the Forest Law, stipulating the usage and long-term development of the resource. Few innovation measures mentioned.

The Forest based industry policy is an up-dated document with clear and specific measures aiming at strengthening the Swedish forest industry long-term.

The Reform programme of Sweden is the overall innovation policy, but with little focus on any specific industry.

The Rural and Regional Development policies establish a platform giving guidance for regional development programs. Few specific measures more than increasing cooperation.

The sustainable development policy has a similar aim as the two former mentioned, whereas the renewable energy policy is closer connected to the forest sector having a large renewable energy resource – the forests.

In conclusion, the analyses of these national documents indicates the focus on developing overall, general policies giving guidance for regional and local activities rather than clear and precise measures. Despite that the Swedish forest sector is large on a global scale compared with other nation's forest sectors it is still only one of many sectors in Sweden and thus the share of direct measures in the policies is low. This is except for the Forest policy, the Forest based industry policy and the Renewable Energy policy where the focus is on the forest sector.

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## 1. Introduction

## 1.1 Background and objective

The first phase of the COST Action E51 "Integrating Innovation and Development Policies for the Forest Sector" included the collection, mapping and analysis of seven different national policies using standardized templates. The Cost Action itself runs from March 2006 until March 2010 and aims at developing knowledge that enables the integration of innovation and development policies for a more effective and sustainable development of the forest sector.

In the <u>first phase</u>, running from <u>October 2006 - September 2007</u>, the participants studied the integration of innovation in different policy areas and their effects on innovation in the forest sector. The two tasks in the first phase were:

<u>Task 1:</u> Analysis of existing EU as well as national strategies and programmes and their implementation mechanisms on: innovation, rural development, regional development and sustainable development policies, and

Task 2: Appraisal of effects of these programmes on forestry and forest sector enterprises.

The document analysis in phase I consisted of three parts (Part A, Part B, Part C) covering tasks 1 'Analysis of relevant programmes and their implementation' and task 2 'Analysis of effects' of the Scientific Programme. The following figure sketches the structure of work conducted and an overview of what is to be found in the following tables and what policies were analysed.

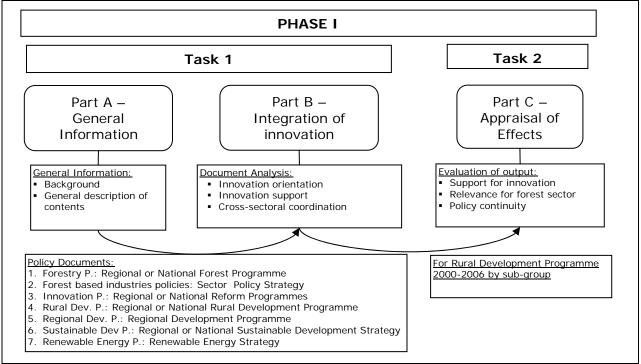


Figure 1: Structure of guidelines for phase 1 and analysed policies

Altogether seven policy areas and respectively seven key policy documents (see figure 1) were analysed. In 'Part A' a short overall description of the concerned policy documents are given. In 'Part B' the concerned policy documents were analysed along the questions how innovation is integrated, how forestry or the forest sector is integrated and how cross-sectoral coordination takes place. In 'Part C' the effects of policy will be appraised based on existing monitoring data and evaluation reports, which was conducted by a sub-group. Sweden was not included in this sub-group, thus Task 2 is not included in this report.

A work prior to the compilation aimed at creating standardised tables to be used for a coherent compilation between the countries. This work also included finding similar policies for the analysis. There are differences between the countries of what policies were used,

both on a policy level (national, regional and local), and what policies are available. A further difference between countries are the parliamentary process i.e. how are polices created, who are involved, and what is the implementation.

The chosen documents for Sweden are shown in table 1, and were the latest document available for each policy. Sweden chooses national documents as far as possible rather than regional. The reasons for this decision were firstly that for some policy areas there are no regional policy documents making comparisons between policies more difficult, secondly that the national documents often are the first to being official thus more up-to-date.

Fores	Table 1: Documents for Task 1: Sweden t Policy (Regional or National Forest Programme):
rores	
	Document: Evaluation of the Forest Policy (Uppföljning av skogspolitiken). This document is a Governmental Communication to the Parliament presenting its view on the forest policy.
	Publication Date: 2003-12-10
	Website: http://www.regeringen.se/sb/d/108/a/14305
	Supplementary documents: Unapproved document presenting a possible Swedish NFP. In a COST Action, members of the Swedish Forest Agency gathered and produced this report. It has not been approved by the government or the industry. http://www.svo.se/forlag/rapporter/1731.pdf
Fores	t Based Sector Policy (Sector Policy Strategy), if any:
	Document: Skogs- och Träindustrin – En del av Innovativa Sverige. Following the Research proposition in spring 2005, the forest sector was pointed as an important sector for Sweden, and the analysed document is the result of discussions and negotiations between the government and the industry. Publication Date: 2005-12-20 Website: www.regeringen.se/publ
	Supplementary documents: National Research Agenda, 2006-11-20. www.nra-sweden.se
Inno	ation Policy (Regional or National Reform Programme):
	Document: The Swedish Reform Programme for Growth and Jobs 2006-2008. Prop 2006/07:23. This document is the latest, and is a revised document from the new government (as of Oct. 6 <sup>th</sup> 2006)
	Publication Date: 2006-11-23
	Website: http://www.regeringen.se/sb/d/108/a/73216
	Supplementary documents: The Swedish reform programme for Growth and Employment 2005-2008 Prop. 2004/05:162
	Development Policy (Regional or National Rural Dev. Programme,
Fores	try Part): Document: Revised Rural Development Program for Sweden, 2007-2013 (Reviderat
	förslag till Landsbygdsprogram för Sverige 2007-2013)
	The document is the revised program from the new government after the election in Oct. 2006.
	Publication Date: 2006-11-09
	Website: http://www.regeringen.se/sb/d/108/a/73038
	Supplementary documents: Rural Development Program for Sweden 2007-2013 (Förslag för Landsbygdsprogram för Sverige 2007-2013. Jordbruksdep. 2006 07 24)
Regio	nal Development Policy (Regional or National Regional Dev. Programme):
5	<b>Document</b> : Nationell strategi för regional konkurrenskraft och sysselsättning 2007 – 2013. The document is an appendix to a Governmental decision around Regional Development. It was presented by the former government.
	Publication Date: 2006-06-29 Website: <u>http://www.regeringen.se/sb/d/108/a/66377</u>
	Document : Regionalt tillväxtprogram för Kronobergs län 2004-2007

Dublication data and for	
Publication date : N/A (official	
	R/rdonlyres/AC7ECC0C-27E3-471A-82DE-
5F3B3723D0EA/20115/TVPKap157	<u>7917.pdf</u>
http://www.g.lst.se/NR/rdonlyres/	AC7ECC0C-27E3-471A-82DE-5F3B3723D0EA/20116/TVPkap6.pdf
http://www.g.lst.se/NR/rdonlyres/	AC7ECC0C-27E3-471A-82DE-5F3B3723D0EA/20117/TVPkap8.pdf
http://www.g.lst.se/NR/rdonlyres/	AC7ECC0C-27E3-471A-82DE-
5F3B3723D0EA/20118/TVPAnalys	
	There are appendices to the document - Finansiell tabell.pdf, and
	d Analysunderlag.pdf – at the above website.
	y (Regional or National Sustainable Dev.
Strategy):	
Document: Strategic challenges	s – A further elaboration of the Swedish Strategy for Sustainable
development.	
	describing the view from the government around Sustainable ike energy and energy consumption with a relation to Renewable
Publication Date: 2006-03-16	
Website: <u>http://www.regeringer</u>	n.se/sb/d/2023/a/70183
Supplementary documents: miljömässig. 2004-04-15	En svensk strategi för hållbar utveckling – ekonomisk social och
Renewable Energy Policy (Regi	onal or National (renewable) Energy Strategy):
	e policy in global cooperation (Nationell klimatpolitik i global
samverkan, Prop. 2005/06:172)	
Publication Date: 2006-03-16	
Website: http://www.regeringer	n.se/sb/d/108/a/60778
Supplementary documents:	Samverkan för en trygg, effektiv och miljövänlig energiförsörjning.
2001/02:143.	
Towards an oil-free Sweden (På vå	ig mot ett oljefritt Sverige), June 2006
	· · · · · · · · · · · · · · · · · · ·

For Part C "Appraisal of effects" the below indicated document were used, but the analysis was not undertaken for Sweden.

#### Table 2: Evaluation documents for Task 2: Sweden

Rural Development Policy (Regional or National Rural Dev. Programme,
Forestry Part):
Evaluation documents: Ett levande kulturlandsskap – en halvtidsutvärdering a

Evaluation documents: Ett levande kulturlandsskap – en halvtidsutvärdering av Miljö- och landsbygdsprogrammet Website: <u>http://www.regeringen.se/sb/d/108/a/11593</u>

Publication Date: 2003-11-15

The analysis of the policy documents was conducted following the agreed and sent out guidelines. The policy documents were split between the Swedish authors according to policy area rather than topic i.e. one person was responsible for the full analysis of e.g. Forest policy.

To achieve validity of the analysis, the guidelines for the analysis were discussed in the group and specific issues were explained prior the analysis. Furthermore, the finalized documents were shared, read and commented between the authors to achieve similarity in evaluation.

Tomas Nord was responsible for Forest policy, Forest based industry policy and National Innovation policy

Dr. Mårten Hugosson was responsible for Regional Development policy and Rural Development policy.

Dr. Anders Roos was responsible for Sustainable Development policy and Renewable Energy policy.

## 1.2 The parliamentary system of Sweden

To help the reader in interpreting the analysed polices the following is a short overview of the parliamentary system, and how laws and policies are created in Sweden.

## General

Sweden is a parliamentary democracy, which means that all public power proceeds from the people. At the national level, the people are represented by the Riksdag, which has legislative power. The Government implements the Riksdags decisions and draws up proposals for new laws or law amendments.

General elections, held every four years, are an important expression that Sweden is a democracy. Everyone of the approximately 6.7 million people in the country entitled to vote, are thus given an opportunity to influence which parties are to represent them in the Riksdag, county council and municipal council. However, there are many ways of influencing Swedish politics, for example by taking part in referendums, joining a political party or sending in comments on reports presented by the Government.

Basic provisions defining how Sweden shall be governed are enshrined in the Constitution. In these fundamental laws the relationship between decision-making and executive power is set out, and also the freedoms and rights enjoyed by citizens. Among other things, the Instrument of Government guarantees citizens the right to freely procure information, hold demonstrations, form political parties and practise their religion. In another of the fundamental laws, the Freedom of the Press Act, the principle of public access to official documents is set out in order to guarantee an open society with access to information about the work of the Riksdag, the Government and public agencies. This openness entitles the Swedish people to study official documents. Anyone may avail him/herself of this possibility whenever wished.

## The Swedish model of government administration - three levels

Sweden has three levels of government: national, regional and local. In addition, there is the European level, which has acquired increasing importance following Sweden's entry into the EU. At parliamentary elections and municipal and county council elections held every four years, voters elect those who are to decide how Sweden is governed and administered.

#### National level

At the national level, the Swedish people are represented by the Riksdag (Swedish parliament) which has legislative powers. Proposals for new laws are presented by the Government, which also implements decisions taken by the Riksdag. The Government is assisted in its work by the Government Offices, comprising a number of ministries, and some 300 central government agencies and public administrations.

#### The Riksdag

The Riksdag is Sweden's legislative assembly and is made up of 349 members who are elected every four years in general elections. The main functions of the Riksdag are to enact laws, determine national finances and supervise the Government. The Speaker leads the work of the Riksdag. A proposal for a law presented by a member of the Riksdag or a party is called a private members motion. A proposal presented by the Government is called a government bill. Before the Riksdag votes on a proposed law, the matter is prepared in one of the Riksdag committees. The committees are working groups with responsibility for different areas of policy in which all the parties in the Riksdag are represented.

#### The Government

The Swedish Government governs the nation and is the driving force in the process by which our laws are changed. The party or bloc of parties that wins most votes in an election to the Riksdag forms a Government. The newly elected Riksdag chooses a Prime Minister (Head of Government) who in his/her turn appoints the other members of the Government (Ministers). The Government is accountable to the Riksdag and must have the support of the Riksdag in order to carry through its policies. In its work of governing Sweden, that is to say implementing the decisions of the Riksdag and taking initiatives for new laws or law amendments, and developing policies, the Government is assisted by the Government Offices, comprising a number of ministries, and by some 300 central government agencies and state-owned companies.

## **Regional level**

Sweden is divided into 21 counties. Political tasks at this level are undertaken on the one hand by the county councils, whose decision-makers are directly elected by the people of the county and, on the other, by the county administrative boards, which are government bodies in the counties. Some public authorities also operate at regional and local levels, for example through county boards.

## Local level

Sweden has 290 municipalities. Each municipality has an elected assembly, the municipal council, which takes decisions on municipal matters. The municipal council appoints the municipal executive board, which leads and coordinates municipality work.

## European level

On entering the EU in 1995, Sweden acquired a further level of government: the European level. As a member of the Union, Sweden is subject to the EU acquis communautaire and takes part in the decision-making process when new common rules are drafted and approved. Sweden is represented by the Government in the European Council of Ministers.

## Division of responsibility between levels of government

The Swedish Constitution contains provisions defining the relationship between decisionmaking and executive power. The 1992 Swedish Local Government Act regulates division into municipalities and the organisation and powers of the municipalities and county councils. It also contains rules for elected representatives, municipal councils, executive boards and committees.

The division of tasks between central government and municipalities has changed over the years. Activities have chiefly been transferred from central government to municipal bodies, inter alia for democratic reasons. In municipalities it is easier to maintain continuous contact between decision-makers and the private individual.

## Creation of laws and policies

Although most legislative proposals laid before the Riksdag (Swedish parliament) are initiated by the Government, some bills may be based on suggestions put forward by the Riksdag or by private citizens, special interest groups or public authorities. Even if the government initiates most legislative proposals or overall policies, before they come into power there are many possibilities for other groups to affect the final decision.

Before the Government can draw up a legislative proposal, the matter in question must be analysed and evaluated. The task may be assigned to officials from the ministry concerned, a commission of inquiry or a one-man committee. Inquiry bodies, which operate independently of the Government, may include or co-opt experts, public officials and politicians. The reports setting out their conclusions are published in the Swedish Government Official Reports series (Statens Offentliga Utredningar, SOU).

On completion of their work, the committees publish their findings in a final report, sometimes preceded by an interim report. These reports are published in the Swedish Government Official Report series. A committee proposal is first circulated for comment before it is drafted as a Government Bill. This gives government agencies, interest groups and the general public an opportunity to express their views on the matter. Often relevant government authorities also have the opportunity to comment on the draft bill before it is presented to parliament.

Before the Government takes up a position on the recommendations of a commission of inquiry, its report is referred for consideration to the relevant bodies. These referral bodies may be central government agencies, special interest groups, local government authorities or other bodies whose activities may be affected by the proposals. This process provides valuable feedback and allows the Government to gauge the level of support it is likely to receive. If a number of referral bodies respond unfavourably to the recommendations, the Government may try to find an alternative solution.

When the referral bodies have submitted their comments, the ministry responsible drafts the bill that will be submitted to the Riksdag. If the proposed law has important implications

for private citizens or the welfare of the public, the Government should first refer the proposal to the Council on Legislation (Lagrådet) to ensure that it does not conflict with existing legislation.

Responsibility for approving all new or amended legislation lies with the Riksdag. Legislative proposals, whether proceeding from the Government or a private member, are dealt with by one of the parliamentary committees. Any of the Riksdags 349 members can table a counter-proposal to a bill introduced by the Government. Such a proposal is called a motion. If a motion is formally adopted in the Riksdag, the Government is bound to implement its provisions. When the committee has completed its deliberations, it submits a report and the bill is put to the chamber of the Riksdag for approval. If adopted, the bill becomes law.

After its successful passage through the Riksdag, the new law is formally promulgated by the Government. All new or amended laws are published in the Swedish Code of Statutes (Svensk författningssamling, SFS).

## **1.3 The Swedish Forestry and Forest Industries – Short facts**

The forest cover is about half of Sweden's land area corresponding to about 28 million hectares. Even if about three quarters is privately owned forests are often viewed as, a common national resource reflected in it being open to anyone and in the so-called "Allemansrätten".

Forest and what comes out of it, have always been important for Sweden and it has long been managed to produce raw material for the forest industry. This management has resulted in a forest stock growing from 2 billion m3 in the 1920's to a present volume of about 3.4 billion m3. The annual growth is estimated to more than 100 million m3 and with an average annual cut for the past three years of about 75 million m3. Spruce and pine dominates with about 80% of total cover.

The importance both from an industrial and social perspective resulted in governmental regulations. These have changed since the beginning of the 20th century dependent on economic and social and of political changes. The present forest policy has a focus on long-term sustainable development giving future generation equal rights to its values. The forest owners are given the practical and economical responsibility for managing the resource sustainable – freedom under responsibility. Equally important as generating sustainable economic revenue for the forest products is to maintain biodiversity. These dual goals have been in effect since the revision of the forest policy in 1993.

The size and growth of forests have created a large and for the Swedish economy important forest industry. With a sawn timber production of 17 million m3, a pulp production of 12.2 million tonnes and a paper production of 12.1 million tonnes with a dominant share exported, make the Swedish forest industry a leading player on a global scale. Also for the domestic economy is the industry important. Of the total Swedish industry turnover, value-adding and employment, accounts the forest industry for about 12 % (2006). In economic terms plays the industry a great role with more than 50% of total net export value.

From a value chain perspective, the flow and usage of forest products are shown in figure 1.

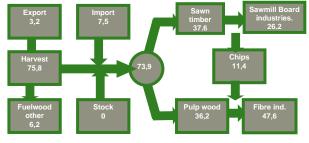


Figure 2: Swedish forest products value chain, 2005 (mill. m3)

Unit: Million m3fub(solid under bark) (Source: VMR/SDC

Presently less the forest based sector employs about 90 000 people directly, but creating additional employment in other sectors, e.g. transport. Much of these jobs are in rural areas with little other possibilities.

# 2 Innovation areas in forestry in the country (input to chapter 3)

Not all innovations addressed in the documents to be analysed are necessarily recognizable or specified explicitly as innovation, but are addressed under their specific name (e.g. to promote bio-energy in countries where bio-energy is seen as an important innovative topic).

The most important current <u>forest sector innovations (forest sector innovation frontier)</u> for each country were to be identified before the document analysis in order to analyse whether and in how far the diffusion of these country specific important innovation areas in the forest sector is supported by different policies or documents.

The following table, indicating the most important product, process, marketing, organisational and institutional innovations in the forest sector in Sweden for the two areas territory-based services and value added chain, helps guiding the interpretation of the tables.

The included innovations for each country were used for searching the documents for these words (using the "word search" function). The included innovations should be on a general level and not be too specific (e.g., a certain detailed technical solution in construction). It was also decided that for the whole table those maximum 6-8 innovations should be identified that attracted most attention in each country in the last 1-2 years. The Swedish authors found it difficult to keep the number at 6-8 and instead included those we found relevant for the set time period.

To guide the compilation there were some further guidelines for example, to specify the innovations in broad categories (e.g. bio-energy in value added chain), with further specification as appropriate (for bio-energy, e.g. particularly for district heating).

Table 3: Innovation areas: Sweden			
Area	Territory based services	Value added chain	
Туре			
Product		<ul> <li>Biomass for energy and fuel,</li> <li>Densified fuels.</li> <li>Systems and solutions for building.</li> </ul>	
Process		<ul> <li>Modularity and/or prefabrication in wood based industries – outsourcing.</li> <li>Logistics/SCM solutions (IT, Pick-a-pack solutions etc)</li> </ul>	
Marketing method	- Usage of Internet	- Targeted marketing for key- accounts and segments (wood products)	
Organisational model	<ul> <li>Large companies have branches for tourism development</li> </ul>	<ul> <li>Industrialized</li> <li>production/process in construction</li> <li>Product organization of larger</li> <li>industries (instead of geographical)</li> </ul>	
Institutional innovations	<ul> <li>Partnerships between regional authorities and local business community to develop territory based activities</li> </ul>	<ul> <li>Policies developed as</li> <li>Partnership projects</li> <li>"Träbyggnadskansliet"</li> </ul>	

Table 3: Innovation areas: Sweden

The chosen policy documents for Sweden are shown and shortly presented in chapter 1 (table 1).

# **3** Forest Policy – National Forest Programme

The Forestry Act is the closest to a Forest Policy in Sweden. The policy process of the Act is mainly restricted to forest management with little attention to other forest related areas like infrastructure, forest industry, product markets, R&D and education.

The Forestry Act stipulates the long-term approach to forests usage and presently includes two goals – a production and an environmental. These goals are broken down into Forest Sector goals implemented by governmental authorities in co-operation with forest owners. The analyzed document, a Governmental Communication, is the latest document where the government states its view of the Forest Policy.

The Forestry Act is the basis for the Forest Policy in Sweden and was approved in 1993. A first evaluation took place in 1998 with adjustments of Forest Policy tools from the Parliament the same year, and a second evaluation commenced in 2002 with the present analyzed document as revision/adjustment document.

The culture of forest authorities and most other authorities in Sweden is characterised by mutual understanding and consensus sharing to solve problems and conflicts, and to maintain local support and a bottom-up approach emphasising equality and agreement. An example is how Act revision takes place. A Governmental Commission presents suggestions, which the Government elaborates and presents as a Communication or as a Bill to the Parliament. External stakeholders are invited during the work of the Commission as well as during the preparation of the Bill.

3.1	General information -	based on Pa	rt A of docum	ent analysis
<b>U</b> . I				cint analysis

Name:	Adjustment of Swedish Forest Policy (Uppföljning av den svenska skogspolitiken. Governmental communication 2003-12-10.		
Adoption: Please mark by whom and at which level the document is adopted	Parliament Government     Energy and Communications     Others: Level:	⊠ Ministry: Enterprise, □ No formal approval	
	National Regional Adoption date: 2003-12-10	🗌 Local	
Validity period:	N/A		
Revision:	Is (regular) revision/ update of the document planned? Has it already taken place, when? A revision i.e. Forestry Commission, of the Forestry Policy or Forest Sector Goals from 1993 initiated its work in August 2004 and presented its proposals in Oct. 2006.		
Monitoring/ Evaluation:	Is the implementation of the document formally monitored? Has an evaluation taken place? Is an evaluation foreseen? An evaluation by the Swedish Forest Agency of the Forestry Act (1993) too k place in 1998 and in 2002. NGO: s, forest owners associations and other external organisations monitored the evaluations, but in the future, the plan is to incorporate the two processes to achieve improved mutual understanding and consensus earlier. The analyzed document followed the latest evaluation and external organisations monitored its progress. Normally an evaluation of the Forestry Act is every four years.		
Related documents:	Please list further specifications or amendments of the document and documents that are closely related, i.e. have a direct reference to the document. This might include working programmes, annexes, etc. These documents should be analysed together with the main document. Forestry Act 1993,		
Geographical scope:	🛛 National 🛛 🗌 Regional; name:	Local, name:	
Budget:	Amount of budget in € (indicate whether per ye the source for the budget, i.e. state, EU, regions, N/A. Regulated in the Budget Bill.		

 Table 3: Part A – General document information – Forest-based Sector Policy

General descripti	on of contents as written in document
Objective of the	Name shortly the main objective of the document (as written down in preamble,
document	introduction part, vision or mission statements).
	Since Sweden does not have a specific Forest Policy document similar to a National
	Forest Policy document, the closest is the Forestry Act. The policy process of the
	Forestry Act is mainly restricted to forest management with little attention to other
	forest related areas like infrastructure, forest industry, product markets, R&D and education, which are dealt with in other processes.
	The Forestry Act stipulates the long-term approach to forests usage and includes
	presently two goals – a production and an environmental. These goals are broken down into Forest Sector goals implemented by governmental authorities in co- operation with forest owners. The culture of forest authorities and most other
	authorities in Sweden is characterised by mutual understanding and consensus sharing to solve problems and conflicts and to maintain local support and a
	bottom-up approach emphasising equality and agreement. An example is how Act revision takes place. A Governmental Commission presents suggestions, which are elaborated by the Government and presented as a Bill to the Parliament. External stakeholders are invited during the work of the Commission as well as during the
	preparation of the Bill.
	The analyzed document, a Governmental Communication, is the latest document where the government states its view of the Forest Policy. It was based on an evaluation from the Swedish Forest Agency (SFA) on the effects of the forest policy, and a joint evaluation by SFA and Swedish Environment Protection Agency (SEPA) on the effects on biological diversity.
	In the document the Government states:
	- The ambition on the production and environment goals should remain.
	- The evaluation points at improvements in various areas of the policy for the fulfilment of the forest goals. This Communication presents areas prioritised for progressed realisation of the national forest policy.
Priorities	Name the thematic priority areas of the document.
	To meet the Forest Sector Goals, the tools have previously been defined as:
	- Information, extension and consulting
	- Legislation
	- Financial support
	- Inventory, follow-up and evaluation
	and the Communication (this document) also introduced:
	- Property protection
	- Forest education, research and development
	As tools and areas which are prioritised.
Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.)
	The document presents the view of the government on forest policy issues in respect to:
	- International forest co-operation; Global, European, EU and national issues
	- Evaluation of forest policy
	- Goals of the forest policy
	- Tools of the forest policy meeting the goals
	- Forest related cultural values
	- National Forestry Board
	- State-owned forests

Measure Areas	Name measure areas as described by the documents and general types of measures the document introduces.
	Under each of the above stated thematic parts, the government states its position sometimes accompanied with an action, a proposal or guideline.
	- International co-operation;
	• implement global actions, define and implement sustainability in forestry, increase engagement in developing countries, certification and environmental coding to ensure sustainable development; support market-driven development,
	- Forest policy
	<ul> <li>Continue long-term evaluation process, initiate new commission, evaluation of forest policy together with environmental policy</li> </ul>
	- Goals of forest policy
	Social values of the forests to be enhanced from the viewpoint of society
	- Tools of the forest policy
	No major changes introduced in the document compared with the present Act
	<ul> <li>Except for an increased focus on education and research</li> </ul>
	- Forest related cultural values
	<ul> <li>Related to one of the national environmental goals</li> </ul>
	- National Forestry Board
	- State-owned forests
Follow-up / Imp	lementation
Follow-up measures:	<ul> <li>No follow-up activities so far</li> <li>New or adapted funding programme(s) /budget line; name:</li> <li>New or adapted regulations/laws; name:</li> </ul>
	New or adapted informational campaigns/instruments; name:
	New or restructured institutions/organisations; name:
	Implementation in forest policy: Forestry Commission initiated in Aug. 2004
General	List research needs you identified, they might be taken up in phase II of COST E51
comment:	Name further reference sources used

## 3.2 Integration of innovation - based on Part B of document analysis

 Table 4: Part B - Overall Innovation Orientation – Forest Policy

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	<ul> <li>☐ never</li> <li>☐ sometimes</li> <li>☐ frequently</li> </ul>
	Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document	<ul> <li>□ never</li> <li>⊠ sometimes</li> <li>□ frequently</li> </ul>
	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>Terms used: Entrepreneurship, competitiveness</li> </ul>

	Further comments on overall innovation orientation of the document: The Forestry Act in Sweden is mainly <u>restricted</u> to forest management and with very little focus on other policy areas like education, R&D, infrastructure. In addition, the analysed document is a Governmental Communication to the Parliament and indicates the view of the Government in respect to the Forestry Policy, thus it is general in wording and does not include <u>direct actions or programs</u> .	
Relevance of	No relevance at all	
innovation:	Marginal issue	
Please mark how much	One issue among others	
relevance is given to	Important issue	
innovation in the document (one answer)	Central issue	
	Comments:	
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	<ul> <li>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)</li> <li>rather general (innovation is addressed in overall goals, needs are identified but no specification of measures)</li> <li>rather specific (innovation is addressed in concrete goals, measures are formulated)</li> <li>very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)</li> <li>Comments: Please specify further in which context innovation is addressed (Is innovation a goal, underlying rationale, a strategy or means to reach other goals, unrelated, etc.?)</li> <li>Innovation, as interpreted, is an unrelated concept of how actions, proposals for actions or guidelines are implemented. For example, increased co-operation between actors in the forest based sector may lead to improved competitiveness or social values from forests, and forestry could be related to marketing innovation.</li> </ul>	
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	<ul> <li>Predominately traditional science and technology policy</li> <li>Traditional S&amp;T policy with systemic elements</li> <li>Systemic innovation policy with S&amp;T policy elements</li> <li>Predominantly systemic innovation policy</li> <li>Comments: Please describe further the undertanding of innovation policy</li> <li>Innovation and innovation process is not discussed at all or at least not directly, why it is difficult to assess the understanding of the expression.</li> </ul>	

#### Goals and objectives:

Please specify further what objectives and goals (quantitative and qualitative) are formulated in relation to innovation?

Not specifically discussing and presenting actions, proposals or guidelines regarding R&D, Education, Forest Industry or Infrastructure, the document does not specify objectives or goals in relation to innovation. The closest is the discussion on importance of education and co-operation in the research community, and the importance of improving the attractiveness of forest related educations among the Swedish population. Furthermore, there is a short section on governmental support for wood based product development (Strategy of Wood Construction).

#### Issues, problems and related topics:

Please describe shortly what main issues and problems are formulated in relation to innovation? Does the programme address other issues that are related to innovation, e.g. competitiveness of the sector, diversification etc.? Please describe shortly

The document states actions and programs proposed or implemented by the government, which have some relation to competitiveness of the forests, and forest based sector and the Forestry Act. Specifically in the document, issues related to innovation are:

- The social values of the forests to improve personal health, education etc., but also other values of the forests not yet developed such as eco-tourism, hunting biking etc.

- Wood based product development and company co-operation and the possibility for governmental support from a forestry and environmental perspective.

#### Innovation areas:

Please name the most important innovation areas named by the document and compare with the results gathered in table 3.1.

Again, the document addresses mainly forest management issues and not areas like education, infrastructure, R&D, forest industry.

- Co-operation among wood based companies, preferably SME: s, in terms of product development.

- Forests as source for tourism; maintaining and developing rural regions.

- Enhance the usage of wood based products in construction from an environmental, regional development and forest industry competitiveness perspective

#### General comment:

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

Name further reference sources used

Table 5: Part B - Innovation Support Measures – Forest Policy				
	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises.		
Innovation support measures		The document gives a reference to support programs by governmental agencies. The first program is focusing on co- operation, knowledge creation and R&D among SME: s in forest industry.		
<i>Consult</i> <i>classification</i>		The second is a joint program between state and industry supporting research in the forest industry sector.		
<i>in chapter</i> The third is a commission appointed to a		The third is a commission appointed to create and implement a strategy to enhance the usage of wood and wood products in the construction sector.		
		(see comment below regarding Forestry Act, and Sweden's general position regarding support)		
	Diffusion of innovation	List support measures proposed or implemented by the document that target the diffusion of known products, processes, marketing methods, and organisational methods. Specify for which products, processes, marketing methods, and organisational methods support is given. Refer to and compare with the list gathered under 3.1. The communication states that economic measures from the EG Act 1257/1999 supporting rural development, is used by Sweden for education, consultation and information to forest owners of new methods, ideas, products etc. thus a diffusion of innovation. (see comment below regarding Forestry Act, and Sweden's general position regarding support)		
	Strengthening the knowledge base	List support measures proposed or implemented by the document that aim at strengthening the knowledge base for innovation. There is an equal responsibility between state and private forest owner to meet the two goals stated in the Forestry Act – a production and an environmental. Improving the possibility to meet the goals, the evaluation made by SFA and elaborations in the communication, state that information and consultation in many areas have to increase thus strengthening the knowledge base. (see comment below for regarding Forestry Act, and Sweden's		
	Strengthening interaction	general position regarding support) List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors. Sweden should act as much, and often, as possible and on all levels in international forum around forests, forest management and forest industry.		
		(see comment below for Sweden's general position)		

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	Demand creation	List support measures proposed or implemented by the document that aim at promoting the demand for innovation.
		(see comment below regarding Forestry Act, and Sweden's general position regarding support)
	Improving frame conditions	List initiatives/ policy actions proposed or implemented by the document that aim at improving the framework conditions for innovation. Introduction and implementation of EU rules regarding usage of the forests from a long-term sustainable perspective. For example, the introduction of Natura 2000 (based on 92/43/EEG and 79/409/EEG) limits the usage of such areas from an environmental perspective. A joint Nordic strategy for long-term sustainable development includes a section of forest management from a sustainable perspective. Affects usage and ownership of forests. Baltic 21 is another program which affects forestry and forest industry. This program states among other things a focus on private forestry and an increased usage of wood products as a renewable resource. Environmental coding and certification of forest practices should have a bottom-up approach and be market-driven rather than state induced. Improve coordination and co-operation within the governmental bodies regarding research and education. Forest education runs under Ministry of Agriculture whereas all other runs under Ministry of
		Education. (see comment below regarding Forestry Act, and Sweden's general
		position regarding support)
	<ul> <li>Comments</li> <li>The Swedish Forestry Act is the closest to a National Forestry Program, but the Swedish Forestry Act policy process is mainly restricted to forest management and deals little with other forest related areas like infrastructure, forest industry, forest industry product markets, R&amp;D and education. Following this there are other documents, programs, strategies that give the full picture of innovation and innovation support measures aimed at the forestry and forest industry, many of which are analysed in this COST Action (e.g. Forest based Sector Program, National Reform Program, Swedish Climate Strategy etc.).</li> <li>In general, Sweden is opposed to direct support or subsidies to forestry and forest management, since it negatively affects competition. Forests and forestry should be self-supporting.</li> <li>The above listed statements and measures are our (Swedish COST E51 group) interpretations of the text in the Communication and from knowledge of what other documents state about forestry and forest industry.</li> </ul>	
Priorities		Please assess qualitatively which of the above mentioned category(ies) is a priority area for innovation support within the document. Please give short reasoning for your judgement Increased international co-operation regarding forestry, but no need for a joint EU forest policy. Increased information, consultation and education of the general public and forest owners of the latest practices in forestry meeting the goals in the Forestry Act.
		The reason for these general, and forestry focused priorities is the function of the Forestry Act in Sweden. It is mainly restricted to forest management and deals little with other policy processes related to forestry such as infrastructure, education, forest industry, R&D and forest industry product markets. Following this, there are a number of references in the text to other support programs and strategies that have effects on the forest policy.

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Assessment of overall relevance	Please assess qualitatively the overall relevance of innovation support measures compared to other support measures proposed or introduced by the document. Give short reasoning for your judgement.
	The reason for these general, and forestry focused priorities is the function of the Forestry Act in Sweden. It is mainly restricted to forest management and deals little with other policy processes related to forestry such as infrastructure, education, forest industry, R&D and forest industry product markets. In the text (the document), there are a number of references to other support programs and strategies that have effects on the forest policy.
Promotion of innovation	Please assess qualitatively how much innovation is furthered by the document. This would include the assessment of the overall relevance of innovation within the document as well as the relevance of the document for the policy area. Following the scope and objective of the document, and of the document it is based upon (Forestry Act), the focus is mainly on forest management and Swedish forestry from an environmental and sustainability perspective. The document is thus merely focused on institutional and organisational innovation creating a sound framework for the future development of the Swedish forests and forest management. As such, it is an important policy document also for innovations in general, but not so much for individual companies and enterprises. In addition, the document is an important piece in the whole governmental framework affecting, supporting and regulating the forests and forest industry in Sweden. Following this the document should be assessed together with other Acts, actions, measures, programs and strategies such as National Reform Program, Forest based Sector Policy, Climate strategy, Regional and Rural development Programs etc.
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used Examples of research questions raised from the above table
	<ul> <li>How do all policies and strategies interact with each other from a forestry perspective?</li> <li>Which policies are seen as the most important by stakeholders i.e. known by stakeholders?</li> <li>Is it the overall policy or the developed tools and support systems that are known by stakeholders?</li> </ul>

## Table 6: Part B - Cross-sectoral coordination – Forest Policy

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Policy formulation		
Co-ordination with other processes and documents	Please list other processes or documents with which the considered document is formally co-ordinated Swedish Forestry Act (prop. 1992/93:226, bet. 1992/93:JoU15, rskr. 1992/93:252) Swedish Environmental Objectives – A Common Mission (2004/05:150)	
Administrative Co- ordination:	<ul> <li>between different sections/departments within the same ministry; specify:</li> <li>between different ministries, specify:</li> <li>Ministry of Enterprise, Energy and Communications,</li> <li>Ministry of Agriculture, Food and Fisheries,</li> <li>Ministry of Environment</li> <li>between ministries and other public organizations / agencies, specify:</li> <li>Swedish Forest Agency (SFA)</li> <li>Comments: Shortly explain the role of the main administrative actors</li> </ul>	

	At the time of the analysed document, a section at Ministry of Enterprise, Energy and Communications has the main responsibility for the Forestry policy process within the governmental body, and is principal of the Swedish Forest Agency. Today, the division has moved to Ministry of Agriculture. Ministry of Environment leads the environmental policy process, and ministry of Agriculture the agriculture and land use policy process. The SFA together with stakeholders implement the policy.
Stakeholder involvement	<ul> <li>Forestry: name most important organisations:LRF Skogsägarna,</li> <li>Forest Owners associations</li> <li>Forest-based industries: name most important organisations:</li> </ul>
	Föreningen Sveriges Skogsindustrier Agriculture: name most important organizations:LRF (The Farmers ´ National Association)
	Tourism: name most important organizations:The Swedish Tourist Association
	<ul> <li>Energy: name most important organizations:</li> <li>Environment: name most important organisations:SNF (Swedish Society for Nature Conservation), WWF</li> </ul>
	Other sector:: name most important organisations:
	Other sector:: name most important organisations:
	Comments: Shortly describe the type of stakeholder involvement
	Government commissions, so also the Forestry Act, normally prepare major changes to national policy goals and tools. Based on the proposals of these commissions, the government will prepare a bill to the parliament. Stakeholders from outside the government and the parliament are normally involved in the work of the commissions. Furthermore, a Communication (such as the analysed) is sent to main stakeholders for comments, before the final version is presented to the Parliament.
Coordination	Formal (central) coordination body; name: <u>Ministry of Enterprise</u> ,
mechanisms:	Energy and Communication, Department of Basic Industries
	Formal coordination process
	Inter-sectoral working groups
	Inter-sectoral advisory body
	Formal mandatory consultation process
	<ul> <li>Formal voluntary consultation process</li> <li>Informal consultations (please describe )</li> </ul>
	During the work of a Commission, information gathering and analysis may be asked for and given to external organizations, incorporated in the final proposition of the commission.
	Others:
Policy Implementatio	n
Responsible actors and their roles:	Shortly explain the role of the main actors in the implementation of the document
	Swedish Forest Agency – has the main responsibility of the implementation of the policy.
	- Breaking down and specifying the two main goals of the forest policy into sub-goals.
	- Information, consultation and guidelines of the policy and sub-goals to stakeholders.
	- Co-operation with stakeholders in realizing the policy
	Forest Owners – have implementation responsibility of the policy. "Freedom under responsibility" is the motto of the present forest policy, meaning that it is up to each forest owner to decide what to do with the forests, under the condition that the forests are to be self-sufficient – no subsidies.

Level of delegation	<ul> <li>Decentralized, e.g.</li> <li>Central, e.g. ministry, public agency</li> <li>Outsourced to private actors</li> <li>Local, e.g. by municipalities</li> <li>Regional, e.g. by regional public actors</li> <li>Others:</li> <li>Comment: A combination of central control from the Swedish Forest</li> <li>Agency under the Ministry of Enterprise, Energy and Communication, and private forest owners and/or their national/regional organisations.</li> </ul>
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 Industries Policy

The document with its strategy is more or less an appendix to or an extension of the Reform program and is specially elaborated for the Forest based Sector. It was created through close dialogue and discussions between the government and representatives from the Forest industry and branch organisations. The strategy presented in the document will lay the ground for further initiatives and actions. One example of outcome from this document is a Swedish National Research Agenda (NRA) for the Forest based Industry, which is closely linked to the Strategic Research Agenda coming from the Forest Technology Platform (FTP) work.

## 4.1 General information - based on Part A of document analysis

Name:	Forest and Wood Products Industries – Part of Innovative Sweden (Skogs- och Träindustrin –		
	En del av Innovativa Sverige)		
Adoption: Please mark by whom and at which level the document is adopted	□ Parliament       □ Ministry:         □ Others:       Forest based Industry         □ No formal approval         Level:         □ National       □ Regional         □ Local         Adoption date:       2005-12-20		
Validity period:	2005 -		
Revision:	Are (regular) revision/ update of the document planned? Has it already taken place, when? N/A		
Monitoring/ Evaluation:	Is the implementation of the document formally monitored? Has an evaluation taken place? Is an evaluation foreseen? Continuous evaluations and revisions regarding the development and implementation of measures and actions is an important prerequisite stated in the document.		
Related documents:	Please list further specifications or amendments of the document and documents that are closely related, i.e. have a direct reference to the document. This might include working programmes, annexes, etc. These documents should be analysed together with the main document. National Research Agenda of Forest based Sector (NRA-Sweden) and the Forest based Sector Research Programme (Skogsforskningsprogrammet) presented in November and December 2006, respectively.		
Geographical scope:	National Regional; name: Local, name:		
Budget:	Amount of budget in € (indicate whether per year or for whole document period); indicate the source for the budget, i.e. state, EU, regions, co-financed, etc. No explicit budget stated in the strategy, but at official newsletters following the presentation of the strategy, a figure of €10 million per year over a five (5) year period. Financing split 50/50 between state and forest industry. When the Forest based Sector Research Program was presented in Dec. 2006 the budget frame was €50 million for a 5-7 year period starting 2007, and again split 50/50 between state and industry.		
General description of contents as written in document			
Objective of the document	Name shortly the main objective of the document (as written down in preamble, introduction part, vision or mission statements). The vision is that "the Swedish Forest and Wood Products industry is world leading in specific market segments with increasingly value-added products, and will have a key role in creating and maintaining growth in society under a sustainability paradigm.		

Table 7: Part A - General document information – Forest-based Sector Policy

Priorities	<ul> <li>Name the thematic priority areas of the document.</li> <li>The vision is broken-down into four strategic areas.</li> <li>Strategy for global competitiveness and sustainable development</li> <li>Strategy for Research and Development</li> <li>Strategy for Business Development</li> <li>Strategy for creation and development of competence</li> <li>The strategies aim to enhance the global competitiveness and the leading positions for present and future businesses in a competence based Swedish forest and wood products industry, with value-added recyclable products based on a renewable raw material.</li> </ul>
Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.) The document is straightforward. After a description of vision and mission and the background, the thematic actions are presented and with whom the responsibility lays at. The document ends with some back-up figures and statements presenting the importance of the industry for Sweden.

Measure Areas	Name measure areas as described by the documents and general types of measures the document introduces.
	<ul> <li>Action area - global competitiveness and sustainable development <ul> <li>Enhanced and developed arena for communication and dialogue of important issues and topics related to the forest and wood products industry. That is, maintain and improve the number of meetings, widen the areas to discuss, on more levels than previous between state and industry.</li> <li>Enhance and develop national communication of international forest related issues. That is, make sure that state and policy makers have a dialogue and communicate with forest industry representatives to be able to drive the "right" issues and topics in the international community.</li> <li>Continue and deepen dialogue and create actions around energy supply. That is, no actions yet proposed but with continued discussions, the objective is to establish actions.</li> <li>Continue initiated "Program of energy efficiency in energy intensive industries".</li> <li>Action area bio energy; Advantages and disadvantages of an increased bio energy production and consumption should be assessed.</li> <li>Consequence analyses; Include forest related consequence analyses in measures, actions, directives and plans.</li> </ul> </li> </ul>
	<ul> <li>Action area – Research and Development <ul> <li>Establish a National Forest based Sector Research Program, where industry and state together develop actions and split the financing.</li> <li>Improve research cooperation with EU and internationally; Based on the National Research Program there should be opportunities for increased cooperation, and take a leading role in the joint European Forest based Sector Technology Platform</li> <li>Maintain and improve research within the Energy area; Make sure that the energy intensive Forest Industry participates actively.</li> <li>Research project regarding raw material and logistics; Improvements in volume, availability and optimal transportation and logistics.</li> <li>Preparation of a six-year project of how to increase forest production.</li> <li>Build on and widen co-operation with Finland; Forest industry is important for both countries and we could benefit from a closer co-operation.</li> <li>Measures to enhance R&amp;D in SME: s; Make sure that Governmental agencies have competencies to include companies within the Forest based Sector.</li> </ul> </li> </ul>
	<ul> <li>Action area – Business development <ul> <li>Support measures to enhance business, product and production development competencies; Governmental agencies should be given directives to establish programs aiming at this where Forest based Sector companies are prioritised.</li> <li>Improve financial support measures for innovations in early stages especially among SME: s, make sure that the pinpointed governmental agencies and organisations have competencies for Forest based Sector companies.</li> <li>Support for export activities</li> <li>Support for increased foreign direct investments; Also in Forest based Sector industries.</li> </ul> </li> </ul>
	<ul> <li>Action area – Creation and Development of Competence <ul> <li>Measures to improve and change image of the Sector; Marketing but also enhance the number of short-term jobs, student exchange, apprentice, etc. to show what type of jobs there are</li> <li>Adapt education to fit the demands from the industry</li> <li>Develop high school and work college better fitting the demand from industry.</li> <li>Develop and enhance college and university education</li> <li>Increase international student and worker exchange</li> <li>Establish and support technical and management education in wood construction aimed at specific professions.</li> <li>Establish and support demonstration and reference timber framed construction projects; Make sure that some are so called Research, Development and Demonstration projects i.e. education and research at the same time as production is taking place.</li> </ul> </li> </ul>

Follow-up / Implementation		
Follow-up measures:	<ul> <li>No follow-up activities so far</li> <li>New or adapted funding programme(s) /budget line; name: Forest based Sector Research Program</li> <li>New or adapted regulations/laws; name:</li> <li>New or adapted informational campaigns/instruments; name:</li> <li>New or restructured institutions/organisations; name: E.g. FTP research support</li> <li>Implementation in forest policy:</li> </ul>	
General comment:	List research needs you identified, that might be taken up in phase II of COST E51 Name further reference sources used - Evaluation of Committee of Wood Construction Strategy from a company perspective and not only from a governmental point of view. - Involvement in and value of external stakeholder in the policy process	

## 4.2 Integration of innovation - based on Part B of document analysis

Table 8: Part B - Overall Innovation Orientation – Forest-based Sector Policy

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	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> </ul>	
	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	<ul> <li>☐ never</li> <li>☐ sometimes</li> <li>☑ frequently</li> <li>Terms used: Competitiveness,</li> </ul>	
	Further comments on overall innovati The whole document is about strengt competitiveness of the Swedish Fores interest regarding policy developmen- joint strategy between State and Indu implications for the future developmen	hening the innovativeness and st based Sector. What is of most t and implementation is that it is a ustry. This will hopefully have positive	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	<ul> <li>No relevance at all</li> <li>Marginal issue</li> <li>One issue among others</li> <li>Important issue</li> <li>Central issue</li> <li>Comments: Innovation is important but more so the future competitiveness of the industry, and where innovation is seen as one ingredient for success.</li> </ul>		
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	<ul> <li>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)</li> <li>rather general (innovation is addressed in overall goals, needs are identified but no specification of measures)</li> <li>rather specific (innovation is addressed in concrete goals, measures are formulated)</li> <li>very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)</li> <li>Comments: Please specify further in which context innovation is addressed (Is innovation a goal, underlying rationale, a strategy or means to reach other goals, unrelated, etc.?)</li> <li>Innovation in the document is a little bit of everything. It is a goal, to increase the rate of innovation by introducing measures supporting that. It is also an underlying rational and a mean to reach other goals i.e. a need for innovations to improve competitiveness and to create and maintain a</li> </ul>		

	sustainable society. Or in order to improve innovativeness there is a need for increased co-operation between state and industry etc.		
Understanding of			
innovation policy	Traditional S&T policy with systemic elements		
Please assess what overall	$\boxtimes$ Systemic innovation policy with S&T policy elements		
understanding of	Dredeminently systemic imposetion reliev		
innovation policy is reflected in the document.			
See chapter 2.2.1	The focus is on the forest sector as an innovation system and how the strategy can develop that through synergies with other innovation systems, and with an increased co-operation between state (policy-making) and industry (implementation). Thus more towards the systemic policy view than for example the National reform program, but, and that is something		
	to think of, example of innovations are mainly in the form of products or processes.		
Goals and objectives	s:		
_	it objectives and goals (quantitative and qualitative) are formulated in relation to		
of these directions involv	ent there are few "hard" goals and actions, but more future directions. Many re one way or the other the concepts innovation, entrepreneurship, rd "new" etc. The list below is thus similar to the one in table 6.		
<ul> <li>More often and regard measure aims at enha goal is important and</li> </ul>	petitiveness and sustainable development ding wider areas should meetings between state and industry take place. The ancing development both nationally and internationally. This objective AND affects all other measures, since there is a direct link between policy maker implement the policy.		
	nd planned creation of actions around energy supply, but no concrete		
involves product and	<ul> <li>The program "Program of energy efficiency in energy intensive industries" is an initiative itself and involves product and process innovation.</li> </ul>		
<ul> <li>Consequence analyses directives and plans.</li> </ul>	ound action area bio energy, but no real measures. s; Include forest related consequence analyses in measures, actions,		
Action area – Research and Development o Creation of a Forest based Sector Research Program where innovation and competitiveness are central issues.			
	research areas of importance where innovation is an important factor, such as energy, raw		
	pperation and exchange with Finland pment of R&D program for SME: s.		
Action area – Business de o Economic support for included and informed	developments in early stages. Make sure that the Forest based sector is		
<ul> <li>Export support measu based Sector.</li> </ul>	ires, as well as Direct Investment measures should also include the Forest		
<ul> <li>Early information and</li> <li>Development of impro co-operation between</li> </ul>	nd Development of Competence knowledge creation about the Forest based Sector in schools. oved higher educations aimed for the Forest based Sector, and with increased education and industry easures of how to used wood in construction		
Issues, problems an	d related topics:		
	at main issues and problems are formulated in relation to innovation? Does the ssues that are related to innovation, e.g. competitiveness of the sector, diversification		
This means a constant st competitiveness of the co	igh cost country and needs thus to focus on high-tech as much as possible. rive for creation and implementation of innovations supporting a long-term puntry. This is very much so for the Forest based Sector, which presently is in different fields, segments and areas.		
	t clearly focuses on the issue of how to maintain this position, and states thus "in segments, should the industry strive for global leadership".		

#### Innovation areas:

Please name the most important innovation areas named by the document and compare with the results gathered in table 3.1.

Overall, what is apparent in the document is the wish and strive for increased co-operation between state and industry between policy-making and implementation. This is the most important innovation area from the document.

Examples of areas where the innovation frontier is mentioned are:

- Global sustainable development – Forest based Sector is an important player in this matter and measures aiming at innovation and development improving climate change measures, CO2 sinks, etc. should be encouraged. Increased usage of <u>bio-energy</u> and improved productivity in the forests are examples of measures.

- Improvements in product and process developments of old technology and introduction of new are of vital importance. Improved co-operation <u>between actors in the innovation system</u> as well as between innovation systems are to be encouraged. This goes also for <u>state – industry relation</u>.

- Innovations involving new technology are for example material combination in <u>architectural and</u> <u>living</u> concepts, wood bio refineries.

#### General comment:

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

Name further reference sources used

- What is the main difference from the previous policy? Specific actions? Involvement from industry? Difference in process development?

- Adoption of policy? Is it presently only an industry question or does the new government approve to what the former implemented? What happens with a policy when there is a change in government office?

Table 9: Part B - Innovation Support Measures – Porest-Dased Sector Poncy			
Innovation	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises.	
support	•	- Forest_based Sector Research Program, financed 50% by industry	
measures		- Increased financing for industry related research institutes within	
Consult		the Forest based Sector.	
classification		- Economic support for R&D in early stages at SME: s	
in chapter		- Knowledge and competence support for SME: s	
2.2.2		<ul> <li>Support for establishment of RDD (Research, Development and Demonstrations projects within wood construction</li> </ul>	
	Diffusion of innovation	List support measures proposed or implemented by the document that target the diffusion of known products, processes, marketing methods, and organisational methods. Specify for which products, processes, marketing methods, and organisational methods support is given. Refer to and compare with the list gathered under 3.1. - Forest based Sector Research Program will most likely include these areas. The Program includes pulp, paper, wood products, bio energy and forestry. - Economic support for R&D in early stages at SME: s - Knowledge and competence support for SME: s - Financial and competence support for export activities.	
	Strengthening the knowledge base	List support measures proposed or implemented by the document that aim at strengthening the knowledge base for innovation. - Forest based Sector should be more visible at early stages in school - Improve present and develop new higher education programs - Increase international exchange both at university programs but also in research. - Increase measures to facilitate movement between research and industry.	

#### Table 9: Part B - Innovation Support Measures – Forest-based Sector Policy

· · · · · · · · · · · · · · · · · · ·		
	Strengthening interaction	List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors. - Increased interaction on all levels between Sweden and Finland - Wood Products industry together with the state, establish focused education of using wood products in construction.
	Demand creation	List support measures proposed or implemented by the document that aim at promoting the demand for innovation. - Economic support for R&D in early stages at SME: s - Knowledge and competence support for SME: s
	Improving frame conditions	List initiatives/ policy actions proposed or implemented by the document that aim at improving the framework conditions for innovation. - Export support measures including financial measures. It exists and is now high-lighted for the Forest based Sector as a possibility - Foreign Direct Investments - In general, with increased interaction between state and industry on many levels, it is thus possible for the industry to influence frame conditions.
	Comments	
Priorities		Please assess qualitatively which of the above mentioned category(ies) is a priority area for innovation support within the document. Please give short reasoning for your judgement Since this document can be seen as an appendix to the Reform Program, the most important categories to support are those that will encourage and develop firms, organisations to create jobs. Specific for the Forest based Sector where Sweden is among the world leaders is to maintain that position, thus support measures focusing on product and process development are the main ones. However, we as a group believe that the most significant innovation is the indication of increased co-operation between state and industry. This will have the most effect for the future competitiveness of the industry on a global level.
Assessment of overall relevance		Please assess qualitatively the overall relevance of innovation support measures compared to other support measures proposed or introduced by the document. Give short reasoning for your judgement. With the definition of innovation in this Action (E51), most of the proposed measures are either directly linked to innovation or have innovation as an underlying rationale. E.g. support measures to enhance the image of the forest industry requires that new marketing and diffusion methods are introduced in the sector, or support to enhance Foreign Direct Investments in Swedish industries has as an underlying rationale that this will introduce new business, production, research, or governance methods to the industry.

Promotion of innovation	<ul> <li>Please assess qualitatively how much innovation is furthered by the document. This would include the assessment of the overall relevance of innovation within the document as well as the relevance of the document for the policy area.</li> <li>Innovation is of major concern in the document and as a mean for the Forest based Sector to maintain its competitiveness in the future. This document ought to have big implications for the future development of the industry thanks to: <ul> <li>The opening of increased co-operation between policy-making and implementation i.e. state and industry.</li> <li>Statement that increased co-operation within and between innovation systems is required.</li> <li>A broad variety of areas where measures and actions are identified and specified.</li> <li>The document is linked to other innovation enhancing policy documents i.e. Reform Program, National Research Agenda, Renewable Energy Policy, National Climate Strategy, National Sustainable Development Policy</li> </ul> </li> <li>Furthermore, one of the unspoken aims with the document is to give support to the Forest based Sector for the up-coming EU FR7. This document thus is closely linked to the European Forest based Sector Technology Platform and the measures included in that document.</li> </ul>
General comment:	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

## Table 10: Part B - Cross-sectoral coordination – Forest-based Sector Policy

Policy formulation		
Co-ordination with other processes and documents	Please list other processes or documents with which the considered document is formally co-ordinated - Strategic development programs for Swedish industry (within Government Bill on Research) – Forest based Sector Research Program - Revision of National Forest Act and Policies - Energy efficiency Program - European Union 7 <sup>th</sup> Research Framework - Program for Development of SME: s - Regional development Program - National Policy of Climate Change - The Wood Construction Strategy Committee - Obligation to Supply Renewable Fuels - National Reform Program	
Administrative Co- ordination:	<ul> <li>between different sections/departments within the same ministry; specify:</li> <li>between different ministries, specify: <u>Ministry of Industry, Ministry of Education, Ministry of Agriculture, Ministry of Finance, Ministry of Environment and</u></li> <li>between ministries and other public organizations / agencies, specify: Forest Industry Federation, Wood Products and Furniture Federation, Comments: Shortly explain the role of the main administrative actors</li> <li>Ministry of Industry was responsible for finalizing the document in cooperation with Ministry of Education (Research financing).</li> <li>Industry organizations gathered and presented their view of what is required. Participated in discussions and negotiations.</li> <li>External agencies and companies supported the process with industry relevant information.</li> </ul>	

	1
Stakeholder	Forestry: name most important organisations: LRF Skogsägarna
involvement	Forest-based industries: name most important organisations: Forest
	Industry Federation, Wood Products and Furniture Federation
	Agriculture: name most important organisations:
	Tourism: name most important organisations:
	Energy: name most important organisations: National Energy Agency, <u>StoraEnso, SCA, Holmen</u>
	Environment: name most important organisations:
	Other sector: <u>Transport</u> : name most important organisations: <u>SkogForsk, TMF, Sag I Syd</u>
	Other sector: <u>International trade</u> : name most important organisations: <u>National Board of Trade, TMF, Skogsindustrierna</u>
	<u>Comments:</u> The full document was a joint product between government and industry. Joint meetings and discussions in different working groups.
Coordination	Formal (central) coordination body; name: <u>Ministry of Enterprise</u> ,
mechanisms:	Energy and Infrastructure
	Formal coordination process
	Inter-sectoral working groups
	Inter-sectoral advisory body
	Formal mandatory consultation process
	Formal voluntary consultation process
	Informal consultations (please describe)
	Others: Organizations and persons were invited.
Policy Implementation	on
Responsible actors and their roles:	Shortly explain the role of the main actors in the implementation of the document
	Dependent on measure there are different actors who are responsible for the implementation. Ministries have the responsibility to initiate co- operation with the industry, to put forward Forest based related issues within the governmental body.
	Industry actors have the responsibility to market the policy and measures within the industry, to other actors in the innovation system, and to implement some measures.
Level of delegation	Decentralized, e.g.
	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

# **5** Innovation Policy – National Reform Programme

In September 2006 a general election took place in Sweden. The election results meant a change in government, with the Alliance for Sweden forming the government. For the policy area this meant a revision of the document by the former government sent to the European Union in June 2006. The document is thus the latest document in the policy area and presents the Government's revised Swedish Reform Programme for Growth and Jobs 2006 to 2008 within the framework of the European Strategy for growth and jobs, The Lisbon Strategy.

## 5.1 General information - based on Part A of document analysis

Name:	The Swedish Reform Programme for Growth and Jobs 2006-2008. Prop. 2006/07:23		
Adoption:	Parliament	Government	Ministry:
Please mark by whom	Others:		🗌 No formal approval
and at which level the document is adopted	Level:		_
	National	Regional	Local
	Adoption date:		
Validity period:	2006-2008		
Revision:		· · ·	d? Has it already taken place, when?
Monitoring/	Is the implementation of Is an evaluation foreseen		nitored? Has an evaluation taken place?
Evaluation:	Annual progress report		
	· · · · · · · · · · · · · · · · · · ·		
Related	Please list further speci	fications or amendments of tl	he document and documents that are
documents:			ment. This might include working
	document.	ic. These documents should i	be analysed together with the main
Geographical	🛛 National 🗌 Regio	onal; name:	Local, name:
scope:			
Budget:	Amount of budget in $\in$ (indicate whether per year or for whole document period); indicate the source for the budget, i.e. state, EU, regions, co-financed, etc.		
General description	on of contents as w	ritten in document	
Objective of the		objective of the document (as	s written down in preamble,
document	introduction part, vision or mission statements). The document presents the intended actions of Sweden in creating a long-term		
			ng a scope for increased welfare
	and how to meet futur	e challenges. All in accord	ance with the Lisbon Strategy.
Priorities	-	rity areas of the document.	
	To meet the objective to work and to run bus		priority is to make it "Worthwhile
			have to be in line to become
	A number of thematic areas are mentioned that have to be in line to become affective, which follows the structure of the Lisbon Agreement.		
	Macro Economic policy	Guidelines 1-6	
		<b>-</b>	
	Micro Economic Policy	Guidelines 7-16	
	Employment Policy Gui	idelines 17-24	
	<u>Employment rolley Od</u>		

 Table 11: Part A - General document information – Innovation Policy

Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.)
	Macro Economic policy Guidelines 1-6
	Sound public finances and stable prices.
	Surplus in general government net lending and reduced debt, Measures to fight
	fraud and overuse, and Work and growth
	A tax policy for employment and entrepreneurship
	Promoting the efficient allocation of resources
	Ensuring that wage developments contribute to macroeconomic stability and growth.
	Promoting greater coherence between macroeconomic, structural and employment policies
	Micro Economic Policy Guidelines 7-16
	Increasing and improving investment in research and development and facilitating all forms of innovation
	Facilitating the spread and effective use of information and communications technology
	Strengthening the competitive advantages of the industrial base
	Encouraging the sustainable use of resources and strengthening the synergies between environmental policy and growth
	Extending and deepening the internal market
	Ensuring open and competitive markets inside and outside Europe
	Creating a more competitive business environment and encouraging private initiatives through simplified regulation
	Promoting a more entrepreneurial culture and creating a supportive environment for SME: $\ensuremath{s}$
	Expanding and linking up the European infrastructure
	Employment Policy Guidelines 17-24
	Achieving full employment, improving quality and productivity at work and strengthening social and territorial cohesion
	Promoting a lifecycle approach to work
	Ensuring inclusive labour markets, enhancing work attractiveness and making work pay for jobseekers, including disadvantaged people and the inactive
	Improving matching of labour market needs
	Promoting flexibility combined with employment security and reducing labour market segmentation, with due regard to the role of the social partners Ensuring employment-friendly labour cost developments and wage-setting mechanisms
	Adapting education and training systems in response to new competence requirements through expanding and improving investment in human capital

r	
Measure Areas	Name measure areas as described by the documents and general types of measures the document
	introduces. Macro Economic policy Guidelines 1-6
	Work and growth
	A tax policy for employment and entrepreneurship
	- Lower income taxes, Tax reduction on household-related services, more attractive to employ
	young workers and company related tax reforms.
	Ensuring that wage developments contribute to macroeconomic stability and growth.
	- Presented in the Budget Bill for 2007 e.g. special job tax deduction, measures to make the
	labour market more efficient.
	Promoting greater coherence between macroeconomic, structural and employment policies. – Job tax deduction, work-first principle in unemployment insurance, and sickness insurance
	provides incentive to return. Reduce state ownership in companies. Improve infrastructure. Improve mobility of the work force.
	Micro Economic Policy Guidelines 7-16
	Increasing and improving investment in research and development and facilitating all forms of innovation.
	<ul> <li>Research funding for the coming years aiming at medicine, technology and sustainable development. Public-private partnerships within six important research areas Forestry is one.</li> <li>Importance of Industrial Research Institutes. Oversee and make Patent Law, Trade Mark Act and Convigits more offective and protective for SME.</li> </ul>
	Copyrights more effective and protective for SME: s. Facilitating the spread and effective use of information and communications technology.
	-Chair to oversee the usage of IT, Increased usage and education of IT in schools.
	Strengthening the competitive advantages of the industrial base.
	-Continued co-operations with private sectors in six main industries. Regional and Rural development strategies include measures.
	Encouraging the sustainable use of resources and strengthening the synergies between environmental policy and growth
	-Increase research and development, demonstration and commercialisation in the energy area resulted in allocation of 80 million Euros annually and an additional 100 million of climate related research. Funding and subsidies in the area of renewable energy extended and intensified. Promotion of energy efficiency, Promotion of biofuel usage in transportation, Increased funding for export of knowledge in renewable energy and sustainable urbanisation. Adoption of a new environmental quality objective for sustainable use of biodiversity.
	Extending and deepening the internal market
	Ensuring open and competitive markets inside and outside Europe
	Creating a more competitive business environment and encouraging private initiatives through simplified regulation
	-Action plan to reduce the administrative costs of central government. Simplifications of the Environment Code and Plan and Building Act.
	Promoting a more entrepreneurial culture and creating a supportive environment for SME: s -State guarantee for SME: s in the start-up phase is under consideration, Tax reform, Promotion of entrepreneurial initiative. Expanding and linking up the European infrastructure
	Employment Policy Guidelines 17-24 Achieving full employment, improving quality and productivity at work and strengthening social and territorial cohesion
	-Various measures administrative, financial and social related to the increase of people in work.
	Also related to Regional and Rural development Plan. Promoting a lifecycle approach to work
	-Tax deduction to employ long-term unemployed, Revision of sick-leave insurance, Unemployment insurance, etc.
	Ensuring inclusive labour markets, enhancing work attractiveness and making work pay for jobseekers, including disadvantaged people and the inactive
	-New start job subsidy, A job and employment guarantee for long-term unemployed, Employment training focusing on skills. Lower income taxes promoting people to work.
	Improving matching of labour market needs
	-Modernising and strengthening labour market institutions. Remove obstacles to move within EU Promoting flexibility combined with employment security and reducing labour market segmentation, with due regard to the role of the social partners
	-Monitoring and evaluation of various Acts, Laws and Codes affecting the labour market Ensuring employment-friendly labour cost developments and wage-setting mechanisms -Chair to oversee the labour market. Combating gender-based wage differences.
	Adapting education and training systems in response to new competence requirements through
	expanding and improving investment in human capital -Extra funding on the quality of basic higher education, Inspection of level of standards of schools more frequent, Adults lifelong learning promoted, Better co-operation between public schools and the business community.

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

## 5.2 Integration of innovation - based on Part B of document analysis

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 Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification,	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>never</li> <li>sometimes</li> <li>frequently</li> </ul>		
	competitiveness	Terms used: s Entrepreneurship, Competitiveness		
	Further comments on overall innovati Innovation related issues are found ir development, and only with similar w Entrepreneurship – Tax reformation,	on orientation of the document: . n relation to research and ords it is found within other areas e.g.		
Relevance of	No relevance at all			
innovation:	Marginal issue			
Please mark how much relevance is given to	One issue among others			
innovation in the document	Important issue			
(one answer)				
	Comments:	at importance. In providing in proceeds		
	business, people and national structu	at importance. Innovation in research, re will maintain Sweden's position		
		globally measured in standard of living.		
Degree of		in general parts, e.g. preamble, but		
<b>specification:</b> Please mark how general	<b>on:</b> <i>no related goals, measures, identified needs or similar are addressed</i> w general <i>document</i> )			
or specific innovation is addressed by the document (one answer)	$\boxtimes$ rather general (innovation is addressed in overall goals, needs are identified but no specification of measures)			
Please use comments section to describe if the	rather specific (innovation is addressed in concrete goals, measures are formulated)			
degree of specification varies for different parts of the document, esp. when concerning forestry	<ul> <li>very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)</li> <li>Comments: Please specify further in which context innovation is addressed (Is innovation a goal, underlying rationale, a strategy or means to reach other goals, unrelated, etc.?)</li> </ul>			
		erlying rationale. Mainly it is mentioned and Development.		
Understanding of				
innovation policy	Traditional S&T policy with system			
Please assess what overall understanding of				
understanding of innovation policy is				
reflected in the document.	Comments:			
See chapter 2.2.1	Please describe further the understanding			
	Innovation as a word and concept is p technological advances, research deve perspective view.			
Goals and objectives				
-	t objectives and goals (quantitative and qua	alitative) are formulated in relation to		

 Table 12: Part B - Overall Innovation Orientation – Innovation Policy

In relation to businesses and jobs: Important that Sweden is an innovative, entrepreneurial country with a clear strategy for competitiveness in a globalized world. Measures to improve competitiveness.

A well-developed innovation policy is needed, providing better conditions for investment and innovation. The growth potential of the entire country must be fully utilised so that people can start enterprises, which can create jobs and grow wherever they are.

To safeguard the high quality of Swedish research and to ensure that this research results in enterprises and jobs to a greater extent. It is vital for Sweden's growth and prosperity to maintain a high standard of education and research.

#### In relation to environment and energy:

Maintain and improve climate for research and business development to achieve technological advances and a better climate and environment.

#### In relation to research and development:

The aim of research and innovation policy is to make Sweden a leading knowledge and research nation characterised by scientific excellence and a high capacity for product renewal. Further funding of research and education will be announced.

Public research in the Swedish innovation system is undertaken mainly by the universities. Measures to promote greater use of research results by society are being implemented. In addition, as larger companies conduct private research, public funding has an objective to promote research at all levels.

#### Issues, problems and related topics:

Please describe shortly what main issues and problems are formulated in relation to innovation? Does the programme address other issues that are related to innovation, e.g. competitiveness of the sector, diversification etc.? Please describe shortly

The innovativeness and more so the competitiveness of Sweden is linked to research and education, which ultimately is affected by public funding and private research financing.

Apparently, there is a weakening ability to transfer research results to new and growing businesses from the research funded from the public.

No specific sector is highlighted more than that six sectors are prioritised among which forestry is one. The relation to innovation is still from a research and development perspective.

Support but also protection of innovation and creativity.

## Innovation areas:

Please name the most important innovation areas named by the document and compare with the results gathered in table 3.1.

The introduction of new, <u>environmentally</u> friendly <u>energy</u> alternatives is to be encouraged. A proactive policy combined with a good climate for business and research is conducive to development and innovation.

Continued co-financing with industry of excellent research and innovation environments with relevance to business have likewise been selected from such sectors as telecommunications and IT services, biotechnology and product development.

Partnerships between public and private in specific sectors.

Creation of university holdings improving and enhancing the technology transfer.

#### General comment:

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

Name further reference sources used

The content is very general and when specific it is more related to Laws, regulations, acts etc. However, perhaps because the document is a high-level policy document it should not be too specific and instead create a framework where other programs and strategies for specific sectors, authority levels geographical levels should be developed and implemented.

It is of interest to compare the Swedish document with other countries, since all should be based on the same guidelines. The research question should be how countries interpret the guidelines, and the hypothesis are that dependent on how well away a country is in terms of innovation policy the more specific can it be.

h		B - Innovation Support Measures – Innovation Policy
	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises.
	-	Public-Private partnership in strategic development programs including a fixed budget.
	Diffusion of innovation	List support measures proposed or implemented by the document that target the diffusion of known products, processes, marketing methods, and organisational methods. Specify for which products, processes, marketing methods, and organisational methods support is given. Refer to and compare with the list gathered under 3.1. Nothing specific to forestry more than the Strategic development
	Strengthening	List support measures proposed or implemented by the document that aim
Innovation support	the knowledge base	at strengthening the knowledge base for innovation. N/A
measures Consult classification in chapter	Strengthening interaction	List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors. Partnership between public and private sectors in funding Allocating resources to Industrial Research Institutes increasing cooperation with SME: s.
2.2.2	Demand creation	List support measures proposed or implemented by the document that aim at promoting the demand for innovation.
	Improving frame conditions	List initiatives/ policy actions proposed or implemented by the document that aim at improving the framework conditions for innovation. Tax reforms to increase entrepreneurship and the willingness to hire people, tax deductions of donations to research, eliminating the VAT on external funding for public institutions, state guarantees for SME: s in early phases.
	<b>Comments</b> The document is very general when it comes to pinpointing specific sectors or industries. When so, biotechnology, automotive, aerospace, telecommunication are mentioned along with forestry.	
Priorities		Please assess qualitatively which of the above mentioned category(ies) is a priority area for innovation support within the document. Please give short reasoning for your judgement Tax reforms. This has always been the key issue for the present governmental parties when discussing economic and social development. The taxes should be lowered increasing incentive to take a job instead of relying on social insurance system. A similar thinking is applicable when it comes to business and research and development – companies, institutions and organisations should have a bigger influence on their actions, and with a larger share of the turnover staying within the org. they have the possibility.
Assessment of overall relevance		Please assess qualitatively the overall relevance of innovation support measures compared to other support measures proposed or introduced by the document. Give short reasoning for your judgement. They are linked and except for the extra funding proposed there are no real direct measures aiming at innovation support. Indirectly there are a number but these measures also aim as increasing the number in work.
Promotion of innovation		Please assess qualitatively how much innovation is furthered by the document. This would include the assessment of the overall relevance of innovation within the document as well as the relevance of the document for the policy area. This is the national reform program also called the innovation policy, thus innovation is an important issue. Taking that into account, innovation is mainly used in relation to research and development and then from a funding perspective. Although, innovation is also linked to competitiveness and future prosperity of Sweden as a nation and then the linkage is to a skilled population, which then is based on education and research and development.
General comment:		List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

Table 13: Part B - Innovation Support Measures – Innovation Policy

other processes and documents       form Bud Reg Run Stra Bill         IT F       Res Gree Energy         Oblig       Inq Nat         Administrative Coordination:       Spe Agr         In r       Res Lab         Env       Ordination:	ease list other processes or documents with which the considered document is mally co-ordinated dget Bills gional development Program ral development program ategic development programs for Swedish industry (within Government on Research)
other processes and documents       form Bud Reg Run Stra Bill         IT F       Res Gree Energy         Obling       Gree Energy         Obling       Nat         Administrative Coordination:       Spe Agr         In r       Res Lab         Env       Ord         In r       Res Cordination:	nally co-ordinated dget Bills gional development Program ral development program ategic development programs for Swedish industry (within Government
documents       Bud Reg Rur Stra Bill         IT F         Bill         IT F         Res         Gre         Ener         Obl         Inq         Nat         Administrative Co- ordination:         Spe         Agr         In r         Res         Lab         Env         Cor	gional development Program ral development program ategic development programs for Swedish industry (within Government
Reg         Rur         Stra         Bill         IT F         Res         Gree         Ene         Obl         Inq         Nat         Administrative Co-         ordination:         Spe         Agr         In r         Res         Lab         Env         Cor	ral development program ategic development programs for Swedish industry (within Government
Administrative Co- ordination:	ategic development programs for Swedish industry (within Government
Bill IT F Res Gre Ene Obl Inq Nat Administrative Co- ordination:	
Res Gree Ene Obl Inq Nat Administrative Co- ordination:	
Gree Ene Obl Inq Nat Administrative Co- ordination:	Policy of Sweden
Administrative Co- ordination:	search and New Technology for Future energy systems
Obl         Inq         Nation:         Administrative Coordination:         Spectrum         Ord         In r         Res         Lab         Env         Corr	een Certificate
Administrative Co- ordination:	ergy efficiency Program
Administrative Co- ordination:	ligation to Supply Renewable Fuels
Administrative Co- ordination:	uiry on New Procurement Rules
ordination: spe Agr ord In r Res Lab Env	tional Policy of Climate Change
In r Res Lab Env <u>Cor</u>	between different sections/departments within the same ministry; ecify: IT/R&D, Primary Industries, Business Development. Forestry and riculture. Natural Resources and Unit for Sustainable Development between different ministries, specify: All Government Offices are co-
Res Lab Env <u>Cor</u>	linating and are involved in the policy between ministries and other public organizations / agencies, specify: relation to:
Lab Env <u>—</u> Cor	search funding
Env  Cor	pour market
	vironmental issues
Par dat hav	<u>mments:</u> Shortly explain the role of the main administrative actors e government office as one body creates and presents policies for the liament. Public agencies, organisations are involved in the drafting and ta gathering as well as implementation phase. External stakeholders we the possibility to react through the Parliament or at official hearings or to communication to Parliament.
Stakeholder 🗌	Forestry: name most important organisations:
involvement 🗌	Forest-based industries: name most important organisations:
	Agriculture: name most important organisations:
	Tourism: name most important organisations:
	Energy: name most important organisations:
	Environment: name most important organisations:
	Other sector:: name most important organisations:
	Other sector: see comments : name most important organisations:
doc invo of Swo Cor	mments: Shortly describe the type of stakeholder involvement The cument is mainly a Government Office product and stakeholder olvement is mainly related to social partners such as The Confederation Swedish Enterprise, The Swedish Trade Union Confederation, The redish Confederation for Professional Employees, The Swedish nfederation of Professional Associations and The Swedish Association of cal Authorities and Regions.
Coordination	

 Table 14: Part B - Cross-sectoral coordination – Innovation Policy

	Formal voluntary consultation process
	Informal consultations (please describe )
	Others:
Policy Implementation	n
Responsible actors	Shortly explain the role of the main actors in the implementation of the
and their roles:	document
	The Government office and its ministries is the main actor in the implementation. To its help are public agencies, organisations but also other stakeholders.
	Many of the measures are related to Laws, Acts and Codes, which are handled by the Government as well as the Parliament.
	Research funding on top of what is previously decided has to be cleared by the Regleringsbrev to agencies.
Level of delegation	Decentralized, e.g.
C C	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 – Rural Development Programme

The analysed document is the latest Rural Development Policy of Sweden. It describes the development of the agriculture, forest, fishery and other rural located industries in Sweden and presents measures to achieve economical, ecological and societal sustainable development in these areas. The measures aim at a sustainable production of provision, employment, consideration to regional conditions and sustainable development. Cultural and natural values should be protected and negative environmental effects minimised. The rural development policy is closely linked to the Environmental policy and the Swedish national environmental goals, as well as the regional development and the forest policies.

# 6.1 General information - based on Part A of document analysis

Name:	Revised proposal to Ru Landsbygdsprogram för		n for Sweden 2007-2013 (Reviderat förslag till
Adoption:	🗌 Parliament	🛛 Government	Ministry:
Please mark by whom	Others:		No formal approval
and at which level the	Level:		
document is adopted	🛛 National	Regional	Local
	Adoption date: 2006	5-11-09	
Validity period:	2007-2013		
Revision:		t revised document. The	planned? Has it already taken place, former and first document was sent to the EU
Monitoring/ Evaluation:	Is the implementation Is an evaluation forese		ally monitored? Has an evaluation taken place?
Related documents:	closely related, i.e. hav	e a direct reference to the	nts of the document and documents that are he document. This might include working hould be analysed together with the main
Geographical scope:	☐ National	gional; name: Rural re	gions of Sweden approx. % of the country
Budget:	the source for the budg	jet, i.e. state, EU, region	year or for whole document period); indicate is, co-financed, etc. 35 billion SEK in total ly 4 billion € in total or 0.55 billion € per year
General description	of contents as writ	ten in document	
Objective of the document	5	n objective of the docum n or mission statements)	nent (as written down in preamble, ).
	The principal goals of the development in the run foods, the creation of e growth. The inherent number of the negative effects of Sweden has a close link	ne rural policy are to cre al areas of the country. mployment, i.e. in relati atural and cultural value environmental pollution < to the environmental p	ate economical, ecological, and social This includes a sustainable production of on to local conditions and a sustainable s of the landscape are to be preserved and are to be minimized. The rural policy in olicy and the national standards for o strong to the regional development policy
Priorities		iority areas of the docun ing entreprenuership, gi	
		ing entreprendersnip, gi	
	2. Measures for using r cultural values	natural resources in susta	ainable manners, preserving natural and
	3. Support for enhancir	ng local participation and	l general engagement
	4. Coordination betwee	n policy areas	

 Table 15: Part A - General document information – Rural Development Policy

Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.)
	The document starts with analysis of needs for rural development in Sweden based on analysis of the state of the businesses of the rural context including forestry. Strengths and weaknesses are analysed and a development policy is formed. The major part of the document describes how the general goals of the policy should
	be obtained e.g. through:
	<ul> <li>Stimulate the competitiveness of companies within agriculture and forestry through development of competence and organisational learning</li> <li>Improved use of natural resources through enhancing the use of efficient methods, modern technology - including IT - and the development of new products</li> </ul>
	The development needs are summarized as to: - strengthening entrepreneurship in agriculture and other rural businesses - preserve the inherent natural and cultural values of the of the landscapes - reduce the negative environmental impact of agriculture - strengthening the general conditions for development in the rural areas
	The document thereafter goes on to describe a number of public support measures, new and old, which are supposed to lead to different specific goals/measures.
	It is noteworthy to recall that the document assesses the need for support for the forestry business to be limited to certain measures for increasing competence with regard to national environmental goals.
Measure Areas	Name measure areas as described by the documents and general types of measures the document introduces.
	Of particular interest for innovation and the forest sector is the sections and measures that concern:
	<ul> <li>Higher values of agriculture and forest products (Section 5.3.4)</li> <li>Support for cooperation for initiating new products, processes and techniques(Section 5.3.5)</li> </ul>
	The aim with the first measure is to increase the value added share of production by supporting investments in activities concerning:
	- Value added production of agricultural and forest products
	<ul> <li>Sales of value added agricultural and forest products</li> <li>Development of new products, processes and techniques</li> </ul>
	Aims of the second types of measures are to improve the competitiveness of the businesses, including forestry, through increased cooperation for development of new products (including services) or, alternatively, to restructure present business.
	<ul> <li>Examples of such co-operations are:</li> <li>Projects, which involve one or several producers together with specific value-added companies and/or research institutions and join these actors for the creation of new products.</li> <li>Projects, which create business networks for increasing the spreading of</li> </ul>
	information and knowledge. - Support for initiatives that aims for building networks for participation in international fairs etc.
	Funding support are activities external to the particular primary producer. At least two companies must be involved in a supported activity.
Follow-up / Implem	Lentation
Follow-up	X No follow-up activities so far
measures:	New or adapted funding programme(s) /budget line; name:
	<ul> <li>New or adapted informational campaigns/instruments; name:</li> <li>New or restructured institutions/organisations; name:</li> <li>Implementation in forest policy:</li> </ul>

General comment:	List research needs you identified, they might be taken up in phase II of COST E51
	Name further reference sources used The document point to that there is a necessity to cooperate for development/innovation. This is clearly in line with the general perception/fact/idea that the innovation level is not so high within the sector and that it nevertheless often is a result of customer cooperation. Much research remains to be done in this field.

	art D - Overall Innovation Orientation –	Kurai Developinent i oncy
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 Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 -	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>never</li> <li>sometimes</li> <li>frequently</li> </ul>
	in the document Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>Terms used:</li> </ul>
	Further comments on overall innovati	on orientation of the document:
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	<ul> <li>No relevance at all</li> <li>Marginal issue</li> <li>One issue among others</li> <li>Important issue</li> <li>Central issue</li> <li>Comments:</li> </ul>	
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	<ul> <li>very general (innovation is named no related goals, measures, identified document)</li> <li>rather general (innovation is addre identified but no specification of mease rather specific (innovation is addre formulated)</li> <li>very specific (quantified goals rela concrete measures introduced, a fixed Comments: Please specify further in wh innovation a goal, underlying rationale, a s unrelated, etc.?)</li> </ul>	I needs or similar are addressed by the essed in overall goals, needs are sures) essed in concrete goals, measures are ted to innovation are formulated, d budget and timetable exist) hich context innovation is addressed (Is
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	<ul> <li>Predominately traditional science a</li> <li>Traditional S&amp;T policy with system</li> <li>Systemic innovation policy with S&amp;</li> <li>Predominantly systemic innovation</li> <li>Comments: Please describe further the</li> </ul>	ic elements T policy elements n policy
Goals and objectives Please specify further what innovation? No specific goals are men	t objectives and goals (quantitative and qua	alitative) are formulated in relation to
programme address other is etc.? Please describe shortly	d related topics: at main issues and problems are formulated sues that are related to innovation, e.g. cor eem portray a specifically deep unders	npetitiveness of the sector, diversification
Innovation areas: Please name the most impo gathered in table 3.1.	ortant innovation areas named by the docur v is generally described as a branch that	
General comment:		

 Table 16: Part B - Overall Innovation Orientation – Rural Development Policy

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

Name further reference sources used

The document implies that cooperation between different actors in the value chains of forest related products creates innovative environments. This idea is clearly supported by current research in different fields of application. From a Swedish wood mechanical industry point of view it is, though, obviously a need for more research in this area: collaboration for innovation.

	Table 17: Part B - I	nnovation Support Measures – Rural Development Policy
	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises.
	Diffusion of innovation	List support measures proposed or implemented by the document that target the diffusion of known products, processes, marketing methods, and organisational methods. Specify for which products, processes, marketing methods, and organisational methods support is given. Refer to and compare with the list gathered under 3.1.
Innovation support measures	Strengthening the knowledge base	List support measures proposed or implemented by the document that aim at strengthening the knowledge base for innovation.
Consult classification	Strengthening interaction	List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors.
in chapter 2.2.2	Demand creation	List support measures proposed or implemented by the document that aim at promoting the demand for innovation.
	Improving frame conditions	List initiatives/ policy actions proposed or implemented by the document that aim at improving the framework conditions for innovation.
	Comments	
Priorities		Please assess qualitatively which of the above mentioned category(ies) is a priority area for innovation support within the document. Please give short reasoning for your judgement
Assessment relevance	of overall	Please assess qualitatively the overall relevance of innovation support measures compared to other support measures proposed or introduced by the document. Give short reasoning for your judgement.
Promotion o	f innovation	Please assess qualitatively how much innovation is furthered by the document. This would include the assessment of the overall relevance of innovation within the document as well as the relevance of the document for the policy area.
General com	ment:	List research needs you identified, they might be taken up in phase II of COST E51
		Name further reference sources used

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#### Table 18: Part B - Cross-sectoral coordination – Rural Development Policy

Policy formulation	
Co-ordination with other processes and documents	Please list other processes or documents with which the considered document is formally co-ordinated
Administrative Co- ordination:	<ul> <li>between different sections/departments within the same ministry; specify:</li> <li>between different ministries, specify:</li> <li>between ministries and other public organizations / agencies, specify:</li> <li><u>Comments:</u> Shortly explain the role of the main administrative actors</li> </ul>
Stakeholder involvement	<ul> <li>Forestry: name most important organisations:</li> <li>Forest-based industries: name most important organisations:</li> <li>Agriculture: name most important organisations:</li> <li>Tourism: name most important organisations:</li> </ul>

	Energy: name most important organisations:
	Environment: name most important organisations:
	Other sector:: name most important organisations:
	Other sector:: name most important organisations:
	Comments: Shortly describe the type of stakeholder involvement
Coordination	Formal (central) coordination body; name:
mechanisms:	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 Implementatio	n
Responsible actors and their roles:	Shortly explain the role of the main actors in the implementation of the document
Level of delegation	<ul> <li>Decentralized, e.g.</li> <li>Central, e.g. ministry, public agency</li> <li>Outsourced to private actors</li> <li>Local, e.g. by municipalities</li> <li>Regional, e.g. by regional public actors</li> <li>Others:</li> </ul>
General comment	List research needs you identified, they might be taken up in phase II of COST
	E51
	Name further reference sources used

# 6.3 Appraisal of effects – based on Part C of document analysis) by sub-group

Table 19: Part	C - Appraisal of Effects - General I	niormation
	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 furth	er reference sources used	

# Table 19: Part C - Appraisal of Effects - General Information

Support for	Research & development	Diffusion of innovation	Strengthening knowledge	Strengthening interaction	Demand Creation
Volume of			base		
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	Please state	Please state	Please state which	Please state which	Please
funding	which activities were most often	which innovation	activities were most often supported in this	activities were most often supported in this	state which activities
	supported in this category (see list in chapter 2.2.2)	areas were most often supported in this category (see list in chapter 2.2.2) and in what stage of	category (see list in chapter 2.2.2)	category (see list in chapter 2.2.2)	were most often supported in this category (see list in chapter 2.2.2)
General com	erall assessment on t		of innovation by the p	rogramme.	

Table 20: Part C - Appraisal of Effects: Funding for private sector innovation
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# 7 Regional Development Policy

The document is the Swedish national Regional Development policy for 2007-2013. The aim of the policy and the document is to create competitive regions and individuals in Sweden. The government has identified and prioritised four areas for regional competitiveness, entrepreneurship and employment: Innovation and regeneration, Competence enhancement and increased employment, Accessibility, and Strategic cross-border cooperation.

The national strategy establish the platform for Sweden's structural fund program as well as further developing the cooperation between the regional development policy, the labour market policy and the European co-operation policy in Sweden. It gives directions for regional growth programs, of which the second analysed document is an example of – The regional growth and development program for Kronoberg County.

#### Table 21: Part A - General document information – Regional Development Policy Nationell strategi för regional konkurrenskraft och sysselsättning 2007-2013 Name: Adoption: □ Parliament Government Ministry: Please mark by whom Others: No formal approval and at which level the Level: document is adopted Regional National Local Adoption date: 2006-06-29 Validity period: 2007-2013 for the national document; 2004-2007 for the regional **Revision**: Is (regular) revision/ update of the document planned? Has it already taken place, when? N/A; N/A Is the implementation of the document formally monitored? Has an evaluation taken place? Monitoring/ Is an evaluation foreseen? N/A; The regional document have been evaluated in the beginning **Evaluation:** of every year during the period Please list further specifications or amendments of the document and documents that are Related closely related, i.e. have a direct reference to the document. This might include working documents: programmes, annexes, etc. These documents should be analysed together with the main document. Regional; name: Geographical National Local, name: scope: Amount of budget in $\in$ (indicate whether per year or for whole document period); indicate Budget: the source for the budget, i.e. state, EU, regions, co-financed, etc. N/A General description of contents as written in document **Objective of the** Name shortly the main objective of the document (as written down in preamble, introduction part, vision or mission statements). document The aim of the national policy document is to strengthen the regional development by creating innovation and change, increased output of professional competence and labour-force in general. Particular emphasis should be laid on major urban areas of Sweden and on the development in the North. The aim of this particular document is, though, to serve as a guideline for the development of 8 particular regional plans/policies. i.e. it is a "policy for policies". The regional plan included in the analysis is stated as to contribute to sustainable growth of firms/businesses of the region and thereby create job opportunities for women as well as for men.

# 7.1 General information - based on Part A of document analysis

Duit a subtit a s	
Priorities	Name the thematic priority areas of the document.
	In the regional document analysed the thematic areas brought forward are:
	- Infrastructure - Forms for collaboration
	- Entrepreneurship and business climate
	<ul> <li>Innovation systems and clusters</li> </ul>
	<ul> <li>Tourism industry</li> <li>Work force sourcing</li> </ul>
	- Structural funding
Ctru loturo	
Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.)
	The national document states the importance of regional development and
	mentions/describes particularly innovation as a means to achieve this.
	The regional document has the basic themes as sketched above in the priorities section.
Measure Areas	Name measure areas as described by the documents and general types of measures the document introduces.
	The national policy considers structural funds on a principal level and how these funds can be thought while creating the particular regional policies.
	In the regional document several measure areas mentioned e.g.; - GDP
	- Wage/capita
	- Nr start up companies
	- Average income
	- Unemployment rate - Nr of local citizens
Follow-up / Impl	ementation
Follow-up	No follow-up activities so far
measures:	New or adapted funding programme(s) /budget line; name:
	New or adapted regulations/laws; name:
	New or adapted informational campaigns/instruments; name:
	Implementation in forest policy:
General	List research needs you identified, they might be taken up in phase II of COST E51
comment:	
comment.	Name further reference sources used For the national document it is not possible to asses.
	In the regional document it is explicitly stated that there is a need to perform more research to increase innovativeness within the wood products industry of the region. It is clearly one of the main objectives of the thematic area of wood based industry. To support this effort, the idea is to link producers into smaller networks/clusters and from these aggregations derive common/general ideas which academics can develop further and as developed concepts re-infer them into the context.
	Thus, there are indications that research is needed both when it comes to assess effectiveness of such particular efforts and when it comes to assessing the importance of trough policies guiding and supporting such implementations.

Table 22: Part B - Overall Innovation Orientation – Regional Development Policy			
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	<ul> <li>☐ never</li> <li>☐ sometimes</li> <li>☑ frequently</li> <li>Applies to the regional document assessed.</li> </ul>	
	Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>Applies to the regional document assessed.</li> </ul>	
	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>Terms used:</li> <li>Applies to the regional document assessed.</li> </ul>	
	Further comments on overall innovati	on orientation of the document:	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	<ul> <li>No relevance at all</li> <li>Marginal issue</li> <li>One issue among others</li> <li>Important issue</li> <li>Central issue</li> <li>Comments:</li> </ul>		
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	<ul> <li>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)</li> <li>rather general (innovation is addressed in overall goals, needs are identified but no specification of measures)</li> <li>rather specific (innovation is addressed in concrete goals, measures are formulated)</li> <li>very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)</li> <li>Comments: Please specify further in which context innovation is addressed (Is innovation a goal, underlying rationale, a strategy or means to reach other goals, unrelated, etc.?)</li> </ul>		
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1			
Goals and objectives: Please specify further what objectives and goals (quantitative and qualitative) are formulated in relation to innovation? N/A			
	at main issues and problems are formulated sues that are related to innovation, e.g. cor		
Innovation areas:			
gathered in table 3.1. N/A	ortant innovation areas named by the docur	ment and compare with the results	
General comment:			
List research needs you id	entified, they might be taken up in phase I	I of COST E51	

Name further reference sources used An interesting angle is to try to recognize to what degree the authors of the regional program actually have used the national document as basis as a "map". The question is valid also for the rest of the regional documents of Sweden.

	Table 23: Part B - In	novation Support Measures – Regional Development Policy
	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises. N/A
	Diffusion of innovation	List support measures proposed or implemented by the document that target the diffusion of known products, processes, marketing methods, and organisational methods. Specify for which products, processes, marketing methods, and organisational methods support is given. Refer to and compare with the list gathered under 3.1. N/A
Innovation support measures Consult	Strengthening the knowledge base	List support measures proposed or implemented by the document that aim at strengthening the knowledge base for innovation. N/A
<i>Consult</i> classification in chapter 2.2.2	Strengthening interaction	List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors. Measures are not mentioned. There is though a very strong assumption in the regional document that this is a prerequisite for good innovation climate.
	Demand creation	List support measures proposed or implemented by the document that aim at promoting the demand for innovation. N/A
	Improving frame conditions	List initiatives/ policy actions proposed or implemented by the document that aim at improving the framework conditions for innovation. As mentioned in the section above the creation of networks is an explicit aim of the regional document.
	Comments	
Priorities		Please assess qualitatively which of the above mentioned category(ies) is a priority area for innovation support within the document. Please give short reasoning for your judgement The assumption with regard to the positive effects of collaboration is utterly clear from and assumed by the document.
Assessment of overall relevance		Please assess qualitatively the overall relevance of innovation support measures compared to other support measures proposed or introduced by the document. Give short reasoning for your judgement. N/A
Promotion of innovation		Please assess qualitatively how much innovation is furthered by the document. This would include the assessment of the overall relevance of innovation within the document as well as the relevance of the document for the policy area. N/A
General comment:		List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used See the general comment made in the section above.

## Table 23: Part B - Innovation Support Measures – Regional Development Policy

### Table 24: Part B - Cross-sectoral coordination – Regional Development Policy

14010 211 14	it D - Cross-sector at coordination – Regional Development Foncy	
Policy formulation		
Co-ordination with other processes and	Please list other processes or documents with which the considered document is formally co-ordinated	
documents	The regional document is connected with the national policy of the previous period produced by the Swedish government of 2002.	
Administrative Co- ordination:	<ul> <li>between different sections/departments within the same ministry; specify:</li> <li>between different ministries, specify:</li> <li>between ministries and other public organizations / agencies, specify:</li> <li>Comments: Shortly explain the role of the main administrative actors</li> </ul>	

Stakeholder	Forestry: name most important organisations:
involvement	Forest-based industries: name most important organisations:
	Agriculture: name most important organisations:
	Tourism: name most important organisations:
	Energy: name most important organisations:
	Environment: name most important organisations:
	Other sector:: name most important organisations:
	Other sector:: name most important organisations:
	Comments: Shortly describe the type of stakeholder involvement
Coordination	Formal (central) coordination body; name:
mechanisms:	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	n
Responsible actors and their roles:	Shortly explain the role of the main actors in the implementation of the document
Level of delegation	<ul> <li>Decentralized, e.g.</li> <li>Central, e.g. ministry, public agency</li> <li>Outsourced to private actors</li> <li>Local, e.g. by municipalities</li> <li>Regional, e.g. by regional public actors</li> <li>Others:</li> </ul>
General comment	List research needs you identified, they might be taken up in phase II of COST E51
	Name further reference sources used
	See comments above.

# 8 Sustainable Development Policy

The sustainable development strategy covers all three dimensions of sustainable development: economic, social and environmental. It also deals with the international sustainable development effort, including UN initiatives and the EU's strategy in the area. The strategy covers four sector-based "strategic challenges": Building sustainable communities, Encouraging good health on equal terms, Meeting the demographic challenge Encouraging sustainable growth. The development is monitored through 12 headline indicators. Ministry of the Environment is responsible for the strategy. The Government has set up an advisory Commission on Sustainable Development to strengthen cooperation and deepen the analysis of issues related to sustainable development.

### 8.1 General information - based on Part A of document analysis

Name:	Strategic challenges – A further elaboration of the Swedish Strategy for Sustainable development	
Adoption:	Parliament Government Ministry:	
Please mark by whom	Others: No formal approval	
and at which level the	Level:	
document is adopted	🛛 National 🔹 🗌 Regional 🔹 Local	
	Adoption date: 2006-03-16	
Validity period:	Varies, the strategy reflect a number of sector policies and bills.	
Revision:	Sweden's first National Strategy for Sustainable Development (Govt. Comm. 2001/02:172, Rpt. 2001/02:MJU16, Riksdag Comm. 2001/02:315) was submitted to the Parliament in 2002. A Swedish Strategy for Sustainable Development (Govt. Comm. 2003/04:129, Rpt. 2004/05:MJU3, Riksdag Comm. 2004/05:41) in 2004 was the first revision. Since presenting the most recently revised strategy, the Government has submitted several bills and communications to the Parliament concerning fundamental aspects of sustainable development. Revisions and follow-ups to the strategy will be submitted on a regular basis. The follow-ups will include the 99	
	measures presented in the strategy. The Government plans to revise the strategy in 2010. The intention is to continuously revise the policy but with a major revision from the Government in 2010	
Monitoring/ Evaluation:	The measures announced as part of the Government's strategy for sustainable development will be regularly monitored and reported. For instance, the Government plans to conduct a follow-up halfway through the initiative. The Council for Sustainable Development will publicise an annual report that includes proposed measures for the promotion of opportunities and the removal of obstacles to national and regional implementation of the strategy. In preparation for the revision of the strategy 2010, the Government intends to perform an overall assessment of the results of the effort. The next revision will strive for open dialogue with various parts of the community. The effort will include the formation of informal focus groups of young people, agencies, private organisations, colleges, universities, etc., for the purpose of consultation and discussion. The Government plans to submit the present strategy for external review. The revision of the EU Strategy for Sustainable Development currently under way is considering a peer review system to assess the national strategies of the various Member States.	
Related documents:	Please list further specifications or amendments of the document and documents that are closely related, i.e. have a direct reference to the document. This might include working programmes, annexes, etc. These documents should be analysed together with the main document. N/A	
Geographical scope:	🛛 National 🗌 Regional; name: 🗌 Local, name:	
Budget:	Amount of budget in $\in$ (indicate whether per year or for whole document period); indicate the source for the budget, i.e. state, EU, regions, co-financed, etc.	
	Regulated in the annual budget from the Government	

#### Table 25: Part A - General document information – Sustainable Development Policy

General description of contents as written in document			
Objective of the			
document	Name shortly the main objective of the document (as written down in preamble, introduction part, vision or mission statements).		
	Sustainable development is an overall objective of Government policy. The strategy covers all three dimensions of sustainable development: economic, social and environmental. The strategy proceeds from a long-term vision of sustainable development. The communication also deals with the international sustainable development effort, including UN initiatives and the EU: s strategy in the area. The communication presents a set of indicators, including 12 headline indicators, for sustainable development. Furthermore, the Government emphasises four strategic challenges to be prioritised during the next term of office. Opportunities and threats are highlighted, while objectives and measures are described. The challenges are: – Building sustainable communities – Encouraging good health on equal terms – Meeting the demographic challenge – Encouraging sustainable growth - Environmental policy.		
	The basic assumption is that members of one generation should not conduct their lives in a way that prevents their children or future generations from enjoying a decent standard of living. Sustainable development is an approach that must actively inform and shape all policy areas. Sustainable development requires the formulation of all policy decisions to strike a proper balance among their long-term social, economic and environmental consequences.		
	Sustainable development demands a clear perspective on resource utilisation. Sustainable development is dependent on our ability to use, create and invest in the resources on which the economy relies. Among them are natural resources, the buildings and infrastructures constructed by human beings and – last but not least – each and every woman, man, girl and boy, along with their health, expertise and creativity. Sustainable development begins with a holistic approach to society's needs and problems, both nationally and globally. Mutually reinforcing economic, social and environmental activities must be designed. Such an approach rests on the insight that a well functioning economy is the basis of social justice and environmental protection. However, the reverse is also true – that what is good for human beings and the environment ultimately favours the economy as well.		
	Sustainable development proceeds from joint responsibility and calls for a society characterised by democratic values, respect for human rights and gender equality. All citizens must enjoy equal rights and opportunities regardless of class, age, gender, sexual orientation, disability ethnicity, cultural background, religious belief or other personal creed. All people and social strata must have the possibilities to become involved and participate. For that to happen, the Government, public agencies, employers, unions and voluntary organisations must cooperate and interact. Collaborative initiatives are needed at the regional, national, EU and global levels. A sustainable development policy can serve as a key catalyst of renewal, growth and employment in Sweden as well. Just as social reforms constantly spur economic progress, adaptation to environmental demands will require new solutions, new ways of supplying energy, and cutting-edge, environmentally sound		
	technologies and innovations that will create jobs and stimulate development.		
Priorities	Name the thematic priority areas of the document. Indicators, for sustainable development: Health, Sustainable consumption and production patterns, Economic development, Social cohesion, Environment and climate, Global development, Four strategic challenges to be prioritised during the next term of office: - Building sustainable communities		
	<ul> <li>Encouraging good health on equal terms,</li> <li>Meeting the demographic challenge,</li> <li>Encouraging sustainable growth</li> </ul>		

Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.)		
	The document strategy document presents the government's view on sustainable development beginning with a global description of problems, progress and challenges ahead. It continues to describe the situation in the EU and in Sweden presenting twelve sustainable development indicators.		
	Further, it presents strategic challenges for the policy and tools and means for the implementation, leadership, coordination, policy tools and monitoring.		
Measure Areas	Name measure areas as described by the documents and general types of measures the document introduces.		
	Conferences and similar actions across the country with local actors to get a broad involvement;		
	Specifying responsibilities in its steering documents for the various Agencies; Involve civil society;		
	Environmental impact assessments;		
	Climate Investment Programmes;		
	Revise economic instruments;		
	Taxes;		
	Environmental public procurements;		
	Present indicators for sustainable development;		
	Education (curricula, and amendments in College act);		
	Monitoring, revisions and external review.		
Follow-up / Implemen	ntation		
Follow-up measures:	<ul> <li>No follow-up activities so far</li> <li>New or adapted funding programme(s) /budget line; name:</li> <li>New or adapted regulations/laws; name:</li> <li>New or adapted informational campaigns/instruments; name:</li> <li>New or restructured institutions/organisations; name:</li> <li>Implementation in forest policy:</li> </ul>		
General comment:	Probably there is need for a conceptual work on the interconnections between innovation and sustainability. This could provide a framework for assessing innovations in terms of performance according to a set of sustainability criteria.		

Table 26: Part B - C	Overall Innovation	Orientation -	Sustainable D	Development Polic	v

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 Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	<ul> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>never</li> <li>sometimes</li> <li>frequently</li> <li>Terms used: entrepreneurship</li> </ul>	
	Further comments on overall innovati		
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	<ul> <li>No relevance at all</li> <li>Marginal issue</li> <li>One issue among others</li> <li>Important issue</li> <li>Central issue</li> <li>Comments:</li> </ul>		
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	<ul> <li>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)</li> <li>rather general (innovation is addressed in overall goals, needs are identified but no specification of measures)</li> <li>rather specific (innovation is addressed in concrete goals, measures are formulated)</li> <li>very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)</li> <li>Comments: Important aspects are discussed in specific chapters. It is seen as an important means to reach the goals, e.g. lean production and energy technology. Innovation is one item under the economic sustainable development indicators. Innovation policy is referred to Public procurement as a catalyst of innovation</li> </ul>		
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	Predominantly systemic innovation policy     Comments:		

#### Goals and objectives:

Please specify further what objectives and goals (quantitative and qualitative) are formulated in relation to innovation?

Percentage of small, medium-sized and big businesses with innovation systems.

#### Issues, problems and related topics:

Please describe shortly what main issues and problems are formulated in relation to innovation? Does the programme address other issues that are related to innovation, e.g. competitiveness of the sector, diversification etc.? Please describe shortly

Solutions that meet sustainable development problems have market potential.

Energy and resource saving innovative technologies can be exported.

Biofuel and recycling technologies are mentioned in the document as such examples. Here, national environmental restrictions may in fact help the industry to become competitive internationally.

#### Innovation areas:

Please name the most important innovation areas named by the document and compare with the results

#### gathered in table 3.1.

Environmentally sound technologies, bioenergy, recycling, forest products with higher knowledge content.

#### General comment:

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

Name further reference sources used

Table 27. Part B	. Innovation	Support Measure	s – Sustainable Deve	Ionment Policy
Table 27. Tart D	- mnovation	Bupport measures	5 – Sustamable Deve	<i>iopment</i> i oney

-	able 27. I alt D - Illin	ovation Support Measures – Sustainable Development Foncy
	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises.
		The Government's last two research policy bills, Research and Renewal (Govt. Bill 2000/01:3, Rpt. 2000/01:UbU6) and Research for a Better Life (Govt. Bill 2004/05:80, Rpt. 2004/05:UbU15, Riksdag Comm. 2004/05:289) prioritise sustainable development.
		A total of SEK 210 million has been appropriated for 2005–08
	Diffusion of innovation	List support measures proposed or implemented by the document that target the diffusion of known products, processes, marketing methods, and organisational methods. Specify for which products, processes, marketing methods, and organisational methods support is given. Refer to and compare with the list gathered under 3.1. Not found
Innovation support	Strengthening the knowledge base	List support measures proposed or implemented by the document that aim at strengthening the knowledge base for innovation. A 1 February 2006 amendment to the College Act (Swedish Code of Statutes 1992:1434) mandates promotion of sustainable development in University education.
classification in chapter 2.2.2	Strengthening interaction	List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors. The Government's appropriations document for 2006 charged the county administration boards with the task of strengthening the inter-sectoral effort and coordination among various policy areas in order to ensure efficient solutions and promote regional trends based on the Government's strategy for sustainable development.
	Demand creation	List support measures proposed or implemented by the document that aim at promoting the demand for innovation. Public procurement directives, tax instruments, including sustainable development in education. Public procurement
	Improving frame conditions	List initiatives/ policy actions proposed or implemented by the document that aim at improving the framework conditions for innovation. Entrepreneurship that focuses on sustainable development will be promoted by means of information, access to necessary seed financing and greater involvement among the providers of private venture capital when it comes to launching sustainable goods and services. The Swedish Agency for Economic and Regional Growth (Nutek), ALMI Företagspartner AB and Innovationsbron AB all have a role to play in that effort.
	Comments	
Priorities		Please assess qualitatively which of the above mentioned category(ies) is a priority area for innovation support within the document. Please give short reasoning for your judgement Innovation is seen as a mechanism to fulfil the goals in the policy. The focus is on energy technology, sustainability-friendly technologies with much 'knowledge'. The innovations can later on lead to export opportunities.
Assessment of overall relevance		Please assess qualitatively the overall relevance of innovation support measures compared to other support measures proposed or introduced by the document. Give short reasoning for your judgement. Innovation support is low; it is expected to happen anyhow. Measures include coordination, information and monitoring.

Promotion of innovation	Please assess qualitatively how much innovation is furthered by the document. This would include the assessment of the overall relevance of innovation within the document as well as the relevance of the document for the policy area. Low reference. The document aims to raise the importance of the subject, but it does not allocate much efforts or resources for instance to research. It is expected to happen as a response to a higher status of the subject and public procurement.
General comment:	Research needs: Case studies of European targeted innovation support measures for sustainable development. I suggest we make a case for this approach, which I find appealing and more and more interesting for policymakers.

### Table 28: Part B - Cross-sectoral coordination – Sustainable Development Policy

	t B - Cross-sectoral coordination – Sustainable Development Policy
Policy formulation: Stra Sustainable development	tegic challenges – A further elaboration of the Swedish Strategy for nt
Co-ordination with other processes and documents	Please list other processes or documents with which the considered document is formally co-ordinated Development in Metropolitan Regions, Welfare policies, Research, Environmental policy, University policy, IT Policy, Rural Development, National Action Plan for Human Rights
Administrative Co- ordination:	<ul> <li>between different sections/departments within the same ministry; specify: N/A</li> <li>between different ministries, specify: Education, Ministry of Enterprise, Energy and Communications, Foreign Affairs</li> <li>between ministries and other public organizations / agencies, specify:</li> <li><u>Comments:</u> Shortly explain the role of the main administrative actors</li> <li>The policy is an umbrella policy, which is implemented by specific ministries</li> </ul>
Stakeholder involvement	<ul> <li>Forestry: name most important organisations:</li> <li>Forest-based industries: name most important organisations:</li> <li>Agriculture: name most important organisations:</li> <li>Tourism: name most important organisations:</li> <li>Energy: name most important organisations:</li> <li>Environment: name most important organisations:</li> <li>Other sector:: name most important organisations:</li> <li>Other sector:: name most important organisations:</li> <li>Other sector:: name most important organisations:</li> <li>N/A. However, the participation of the main organizations is implicit.</li> </ul>
Coordination mechanisms:	<ul> <li>Formal (central) coordination body; name: Ministry of sustainable dev</li> <li>Formal coordination process</li> <li>Inter-sectoral working groups</li> <li>Inter-sectoral advisory body</li> <li>Formal mandatory consultation process</li> <li>Formal voluntary consultation process</li> <li>Informal consultations (please describe)</li> <li>Others:</li> </ul>
Policy Implementation	n
Responsible actors and their roles:	Shortly explain the role of the main actors in the implementation of the document
Level of delegation	<ul> <li>Decentralized, e.g.</li> <li>Central, e.g. ministry, public agency</li> <li>Outsourced to private actors</li> <li>Local, e.g. by municipalities</li> <li>Regional, e.g. by regional public actors</li> </ul>

	Others: _On several levels		
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

Swedish energy policy strives to create a sustainable energy system with a long term vision for Sweden to obtain all energy supply from renewable energy sources. Electricity production in Sweden is basically fossil-free. Approximately half of the electricity production comes from hydropower and the remainder is provided by nuclear power. The share of renewable energy sources in the Swedish energy system has increased rapidly during the past decade, from 22 % of the total energy supply in 1994 to 28 % today. Biomass accounts for the greater part of the increase. It is used in the forest industry, in district heating and for residential heating. More than 62 % of district heating fuel today is biomass. Strong tax incentives have contributed to this development. Green Certificates for Promoting Renewable Electricity were introduced in 2003. The bio fuels used in the Swedish energy system consist mainly of wood fuels, black liquors and tall oil pitches, and ethanol. The two main bodies responsible for implementing energy policy measures are the Swedish Energy Agency and Affärsverket svenska kraftnät.

Table 29: Part A - General document information – Renewable Energy Policy				
Name:	In English			
	National climate policy	y in global cooperation		
Adoption: Please mark by whom	Parliament Others:	Government	Ministry:     Mo formal approval	
and at which level the document is adopted	Level: National Adoption date:	Regional	Local	
Validity period:	2006-2008/2012			
Revision:	Is (regular) revision/ update of the document planned? Has it already taken place, when? Not specifically, revisions are conducted on a regular basis of the tax system, energy certificates, energy quality goals etc. It is said that the climate policy is continuously evaluated. The climate policy covers policies in a wide range of sectors.			
Monitoring/ Evaluation:	Is the implementation of the document formally monitored? Has an evaluation taken place? Is an evaluation foreseen? See comment above. An independent revision of the vulnerability of the Swedish society's vulnerability to climate change will be presented in 2007.			
Related documents:	Please list further specifications or amendments of the document and documents that are closely related, i.e. have a direct reference to the document. This might include working programmes, annexes, etc. These documents should be analysed together with the main document. Reflects a lot of policy fields: tax, environment, transport, investment, energy sector, etc.			
Geographical scope:	National Reg	ional; name:	⊠ Local, name: Support and local	
Budget:	the source for the buc The policy does not	dget, i.e. state, EU, regions	t. But, for instance, the energy research	
General description of	f contents as written	in document		
Objective of the document	introduction part, visit Sweden is to maint emissions and, in g	on or mission statements). ain its leading role in clii	nt (as written down in preamble, mate work by reducing national towards a long-term sustainable change	
Priorities	The goals of the Sw		ent. e international climate issue/change; neral policies; The way ahead	

### 9.1 General information - based on Part A of document analysis

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Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.) Background to the Swedish Climate Policy National climate policy and international cooperation Strategic measures State of the art knowledge about the climate situation Emission of greenhouse gases including forecasts, nationally and internationally International co-operation on climate issues Goals for the Swedish Climate Policy Efforts to reduce greenhouse gas emissions in Sweden. Components of the national climate work with regard to tools, general cross- sectional activities and sector-specific policies. Adaptation to climate change
	Consequences
Measure Areas	Name measure areas as described by the documents and general types of measures the document introduces. Support to environmental and climate investments in the country's municipalities, e.g. LIP (Local Investment Programme) and Klimp (Climate Investment Program) legislation, information activities, education, public procurement and environmental control systems. The policies target housing, service, transport and energy sectors.
Follow-up / Implemer	ntation
Follow-up measures:	<ul> <li>No follow-up activities so far</li> <li>New or adapted funding programme(s) /budget line; name:</li> <li>New or adapted regulations/laws; name:</li> <li>New or adapted informational campaigns/instruments; name:</li> <li>New or restructured institutions/organisations; name:</li> <li>Implementation in forest policy:</li> <li>The policy is followed up on a continuous basis</li> </ul>
General	List research needs you identified, they might be taken up in phase II of COST E51
comment:	Name further reference sources used

Table 30: P	art B - Overall Innovation Orientation –	Renewable Energy Policy	
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 Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document	<ul> <li>☐ never</li> <li>➢ sometimes</li> <li>☐ frequently</li> <li>☑ never</li> <li>☐ sometimes</li> <li>☐ frequently</li> </ul>	
	Please mark the frequency of occurrence of the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification, competitiveness	<ul> <li>☑ never</li> <li>☐ sometimes</li> <li>☐ frequently</li> <li>Terms used:</li> </ul>	
	Further comments on overall innovati	on orientation of the document:	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	<ul> <li>No relevance at all</li> <li>Marginal issue</li> <li>One issue among others</li> <li>Important issue</li> <li>Central issue</li> <li>Comments:</li> </ul>		
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	<ul> <li>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)</li> <li>rather general (innovation is addressed in overall goals, needs are identified but no specification of measures)</li> <li>rather specific (innovation is addressed in concrete goals, measures are formulated)</li> <li>very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist)</li> <li>Comments: Please specify further in which context innovation is addressed (Is innovation a goal, underlying rationale, a strategy or means to reach other goals, unrelated, etc.?)</li> <li>It is mentioned as a means to reach the climate goals and to improve competitiveness, and to create new jobs in a growing sector.</li> </ul>		
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ Traditional S&T policy with systemic ele ☐ Systemic innovation policy with S&T po ☐ Predominantly systemic innovation policy Comments: Please describe further the un	ements licy elements cy	
Goals and objectives			
Please specify further what objectives and goals (quantitative and qualitative) are formulated in relation to innovation? Innovation promotes economic growth; it creates new jobs, decreases the environmental impact. The document also says that innovation is not only technology, but also social and human sciences are needed, e.g. for designing better policy tools.			
Issues, problems and related topics:			
Please describe shortly what main issues and problems are formulated in relation to innovation? Does the programme address other issues that are related to innovation, e.g. competitiveness of the sector, diversification etc.? Please describe shortly N/A. Not much is said here, especially not with regard to forest sector.			
Innovation areas:			
Please name the most important innovation areas named by the document and compare with the results gathered in table 3.1.			
Energy research (production, reduction, renewable energy, technology), recycling, policy research			
General comment:	List research needs you identified, they mig	ght be taken up in phase II of COST E51	

 Table 30: Part B - Overall Innovation Orientation – Renewable Energy Policy

Name further reference sources used Research needs: technological research is mentioned but also social science and cross-disciplinary research about peoples behaviour and about the implementation of policies is warranted

Table 31: Part B - Innovation Support Measures – Renewable Energy Policy

Table 31: Part B - Innovation Support Measures – Renewable Energy Policy			
	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises.	
		No specific support to enterprises, but some of the research for sustainable development can include energy research in collaboration between universities and companies.	
	Diffusion of	List support measures proposed or implemented by the document that	
	innovation	target the diffusion of known products, processes, marketing methods, and organisational methods. Specify for which products, processes, marketing methods, and organisational methods support is given. Refer to and compare with the list gathered under 3.1. Demand side measures like investment grants for energy efficient technology, (green) taxes and public procurement	
Innovation	Strengthening	List support measures proposed or implemented by the document that aim	
support	the knowledge	at strengthening the knowledge base for innovation.	
measures Consult	base	Information campaigns to specific groups are mentioned. They can be more intense when followed by investment support measures.	
classification	Strengthening	List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors.	
in chapter	interaction	Support for local climate efforts is based on local coordination	
2.2.2		between authorities and business community. Coordination is also often discussed, however primarily between public sector authorities and bodies.	
	Demand	List support measures proposed or implemented by the document that aim	
	creation	at promoting the demand for innovation. The emphasis is on demand creation through taxes, green certificates, information, public purchasing	
	Improving	List initiatives/ policy actions proposed or implemented by the document	
	frame	that aim at improving the framework conditions for innovation.	
	conditions	N/A	
	Comments		
Priorities		Please assess qualitatively which of the above mentioned category(ies) is a priority area for innovation support within the document. Please give short reasoning for your judgement Much hope is on new technologies.	
		Change through shifts in the demand	
		The ideology seem to be that this will spur innovation	
		Specific technologies are not mentioned	
Assessment of overall relevance		Please assess qualitatively the overall relevance of innovation support measures compared to other support measures proposed or introduced by the document. Give short reasoning for your judgement. Innovation is an underlying assumption for the policy. Implicitly, also	
		the concept of the innovation system seems to influence the authors. However, the mechanisms and conditions for innovation are not thoroughly discussed.	
Promotion of innovation		Please assess qualitatively how much innovation is furthered by the document. This would include the assessment of the overall relevance of innovation within the document as well as the relevance of the document for	
		the policy area. As mentioned earlier, innovation is not discussed in depth. However, the document reflects sector policies that determine the framing conditions and the general direction for innovation, environmentally friendly technologies, low-impact production,	
		energy-intelligent technology etc.	
General comment:		List research needs you identified, they might be taken up in phase II of COST E51	
		Name further reference sources used	

Table 32: I	Part B - Cross-sectoral coordination – Renewable Energy Policy
Policy formulation: Na	ational climate policy in global cooperation
Co-ordination with other processes and documents	Please list other processes or documents with which the considered document is formally co-ordinated European Climate Change Programme, ECCP; EU:s energy tax directive (Directive 2003/96) Climate bill of 2002 (prop. 2001/02:55, bet. 2001/02:MJU10, rskr. 2001/02:163), Strategy for green taxes, Policies towards tradable emission permits, Transport sector policies, Policies for alternative energy sources and for energy efficiency, Environmental policies, Housing policy,
Administrative Co- ordination:	<ul> <li>between different sections/departments within the same ministry;</li> <li>specify: Ministry of the Environment</li> <li>between different ministries, specify: A multi-ministry programme</li> <li>between ministries and other public organizations / agencies, specify:</li> </ul>
Stakeholder involvement	Comments:       Shortly explain the role of the main administrative actors         Forestry: name most important organisations:
Coordination mechanisms:	<ul> <li>Formal (central) coordination body; name:</li> <li>Formal coordination process</li> <li>Inter-sectoral working groups</li> <li>Inter-sectoral advisory body</li> <li>Formal mandatory consultation process</li> <li>Formal voluntary consultation process</li> <li>Informal consultations (please describe)</li> <li>Others:</li> </ul>
Policy Implementatio	n
Responsible actors and their roles:	Shortly explain the role of the main actors in the implementation of the document N/A. However, the participation of the main organizations is implicit
Level of delegation	<ul> <li>Decentralized, e.g.</li> <li>Central, e.g. ministry, public agency</li> <li>Outsourced to private actors</li> <li>Local, e.g. by municipalities</li> <li>Regional, e.g. by regional public actors</li> <li>Others:</li> </ul>
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 and Research Needs**

The Cost E51 aims at developing knowledge that enables the integration of innovation and development policies for a more effective and sustainable development of the forest sector. In the <u>first phase</u>, running from <u>October 2006 - September 2007</u>, the participants studied the integration of innovation in different policy areas and their effects on innovation in the forest sector. Seven different policy areas were to be included (figure 1). Sweden chose national document as far as possible for consistency reason and that those

Sweden chose national document as far as possible for consistency reason and that those were often the latest published.

### **10.1 Comparative analysis**

The forest sector relevance in general and specific actions in particular differs between the documents for the policy areas. The following table shortly presents the documents and some key findings.

Policy area Forest policy	Chosen document(s)	Forest and Forest industry relevance	y of analysed polici Specific forest industry branches Only forestry	View on innovation Science and	Number (? Share) of innovation measures aimed at Forest Industry Few
Forest policy	Act and Communication to the Parliament	High	and forest practices	technology (S&T) policy	rew
Forest based industry Policy	Forest Industry – Part of Innovative Sweden	High	Primary and secondary production industries	Systemic view with S&T elements	Many
Innovation Policy	Swedish Reform Programme for Growth and Jobs	Low	Forestry and forest industry in general	S&T policy with systemic elements	Few
Rural Development Policy	Swedish general policy for rural development	Low	Forestry and SME forest enterprises	Innovation an effect of industrial collaboration and marketing	Few
Regional Development Policy	Swedish general policy for regional policymaking The regional development plan for Kronoberg county	Low and High respectively	Corporations and SME forest industries	Innovation an effect of industrial collaboration and marketing	Non
Sustainable Development Policy	Sweden's first National Strategy for Sustainable Development	Low	Forestry and forest industry in general	Innovation is treated in general terms, e.g. lean production and energy technology	Few
Renewable Energy Policy	Sweden's climate policy	High	All that produce biomass energy as a by-product or consume high quantities of energy	General but unspecified expectations on innovations, e.g. for energy conservation, and efficiency and new technology	Few

#### Table 33: Summary of analysed policies

The general policy process of Sweden and how the parliamentary system operates have a clear significance when conducting a comparative analysis of the included policies. Although all policies are on a national level there is a hierarchical structure on how specific each policy is. Even if the Swedish forest industry is important for the Swedish economy, it is still only holds a small share of total GDP (3%). This is obvious in e.g. the Reform programme, which have a low relevance on and includes few specific measures for the industry, whereas the Forest policy is on the opposite side i.e. basically only for the forestry. Based on this it is possible to cluster the included documents in those with high relevance for the forest sector (Forest policy, Forest based Industry policy and Renewable Energy policy) and the one's with low relevance (Reform Programme, Rural and Regional Development Programme, Sustainable Development Programme). A reason for this can be found both in the fact that they do not exclusively deal with forestry and forest industry i.e. the general parliamentary process of Sweden, but also that these documents are on a national level and have to include all aspects of the society.

The same results are found when looking at how the individual policies view the forest sector. The more forest specific policies split the sector in sub-sectors whereas the more general policies see the forest sector as a whole. This also means that since Sweden, having a big and fairly diverse forest industry policies often take on the whole industry from forestry to secondary production branches, but less with industries related such as the engineering industry, transportation, the newspaper industry or for that matter the tourist industry. This is also indicated in the view on innovation where the common view is the traditional science and technology product related view. But, and that is an important but, there are examples, and good examples, that the development of the policies is from a more systemic viewpoint i.e. shareholders and stakeholders are increasingly invited already in the planning and initial analysis of a policy and are then able to affect the future outcome more than what was the case historically.

This can also be seen in what type of measures are proposed regarding innovation development where in various degrees task forces or similar joint programs are set-up to include as wide participation as possible. The Swedish consensus leadership is fairly present in many policies.

In conclusion, the general parliamentary process in Sweden with often specific policies for specific activities affects how industry sectors are represented in policies. National policies are on a national scale taking in the whole society. If a specific sector is to be included it depends on size in general and importance for that policy's aims e.g. Renewable Energy Programme has a section of bio energy and thus the forest sector since that is an important part of that system. To find more direct activities and measures for the forest sector one has to find the national policies dealing with this specifically e.g. the Forest Policy or down size the scope that is to find policies on a regional level where the forest sector has a higher importance.

### 10.2 Research needs

Without any specific priority the following <u>research questions</u> have been identified during the analysis

- What are external stakeholders' participation and effect on the final outcome of the national policies?

- In which of the policies have / have had the forest industry stakeholders the highest influence?

- How does a change in government office affect implementation of national policies?

- How does the standardisation of policy development from the EU affect national policies and policy development?

- What is the link between national policies and regional and local implementation programs/plans/?

- How are tools to implement national policies generated?

- What stakeholders and shareholders are the most important? How does national policies take into account national interests i.e. higher focus on geographical areas where there are already funding available e.g. rural areas?

- What is the balance between targeted measures for improved innovation and contextual factors, e.g. the presence of "innovation clusters" etc?

Examples of <u>research needs</u> identified

- Map key factors for innovation activities in territory-based, forestry and forest industry segments. Make cross-country comparisons. Identify role of policy, human resources and industry structure.
- Develop a clearer understanding of innovation in forest SME:s throughout Europe and develop tools for designing better innovation policies and better innovation activities in the companies.

Example of project for phase 2.

Non-technical institutional barriers affecting innovation in the wood frame construction industry as well as the bio-energy industry.

Depending on national differences, it may include wood-frame construction in one- or/and multi-storey buildings, including exterior wood. The focus should be on SME: s.

- How do companies manage innovation within?
- What is the link to the business strategy?
- What is the link to national policies? Transformation of national policies to regional tools? Information transfer from regional policy makers to industries?
- How do industries/companies interact with external stakeholders? Competitors? Suppliers? Customers?

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