COST Action E 51

Integrating Innovation and Development Policies for the Forest Sector

Country Report Phase I

Norway

18. October 2007

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Abstract

Different policy documents are studied in purpose of analysing effects on how innovation is integrated among sectors in Norway.

Norway is a relatively large and varied country, ranging from urbanised regions around the capital to extremely rural areas in the north, west and in the mountainous areas. Thus there has always been a need for regional and rural policies to play an important part. Looking at the different measures and support mechanism introduced in the forest policy documents confirm that innovation is seen to play an important role when focusing on increased value added in the forest sector. At the other hand, the Norwegian innovation policy document has a wide perspective to innovation policy. It includes all types of industrial activity, and it addresses relevant policy domains. This includes tax policy, labour market policy, education and competence policy. The Sustainable Development Policy document addresses the overall targets, which relate to the four areas: Social and Economic dimensions, Management of Natural Resources, Strengthening of Central Actors, and Implementation. The objective of the document is to contribute to give sustainable development a permanent position on the national political agenda in Norway. At present high activity is seen in the renewable energy policy in Norway.

The status of innovation in the Norwegian context is by researchers, key organisations and commentators described as a paradox. Research on innovation indicates an intimate relationship between innovation and economic prosperity, but the Norwegian situation is that of a low degree of innovation and a high degree of welfare, among the highest in the world in fact. If we go to the industry level and in particular to the firm level in the Norwegian economy, it becomes evident that development and improvement of products and processes and supporting operations such as logistics, marketing for example, is the rule rather than the exception. The oil and gas domain is not the only example. Another large area of economic activity in which innovation is more and more visible, is food production and food products.

The issue of how sector policies are integrated with innovation policy is fundamental because it addresses how we understand economic growth and wealth creation. The dominant perspective portrays economic growth and performance as led and shaped by developments in science-intensive high technology and the growth of new industries that have been built on these developments. This view is used as a core rationale for the formulation of innovation policies, with their aims of economic and employment growth and social development.

The dominant perspective of innovation in high tech and growth has had as implication that other sectors, so-called low tech sectors, have not been under sufficient scrutiny. Basically we know to little about innovation in the rest of the economy. Reflecting about future research needs there is definitely need for studying how innovation goes on in sectors such as forestry and food, just to mention two important sectors in the Scandinavian economies

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1 Introduction

The main objective of COST E51 is to develop knowledge that enables the integration of innovation and development policies for a more effective and sustainable development of the forest sector in Europe. In this first part (phase I) of the action different policy documents are studied in purpose of analysing effects on how innovation is integrated among sectors in the country.

The policy documents investigated in this study differ substantially regarding targeted groups. While forest documents are meant to be read by "forest people", rural development documents are meant to be read by "rural population". Innovation documents are targeted to people acting with innovation in particular. Questions related to biodiversity are put forward in the environmental documents.

The contributing authors have background from different research topics. We have tried to make advantage of this in the analysis of the documents. The responsibility for the different parts of the report has been as follows:

- Dr. Trond Einar Pedersen, STEP
 - o Innovation Policy, Sustainable Development Policy
- Mr. Johan Barstad, Møreforsk.
 - o Rural Development Policy, Regional Development Policy
- Dr. Birger Vennesland, Norwegian Forest and Landscape Institute
 - Forest Policy, Forest-Based Industries Policy, Renewable Energy Policy

All documents are at the national level. However, for some of the policy areas we have studied supplementing documents in purpose of a better understanding of the innovation issue. An explanation of what kind of documents that has been studied is given in front of each related chapter.

The status of innovation in the Norwegian context is by researchers, key organisations and commentators described as a paradox. Research on innovation indicates an intimate relationship between innovation and economic prosperity, but the Norwegian situation is that of a low degree of innovation and a high degree of welfare, among the highest in the world in fact. This paradox is basically the result of the application of the Community Innovation Survey (CIS), which is the main data source for measuring and comparing innovation in European countries. CIS shows that in general a lower share of Norwegian firms report that they have introduced new products and processes, as compared to other European countries. The situation is slightly different when the data is run on sectoral level. CIS data on sectoral level shows that the Norwegian sectors with high R&D effort (typically ICT and pharmaceuticals) are among the most innovative in Europe. These sectors are small in the Norwegian economy. On the other hand, the Norwegian sectors with low R&D effort score low on innovation, and these are the larger sectors in the Norwegian economy.

The explanation to this paradox is under scrutiny. It is not controversial to be of the opinion that the Community Innovation Survey is product and process oriented. In its approach it is above all oriented towards innovation that is formally organised,

generally in innovation projects with separate budgets. It seems likely that firms, in which development and innovation take a less organised form, as incremental improvements of products and processes, will not report that they innovate according to the definition of the Community Innovation Survey. From case study based research we know that firms that are into complex products and services, literally produce a new product every time they deliver to a customer. This mode of operation and production applies to large parts of the supplying industry to offshore and shipbuilding, which of course are large scale activities in the Norwegian economy. We also have indications that firms' routines of reporting research and development and innovation are dubious.

If we go to the industry level and in particular to the firm level in the Norwegian economy, it becomes evident that development and improvement of products and processes and supporting operations such as logistics, marketing for example, is the rule rather than the exception. The oil and gas domain is not the only example. Another large area of economic activity in which innovation is more and more visible, is food production and food products. Innovation is a strong feature in the Norwegian economy. If we agree to apply a concept of innovation that captures all types of improvements with additional economic effects in firms, we have established the conceptualisation of innovation that is necessary to explain the Norwegian paradox.

2 Innovation areas in forestry in Norway

In Norway innovation is seen to play an important role when focusing on increased value added in the forest sector. This is confirmed by the different measures and support mechanism in the sector. In this chapter we have focused on some of the most important innovation products in our country. Different types of innovations are listed in Table 1.

Table 1: Innovation areas: Please list the most important innovation for your country

Area	Territory based services	Value added chain
Туре		
		Bioenergy, Black pellets www.norskpellets.com (EA)
Product		Furfurylated wood - An
		alternative to Preservative-
		treated wood www.irg-wp.com
		(EA)
_		Timber landing at boats at the West
Process		Coast in Norway (EA)
Manhadinanah	Norway Nature Travel	
Marketing method	www.DinTur.no (BA)	
Organisational	Fishing quota in the Fjord of	
model	Trondheim. (EA)	

The major shareholder in Din Tur is Allskog AS (regional forestry owners`association), and the company works in close cooperation with landowners in Norway. These regions with their mixture of coastal, forested and mountainous landscape can offer visitors to Norway a great experience.

There are catalogues and an informed website for marketing destinations. In Europe they cooperate with companies selling Din Tur products. Because of an online booking system this is very easy. When forest owners are marketing their products through an organisation like www.dintur.no they have gained an increased value added in total.

In the Fjord of Trondheim there has been set out fishing quota to professional fisherman for salmon in many years. At the same time sport fishing is an important product for landowners among the river connected to Trondheimsfjorden. The landowners along the river have organized themselves and are buying the fishing quota from the fisher man in the Fjord. By doing this they have increased value added from salmon fishing in the area.

Chitosan is a biopolymer derived from chitin in crustacean shells. Over the past decade it has been studied as an environmentally benign wood-protecting agent. It is

assumed to act as a fungi-stat against a wide range of fungi and even as a fungicide at higher concentrations. Furfurylated wood is an alternative to preservative treated wood. Furfuryl alcohol is a natural product derivate from i.e. baggase. Furfurylated wood is a process where a Furfuryl alcohol water mixture is impregnated and cured in wood, which gives the wood a brownish colour and enhanced properties with regard to technological and biological properties.

Timber landing at boats. When harvesting is taking place at some islands in the Fjords of Norway the need of taking advantage of the see has been necessary. A bargee has been introduced in purpose of storing (landing) timber. When enough timber has been collected at the bargee, a ship has collected timber from different bargees in an area. By doing this the transport of timber in coastal areas has increased in efficiency.



Figure 1. Timber landing at boats in Norway.

Black pellets: Their special production technique includes a "steam explosion process", where the raw material (sawdust) is heated with steam to 200 °C at about 15 bar pressure. This part of the production is a batch process. After this treatment the material gets darker and is much easier to press through the pellets matrix. After the steam explosion process the material is dried to 10 % moisture content. The rest of the production process is similar to conventional pellet plants. The pellets have got the Swan label.

The different policy documents studied are presented in Table 2.

Table 2: Documents for Task 1: Please list the relevant documents

Forest Policy (Regional or National Forest Programme):

Document: Value-Added and biodiversity. New possibilities in the forest sector.

Publication Date: 1999

Website:

http://www.regjeringen.no/nb/dep/lmd/dok/Veiledninger og brosjyrer/1998/Verdiskaping-

og-miljo-muligheter-i-skogsektoren.html?id=87472

Supplementary documents: Name and ref. number

Forest Based Sector Policy (Sector Policy Strategy), if any:

Document: Forest Resources in Norway 2006. Possible strategies to increase cuttings.

Publication Date: 2006

Website: http://www.skogoglandskap.no/publikasjon/SF-3945-3478
Supplementary documents: Name and reference number

Innovation Policy (Regional or National Reform Programme):

Document: The EU Lisbon Strategy – A Norwegian Perspective

Publication Date: 2007

Website:

Supplementary documents: Name and reference number

Rural Development Policy (Regional or National Rural Dev. Programme, Forestry Part):

Document: The Rural and Regional Policy of the Norwegian Government. White Paper to the Parliament, No.

21 (2005-2006)

Publication Date: 2006

Website:

Supplementary documents: Name and reference number

Regional Development Policy (Regional or National Regional Dev. Programme):

Document: The Rural and Regional Policy of the Norwegian Government. White Paper to the Parliament, No.

21 (2005-2006)

Publication Date: 2006

Website:

Supplementary documents: Name and reference number

Sustainable Development Policy (Regional or National Sustainable Dev. Strategy):

Document: National Agenda 21. National Action Plan for Sustainable Development

Publication Date: 2004

Website:

Supplementary documents: Name and reference number

Renewable Energy Policy (Regional or National (renewable) Energy Strategy):

Document: National Budget 2007. "For budsjettåret 2007, Olje- og energidepartementet"

Publication Date: 2007

Website:

Supplementary documents: Name and reference number

3 Forest Policy - National Forest Programme

3.1 General information

The Forest policy document analysed is regarded as a "White paper". A White paper is a national policy document agreed upon at highest level in the parliament. Normally a White paper is produced every 5-10 year for different policy sectors.

Table 3: Part A - General document information

Name:	Value-Added and biodiversity. New possibilities in the forest sector.		
Adoption: Please mark by whom and at which level the document is adopted	□ Parliament □ Government X Ministry:_Ministry of Agriculture □ No formal approval Level: X National □ Regional □ Local Adoption date: 1998		
Validity period:	1999 - present		
Revision:	Normally there will be a new white paper on Forest policy every 10 year.		
Monitoring/ Evaluation:	No evaluation is planned.		
Related documents:	Verdiskapingsprogrammet for bruk og foredling av trevirke (Arbeidsgruppens rapport, april 2000) Evaluering av Treprogrammet (ØF-rapport nr. 17/2004) Trebasert innovasjonsprogram, Strategi. (Innovasjon Norge, 3.juli 2006)		
Geographical scope:	X National Regional; name: Local, name:		
Budget:	No budget.		
	of contents as written in document		
Objective of the document	Objective of the document is put forward strategies on how to deal with forest policy challenges the next decade.		
Priorities	How to increase value added from forestry sector. Focus on sustainable development.		
Structure	Historic overview of forest policy and forestry/forest industry. Increase value added from forest sector. Forest sector and sustainable development. Focus on measures on how to reach policy goals.		
Measure Areas	Measure areas related to forest production, forest industry, sustainable development and forestry. General types of measuers: Legal/juridical, Sustainable development, Economic support, Education, development and research.		
Follow-up / Impleme	entation		
Follow-up measures:	 No follow-up activities so far X New or adapted funding programme(s) /budget line; name: Verdiskapingsprogrammet. New or adapted regulations/laws; name: New or adapted informational campaigns/instruments; name: New or restructured institutions/organisations; name: Implementation in forest policy: 		
General comment:	Research focus on: Sustainable development and forestry production. Climate change and forestry. Increasing value added from forest resources.		

3.2 Integration of Innovation

Table 4: Part B - Overall Innovation Orientation				
Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods', 'new business models') in the document	☐ never X sometimes ☐ frequently		
	Please mark the frequency of occurrence of the forest sector 'innovation frontier' – innovation areas identified in Chapter 3 - in the document	☐ never X sometimes ☐ frequently		
	Please mark the frequency of occurrence of the terms that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never X sometimes ☐ frequently Terms used:		
	Innovation orientation are linked to the "verdiskapingsprogammet" put forward in the document.			
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	 No relevance at all Marginal issue X One issue among others Important issue Central issue Comments: 			
Degree of	very general (innovation is named in general parts, e.g. preamble, but no related			
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	goals, measures, identified needs or similar are addressed by the document) X rather general (innovation is addressed in overall goals, needs are identified specification of measures) The answer) The answer of the degree of excification varies for ferent parts of the cument, esp. when The answer of the cument, esp. when The answer of the degree of excification varies for ferent parts of the cument, esp. when The answer of the document o			
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	X Traditional S&T policy with systemic elements Systemic innovation policy with S&T policy elements			
Goals and objectives: Increased value added from forest recourses.				
Issues, problems and related topics: Forest sector has to develop/diversify to increase value added.				
Innovation areas: Innovation related to new products from forest sector.				
General comment:				
Research needs are related to new forest products.				

Table 5: Part B - Innovation Support Measures

Table 3.1 att B - Illiovation Support Measures			
	Research and Development Diffusion of innovation	In the document a program to increase value added (Verdiskapingsprogrammet) was introduced in purpose of increasing research based value added at firm-level in Norway. For the period of 2000 to 2005 the total budget has been 135 million NOK (ca. 20 million Euro) Increased value-added from timber has been focused. Diffusion of known technology has been given high priority.	
Innovation support measures	Strengthening the knowledge base	There has not been any focus on strengthening the knowledge base for innovation in the forest sector.	
Consult classification in chapter	Strengthening interaction	Some focus has been given in strengthening interaction among different actors in the innovation system. Both horizontal as well as vertical co-operation has been focused.	
2.2.2	Demand creation	Very limited focus on the demand side. However, the document states the importance of demand driven production.	
	Improving frame conditions	No focus on improving the frame conditions.	
	Comments		
Priorities		Research based product development has been highly prioritized. Diffusion of innovation is also seen to be an active way to increase value- added from timber sources. Interaction among different actors in the innovation system has been focused.	
Assessment of overall relevance		The document introduced that research based innovation is necessary to reach the goal of increased value- added.	
Promotion of innovation		From the "Verdiskapingsprogrammet" HVILKE RESULTATER FINNES?	
General comment:		List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used	

Table 6: Part B - Cross-sectoral coordination

Policy formulation	Policy formulation		
Co-ordination with other processes and documents	From the document the value-added program "Verdiskapingsprogrammet" was introduced in 2000. From 2006 a new program "Trebasert innovasjonsprogram" has been introduced from Innovasjon Norge.		
Administrative Coordination:	X between different sections/departments within the same ministry; specify: Coordinated between agriculture department and forestry department. between different ministries, specify: between ministries and other public organizations / agencies, specify: Comments: Shortly explain the role of the main administrative actors		
Stakeholder involvement	X Forestry: name most important organisations: Forest owner association. X Forest-based industries: name most important organisations: X Agriculture: name most important organisations: Tourism: name most important organisations: Energy: name most important organisations: X Environment: name most important organisations: Other sector:: name most important organisations: Other sector:: name most important organisations:		
Coordination mechanisms:	X Formal (central) coordination body; name: Department of Agriculture. Formal coordination process Inter-sectoral working groups Inter-sectoral advisory body Formal mandatory consultation process Formal voluntary consultation process Informal consultations (please describe) Others:		
Policy Implementation			
Responsible actors and their roles:	Department of Agriculture.		
Level of delegation	☐ Decentralized, e.g. X 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		

4 Forest-Based Industries Policy

4.1 General information

The document for Forest-Based Industries Policy in Norway is based on the political statement to increase clear cutting in Norway. At present clear cutting in Norway is 8 mill m3. There is a political statement to increase timber cutting in Norway to a total of 15 mill m3.

This is the latest document especially targeting the forest sector at National level. In the document it is focused on different strategies on how to increase the activity in the forest sector in Norway.

Table 7: Part A - General document information

Name:	Forest Resources in Norway 2006. Possible strategies to increase cuttings.		
Adoption: Please mark by whom and at which level the	Parliament Government S Food Others:	X Ministry:_Ministry of Agrculture and ☐ No formal approval	
document is adopted	Level: X National Regional Adoption date: 06. october 2006	Local	
Validity period:	2006		
Revision:	No revision/update is planned.		
Monitoring/ Evaluation:	No evaluation has taken place.		
Related documents:	St.prp.nr.1 (2006-2007). Budsjettet 2007.		
Geographical scope:	X National Regional; name:	Local, name:	
Budget:			
General description	of contents as written in document		
Objective of the document	The objective of the document is mainly to come up with stra Norway.	ategies on how to increase cuttings in	
Priorities	There is given high priority on measures that will increase cu sustainability of the forest resources has been given high priority.		
Structure	The document starts with an overview of the forest resources have been discussed. Harvesting technology has been analyse the end possible measures on how to increase cuttings has be	ed in connection to economical impacts. At	
Measure Areas	Supply side: Tax reduction, subsidies, infrastructure Demand side: industrial policy, bio energy, product development	nent	
Follow-up / Impleme	ollow-up / Implementation		
Follow-up measures:	 No follow-up activities so far New or adapted funding programme(s) /budget line; name: X New or adapted regulations/laws; name:Skogfond (Engelsk navn?) New or adapted informational campaigns/instruments; name: New or restructured institutions/organisations; name: Implementation in forest policy: 		
General comment:	List research needs you identified, they might be taken up Name further reference sources used	in phase II of COST E51	

4.2 Integration of innovation

Table 8: Part B - Overall Innovation Orientation

	Table 8: Part B - Overall Innovation	Orientation	
Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods', 'new business models') in the document	☐ never X sometimes ☐ frequently	
	Please mark the frequency of occurrence of the forest sector 'innovation frontier' – innovation areas identified in Chapter 3 - in the document	X never sometimes frequently	
	Please mark the frequency of occurrence of the terms that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never X sometimes ☐ frequently Terms used:	
	Further comments on overall innovation of	rientation of the document:	
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☐ No relevance at all X Marginal issue ☐ One issue among others ☐ Important issue ☐ 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 X very general (innovation is named in general part goals, measures, identified needs or similar are add noveral goals, measures, identified needs or similar are add noveral goals, measures (innovation is addressed in overal no specification of measures) Tather specific (innovation is addressed in overal goals related to innovation is addressed in concretation of measures) The specification of measures (innovation is addressed in overal goals, measures) The specification of measures (innovation is addressed in overal goals, measures) The specification of measures (innovation is addressed in overal goals, measures) The specification of measures (innovation is addressed in overal goals, measures) The specification of measures (innovation is addressed in overal goals, measures) The specification of measures (innovation is addressed in concretation of measures) The specification of measures (innovation is addressed in overal goals, measures) The specification of measures (innovation is addressed in concretation of measures) The specification of measures (innovation is addressed in overal goals, measures) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals) The specification of measures (innovation is addressed in overal goals)		ar are addressed by the document) I in overall goals, needs are identified but If in concrete goals, measures are to innovation are formulated, concrete timetable exist) context innovation is addressed (Is innovation a	
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 elements ☐ Systemic innovation policy with S&T policy elements		
Goals and objectives:			
No special goals Issues, problems and related topics: Important to increase competitiveness in the forest sector.			
Innovation areas: Product development, infrastructure (new forest roads etc), new organisation in timber trading.			
General comment:			
Innovation are not focused in the document.			

 Table 9: Part B - Innovation Support Measures

	Research and Development	No such measures.
	Diffusion of innovation	No such measures.
Innovation support measures	Strengthening the knowledge base	No such measures.
Consult classification	Strengthening interaction	No such measures.
in chapter 2.2.2	Demand creation	No such measures.
	Improving frame conditions	No such measures.
	Comments	
Priorities		
Assessment of overall relevance		
Promotion of innovation		No promotion of innovation.
General comment:		

Table 10: Part B - Cross-sectoral coordination

•	Policy formulation	
•	Co-ordination with other processes and documents	• St.prp.nr.1 (2006 - 2007) Statsbudsjettet. (GDP-budget)
•	Administrative Co-ordination: Stakeholder involvement	 between different sections/departments within the same ministry; specify: between different ministries, specify: between ministries and other public organizations / agencies, specify: Comments: Ministry of agriculture and food has been leading the project. X Forestry: name most important organisations: Norwegian forest owner associations. X Forest-based industries: name most important organisations: Norske Skog, Moelven. Agriculture: name most important organisations:
	Coordination	 Tourism: name most important organisations: Energy: name most important organisations: X Environment: name most important organisations: Norges naturvernforbund, Other sector:: name most important organisations: Other sector:: name most important organisations: Comments: Shortly describe the type of stakeholder involvement X 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	
•	Responsible actors and their roles:	 Ministry of Agriculture and food have been in charge. •
•	Level of delegation	 Decentralized, e.g. X 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

5 Innovation Policy – National Reform Programme

5.1 General information

The prevailing Norwegian innovation policy document is in practice the Norwegian version of the EU Lisbon Strategy. It establishes the basic relation between Norwegian wealth creation, employment and industrial performance and innovation. The document has a wide perspective to innovation policy. It includes all types of industrial activity, and it addresses relevant policy domains. This includes tax policy, labour market policy, education and competence policy.

Table 11: Part A - General document information

Name:	The EU Lisbon Strategy – A Norwegian Perspective		
Adoption: Please mark by whom and at which level the document is adopted	☐ Parliament ☐ Government X Ministry:_Ministry of Trade and Industry ☐ No formal approval Level: X National ☐ Regional Adoption date: 15. February 2007 ☐ Local		
Validity period:	2007-		
Revision:	No revision/update is planned.		
Monitoring/ Evaluation:	No evaluation has taken place.		
Related documents:	St.prp.nr.1 (2006-2007). The Norwegian national budget 2007.		
Geographical scope:	X National Regional; name: Local, name:		
Budget:			
General description	of contents as written in document		
Objective of the document	The objective of the document is mainly to elaborate on the Norwegian policy approach to ensure welfare, employment and growth, based on the EU Lisbon Strategy		
Priorities	There is an overall focus on wealth creation as the basis of welfare, i.e. the public welfare system. There is a comprehensive approach in which value creation is seen as a result of meaningful business policy (innovation policy). The priorities are wide ranging: Rational use of income from oil/gas, differentiated employers' national insurance contribution, infrastructure investment (transport), finances to R&D and innovation, labour market policy.		
Structure	The document is organised in chapters where the Lisbon strategy is discussed (ch1), Norwegian politics (ch2), and then the structural indicators are discussed in chapter 3. Chapter 2 is comprehensive; addresses all types of policy for value creation from macroeconomic and tax policy, to education and research, innovation and entrepreneurship, public sector reforms, ICT, transport and communication, sustainable development, labour market, competition.		
Measure Areas	The indicator chapter addresses every indicator that contributes to measuring the performance of Norway within the Lisbon strategy. It includes: GDP per capita, labour productivity, R&D expenditure, educational attainment, price levels, business investment, emissions, energy intensity, transport, employment, poverty etc.		
Follow-up / Impleme	ntation		
Follow-up measures:	 No follow-up activities so far New or adapted funding programme(s) /budget line; name: New or adapted regulations/laws; name; New or adapted informational campaigns/instruments; name: New or restructured institutions/organisations; name: Implementation in forest policy: 		
General comment:	The ministry of trade and industry is currently working on a white paper on innovation policy.		

5.2 Integration of innovation

Table 12: Part B - Overall Innovation Orientation

	Table 12. Latt D - Overall Illiovation	ii Orientation		
Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods', 'new business models') in the document	never sometimes X frequently		
	Please mark the frequency of occurrence of the forest sector 'innovation frontier' – innovation areas identified in Chapter 3 - in the document	X never sometimes frequently		
	Please mark the frequency of occurrence of the terms that are related to innovation, for example entrepreneurship, diversification, competitiveness	□ never □ sometimes X frequently Terms used: entrepreneurship, competitiveness, value creation, welfare, technology, education, competence, research etc.		
	orientation is strong, reflecting a perspecti significant for value creation.	rientation of the document: The innovation ive that puts innovation up front as		
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	Please mark how much relevance is given to innovation in the document One issue among others X Important issue			
D e	Comments:			
Degree of specification: Please mark how general or specific innovation is addressed by the document) Please mark how general or specific innovation is addressed by the document (one answer) Please use comments section to describe if the degree of specification varies for different parts of the document, esp. when concerning forestry □ very general (innovation is named in general parts, e.g. preamble, but no re goals, measures, identified needs or similar are addressed by the document) X rather general (innovation is addressed in overall goals, needs are identified specification of measures) □ rather specific (innovation is addressed in concrete goals, measures are formulated) □ very general (innovation is addressed in overall goals, needs are identified specification of measures) □ rather specific (innovation is addressed in concrete goals, measures are formulated) □ very general (innovation is addressed in overall goals, needs are identified specification of measures) □ rather specific (innovation is addressed in concrete goals, measures are formulated) □ very general (innovation is addressed in overall goals, needs are identified specification of measures) □ rather specific (innovation is addressed in concrete goals, measures are formulated) □ very general (innovation is addressed in overall goals, needs are identified specification of measures) □ rather specific (innovation is addressed in concrete goals, measures are formulated) □ very general (innovation is addressed in overall goals, needs are identified specification of measures) □ rather specific (innovation is addressed in concrete goals, measures are formulated) □ very general (innovation is addressed in overall goals, needs are identified specification of measures) □ rather specific (innovation is addressed in overall goals, needs are identified specification of measures)		ar are addressed by the document) in overall goals, needs are identified but no d in concrete goals, measures are to innovation are formulated, concrete imetable exist) is important, as an underlying rationale and		
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1 Understanding of innovation policy with systemic elements □ Predominately traditional science and technology policy □ Traditional S&T policy with systemic elements □ Systemic innovation policy with S&T policy elements X Predominantly systemic innovation policy Comments: Please describe further the undertanding of innovation policy				
Goals and objectives: The goals and objectives are very in line with the EU Lisbon strategy. The overall objective is wealth creation and the means are value creation and business activity based on a systemic understanding of how many policy areas affect performance.				
Issues, problems and related topics: A very comprehensive set of issues is addressed in relation to innovation. It includes tax, physical infrastructure, ICT, R&D, active industry policy, ownership, competence and so on.				
Innovation areas: No particular innovation area is addressed as more important than other.				
-				
General comment: This document is very close to a complete report on the comprehensive innovation policy that will most probably be published in a forthcoming white paper on innovation.				

Table 13: Part B - Innovation Support Measures

Table 13. Fart B - Innovation Support Measures		
	Research and	Most of the existing R&D support measures to industry are addressed
	Development	
	Diffusion of	Is not an explicit topic
	innovation	
Innovation	Strengthening	Education, research and competence is an important general theme and objective of
support	the knowledge	several policy measures
measures	base	
Consult	Strengthening	There is a specific attention/measure linked to strengthening interaction between working life and the education system. There is also a specific attention/measure
classification	interaction	promoting interaction between
in chapter	Demand	Demand creation is an issue, in particular in relation to public sector investment, public
2.2.2	creation	procurement and in relation to ICT.
	Improving	Yes, for example tax incentives for business R&D and geographically differentiated
	frame conditions	employers' national insurance contribution
	Comments	
Priorities		Reflecting the comprehensiveness of this document it has a long range of priorities.
Assessment of overall relevance		
Promotion of innovation		
General comment:		

Table 14: Part B - Cross-sectoral coordination

 Policy formulat 	ion
Co-ordination with other processes and documents	St.prp.nr.1 (2006 - 2007) Statsbudsjettet. (GDP-budget)
• Administrative Co-ordination:	X between different sections/departments within the same ministry; specify:
•	 X between different ministries, specify: i.a. Ministry of knowledge and the Finance Ministry X between ministries and other public organizations /
	agencies, specify: The Norwegian Research Counsil
	• <u>Comments:</u>
• Stakeholder involvement	 Forestry: name most important organisations: 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 mechanisms:	 Formal (central) coordination body; name: 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 Impleme	ntation
 Responsible actors and their roles: 	•
Level of delegation	 Decentralized, e.g. X 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

6.1 General information

Norway is a relatively large and varied country, ranging from urbanised regions around the capital to extremely rural areas in the north, west and in the mountainous areas. Thus there has always been a need for regional and rural policies to play an important part.

Further the rural and regional elements have been seen as aspects of the same, since most of the regional policy traditionally has been aimed at rural development issues. In Norway has been used the terms "den vesle og den store regionalpolitikken" (The Narrow and the Broad Regional Policies), where the Narrow referred to the more direct aims at rural development, targeted economic measures etc, and the Broad to the more general aim for a positive economic development of the different regions.

The basis for the Norwegian Regional Policy can be found in the white papers on regional development, normally issued by the Storting every 4 year. In this paper, the challenges are described and measures are discussed and prioritised. This then will set the basis for more specific measures, support schemes etc that will be issued by governmental institutions. All such actions are subject to a system of participation aiming at getting as broad participation from all relevant stakeholders as possible and as early as possible in order to get real participation. This is the aim – in practice not all processes end up as broad and inclusive as intended, due to several constraints imposed (time, costs, politicalisation etc.)

Table 15: Part A - General document information

Name:	In English The Rural and Regional Policy of the Norwegian Government. White Paper to the Parliament, No. 21 (2005-2006)
Adoption:	☑ Parliament ☐ Government ☐ Ministry:
Please mark by whom and	Others: No formal approval
at which level the	Level:
document is adopted	National ☐ Regional ☐ Local
	Adoption date:
Validity period:	2006 - 2010
* -	
Revision:	Revision aproximately every fifth year. We had previous version in 2000/2001 then the one before in 1996/1997
Monitoring/	Is the implementation of the document formally monitored? Has an evaluation taken place? Is an evaluation foreseen?
Evaluation:	
	Implementation is monitored in many ways. Partly through internal evaluations. Yearly reports etc. within the involved public agenciet etc. Partly through
	compulsory evaluations of projects, activities, etc. emerging from the white paper
	process and financed by governmental funds. Further, when a process for renewing
	the white paper is instigated, more thorough evaluations will be carried out by
	indepe3ndent researchers, institutions etc
Related	Please list further specifications or amendments of the document and documents that are closely
documents:	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.
Geographical	National ☐ Regional; name: ☐ Local, name:
scope:	
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.
	The white paper itself does not come with designated public funds. Still the white paper will be the basis for size and scope of funds and means in the coming years, but formal desiscions will be taken in the
	national budget for each year.
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,
document	vision or mission statements). To give people a real choice about where to live and to
	ensure that all parts of the country are put to use. That everybody in every part of
	the country has the opportunity to develop their abilities and ensure quality of life.
	The Government places prime importance on fostering equal opportunities across
	the country and sustaining in large measure the present settlement pattern. Aim to
	facilitate a fair distribution of growth between cities and rural areas. Stronger
	economic growth and a more robust capacity for growth locally and regionally are the means of achieving this goal while being ends in themselves.
Priorities	
Priorities	Name the thematic priority areas of the document.
	To trigger growth in all areas of the country
	Service and welfare delivery
	Jobs where people live
	Forge a sense of optimism and confidence about the future
	Making small towns attractive, especially to younger people and women
	Small and medium-sized towns as attractive alternatives to the big city

Structure	Shortly sketch the basic structure of the document, i.e. different thematic parts, basic elements (e.g. action areas, indicators, etc.)	
	Harmonization and decentralization	
	Local welfare and development capacity	
	An active rural and regional business development policy	
	Targeting business development and job creation outside the main urban centres by means of sector-specific incentives protected areas.	
	Development of attractive places	
	Good infrastructure for the whole country	
	Promoting higher education and R&D in all parts of the country	
Measure Areas	Name measure areas as described by the documents and general types of measures the document introduces.	
	Evaluations are the main measure mentioned. In this kind of documents there is little specificity about what kind of measures are to be used since this is a strategic document not dealing with tactical and operational details	
Follow-up / Impleme	entation	
Follow-up measures:	 No follow-up activities so far New or adapted funding programme(s) /budget line; name: St.prp. nr 1 2006/2007 New or adapted regulations/laws; name: 	
	New or adapted informational campaigns/instruments; name:	
	New or restructured institutions/organisations; name:	
General comment:	List research needs you identified, they might be taken up in phase II of COST E51	
General comment:	Name further reference sources used	
	Small-rural communities initiative (Småsamfunnssatsinga)	
	http://www.regieringen.no/en/dep/krd/tema/Regional-	
	og distriktspolitikk/smasamfunn.html?id=435287	
	Competence centre for rural- and regional policy (Kompetansesenter for distrikts- og	
	regionalpolitikk) http://www.regjeringen.no/nb/dep/krd/tema/Regional- og distriktspolitikk/kompetanse.html?id=435286	
	Two initiatives that are being implemented formallyt and that might prove o finterest for further research for the action	

6.2 Integration of innovation

Table 16: Part B - Overall Innovation Orientation

Innovation areas:			
Innovation is a means to reach goals about regional and rural development			
address other issues that are related to innovation, e.g. competitiveness of the sector, diversification etc.? Please describe shortly			
Issues, problems and related topics: Please describe shortly what main issues and problems are formulated in relation to innovation? Does the programme			
structure unchanged. Through r	making active use of all parts of the country		
Goals and objectives are present	ted on a general level, example: goal is to keep t	he mail lines of the geographical population	
Goals and objectives:	Comments. Trease describe further the under	tanunig of innovation policy	
document. See chapter 2.2.1	Comments: Please describe further the under	-	
understanding of innovation policy is reflected in the	☐ Predominantly systemic innovation pol	•	
Please assess what overall	✓ Systemic innovation policy with S&T		
innovation policy	☐ Traditional S&T policy with systemic		
Understanding of	☐ Predominately traditional science and t	echnology policy	
document, esp. when concerning forestry	Comments: Please specify further in which of goal, underlying rationale, a strategy or means to	,	
specification varies for different parts of the	measures introduced, a fixed budget and the		
to describe if the degree of	very specific (quantified goals related to innovation are formulated, concrete		
(one answer) Please use comments section	rather specific (innovation is addressed in concrete goals, measures are formulated)		
addressed by the document	no specification of measures)		
specific innovation is	rather general (innovation is addressed in overall goals, needs are identified but		
specification: Please mark how general or	goals, measures, identified needs or similar are addressed by the document)		
Degree of		eneral parts, e.g. preamble, but no related	
	Comments: See comments above		
(one answer)	☐ Central issue		
relevance is given to innovation in the document	Important issue		
Please mark how much	One issue among others		
innovation:	☐ Marginal issue		
Relevance of	☐ No relevance at all		
	prerequisits.		
	a main aspect, but the document is aga		
	Further comments on overall innovation or	rientation of the document: Innovation is	
	-	Terms used:	
	competitiveness	frequently	
	the <u>terms</u> that are related to innovation, for example entrepreneurship, diversification,	sometimes	
	Please mark the frequency of occurrence of	never (almost never)	
		of wood	
		adding program for use and utilisation	
		developing forest sector and value-	
		of innovation: Strategies for	
	the document	(Forest sector is mentioned in context	
	innovation areas identified in Chapter 3 - in	frequently	
	Please mark the frequency of occurrence of the forest sector 'innovation frontier' –	☐ never ☐ sometimes	
			
	'new business models') in the document	Innovation on rural level is a main theme	
(use word search function).	'new processes', new marketing methods',	☐ frequently	
orientation	synonyms ('new products', 'new services',	sometimes	
Overall innovation	Please mark the frequency of occurrence of the more generic terms 'innovation' or	never	

Agriculture: use of rural development funds to promote entrepreneurship

Rural development: use of municipal development funds as first-line means to promote innovation

Strengthening the role of the municipalities as partners in local innovation policies

Reduction of barriers for young entrepreneurs

General comment:

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

Name further reference sources used

The value-adding programme for use and usage of wood (Treprogrammet)

The increased focus on culture-based entrepreneurship and innovation

Table 17: Part B - Innovation Support Measures

Table 17: Part B - Innovation Support Measures				
Innovation support measures Consult classification in chapter 2.2.2	Research and Development	List support measures proposed or implemented by the document that target research and development activities by enterprises.		
	_	Research and development issues are used throughout the document.		
		Mainly as examples		
	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.		
	Strengthening the knowledge base	List support measures proposed or implemented by the document that aim at strengthening the knowledge base for innovation. Again, this is included in various elements, example can be chapter 5 dealing with direct aims for strengthening R&D in the specific sectors		
	Strengthening interaction	List support measures proposed or implemented by the document that aim at strengthening the interactions between key actors. Strengthening the role/interaction between public stakeholders (local/regional government) and the industries		
	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. Much of the white paper deals with improving 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 Mainly frame conditions. Being a strategic document, these are the main ones adressed		
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. Again, no direct support measures are really discussed as for implementation. That is not role of this document		
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. Can not be said		
General comment:		List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used		

Table 18: Part B - Cross-sectoral coordination

Policy formulation		
Co-ordination with other processes and documents	Please list other processes or documents with which the considered document is formally coordinated St.prp.nr.1 (2006 - 2007) Statsbudsjettet. (GDP-budget)	
Administrative Coordination:	 ☑ between different sections/departments within the same ministry; specify: Within departments of Ministry of Regional and Rural affairs, ☑ between different ministries, specify:	
Stakeholder involvement	Forestry: 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: Shortly describe the type of stakeholder involvement	
Coordination mechanisms:	 ☐ Formal (central) coordination body; name: ☐ Formal coordination process. Especially on Ministry level and including Ministerial/governmental actors ☐ Inter-sectoral working groups ☐ Inter-sectoral advisory body ☐ Formal mandatory consultation process ☐ Formal voluntary consultation process. Use of formal hearings are prescribed ☐ Informal consultations (please describe) ☐ Others: 	
Policy Implementation		
Responsible actors and their roles:	Shortly explain the role of the main actors in the implementation of the document	
Level of delegation	 □ Decentralized, e.g. □ Central, e.g. ministry, public agency □ Outsourced to private actors □ Local, e.g. by municipalities □ Regional, e.g. by regional public actors □ Others: 	
General comment	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used	

7 Regional Development Policy

7.1 General information

In Norway there is a very weak distinction between rural and regional policies, the one normally including (totally or partially) the other. Thus felt it appropriate to deal with both regional and rural policy in the same chapter (Chapter 6).

8 Sustainable Development Policy

8.1 General information

The Sustainable Development Policy document is the Norwegian version of "National Agenda 21. National Action Plan for Sustainable Development". The document addresses the overall targets, which relate to the four areas: Social and Economic dimensions, Management of Natural Resources, Strengthening of Central Actors, and Implementation. The objective of the document is to contribute to give sustainable development a permanent position on the national political agenda in Norway.

"Agenda for change [the condensed version of Agenda 21] gives people a useful tool to hold their political leaders responsible for their acts and omissions in implementing what was agreed at Rio. The promises made at Rio can only be fulfilled in time to secure our future if governments are inspired and pressured by their citizens - by people willing to support difficult decisions and to demand change" Gro Harlem Brundtland, Introductory message to Agenda for Change, Centre for our Common Future, Geneva, 1993.

Table 19: Part A - General document information

Name:	National Agenda 21. National Action Plan for Sustainable Development		
Adoption: Please mark by whom and at which level the document is adopted	□ Parliament X Government □ Ministry: □ Others: □ No formal approval Level: X National □ Regional □ Local Adoption date: 2004		
Validity period:	2004-		
Revision:	No revision/update is planned.		
Monitoring/ Evaluation:	No evaluation has taken place.		
Related documents:	St.prp.nr.1 (2004). The Norwegian national budget 2004.		
Geographical scope:	X National Regional; name: Local, name:		
Budget:			
General description	of contents as written in document		
Objective of the document	The objective of the document is to contribute to give sustainable development a permanent position on the national political agenda in Norway. The plan shall contribute to the follow-up of the summit meetings in Rio 1992 and Johannesburg in 2002.		
Priorities	There is an overall objective of being targeted in terms of concrete objectives, and in terms of division of labour and follow-up mechanisms. In terms of priorities seven areas are emphasised: International collaboration about sustainable development and the fight against poverty, the climate and air pollution, biological diversity and cultural monuments, non-regenerating natural resources, injurious to health and the environment, sustainable economic development, Sami perspectives in the governance of resources		
Structure	The document is organised as follows: Part 1: A chapter on principal issues related to solidarity and sustainable development, a chapter on trends and challenges, chapters on principles for action and policy instruments, then a chapter that develops policy for each of the seven priority areas, followed by a chapter on stakeholders and involvement. Part 2: Two chapters describing international and national trends within the most important areas. Then a chapter on Norwegian political fight against poverty, a chapter elaborating on sustainable dev. and resources/sectors in society. The two last chapters address how economic policy measures can see economic, social and sustainable aspects integrated, and how the environmental policy looks in different sectors of society.		
Measure Areas	Population development, economic trends, food, agriculture and water, human capital and education, poverty reduction, environmental/sustainable accounting and consumption		
Follow-up / Implementation			

Follow-up measures:	No follow-up activities so far New or adapted funding programme(s) /budget line; name: New or adapted regulations/laws; name; New or adapted informational campaigns/instruments; name: New or restructured institutions/organisations; name: Implementation in forest policy:
General comment:	

8.2 Integration of innovation

Table 20: Part B - Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods', 'new business models') in the document	☐ never X sometimes ☐ frequently
	Please mark the frequency of occurrence of the forest sector 'innovation frontier' – innovation areas identified in Chapter 3 - in the document	X never sometimes frequently
	Please mark the frequency of occurrence of the terms that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never X sometimes ☐ frequently Terms used:
	orientation is present, innovation is mention	rientation of the document: The innovation oned 15 times in the document.
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	No relevance at all Marginal issue X One issue among others Important issue 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	X very general (innovation is named in generals, measures, identified needs or similar rather general (innovation is addressed no specification of measures) rather specific (innovation is addressed formulated)	ar are addressed by the document) I in overall goals, needs are identified but I in concrete goals, measures are to innovation are formulated, concrete
different parts of the document, esp. when concerning forestry	Comments:	
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	☐ Predominately traditional science and t☐ Traditional S&T policy with systemic t☐ Systemic innovation policy with S&T ☐ X Predominantly systemic innovation polic Comments: The plan reflects a systemic under not used in the document	elements policy elements
Goals and objectives:		
The goals and objectives are at an aggregated level: to give sustainable development an improved framework for staying high on the policy agenda. An improved institutional framework is implemented with a permanent committee of Secretaries of State dealing only with sustainable development. In terms of more concrete goals and objectives the plan has been criticised for being weak.		
Issues, problems and related topics: A very comprehensive set of issues is addressed, which is not surprising due to the vast policy area of sustainable development.		
Innovation areas: No particular innovation area is addressed as more important than other.		
General comment:		

Table 21: Part B - Innovation Support Measures

Table 21. Tart b - Innovation Support Measures		
	Research and	R&D is mentioned at an overall level as an important prerequisite for development.
Innovation support measures Consult classification in chapter 2.2.2	Diffusion of innovation	Diffusion of innovation is not used as concept but technological transfer as synonym for technological diffusion and technological development is a topic throughout the document
	Strengthening the knowledge base	As with R&D, education and competence is an important general theme
	Strengthening interaction	Strengthening interaction is one of the most important concepts in the document, very frequently mentioned.
	Demand creation	Demand creation is not a topic. Demand is mentioned as a threat, for example demand for more resources.
	Improving frame conditions	Important fundamental issue.
	Comments	
Priorities		Reflecting the comprehensiveness of this document it has a long range of priorities.
Assessment of overall relevance		
Promotion of innovation		
General comment:		

Table 22: Part B - Cross-sectoral coordination

Policy formulation	on
Co-ordination with other processes and documents	 There is strong consensus that policy for sustainable development needs to be coordinated across relvant sectors and actors Hence, it should be coordinated with documents of other ministries, but has been criticised for not doing enough to ensure it.
	Above all it is coordinated with the national budget every year.
Administrative Co-ordination:	 X between different sections/departments within the same ministry; specify: This is a Government document that includes many ministries X between different ministries, specify: i.a. Ministry of knowledge and the Finance Ministry X between ministries and other public organizations /
	agencies, specify: A long range of stakeholders with relevance, interest and involvement in sustainable development. • Comments:
Stakeholder involvement Coordination mechanisms:	 X Forestry: name most important organisations: X Forest-based industries: name most important organisations: X Agriculture: name most important organisations: X Tourism: name most important organisations: X Energy: name most important organisations: X Environment: name most important organisations: Other sector:: name most important organisations: Other sector:: name most important organisations: Comments: More than 70 stakeholders involved have given their statements X Formal (central) coordination body; name: The Government Secretary of state Committee Formal coordination process Inter-sectoral advisory body Formal mandatory consultation process Formal voluntary consultation process Informal consultations (please describe)
Policy Implement	• Others:
Responsible actors and their roles:	National level, not very clear, has been criticised
Level of delegation	 Decentralized, e.g. X 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

urces used
1

9 Renewable energy Policy

9.1 General information

At present high activity is seen in the renewable energy policy in Norway. This means that the most relevant document to be analysed is the national budget for 2007. Especially it is focused on the text from the department responsible for the energy policy in Norway.

Table 23: Part A - General document information

Name:	National Budget 2007. "For budsjettåret 2007, Olje- og energidepartementet"		
Adoption:	Parliament	Government	Ministry: Oil and
Please mark by whom and	Energy		_
at which level the	Others:		☐ No formal approval
document is adopted	Level:	_	_
	X National	Regional	Local
	Adoption date:		
Validity period:	2007		
Revision:	The budget document i	s produced yearly.	
Monitoring/ Evaluation:			
Related		Landbruks- og matdepartementet	
documents:	Innovasjon Norge: Bio	energiprogrammet .no/Satsinger/Landbruk/Bioenergi	programmet
		v Energifondet. <u>www.enova.no</u>	programmet
Geographical	X National Re	gional; name:	Local, name:
scope:		B	
Budget:			
General description	of contents as writ	ten in document	
Objective of the document	Budget connected to oi	l- and energy production/consump	tion in Norway.
Priorities	Energy and how to serv	ve the demand for future energy in	Norway
Structure	An overview of the diff	ferent energy resources in Norway	, with special focus on oil, gas and watercraft.
Measure Areas			
Follow-up / Implementation			
Follow-up	XNo follow-up activ		
measures:		funding programme(s) /budget regulations/laws; name:	line; name:
		eguiations/iaws; name: nformational campaigns/instru	iments: name:
		red institutions/organisations;	
	Implementation i		
General comment:			

9.2 Integration of innovation

Table 24: Part B - Overall Innovation Orientation

Overall innovation orientation (use word search function).	Please mark the frequency of occurrence of the <u>more generic terms</u> 'innovation' or synonyms ('new products', 'new services', 'new processes', new marketing methods', 'new business models') in the document	never X sometimes frequently		
	Please mark the frequency of occurrence of the forest sector <u>'innovation frontier'</u> – innovation areas identified in Chapter 3 - in the document	☐ never X sometimes ☐ frequently		
	Please mark the frequency of occurrence of the terms that are related to innovation, for example entrepreneurship, diversification, competitiveness	☐ never X sometimes ☐ frequently Terms used:		
	Further comments on overall innovation of	rientation of the document:		
Relevance of innovation: Please mark how much relevance is given to innovation in the document (one answer)	☐ No relevance at all X Marginal issue ☐ One issue among others ☐ Important issue ☐ 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	X very general (innovation is named in general parts, e.g. preamble, but no related goals, measures, identified needs or similar are addressed by the document) rather general (innovation is addressed in overall goals, needs are identified but no specification of measures) rather specific (innovation is addressed in concrete goals, measures are formulated) very specific (quantified goals related to innovation are formulated, concrete measures introduced, a fixed budget and timetable exist) Comments: 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.?)			
Understanding of innovation policy Please assess what overall understanding of innovation policy is reflected in the document. See chapter 2.2.1	X Predominately traditional science and te Traditional S&T policy with systemic of Systemic innovation policy with S&T Predominantly systemic innovation policy Comments: Please describe further the under	elements policy elements licy		
Goals and objectives:	y from water recourses. Increase the amount of a	margy from biomass		
Increase the amount of electricity from water resources. Increase the amount of energy from biomass. Issues, problems and related topics:				
issues, problems and ref	acci topics.			
Innovation areas:				
General comment:				

Table 25: Part B - Innovation Support Measures

		23. Tart B - Innovation Support Measures
	Research and	Several programs are introduced as part of Innovation Norway.
	Development	
	Diffusion of	Several programs are introduced as part of Innovation Norway.
	innovation	
Innovation	Strengthening	Several programs are introduced as part of Innovation Norway.
	innovation strong transfer and the strong transfer and transfer and the strong transfer and transfer a	
support	base	
measures		
Consult	Strengthening	
classification	interaction	
in chapter	Demand	
2.2.2	creation	
	creation	
	Improving	
	frame conditions	
	Traine conditions	
	Comments	
Priorities		
Assessment of overall relevance		
D		
Promotion of innovation		
General comment:		

Table 26: Part B - Cross-sectoral coordination

Policy formulation	
Co-ordination with other processes and documents	Coordination between energy department and agricultural departments. Also coordinated with sustainability issues.
Administrative Coordination:	between different sections/departments within the same ministry; specify: X between different ministries, specify: Oil and energy – agricultural and food - environment between ministries and other public organizations / agencies, specify: Comments: Shortly explain the role of the main administrative actors
Stakeholder involvement	☐ Forestry: name most important organisations: ☐ 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: ☐ Other sector: : name most important organisations: Comments: Shortly describe the type of stakeholder involvement
Coordination mechanisms:	□ Formal (central) coordination body; name: X Formal coordination process □ Inter-sectoral working groups □ Inter-sectoral advisory body □ Formal mandatory consultation process □ Formal voluntary consultation process □ Informal consultations (please describe) □ Others:
Policy Implementation	
Responsible actors and their roles:	
Level of delegation	☐ Decentralized, e.g. X Central, e.g. ministry, public agency ☐ Outsourced to private actors ☐ Local, e.g. by municipalities ☐ Regional, e.g. by regional public actors ☐ Others:
General comment	List research needs you identified, they might be taken up in phase II of COST E51 Name further reference sources used

10 Conclusions and Research Needs

Studying the link between innovation and policy integration related to forestry has triggered the interest to further investigation of interrelations among different "innovation" policies.

It is not always as easy to see the link between the documents analysed in this study. However, when following the different tables put forward by the COST E51 some links between the documents has shown up.

All documents have an overall focus on increasing wealth. This focus is strong and can be linked back to historical economic development in Norway after Second World War. The way of increasing wealth in society is argued to go through an economic understanding of value added. In some way it seems as increased value added is regarded to be synonymous with increased wealth. In Norway there is a Schumpeterian way of understanding economic growth in the way that it is the entrepreneur (innovator) who is creating the growth.

However, at the same time it is argued that increased value added are negative correlated with increased biodiversity. We have to put efforts into taking better care of nature.

How to increase energy production are highlighted. Norway has a statement to be self-sufficient with energy in the long run. This can only be done through innovations in other energy sources than oil and water-craft.

By analysing different sectors as we have done in this study gives interesting inputs on further investigations to the topic of integrating innovation and development policies for the forest sector. Most of all the focus should be on how to combine different sectors when come to innovation issues. What can be learned from each other? What are the links between the different sectors? How is it possible to integrate innovations in one sector to other sectors?

The issue of how sector policies are integrated with innovation policy is fundamental because it addresses how we understand economic growth and wealth creation. The dominant perspective portrays economic growth and performance as led and shaped by developments in science-intensive high technology and the growth of new industries that have been built on these developments. This view is used as a core rationale for the formulation of innovation policies, with their aims of economic and employment growth and social development. This perspective is currently being challenged by a European focus on performance and innovation in industrial sectors and the willingness to develop policies that are adjusted to sector specific needs. The European Commission's initiative Europe Innova, which includes the Sectoral Innovation Watch Systematic project, is perhaps the best example of the willingness to think in terms of specific sectors' needs. Still, it is a fact that the European and the national policy mixes that are there to support innovation and economic development, are above all (with the lion's share of the budgets) directed towards the so-called high

tech sectors. The main argument now is of course that the so-called high tech sectors, in particular ICT, are generic sectors that feed advanced technology and knowledge components, and therefore innovation, into all other industrial sectors and economic activity.

The dominant perspective of innovation in high tech and growth has had as implication that other sectors, so-called low tech sectors, have not been under sufficient scrutiny. Basically we know to little about innovation in the rest of the economy. Reflecting about future research needs there is definitely need for studying how innovation goes on in sectors such as forestry and food, just to mention two important sectors in the Scandinavian economies.

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