

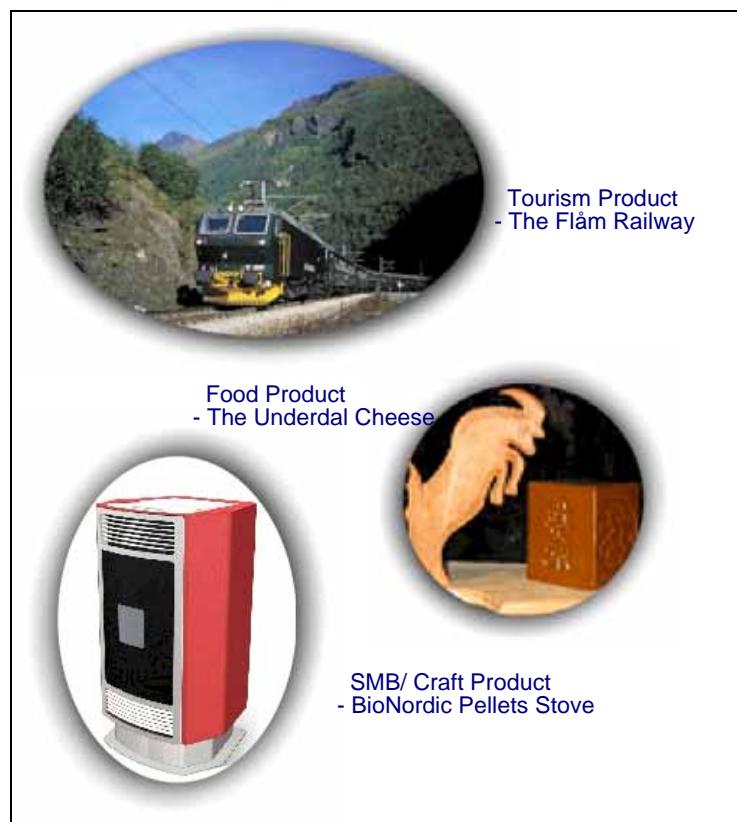


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VF-notat 1/06

The role of regional authorities in the development and promotion of mountain quality products

Studies and analysis in Sogn og Fjordane, Norway



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VF Prosjektnotat

Notat tittel: The role of regional authorities in the development and promotion of mountain quality products. Studies and analysis in Sogn og Fjordane, Norway	Notat nr: 1/06 Dato: 30.01.06 Gradering: Open
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Forskarar: Eivind Brendehaug, Jan Erik Weinbach, Carlo Aall	Prosjektansvarleg: Eivind Brendehaug
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Samandrag Som del av EU sitt arbeid med å utvikle ein ny type regionalpolitikk med nemninga fjellregionapolitikk har Vestlandsforsking delteke i eit felles europeisk forskingsprosjekt: Euromountains.net. Målsettinga er å identifisere gode innovasjonsverktøy for fjellregionar for å vidareutvikle eksisterande og nye innovasjonsstrategiar for fjellregionar. Prosjektet er gjennomført i regi av organisasjonen Euromontana (http://www.euromontana.org/); eit nettverk av Europeiske fjellregionar. Følgjande eksempel på fjellregionprodukt er analysert: produksjon av pelletsomnar i Jostedalen; produksjon av geitost ved Underdal stølsysteri i Underdal og reiselivsaktiviteten til Flåm utvikling med særleg vekt på Flåmsbana. Granskinga viser at det er trøng for offentleg bistand i bedriftsutvikling på alle nivå i prosessen: utvikling av forretningskonseptet, ved etablering og til spesifikk støtte i løpet av den ordinære driftsperioden, t.d. til design og marknadsføring.. Dessuten viser våre bedriftseksempler at det er trøng for offentleg deltaking både i forhold til infrastruktur på samfunnsnivå, utvikling av bedriftsnettverk og støtte til den enskilde bedrift. Det er også viktig at offentlege styresmakter set fokus ikkje berre på bedrift og produkt, men også på det territorielle som grunnlag for kunnskapsutvikling og profilering. Studien viser at det foregår etablering av nye lønsame bedrifter utan lokalisering til etablerte næringsklynger. Eit eksempel er Jostedalen industrier og Bionordic. Vidare finn vi at politisk vilje og handlingsevne til å nytte offentleg eigarskap som eit innovasjonsverktøy har lukkast i tilfellet Flåm Utvikling si overtaking av Flåmsbana i 1998. I eksempelet Underdalsosten har mobilisering av geitebønders eigne ressursar inkludert samarbeid med den lokale handelsmannen, læring i samhandling over mange år og kompetanseutvikling vore ein nøkkel til suksess. Felles for desse tre casa er eldsjelene sine evner til å tolke rammevilkår, sjå forretningsmogleigheter, ha handlingsevne og knyte til seg ekstern kompetanse og skape nettverk etter behov. Det overordna målet hos styresmaktene er ofte knytt til å oppretthalde busetting og gode levevilkår. Bedriftsutvikling og produkter er ein del av dette, men må supplerast med andre element som anvendig og utvikling av kunnskap. Ikkje berre i forhold til bruk av naturressursar, men også i forhold til korleis folk i distrikta kan gjere seg nytte av eigen kunnskap og utvikle han i samarbeid med andre menneske og institusjonar både i og utanfor territoriet.	
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Foreword

The studies and analysis in Sogn og Fjordane have been carried out by Western Norway Research Institute (WNRI). Jan Erik Weinbach has done the field work and interviews with actual informants. The Office of the County Governor has supplied some basic data and background information. Jan Erik Weinbach has compiled the report with some assistance from Carlo Aall and Eivind Brendehaug at WNRI. Christian Rekkedal and Egil Nestande from the Office of the County Governor, and Ivar-Bjarne Underdal from Sogn og Fjordane County Municipality have participated in meetings and discussions concerning the scope and content of the report.

Eivind Brendehaug
Project coordinator

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Summary

This project is carried out by the *European multisectoral association for co-operation and development of mountain territories* – Euromontana (www.euromontana.org).

Geography and fragility of the environment pose certain challenges to Europe's mountain areas, be it simply elevated costs or extra difficulties in territorial development. However, the mountain regions have found ways to deal with these handicaps and to adapt their development efforts to the physical context. Part-financed by the European Union (European Regional Development Fund) within the INTERREG IIIC Programme, the Euromountains.net-project aims to identify and collect these innovative solutions, their transferable success factors, and to methodologically work together to find further new strategies. These solutions will help local authorities that work for the sustainable development in the mountain regions of Europe.

The project partnership includes 13 partners representing five European Union Member States (France, Italy, Portugal, Spain, UK) and Norway and representing mainly regional authorities.

The project will be concentrating on three specific themes:

1. Improving the public and private services in mountains (infrastructures, culture and free time, health and social services, etc);
2. Developing and promoting mountain resources and quality products;
3. Managing the fragile mountain landscape, rural environment and natural resources.

This report deals with one part of the Norwegian study linked with theme (3); a study conducted in the region of Sogn og Fjordane. The study in Sogn og Fjordane is carried out by Western Norway Research Institute (WNRI).

WNRI addressed the issue using an explorative approach; “*How have businesses in the mountain areas of Indre Sogn experienced the interaction of regional authorities in relation to their own business development goals*”. We chose three private businesses as study cases and have collected data regarding; their economic success, their views on the role of regional authorities and other factors they believed were important in hampering or promoting their business development.

In Norway there is a trend in *reducing* the institutional capacity for public intervention within all levels of government. The numbers of *municipalities* which have dedicated business development personnel are declining. Some municipalities – like the two we have investigated – have their own economic means for supporting local business development; mostly as a result of hydroelectric power development compensation funds. Others have no or very small economic resources.

We highlighted the need for public intervention in *several stages* of local business development – ranging from the initial development stage, via the business establishment stage and further also to some specific actions (e.g. design and marketing) during the normal functioning stage of running the business. And as a second point, we illustrated the importance of public bodies focusing on *territories* – not only on concrete product and businesses. All three cases illustrate the importance of working within a three levels approach: community infrastructure, business network and single business development.

The study gives examples on successful development of innovative industry in areas without any industry clusters due to the high competence and professional networks, both locally and external, of the entrepreneurs. The enterprise Jostedalen factory and Bionordic are here good examples. The case Flåm Utvikling shows the results of a political will to make use of *public ownership* in securing public interests. Strategic use of economic and political capacity at municipality level has safeguarded continued management of the Flåm valley railway. The railway is a key actor for tourism industry locally and in the region. In the Underdal cheese

case co-operation among the farmers during the last 20 years has given them important experience and competence in joint action, especially in how to solve conflicts and how to support each other. This competence is as important as production and processing competence. Without the farmers' 'go-ahead spirit' and positive determination the project would probably not have been successful. The success of the venture is also due to the farmers' informal agreement with the local grocery shop for marketing the cheese and to the high volume of direct sales of the product to consumers.

All the three cases are depended on their commitment of burning solves. Their capacity to assess framework conditions, see business opportunities, mobilises local and external resources including knowledge is essential.

The overall goal by the authorities is often to maintain rural community and good living conditions. Focusing on product and business development is a part of this, but has to be supplemented with other important elements for living conditions in rural communities. And at least, illustrated in our cases is key-factor knowledge. Not only related to natural resources, but also who people in rural communities use their knowledge, and supplement their knowledge in cooperation with other people and institution within and outside the area.

Our case gives some findings interesting for further investigations. How do people and SME in rural community compensate for less density of knowledge institutions, and how can authority support the creation, development and use knowledge for innovation and social change in rural areas.

1 Norsk innleiing

1.1 Metodisk tilnærming

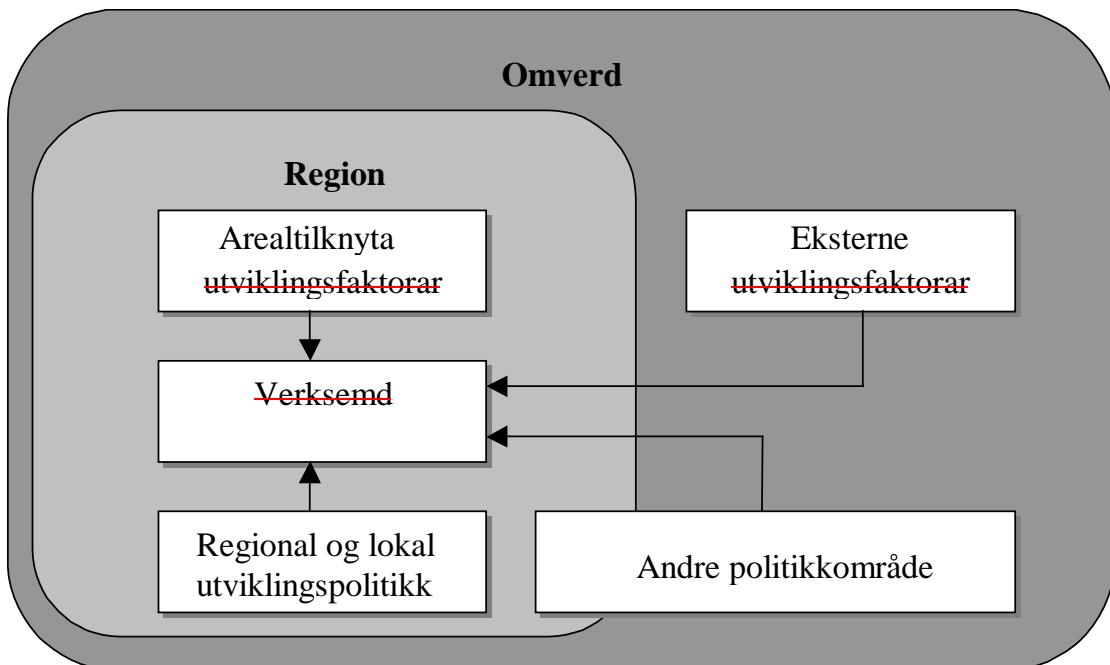
Vestlandsforsking har gjennomført *tre* caseanalysar fordelt på to casekommunar:

- Underdal stølsysteri: produksjon av ost (Aurland kommune)
- BioNordic: produksjon av pelletsomn (Luster kommune)
- Flåm utvikling: reiselivsutvikling (Aurland kommune).

Prosjektet sine to *førande problemstillingar*:

- Kva arealtilknyta faktorar meinar verksemdene er avgjerande for si utvikling?
- Kva rolle meinar verksemdene at regionale og lokale styresmakter spelar i å legge til rette for at dei får ei positiv utvikling?

Under har vi vist ein analysemodell for prosjektet. Det er *verksemda* som er i fokus og relasjonane mellom på den eie sida det vi har valt å kalle dei *arealtilknyta utviklingsfaktorane*; på den andre sida den *regionale og lokale utviklingspolitikken*. Men det er sjølv sagt også ein viktig påverknad frå omverda som gjeld andre kategoriar av utviklingsfaktorar og andre politikkområde, i tillegg til mange andre type faktorar som fell utafor fokus i denne undersøkinga. Eksempel på dette siste er eigenskapar ved lokalsamfunna og eigenskapar ved sjølve verksemda. Eksempel frå omverda kan vere sentrale vedtak som fører med seg nedlegging av dei lokale postkontora. I figur 1 har vi illustrert desse faktorane ved *eksterne utviklingsfaktorar* og *andre politikkområde*, der vi for andre politikkområda har forsøkt å få fram at dette kan gjelde politikk iverksett av både lokale, regionale og nasjonale (for den del, også overnasjonale) styresmakter.



Figur 1 Analysemønster for prosjektet

Datainnsamlinga er gjennomført på to måtar: tekstanalyse og individuelle intervju.

Vi har gjennomført lokale intervju for kvar av dei tre casa. Her har vi intervjua representantar for dei involverte verksemdene. Vi har stille følgjande to hovudspørsmål:

- Kva faktorar betyr mest for å hemme og fremje utviklinga av din verksemd?

- Kva rolle spelar regionale og lokale styresmakter når det gjeld å påverke desse faktorane i ein retning som er positiv for utviklinga av de verksemdu?

Vi la til grunn ei tidsfaseinndeling av intervjuet, der vi spurde om situasjonen *i dag; historia* til verksemduene og deira vurdering av *framtida* for eiga verksemdu. Vi har fokusert på kva utviklingstrekk som er *felles* og kva som *skil* dei tre verksemduene. Eksempel på slike utviklingstrekk kan knytast til stikkorda *kunnskap* og *kvalitet*. Jostedalen industrier har t.d. lagt stor vekt på å utvikle eit produkt som er heilt i kunnskapsfronten når det gjeld tekniske løysingar knytt til minst mogeleg utslepp og høgast mogeleg utnyttingsgrad, medan osteprodusentane i Aurland har gått inn i ein "kunnskapskamp" mellom etablert og alternativ kunnskap om hygiene og næringsmiddelteknologi. Flåm utvikling har hatt ei tilsvarende erfaring som osteprodusentane i Aurland, men innafor det bedriftsøkonomiske kunnskapsfeltet, ved at dei har hatt ein tilsvarende "kamp" med etablerte oppfatningar innafor NSB omkring lønsemdu til Flåmsbana. I alle dei tre verksemduene har spørsmålet om høg kvalitet vore sentralt. I Jostedalen prøver ein å vere best på marknaden. I tilfellet med osteproduksjon prøver ein å lage eit produkt som skil seg sterkt frå industriprodusert ost – der ein også har prøvd på ulike måtar å leggje inn opplevingselementet – ikkje bare sjølve produktkvalitetane. I Flåm legg ein vekt på å få fram høg kvalitet i naturopplevingane samstundes som ein rettar seg inn mot ein (i norsk samanheng) storskala marknad med "masseturisme". Eit tredje viktig stikkord i denne samanhengen er *mangesyssleri*. Både Jostedalen og Aurland er prega av mange syssler, og det er viktig for oss å klarleggje om – og eventuelt på kva måte – mange syssler har vore viktig i utviklinga av dei verksemduene vi skal studere.

1.2 Arealtilknyta utviklingsfaktorar

Modellen vist i figur 1 illustrerer at *arealtilknyta utviklingsfaktorar* og *regional og lokal utviklingspolitikk* er to nøkkelenomgrep. I metodenotatet frå Euromountains.net prosjektet er omgrepet "handicaps" nytta. Her nyttar vi det meir nøytrale omgrepet utviklingsfaktor. I dette ligg at faktorane både kan hemme og fremje utviklinga for det lokale næringslivet; altså vere både eit handicap og eit føremon.

Nemninga *arealtilknyting* inneber at det er faktorar som er spesifikt knytt til *lokaliseringa* av verksemdua; noko som i vår samanheng gjeld at verksemduene er lokalisert i *fjellregionar*. Det ligg i sjølve omgrepet fjellregion – som grunnleggjande sett er eit naturgeografisk omgrep - at det er naturleg i første omgang å fokusere på *naturgjevne* forhold når ein skal prøve å sortere ut relevante arealtilknyta utviklingsfaktorar for verksemder som er lokalisert fjellregionar. Det er dei *naturgjevne* forholda som gjev den direkte kopplinga mellom relevante utviklingsfaktorar for verksemder og det at verksemduene er lokalisert i fjellregionar. Vi kan difor operere med omgrepet *direkte* arealtilknyta utviklingsfaktorar som då omhandlar dei *naturgjevne* forholda. Ei måte å kategorisere dei naturgjevne forholda er å skilje mellom følgjande kvalitetar:

- Geografisk lokalisering
- Klimatiske forhold
- Abiotiske forhold
- Biologiske forhold

Dei to første kategoriene – *geografisk lokalisering* og *klimatiske forhold* - er sjølvforklarande. *Abiotiske* forhold gjeld dei ikkje-biologiske kvalitetane ved eit område; t.d. berggrunn, jordbunn, stigingsforhold, vasstilgang, snøforhold o.a. *Biologiske* forhold gjeld kva dyre og planteliv som finst i områda.

I tillegg til dei direkte kjem ulike formar for *samfunnsrelaterte* utviklingsfaktorar som omfattar kulturelle, sosiale, institusjonelle og økonomiske forhold. Desse vil vere faktorar som i varierande grad og på ulike måtar kan knytast til ein spesifikk kategori lokalitet; som t.d. fjellregionar. I den grad det er mogeleg å gjere kopplingar mellom samfunnsrelaterte

utviklingsfaktorar og areal kan vi tale om *avleia* arealtilknyta utviklingsfaktorar. Koplinga mellom dei direkte og avleia utviklingsfaktorane er at dei avleia samfunnsmessige utviklingsfaktorane oppstår som ein *konsekvens* av dei direkte naturgjevne utviklingsfaktorane.

Dei samfunnsmessige utviklingsfaktorane er ei meir samansett gruppe enn dei naturgjevne, og difor vanskelegare å kategorisere. Det er også viktig her å skilje mellom utviklingsfaktorar og politikk. Transportavstand mellom ei verksemid i ein fjellregion og dei viktigaste marknadane t.d. i fjernliggjande storbyar er eksempel på ein utviklingsfaktor (eller eit "handicap"), medan t.d. transportavgifter differensiert ut frå distriktpolitiske omsyn er eit eksempel på politiske verkemiddel som er gjennomført for å kompensere for handicapet som lang avstand til marknaden representerar.

Under er eit døme på kategorisering av dei arealtilknyta samfunnsmessige utviklingsfaktorane:

- Avstand (til marknader, til arbeidstakrar, til kunnskapsmiljø).
- Fysisk infrastruktur (vegar, jernbane, flyplass, havnar, telekommunikasjon, bygningar).
- Klimasårbarhet (i hovudsak konsekvensar av ulike kategoriar av rasfare).
- Produksjonsgrunnlag for naturressursbaserte næringer (dei viktigaste er venteleg jordbruk, skogbruk, ferskvassfiske, jakt, mineralutvinning, reiseliv).

Dette er altså samfunnsmessige utviklingsfaktorar som blir arealtilknytt ved at dei er *spesielle for fjellregionar*. Det *spesielle* oppstår ved at det i ein eller annan forstand er eit *årsak-verknadsforhold* mellom det å vere lokalisiert nettopp i ein fjellregion og samfunnsmessige forhold i fjellregionen.

Men vi kan føre dette vidare. Faktorane lista opp over er ei form for *første orden* avleia utviklingsfaktorar. Om vi følger årsak-verknad logikken vidare, kan vi seie at gitt dei naturgjevne forholda som spesifikt gjeld for fjellregionar (dei direkte utviklingsfaktorane) og dei (første orden) avleia samfunnsmessige faktorane som har oppstått som en konsekvens av dei naturgjevne forholda; kan vi også operere med eit sett faktorar som gjeld dei *sosiale, økonomiske og kulturelle tilpassingane* til dei samfunnsmessige utviklingsfaktorane. Gitt at vi fokuserar på utviklingsfaktorar som er relevant for næringsutvikling, kan vi avgrense oss til ein tredje kategori arealtilknyta utviklingsfaktorar: dei *næringsmessige* utviklingsfaktorar. Også her er det vanskeleg å kome fram til noko som intuitivt framstår som ei uttømmande kategorisering av utviklingsfaktorar. Under er ei enkelt inndeling med *to* kategoriar:

- Produksjonsteknikkar
- Organisasjonsmodellar

Produksjonsteknikkar gjeld produksjon av både varer og tenester. Eit eksempel på produksjonsteknikkar som kan knytast direkte til fjellregionar er terrassebygging i fjellskråningar for å samle opp vatn og hindre erosjon i landbruket. Eit eksempel på tenesteproduksjon er tradisjonen med breføring, som no vert nytta som ein ressurs innafor reiselivet.

Eksempel på *organisasjonsmodellar* kan vere det store innslaget av mangesyssleri i fjellregionar. Her er likevel årsak-verknad relasjonen til spesifikt det å vere lokalisiert i ein fjellregion noko usikker, all den tid vi kan finne eksempel på mangesyssleri også i andre rurale strøk som ligg utafor dei såkalla fjellregionane.

Som allereie påpeikt fokuserar hovudprosjektet på handicap – altså den "negative" varianten av utviklingsfaktorane – medan vi i caset i Sogn og Fjordane har studert både den negative og positive varianten av utviklingsfaktorar. Ønskje om å oppleve "romantiske" vegar, avsidesliggjande destinasjonar og "vill" natur er eksempel på korleis faktorar som høvesvis därlege vegar, stor avstand til byane og barskt naturgrunnlag også kan vere "føremon" i næringsutviklinga; i dette tilfellet i høve til reiselivet.

I det vidare er gitt ei skjematiske presentasjon av dei tre case der vi har fulgt ein rapporteringsmal utarbeidd av Euromontana sekretariatet. Avslutningsvis har vi drøfte nokre

hovuderfaringar frå vårt case, men hovudsiktemålet med denne rapporten er å rapportere dei tre case inn mot EUromountains.net prosjektet sentralt på ein mest mogeleg standardisert måte, for dermed å gje grunlag for å dra konklusjonar på tvers av casa og landa som deltek i prosjektet.

2 Area description Study area 1: Aurland municipality

Study area 1: Aurland municipality (NUTS 4)																																																																	
1/ Map and environmental/ geographical description																																																																	
Norway:							Sogn og Fjordane/Aurland:																																																										
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Area 1 488,0 km ² Population 1 783 (01.01.2005) Density of population: 1,2 persons pr. Km ² Mostly mountainous areas (95 % of the land area lies above the timber line) Climatic zones: 4-8 in the Scandinavian system, where zone 8 is the alpine zone Temperature and rainfall: Monthly mean temperature at Flåm (1961-1990)																																																																	
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164	111	128	61	72	103	115	153	234	239	187	199	1766																																																					
3/ Activities and economic dynamics – important activity sector involved – tourism, agriculture, industry - (description + figures e.g. in percentage of the active population from the area)																																																																	

Table 3 Social dynamic, territorial measures and interest of area

4/ Identity, social specific dynamic (e.g. common history, specific tradition in terms of land management, land owning, work management, grouping habits, specific language, tradition of pluri-activity in such and such sector)
Self-owned farms, common land above timber line, long traditions in pluri-activity, in rural tourism, in farmer's co-operation etc.
5/ Zoning, specific territorial measures, territorial policies, community initiative programmes (e.g. mountain areas, LFA, Objective 1 ...)
Belongs to zone C (middle range) for regional economic measures, whole municipality in the fjord- and mountain area for government support to farmers
6/ Interest of the area and reasons for having chosen it
Farmers in Aurland have maintained the tradition of goat farming and local food processing. A hub in the nationwide advisory network for small scale food processing is located in Aurland. Tourism and hydro-electric power are important industries (world famous tourist sites are the Flåm Railway, and the Nærøyfjord which is registered on the list of UNESCO's World Heritage). Although Aurland has the only railway connection in Sogn og Fjordane, and the main road between Oslo and Bergen goes through the municipality, it is still regarded as a remote area with declining population.

The Business and product in this study is located at Flåm and Underdal in the municipality of Aurland. The altitude of Flåm is 2 m above sea level. The Flåm railway stops at Myrdal (855 above sea level). Underdal cheese is produced in Underdal. We can not supply accurate temperature and rain measures since this is not monitored. Altitude above sea level is 102 m.

Description of policy organisation and zoning

Table 4 Clarification of NUTS and numbers

	NUTS2	Nb	NUTS3	Nb	NUTS4	Nb	NUTS5	Nb
Norway	County	18	Small region		Municipality	433		

3 Tourism product - The Flåm Railway

3.1 Product description form

The Flåm Railway (www.flambsbana.no/) is one of the world's steepest railway lines on normal gauge. The gradient is 55/1000 on almost 80 % of the line, i.e. a gradient of one in eighteen. The twisting tunnels that spiral in and out of the mountain are manifestations of the most daring and skilful engineering in Norwegian railway history and is regarded as a masterpiece of Norwegian engineering. The only thing lacking when the railway line between Oslo and Bergen was opened in 1909, was a branch line to the Sognefjord. In order to assure a transport route to the fjord, work was begun on the Flåm Railway in 1923. It was to take 20 years to complete.

Flåm Utvikling (FU, in English; Flåm Development) is a development company for the town Flåm. FU has seven fulltime employees and this year they will employ 191 man-labour years. This is caused by the need for labour during the high season from June until end August. The company gives work to approximately 50 man-labour years. FU hires the train and crew running the Flåm Railway from Norwegian State Railways (NSB)² and they also hire other companies to run other service elements of their production.

In 2005 the Flåm Railway had 475 000 visitors. The Flåm Railway produces 90 % of the turnover for Flåm Utvikling.

Table 5: book equity, turnover and earnings of Flåm Utvikling (FU), corporation running the Flåm Railway

Year	Book equity	Turnover	Earnings
1997	1 265 822,78 €	- 226 458,99 €	- 226 458,99 €
1998	1 039 363,80 €	3 363 834,05 €	65 656,58 €
1999	1 149 632,03 €	4 001 265,82 €	155 569,62 €
2000	1 305 949,37 €	4 446 582,28 €	549 620,25 €
2001	1 302 405,06 €	4 822 151,90 €	929 113,92 €
2002	1 306 075,95 €	5 495 949,37 €	1 095 949,37 €
2003	1 300 886,08 €	5 561 012,66 €	456 835,44 €
2004	1 377 721,52 €	5 880 379,75 €	716 329,11 €

Ticket prices:

Single ticket: Adults 20 Euro, Children 4 - 15 years 9,5 Euro Return ticket Flåm – Myrdal – Flåm: Adults 31,6 Euro, Children 4 - 15 years 19 Euro Families 2 adults + 2 children 76 Euro	Group prices - minimum 10 persons: 10% in high season, 1 May – 30 September and 25% in low season 1 October – 30 April
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Within the municipality of Aurland there are close to 30 different accommodation possibilities, all of them are dependent on income from tourism. Compared to the surrounding municipalities, Aurland has the highest percentage of employment within commodity trade, hotel and restaurants.

¹ Information given by Johannes Dalsbotten, board member of Aurland Ressursutvikling (AR), is the mother company of FU and accountant (5.12.05). The other numbers are given by Olav Lühr (24.11.05) who is managing director of FU.

² NSB AS is owned by the Norwegian Ministry of Transport and Communications.

Table 6: Percentage of population and total employment, and employment within trade, hotel and restaurants in the municipality of Aurland and the surrounding municipalities.

Municipality	Population	Tot. emp	Emp. *1	% of tot. Emp.	% of pop.	Emp. *2	% of tot. emp	% of pop
Vik	2881	927	58	6,3 %	2,0 %	69	7,4 %	2,4 %
Balestrand	1431	495	40	8,1 %	2,8 %	40	8,1 %	2,8 %
Leikanger	2209	782	64	8,2 %	2,9 %	84	10,7 %	3,8 %
Sogndal	6794	2242	347	15,5 %	5,1 %	311	13,9 %	4,6 %
Aurland	1783	631	101	16,0 %	5,7 %	106	16,8 %	5,9 %
Lærdal	2158	765	73	9,5 %	3,4 %	73	9,5 %	3,4 %
Årdal	5631	2284	140	6,1 %	2,5 %	140	6,1 %	2,5 %
Luster	4927	1538	145	9,4 %	2,9 %	198	12,9 %	4,0 %

*1 Employees who live and work in Aurland. *2 Employees who work in Aurland. The statistics give somewhat different information than in table 2, this is because the two tables are based on different criteria. This table only includes employees who work 1300 hours or more a year. Also this table compares data from different years, but as the point in this table is to compare the different municipalities this is of less importance.

14 July 2005 UNESCO included two Norwegian fjords, Nærøyfjord and Geirangerfjord, on their renowned World Heritage List. The Flåm railway is located inside the World heritage area of the Nærøyfjord. The Geirangerfjord is located only a four hour drive (270 km distance) from Flåm.

3.2 Project context in brief

The organisation carrying out this project is Aurland Ressursutvikling (AR) which is a local development firm owned by four shareholders (see table 7). AR is the Mother Company of five wholly owned companies', Flåm Utvikling, Fretheim hotel, Flåm railway museum, and Flåm Resort³.

In this case we have focused on Flåm Utvikling (FU) and on the Flåm railway. The initiative, which led to the establishment of AR and FU, was made by the people of Aurland with the mayor, Mr Ivar-Bjarne Underdal, in front.

The main reason for this mutual and joint action within the community of Aurland, was that in the middle of the 1990's NSB wanted to close down the Flåm railway.

The business idea of AR was, and still is, to assure and create long term jobs for people in the municipality of Aurland, by further development of the Flåm railway, the hotel and boat traffic on the fjords (including cruises) as a complete and major tourist attraction.

³ This is a real-estate company.

Table 7: Stakeholders, role and relationship

Stakeholders	Role	What kind of relations
Aurland municipality (AM),	40% shareholder of AR which is sole owner of FU. 6.202.500,- Euro	Ownership, development and management through board position in AR. FU is important to the municipality as FU is a cornerstone industry in the municipality.
Aurland Sparebank, local and only bank in Aurland.	10 % shareholder of AR which is sole owner of FU.	Ownership, development and management through board position in AR.
Oftotens og Vesterålens Dampskibsselskab (OVDS) ⁴	12,5% shareholder of AR which is sole owner of FU.	Ownership, development and management through board position in AR.
Selskap for industriekst SF (SIVA) ⁵	37,5 % shareholder of AR which is sole owner of FU.	Ownership, development and management through board position in AR.
Innovation Norway (http://www.invanor.no) is a state owned company under the Ministry of Trade and Industry	Marketing cooperation through developing international structure for meetings in the tourist industry. They have also given grants to Fretheim hotel partly owned by FU. And funded 25% of the building of Flåm deep water quay.	Innovation Norway promotes nationwide industrial development, including tourism, profitable to both the business economy and Norway's national economy, and helps release the potential of different districts and regions by contributing towards innovation, internationalisation and promotion.
The employees	Provide labour	For the employees, the success of FU is important as there are few job options and FU is a cornerstone industry in the municipality.
NSB	Provides the train and crew needed to run the Flåm railway.	Is obligated to provide the service (train and crew) until the year 2013 through a mutual agreement with FU. Many of the crew members are locals.
Flåm Guide service (FGS)	Provide guide service onboard the train.	This is a small company employing 2-3 man-labour year. They have a three year contract with FU. The contract is an important foundation for this small firm (50% of turnover).
Aurland Harbour District ⁶	Provider of the deepwater quay in Flåm and they hire FU to run the service of the deep water quay terminal.	The building of a deepwater quay was one of the conditions NSB had when accepting the mutual agreement with FU. 131 cruise ships visited Flåm with more than 125 000 people in 2005.

Difficulties linked to the context can not be discussed without also pointing out the opportunities. The main reason (opportunities) that made this project possible was the location of the Flåm railway. There is a living community surrounding the Flåm railway which provides stable dedicated employees. When establishing FU the approval from NSB and the local commitment to saving the Flåm railway was essential.

The challenges in 1997:

- Local scepticism regarding the establishment of AR and FU.
- Absence of capital and willingness or ability to raise money.

Today the challenges are:

- Recruiting suitably qualified staff.
- Lack of, or more precisely the vanishing of, knowledge towards local and regional natural environment and cultural heritage
- The different networks within the tourism industry are not well integrated with each other

⁴ OVDS ASA is one of Norway's largest domestic shipping companies, the operation of Hurtigruten coastal express being one of its main activities.

⁵ SIVA (<http://www.siva.no/ekstranett/>) builds networks between regional, national and international R&D (research and development) environments. Such networks are acknowledged to be of utmost importance for a country's ability to innovate. SIVA is a state enterprise.

⁶ A corporation owned and run by the municipality of Aurland.

- Local⁷ infrastructure is not sufficient for the huge numbers of tourist visiting Flåm each year.

In addition to the above, there are two more challenges: The first and most obvious is the dimensional and environmental challenge. In 2006 approximately 140 cruise ships, more than 500 000 people and hundreds of tourist busses will visit Flåm. The question is; how much more can Flåm stand before it is too much? There is already an ongoing debate regarding this issue. The second challenge is that the tourists mainly experiences Flåm as they are passing by, apart from the ticket fee, tourists travelling with the train spend very little money. Making tourists stay longer could be part of the solution to the environmental and dimensional challenges.

An unintended cost was imposed on FU when passenger traffic value-added tax (VAT) was introduced in Norway in 2004. The normal VAT in Norway is 25%. This means that passenger traffic corporations now can withdraw 25 % tax from goods and investments which they purchase, but they have to add 8 % VAT to the price on tickets sold for passenger traffic. The law is designed to help corporations which have to make frequent investments, such as bus and taxi companies. FU does not plan to make any major investments in the short term; their investment in trains is from before the law was applied, and trains have a long lifetime. As FU was unable to absorb the 8% tax it was necessary for them to push it over to the customer and raise their ticket price proportionately. This was the opposite intention of the law. Upon direct questions the geographical context was of assessed as of no relevance by our informants.

3.3 Content of the project

3.3.1 *Mobilisation of actors from the territory*

Aurland municipality had an analysis done in 1997 regarding the Flåm railway's role in the local community and its potential to be developed into a commercial business. This was done by two centres of competence located outside the region. The results were unanimous, and confirmed that the Flåm railway was important for local enterprise and it had great potential to become a commercial success. But in order to reach this potential, major investments had to be made. It was recommended to build out Flåm as a whole. This meant building a big hotel meeting modern standards, building a modern harbour with a deepwater quay, increasing the traffic on the fjord, expanding the season and creating more activities and attractions in order to assure that people would spend time and money there.

Getting long term finance, with patient investors, for such a big investment (in local point of view) was the next big challenge. Not only was there a need for long-term investors, but also investors who were committed to the project. The mayor, representing the municipality, asserted that they did not want to experience again the lack of loyalty to a project concerning the Flåm railway as they had experienced with a smaller project, *Flåm railway project*, some years earlier. To ensure that this would not happen the municipality, with external assistance, turned to NSB, the county administration, Fylkesbåtane⁸ and the political parties in Aurland.

⁷ Infrastructure to and out of Flåm is excellent.

⁸ A corporation owned by the County supplying public transportation, in terms of boats, on and across the Sognefjord.

Osmund Ueland, the managing director of NSB adopted the idea⁹. Without his fascination of the concept the days of the Flåm railway would have been spoken. He agreed to let FU take over the responsibility of the Flåm railway, but not without terms: a deepwater quay and an all year conference hotel must be built. Also the dialog with the local, regional and national authorities has mainly been positive. Without this positivism and willingness in the start up phase this highly successful business would never have existed.

Raising the necessary capital in 1997, was very difficult¹⁰, eventually the municipality of Aurland raised 60 % of the 1.265 800 Euro needed to complete phase one. The remainder was funded by the local bank, Aurland Sparebank (ASB). These two funded Aurland Ressursutvikling (AR), and together with NSB (49 %) and Fretheim hotel (10 %), AR (41 %) founded Flåm Utvikling (FU).

The constant expansion of long term capital¹¹ invested as equity in AR, made it possible to realise the re-building of Fretheim hotel and a fast modernization of the Flåm railway.

Investments made in Flåm between 1987 and 2003:

Fretheim hotel	12.658.200 Euro
Deep water quay	3.797.500 Euro
Train sets	5.063.300 Euro
Infrastructure (local, paid by Aurland municipality)	2.658.200 Euro
Total amount	34.177.200 Euro

In addition other major investments have been made. These include the building of the main¹² road between Vest Norway and East Norway. The building led to road and tunnel building in the municipality of Aurland with a cost¹³ of 189.873.400 Euro. This connection is an important foundation for making the Flåm railway available for the huge amount of travellers that each year visit Flåm.

The collaboration with local, regional and national authorities is different for every case, and depends on what level one is communicating with. *“It seems that the further one climbs up within the system, the more paperwork is required”*, complained the managing director of FU. He also expressed that being physically distant from the decision making systems requires extra effort.

⁹ Ueland adopted this idea, but he had to get the approval from the NSB board to do so. Since the NSB board is assembled and appointed by the Norwegian Government, which at the time was the labour party, privatising some of the national railway could be tricky. In 1997 privatising of Stat corporations was almost unheard of and would need national political support, even today this is an issue of conflict. Parts of the labour union in Flåm stressed this and argued that this would lead to the loss of jobs. In fact the labour union had a meeting with Ueland the same day as the founders of FU, but with opposite intentions. Both parties had the same agenda, trying to save the Flåm railway from being dismantled, but disagreeing on how.

¹⁰ Not only was it hard to provide capital, but it soon was made clear that it would be a challenge to gain political majority and acceptance to use municipality money to invest in a privet corporation. At the time, this issue raised at least four political dimensions. 1) the municipality would have interests in the commercial marked competing against other tax paying businesses, 2) investing money in privet business or stocks, instead of risk free bank interests, was a new idea and unheard of, 3) the investments needed were big compared with municipality economy and 4) for the labour party in Aurland this was a mater of Principe at the time.

¹¹ The total equity is today 6.202.500,- Euro.

¹² The road (E 16), runs between Oslo and Bergen.

¹³ The amount is inn year 2000 value, source is J. Kvåle at the Norwegian Public Road Administration, Sogn og Fjordane and their brochure *The Lærdal tunnel*.

FU needs a joint forum within the tourist industry of Sogn og Fjordane (the County). This is expressed by the managing director of FU. In his opinion the tourism industry in the County needs to make a joint effort in order to attract more visitors. The various supporting authorities should in his opinion only support those who want to cooperate. He also wants the government to introduce tax, in one way or another, on tourists. This money can then contribute to helping the development of the tourism industry. On the other side he would like to erase regulations that give negative effects to the business. These include taxes such as liquor tax and taxes and regulations connected to employment, such as employee tax, the strict laying of rules and the strict rules of short term employment in combination with sickness benefits.

At present AR and FU are facing challenges similar to what monopolists face. AR and FU are big successful corporations in terms of local dimensions. *“There is a jealousy within the municipality towards our success and scepticism regarding our decisions”*, these are the words of the AR board member, and he went on to say *“it is expected that we take responsibility and have a bigger community duty than similar corporations in a major city like Bergen or Oslo”*.

3.3.2 Quality management and product development

FU has a clear strategy when employing new staff. They look for individuals with local attachment and knowledge. FU makes use of local knowledge regarding; 1) how to maintain and run the culture landscape, 2) the history connected to; the service/product, the building of the Flåm railway and the influence and importance NSB has had in the small community of Flåm and the municipality of Aurland, 3) of the municipality of Aurland and its surrounding communities/region, and 4) on how to run and maintain the Flåm railway. FU also imports knowledge, for example from Norwegian University of Life Sciences (UMB) and Aurland Nature Competence Centre. Furthermore FU’s knowledge is built on general market competence within the tourist industry. Their access to market knowledge is through direct contact with the users of the service and the intensive contact with their professional customers around the world.

In addition to all this FU, also makes use of their owners, the shareholders of AR. Also FU is a member of the Aurland and Lærdal Travel Association, and they have a mutual marketing plan.

Quality management is not a big issue. FU hires most of the technical equipment. Their quality focus is towards the aesthetic parts of their product. But this is not put into systematic order. Since FU only has seven fulltime employees this is not a priority, nor has it been a problem so far. FU has a very flat chain of command, where everyone is made and given responsibility for their part of the job. In practice this means that if anyone sees something that does not live up to the aesthetic standards, it is their responsibility to make sure that it is taken care of. FU do emphasise quality management upon making sure that their market mix hits its target. This work is done in collaboration with Innovation Norway, Fjord Norway and major tour operators world wide.

3.3.3 Legal protection

FU owns all names and logos attached to the Flåm Railway. They do not need any approval by any authority.

3.3.4 Market

Customers expect the product to be reliable and safe. Furthermore they expect that it delivers what has been promised. FU has this focus regardless if the customer is the end user or a professional travel agent. FU puts 80% of their effort towards the professional market. The market for FU is world wide, both in terms of end users and travel agencies.

FU use benchmarking as input to new commercial tools. In addition they use “management by walking” as input and keeping in touch with the customer. The managing director uses at least one hour each day to walk amongst his customers as they visit Flåm. He also travels a lot, and meets his professional customers both informally and formally on organized workshops all over the world.

FU use both vertical and horizontal web portals and their websites are interactive.

Market access according to FU is almost optimal. Their market strategy is simple, finding and maintaining new international tourist markets. They monitor the macro movements on an international level and when a market is showing positive signals they are fast to make their move. For example they were one of the first tourist corporations to work on the Russian market. FU has more than enough funds to sustain this marketing strategy.

3.3.5 Financial capacity

FU feel comfortable and see no financial challenges.

3.4 Description of the action / intervention of the territorial authorities

Many of the questions asked in this chapter are already answered in previous chapters. We therefore do not feel it is necessary to do so again. Nevertheless, we have answered some of them.

3.4.1 Which territorial authorities supported the project?

As previously stated FU has not been directly supported. But the municipality of Aurland is a part owner, Nuts 4. Such cooperative ownership was at the time, and still is, seen as a new way of thinking. In fact, Mr. Underdal the mayor had a hard time convincing opponents and sceptics that this was an investment and not a grant.

3.4.2 Description of the intervention of each territorial authority

Table 8 Intervention of Municipality of Aurland

Who?	Name of the territorial authority	Municipality of Aurland, Nuts 4
For which Purpose?	What are the concrete actions supported?	Mobilisation of the chain actors Financing capacities
How?	Type of intervention	Investment Coordination (management) of the project
	Direct beneficiaries of the intervention / measure	AR the mother company of FU.
	Conditions to be fulfilled by the beneficiaries	Investment and not a grant. Aurland municipality want profit return on invested money.
	Modalities and duration of the intervention	Investment, shareholder through AR.
How many?		40 % shareholder € 2.481.000

Table 9 Intervention of SIVA

Who?	Name of the territorial authority	SIVA, nuts 1,
For which purpose?	What are the concrete actions supported?	Financing capacities
How?	Type of the intervention	Investment Coordination (management) of the project
	Direct beneficiaries of the intervention / measure	AR the mother company of FU.
	Conditions to be fulfilled by the beneficiaries	AR must focus on value development and innovation within their business sector.
	Modalities and duration of the intervention	Investment, shareholder through AR.
How many?		37,5 % shareholder € 2.325.600

Complementary questions [one answer by intervention of territorial authority]

A) Level of accuracy in the definition of the intervention

SIVA: As part of their strategy SIVA invest in local development and investment establishments all over Norway. The intention is to develop rural parts of the country by supporting innovation and entrepreneurship initiatives. The goal is a better national structure for innovation and entrepreneurs.

Municipality of Aurland: Make financial investments in order to sustain and create jobs.

B) Context of the intervention

Siva: national policy and a national frame. See table 7 for more information, or follow link <http://www.siva.no/ekstranett/>.

C) Partnership between territorial authorities and holders.

This has not been studied.

D) Non financial intervention

The board of AR is fully aware that without the Norwegian national authorities' enterprise Innovation Norway, FU probably would not have been such a success. In addition to the work of Innovation Norway, the national authorities also play a role by paying some of the running cost of the Flåm railway as a public service during the winter. None of these actions are considered to be direct supports to FU, but are seen as a national infrastructure service which is a State concern.

3.4.3 General questions (in case of several territorial authorities' interventions)

This has not been studied.

3.4.4 Financial information

100 % financed through shareholders.

4 Food product - The Underdal cheese

4.1 Product description

Table 10: The commodity chain

Annual turnover of the commodity chain:	167.020 Euro (2004)
Volume of production (per year):	13 000 kg
Number of producers:	3 farms (6 farmers)
Number of processors:	1 (Underdal Mountain Dairy)
Marketing/ selling area:	50 % directly to consumers at local shop (tourists/ visitors) 10 % to consumers at different farmers' markets 15 % (10 %) by post directly to consumers 25 % (30 %) to other groceries, hotels and restaurants
Direct employment generated:	5-10 work places

The specific quality of the Underdal cheese is directly related to the specific agriculture and pasture system that exists in Underdal. The goats graze on high quality pasture in outlying fields from May to November. The fodder from the pasture contains a high variation of plants, which gives the milk, and especially the cheese, its taste.

Underdal has a centuries old tradition of cheese production based on local resources. The modern history of the Underdal goat cheese starts in 1929 when the first joint dairy was built there. The dairy was built because the local farmers wanted to make quality cheese. This collaboration ended in 1941 as an indirect cause of the Second World War. During the period from 1929 and until 1941, the dairy also functioned as a school to educate dairy workers, under the responsibility of The Vik¹⁴ dairy.

Today's Underdal Mountain Dairy is a result of 20 years of development cooperation between farmers in the community. In 1982 four farmers' collaborated and restarted the local dairy. Between 1941 and 1982 the farmers, at certain times of the year produced¹⁵ cheese individually and at other times they sold the milk to Norske Meierier, now TINE BA¹⁶. In 1986 the local dairy was modernised, but quality problems were discovered. An analysis was done and it showed that the natural culture of bacteria that is needed to make goat cheese in the traditional way was disturbed. The farmers understood that modern processing techniques and equipment was not suitable to produce traditional cheese.

¹⁴ Vik dairy was, and still is, located in the municipality of Vik in the County of Sogn og Fjordane, but now as a part of TINE BA.

¹⁵ Normally in during the tourist season.

¹⁶ TINE BA is Norway's largest producer, distributor and exporter of dairy products. TINE BA is the sales and marketing organisation for Norway's dairy cooperative and is responsible for product development, quality assurance, production and distribution planning, marketing and the export of TINE products.

4.2 Project context in brief

Table 11: Context in brief

Type of case (product) and its description:	Underdal Mountain Dairy, co-operative dairy plant processing cheese from goats milk
Area of Production and Processing:	Undredal Valley, a small community of about 140 inhabitants, in Aurland municipality
Official origin or quality label or designation:	Undredal cheese has obtained “Presidium” of the Slow Food organisation. Possible Norwegian PDO labelling in the future. In 2003 they received formal authorisation to produce and market the cheese all over the European Economy Area.

In 1992 Underdal joined the county governor’s community development programme. The local community association was the project Leader and carried out a SWOT analysis. In the strategic discussion Underdal goat cheese was a main element in the plan for local development in addition to tourism. However the project initiative came from the municipality and not from the regional authorities.

As a result of this process a common organisation for all goat cheese producers in Undredal was founded with the name “Underdalsosten” (The Underdal Cheese). A common understanding of their problems and opportunities brought about the establishment of the organisation. A principal threat was the liberalisation of national and international agricultural policy. Small and steep-hill farms, such as existed in Undredal, were not competitive on economic terms within a low-cost and low-price business development strategy. However, the local farmers saw a development opportunity in producing a quality product with a strong brand image and local label, which would capitalise on the opportunities that existed for selling to consumers who demanded high quality food. In this approach maintaining full control over production, processing and marketing has proven to be essential.

To realise this product they had to build new production facilities for year round production of cheese. At this time problems between the farmers and the Norwegian Food Safety Authority (NFSA) began. Differences in principals for small scale cheese production gave “six years of struggle for survival”, as one of the farmers put it. NFSA asserted that pasteurizing milk is a precondition to secure food safety whereas the farmers in Underdal stated that it is possible to secure food safety even with unpasteurized milk.

In spite of this battle the new local dairy, Underdal Mountain Dairy was built due mainly to the construction work done by the owners themselves, capital contributions from the owners and by the means of loans and subsidies from Innovation Norway (county level). In the autumn of 2002 test production was carried out, and from 2003 the dairy has been in constant operation.

An important partner for the farmers and the dairy has been the local grocery shop in Underdal, Underdalsbui. The owner has a lot of experience with marketing and selling Underdal cheese and other local food products. Underdalsbui is the key actor for the marketing and sale of Underdal Mountain Dairy cheese.

Table 12: Underdal Mountain Dairy stakeholders, roles and kind of relations

Stakeholders	Role	What kind of relations
The three local farms	Owner and responsible for the business management	Joint ownership, development and management
Owner of the local store “Underdalsbui”	Marketing channel: retailing and wholesaling	Joint marketing strategies and agreements
Norwegian small scale cheese association	Interest and professional network for small scale cheese producers	1) Competence development, 2) Promote interest towards national and regional authorities
The National Veterinary Institute (NVI)	National research institute in the fields of animal health, fish health and food safety	Joint research project for safety in small scale food using data from Underdal Mountain Dairy
The County Governor of Sogn og Fjordane, department of agriculture	Contribute to the implementation of national agriculture policies by information, distribution of state grants to farmers, and through locally adapted measures.	Project start in early 1992 with participation in the municipality development program.
Innovation Norway, Sogn og Fjordane	Innovation Norway promotes nationwide industrial development, and helps release the potential of different districts and regions by contributing towards innovation, internationalisation and promotion.	Enterprise subsidies and loan, development and marketing measures
Underdal Community Association	Underdal Community Association is the organisation for all inhabitants in Underdal with the aim to promote welfare and municipality progress.	Owner of the project in connection to the municipality development program.
Aurland Municipality	Political and administration authority at local level	Preparation and some economic support

The dairy has received support from agricultural authorities at local, regional and national level. Aurland municipality agricultural office has contributed mainly in terms of supervision and other kind of immaterial support, whereas The County Governor of Sogn og Fjordane, department of agriculture has contributed with some project support. Innovation Norway Sogn & Fjordane (IN) has given mainly financial support.

Total investment costs for Underdal Mountain dairy was about 250.000 Euro. The support from IN was based on the governmental programme “Value Creation Programme for Food and Forestry”. Underdal Mountain Dairy does not receive any subsidies regarding their day-to-day operations.

The farmers on these three farms complemented each other in a very positive way with regard to competence such as skills in mechanical engineering, cheese processing, organisation and strategic leadership. The co-operation among the farmers over the last 20 years has also given them important experience and competence in joint action, especially in how to solve conflicts and how to support each other. This competence is as important as competence in production and processing. Without the farmers’ ‘go-ahead spirit’ and positive determination the project would probably not have been as successful as it has proven to be.

The Underdal Mountain Dairy is organized as a local cooperative (company with limited responsibility). An important element in choosing a functional organisation model for the dairy was the separation of ownership and management of the dairy. This principle proved to be important for the co-operation between the farmers. When the owners work at the dairy they are employed and get pay as others employed at the dairy. The purpose of Underdal

Mountain dairy is to further develop local traditions in processing and sales of unique local products in order to secure agriculture in Underdal.

The company has these goals:

- develop and protect the label “Cheese from Underdal”
- to produce and store white and brown goat cheese and other products that have to be developed
- realise best price sales

The company meets two main difficulties. First the Norwegian Food Safety Authority (NFS) EU-production rules practice. NFS asserts that pasteurizing milk is a precondition to securing food safety. The farmers in Underdal declare that it is possible to secure food safety even with unpasteurized milk. In the 1980's trying to satisfy NFS demands and lack of know how among the producers resulted in quality problems. Then they realised the importance of developing competence in their own premises. In recent years the dairy has received competence support from Western Norway Competence Centre for small scale food processing located at the agriculture college in Aurland.

The project assets are all linked to the local mountain context:

- Natural and cultural heritage
- Quality, specificity and originality of the product
- Specificity of production and processing methods
- Recognition and image of the product
- In recent years: presence of a local market linked to tourism

4.3 Content of the project

4.3.1 Quality management and Innovation

The Underdal Mountain Dairy's philosophy is to produce traditional cheese by using traditional processing methods. “Traditional” means historically developed techniques and methods adapted to the local environment, culture and resources.

During the grazing period the flora differs, resulting in changes in the taste and structure of the cheese product. As the local farmer, Pascale Baudonnell puts it: *“The milk and the cheese express a picture of the local ecology system”*. According to the owners of the Underdal Mountain Dairy this picture would be damaged if they were forced to pasteurize their milk. Therefore, it has always been an important element in the branding of the Undredal cheese to use unpasteurized milk.

The co-operation among the farmers over the 20 year period has also established a culture of striving for high quality products. The farmers have worked hard over the years to establish good systems for quality control and climate management for cheese storage. A set of quality principles and regulations for the milking and cheese processing work has been developed. One example of such principles is only using daily fresh milk for cheese production. Explicit quality control is done at four levels in the process from raw milk to consumer product:

- control of the raw milk in the goat stable
- control of the fresh cheese
- control of the cheese during storage

- control when selling the product to consumer

This understanding and philosophy of quality control is an important element of the innovative approach that has emerged in Undredal: quality, innovation and marketing strategy are parts of the same issue in Underdal. Historically developed competence and techniques in addition to new knowledge makes the product unique.

The farmers update their own knowledge with information and relations outside the area. One of the farmers completed a formal education in cheese processing technology in France in the 1990s, this competence has been important for the success of the venture. The quality problems in 1986 provoked by modern processing techniques gave an understanding of the need for this education as an alternative competence to Norwegian Food Safety Authority. Also the co-operation with the Bergen branch of The National Veterinary Institute is an important strategic alliance in this context. The dairy and the institute co-operate to create knowledge and documentation about food safety aspects using unpasteurized milk in small scale dairies. There are also other important examples on how the local actors have built a network with other actors to bring in knowledge to their project, and to strengthen their own competence.

The cheese also goes through a kind of ‘quality control’ after it has left the dairy. The white cheese undergoes a higher level of control by the local marketing channel, due to the maturing period in the shop. This white goat cheese is also usually sold in smaller pieces than the brown goat cheese, which enables quality control opportunities when cutting it into pieces for sale.

Today Underdal Mountain Dairy has a relationship with Norwegian Food Safety Authority. One of the farmers explains the change in relationship with NFSA by the shift of personal and office responsible for small scale cheese production. Now, in year 2005, people with experience from agriculture practice located at an office in the rural part of Norway handle these issues. Such a change can be seen as an *institutional* change; that is – changes in values, attitudes, networks as well as knowledge base result in a change in a control regime.

4.3.2 Legal protection

Today the Underdal Cheese has its own unique label. It is a private label owned by the producer organisation in Undredal. There is no third controlling party, and the label and the cheese name has no legal protection today.

The enterprise is also in the process of evaluating the advantages of attaining PDO labelling. (Protected Destination of Origin, in Norwegian called “Beskyttet opprinnelsesbetegnelse”). The Norwegian variety of the PDO label is shown below.



In spring 2003, the Underdal Mountain Dairy received formal authorisation to produce and market goat cheese from unpasteurized milk. This very important approval also allows the enterprise to market the cheese all over the European Economy Area.

Some of the farmers and the market channel, Underdalsbui, are members of the Aurland Nature and Cultural Heritage (ANKA) – a private network between local food, handcraft and “experience” products producers. ANKA has a private label for use by its members which must meet two criteria:

- The product has to meet the quality roles designated by ANKA
- The production has to be located in the Aurland municipality

4.3.3 Market

The marketing strategy is to sell as much as possible directly to the consumers from the local shop in Undredal, by post or at farmers markets. Selling directly to the consumer also offers the largest profit margins. The manager of Underdalsbui, underlines the importance of direct marketing:

“If we had to sell all the cheese through other wholesalers and shops we wouldn’t be able to manage this project. The economic situation would be too poor for the farmers to continue.”

The local grocery shop, Underdalsbui, is responsible for the marketing of Undredal cheese. The farmers have an agreement with the owner of the grocery shop based on tradition.

A new promotional channel for the Underdal cheese is the Internet. Other commercial sales are made at the Undredal goat cheese festival. The festival is connected with the traditional moving of the goats from spring to summer pasture. One of the main objectives of the festival is to stimulate local traditions, especially those concerned with quality food. The festival is a manifestation of the importance of traditional cheese production for local society, and it also emphasizes the cultural and landscape quality aspects connected with goat farming. The festival is organised by the Underdal Youth Association and the Underdal Local Association.

The festival is one example of the innovative activities to develop events in connection to the product. The farmers also saw a potential in developing a supplementary tourism strategy where tourists are invited to experience on site how the quality products are produced. Other examples are events where tourists have the opportunity to visit the dairy and observe the production process, events with music and cheese tasting. This kind of marketing is seen as important whereby not only selling the cheese as a food product, but as a culture and nature adventure to be explored in Underdal.

The Underdal Cheese has for many years built up a reputable and well-known image among consumers and sales organisations in the market. The label itself is according to our assessment not the most important factor contributing to its success, its success can mainly be attributed to the dominant market channel: directly to the consumer from the grocery shop in Undredal, by post or at farmers’ markets.

Underdalsbui has in depth knowledge of the farming practises and the transformation process from milk to cheese. This knowledge is fundamental in promoting and communicating the desirability of the product to the customer.

In addition, the building of a road to the village during the 1980s has contributed to the development of local infrastructure. In particular this has provided a good opportunity to market the cheese in the most profitable way - directly to the consumer, over the shop counter. At the same time, Undredal has retained its special and exotic image with its high quality cultural landscape.

4.3.4 Financing capacities

The establishment of the enterprise was facilitated by grants obtained from Innovation Norway. The governmental programme “The Value Creation Programme for Food and Forestry” has also supported the enterprise’s marketing initiatives. Furthermore public

authorities are providing infrastructure to open additional farmers' markets, which have become one of the principal arenas for promoting local quality products such as the Undredal cheese.

The market success enables the enterprise to pay a high price for the goat milk to the farmers, almost double the price received for milk which is delivered to the national dairy, Tine. The price gives capacity for future development.

The Undredal Mountain Dairy also has in depth knowledge in common program and support possibilities for quality food products. One of the farmers is head of the regional office of competence network for quality food in Norway supported by the Ministry of Agriculture.

4.4 Description of the action / intervention of the territorial authorities

4.4.1 Which territorial authorities supported the project?

Aurland Municipality (NUTS 4), The County Governor of Sogn og Fjordane, department of agriculture (NUTS 2), Innovation Norway County of Sogn & Fjordane (NUTS 2) and Innovation Norway, food value creating program (NUTS1).

4.4.2 Description of the intervention of each territorial authority

Table 13: Intervention by The County Governor of Sogn og Fjordane, amount in 1000 €

Who?	The County Governor of Sogn og Fj, department of agriculture	County of Sogn & Fjordane (NUTS 2)
For which purpose?	What are the concrete actions supported?	1. Community development program. 2. Development of a handbook in local cheese processing 3. Education in local cheese production 4. Slow food presidium for the Undredal cheese
How?	Type of the intervention	Grants for the objectives above
	Direct beneficiaries of the intervention / measure	1. Undredal Community Association 2. and 3. One of the farmers 4. Undredal Mountain Dairy
	Conditions to be fulfilled by the beneficiaries	1. Annual report with accounts showing use of funds in the report period (3 years) 2., 3., 4. (individual projects): written report at end of project period, including accounts showing actual expenditure
	Modalities and duration of the intervention	Project support and guidance, plus annual grant for 3 years through the Community Development Programme
How many?		1) grants: 38 2) grants: 11 3) grants: 14 4) grants: 4

Table 14: Intervention by Aurland municipality, Amount in 1000 €

Who?	Aurland municipality, fund for hydroelectricity power licence tax	Municipality (NUTS 4)
For which purpose?	What are the concrete actions supported?	Building Undredal Mountain Dairy
How ?	Type of the intervention	Grants and loan

	Direct beneficiaries of the intervention / measure	Holders of the dairy (the six farmers)
	Conditions to be fulfilled by the beneficiaries	Account report
	Modalities and duration of the intervention	50 % during project period, and the rest after account report by the end of the project
How many?		Grants: 25, Loan: 63

Table 15: Intervention by Innovation Norway, Sogn og Fjordane region. Amount in 1000€.

Who?	Innovation Norway	County of Sogn & Fjordane (NUTS 2)
For which purpose?	What are the concrete actions supported?	1. Building Underdal Mountain dairy 2. Product development 3. R & D quality control
How?	Type of the intervention	1. Investment support for the dairy: loan and grants 2. Grants 4. Grants
	Direct beneficiaries of the intervention / measure	Holders of the dairy
How many?	Conditions to be fulfilled by the beneficiaries	Written report at end of project period, including accounts showing actual expenditure and how funds have been used
	Modalities and duration of the intervention	Investment grants linked to budget and costs for each development phase
How many?		1. Loan: 108, grants: 40 2. grants: 13 3. grants: 119

Table 16: Intervention by Innovation Norway, Nationally. Amount in 1000€.

Who?	Innovation Norway, food value creating program	National (NUTS 1)
For which purpose?	What are the concrete actions supported?	Process development
How?	Type of the intervention	Investment grants
	Direct beneficiaries of the intervention / measure	Holders of the dairy
How many?	Conditions to be fulfilled by the beneficiaries	Account report
	Modalities and duration of the intervention	50 % during project period, and the rest after account report by the end of the project
How many?		Grants: 32

Complementary questions [one answer by intervention of territorial authority]

A) Level of accuracy in the definition of the intervention

Both the County Governor of Sogn og Fjordane and Innovation Norway at regional level support business and community development according to national programs and strategies adapted to local conditions. The county Governor supports more general development projects for community development with many partners involved. Innovation Norway supports more specific business and enterprise development. But the initiative must be bottom-up. The overall goal is to maintain communities in rural areas.

B) Context of the intervention

See the description above in chapter three.

C) Partnership between territorial authorities and holders

This has not been studied.

D) Non financial intervention

Underdal community participated in the municipality development program in 1992. The programme was led by The County Governor of Sogn og Fjordane, department of agriculture, and was an important starting point for the project.

4.4.3 General questions (in case of several territorial authorities' interventions)

This has not been studied.

4.4.4 Financial information

Investment and financial information of Underdal Mountain Dairy. Two alternative figures: extern financing as grants and loan as self-financing, or extern financing as grants and loan.

Table 17: Extern financing (grants) and self-financing (loan included) of investment.

	Territorial authorities						Self-financing
	Europe	Nuts 1 (State)	Nuts 2	Nuts 3	Nuts 4	Nuts 5	
Amount (€)	0	31 646	37 975	0	25 316	0	452 278
Share (%)	%	6%	7 %	%	4%	%	83%

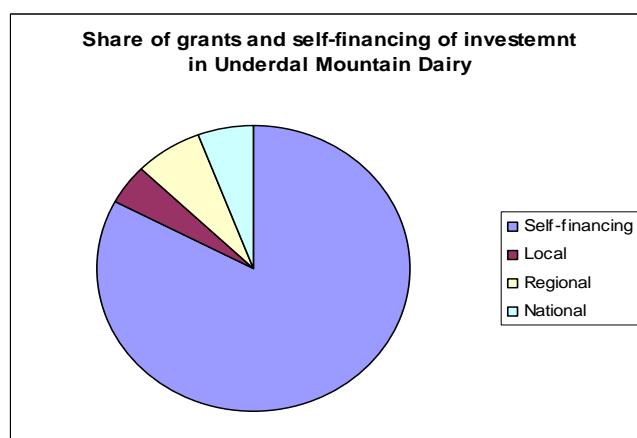


Figure 2: Share grants vs self-financing – Underdal mountain dairy

Table 18: Extern financing (grants and loan) and self-financing of investment.

	Territorial authorities					Self-financing
	Europe	Nuts 1 (State)	Nuts 2	Nuts 3	Nuts 4	Nuts 5
Amount (€)	0	31 646	146 329	0	88 608	0
Share (%)	%	6%	27 %	%	16%	%

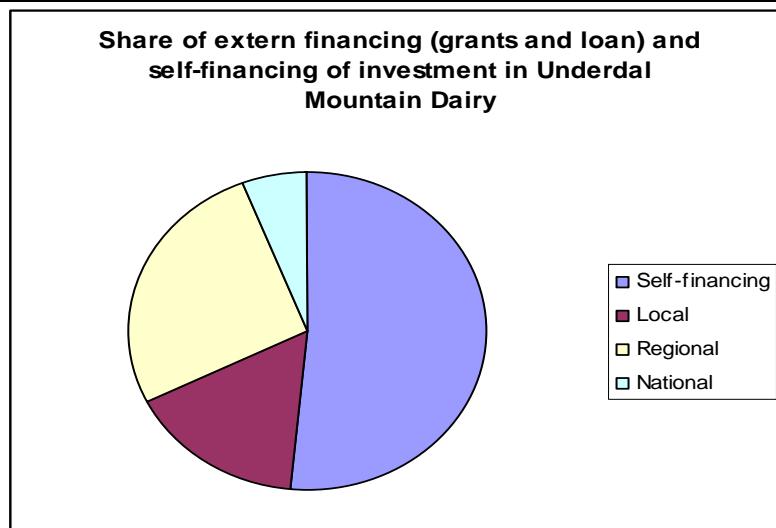


Figure 3: Share grants and loans vs self-financing – Underdal mountain dairy

5 Area description study area 2: Luster municipality

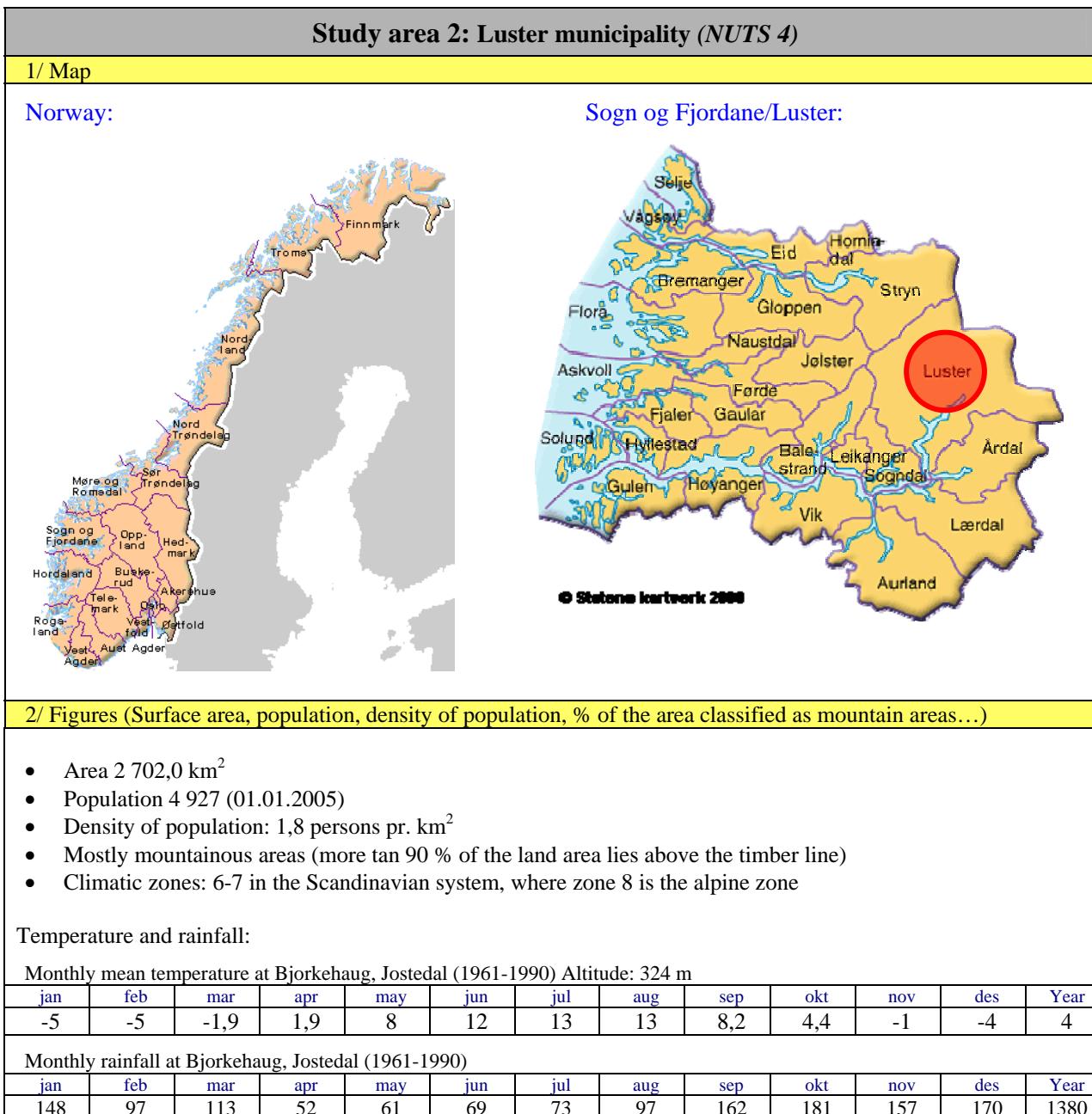


Fig.4 Study area, Norway, County of Sogn og Fjordane, Municipality Luster

Table 19: Social dynamic, territorial measures and interest of area

3/ Activities and economic dynamics – important activity sector involved - tourism, agriculture, industry - (description + figures e.g. in percentage of the active population from the area)																																	
73% of the population between 16 – 74 years are employed. Statistic data from 2004																																	
<table border="1"> <thead> <tr> <th style="text-align: center;">Activities</th> <th style="text-align: center;">Numbers of employments</th> <th style="text-align: center;">Percent</th> </tr> </thead> <tbody> <tr> <td>Agriculture, hunting and forestry</td> <td style="text-align: right;">299</td> <td style="text-align: right;">15,7 %</td> </tr> <tr> <td>Manufacturing and Mining</td> <td style="text-align: right;">198</td> <td style="text-align: right;">10,4 %</td> </tr> <tr> <td>Electricity, gas and water supply</td> <td style="text-align: right;">81</td> <td style="text-align: right;">4,3 %</td> </tr> <tr> <td>Construction</td> <td style="text-align: right;">143</td> <td style="text-align: right;">7,5 %</td> </tr> <tr> <td>Wholesale and retail trade, hotels and restaurants</td> <td style="text-align: right;">265</td> <td style="text-align: right;">14,0 %</td> </tr> <tr> <td>Transport, storage and communications</td> <td style="text-align: right;">73</td> <td style="text-align: right;">3,8 %</td> </tr> <tr> <td>Real estate, renting and business activities</td> <td style="text-align: right;">99</td> <td style="text-align: right;">5,2 %</td> </tr> <tr> <td>Public administration and defence, education, health, etc.</td> <td style="text-align: right;">738</td> <td style="text-align: right;">38,9 %</td> </tr> <tr> <td>Others</td> <td style="text-align: right;">3</td> <td style="text-align: right;">0,2 %</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">1899</td> <td style="text-align: right;">100,0 %</td> </tr> </tbody> </table>	Activities	Numbers of employments	Percent	Agriculture, hunting and forestry	299	15,7 %	Manufacturing and Mining	198	10,4 %	Electricity, gas and water supply	81	4,3 %	Construction	143	7,5 %	Wholesale and retail trade, hotels and restaurants	265	14,0 %	Transport, storage and communications	73	3,8 %	Real estate, renting and business activities	99	5,2 %	Public administration and defence, education, health, etc.	738	38,9 %	Others	3	0,2 %	Total	1899	100,0 %
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Others	3	0,2 %																															
Total	1899	100,0 %																															
4/ Identity, social specific dynamic (e.g. common history, specific tradition in terms of land management, land owning, work management, grouping habits, specific language, tradition of pluri-activity in such and such sector)																																	
Self-owned farms, common land above timber line, diversified farming patterns, long traditions in pluri-activity, in farmer's co-operation etc.																																	
5/ Zoning, specific territorial measures, territorial policies, community initiative programmes (e.g. mountain areas, LFA, Objective 1 ...)																																	
Belongs to zone C (middle range) for regional economic measures, whole municipality in the fjord- and mountain area for government's support to farmers.																																	
6/ Interest of the area and reasons for having chosen it																																	
Luster municipality is the largest in area in Sogn og Fjordane and ranks high in agricultural production. Greater parts of the municipality's area are inside national parks, including much of the Jostedalsbreen glacier. Business activities connected to national parks are on the increase (mountain hiking, glacier walking etc.) Some communities have strong traditions in culture and music. Pluri-activity is in the form of farming-tourism-craft/small scale industry form creative clusters for innovations and new businesses.																																	

Description of policy organisation and zoning

Table 20: Clarification of amount and NUTS

	NUTS2	Nb	NUTS3	Nb	NUTS4	Nb	NUTS5	Nb
Norway	County	18	Small region		Municipality	433		

6 SMB industrial/ handicraft product - BioNordic – Jostedal-1

6.1 Product description

Bio Nordic Jostedal-1 is a pellet-stove for indoor heating.

Jostedal-1	
Good heating economy	
100 % harmless to environment	
Safe, “cold exterior”	
High efficiency factor, 97 % of energy	
11 colours of choice	
Easy and practical with thermostat control	

Fig 5 The pellet-stove Jostedal-1

BioNordic Ltd, (BN) is a bio-energy company producing pellet stoves (new invention) with first trial production of 100 units in 2005. BN started developing the stove in 2002, as a spin off of Jostedal Industries¹⁷, and is the first and only Norwegian pellet-stove. When we interviewed BN in October, they were about to release the stove onto the market. Total sales in 2005 were 126.600,- Euro (60stoves). The 2006 budget is 360 stoves.

The stove is mainly produced in Jostedalen¹⁸, a small community in the Municipality of Luster. The design was made by a design company in Oslo (360 graders produkt design AS). The paint-job and the front panels are delivered by two companies located in different neighbour Municipalities, namely Sogndal and Stryn. The raw material are different kinds of metal, which they buy from a company in Bergen, and electronic devises, which the manufacture themselves. The design company was chosen because their design fit best with the profile of BN. BN also felt that they connected well with the designers and had a mutual understanding when working together. Two other design companies were also considered.

¹⁷ Company building surgery tables for hospitals. They have a 60% share of the Norwegian market within this segment.

¹⁸ Jostedalen Valley, is a remote community of about 500 inhabitants, in Luster municipality.

6.2 Project context in brief

BN is composed of five shareholders. The objective is: “*to create something that provides employment where we live*” and the BN vision is: “*producing the best pellet stove in the world*”. The shareholders and other stakeholders are presented in the table below. BN currently employs five people.

Table 21: Stakeholders, role and relations

Stakeholders	Role	What kind of relations
Kurt Brun	26 % shareholder of BN	Ownership, development and management. Kurt is responsible for research and development of the stove
Edvin Brun	26 % shareholder of BN	Ownership, development and management. Edvin is president of the board, responsible for market communication and strategy.
Svein Norberg	26 % shareholder of BN	Ownership and management. Svein is managing director and has market knowledge
Geir Mosseng	4 % shareholder of BN	Ownership, development and management. Geir is developer of electronics.
Luster Energiverk (company selling and producing electricity)	18 % shareholder of BN	Ownership and management through board position. Provide knowledge about the electrical energy marked.
The employees	Provide labour	For the employees the success of BN is important as BN is one of few job providing industries in Jostedalen.
Innovation Norway (a corporation in connection to the Norwegian Ministry of trade and business)	They have provided grants and aided other services to BN.	Innovation Norway offer products, grants and services that are meant to contribute to the development of rural districts and increase innovation to business life.
Luster municipality	They have provided grants and aided other services to BN.	Luster Municipality has an active innovation strategy in order to keep up population and prevent migration.
Jostedalen Industrier	Sharing employees, production machinery and building?	Several of the investors and stakeholders of BN are also investors or stakeholders in Jostedal industrier.
Enova (Enova SF is a public enterprise owned by the Royal Norwegian Ministry of Petroleum and Energy.)	They have supplied grants and knowledge aided to BN.	Enova has invested money covering 1/3 of the development of the second generation stove. Main mission is to contribute to environmentally friendly use and production of energy.

Which difficulties, linked to the context, are met by the holders?

Location difficulties are mainly logistical. Jostedalen is remote in terms therefore it is difficult and costly to get raw material supplies for production. In order to keep the raw material costs down, they have to buy in bulk. Where bulk buying of metal is concerned it necessitates costly buildings in order to store it safely. Jostedalen is also remote in terms of technical maintenance and development, . They have to be able to solve their own technical and practical challenges when they occur. This means that they should have the know-how and machinery¹⁹ to meet and overcome these challenges. Such investments are expensive, especially for product development. This will also be a future challenge, as the success of BN depends on product development and having the best technical solutions.

¹⁹ Several automatic metal milling machines are examples of such equipment.

The location advantages are a stable labour force and positivism within the community of Jostedalen. People living in Jostedalen have few jobs to choose from if they want to work close to home. BN requires stable labour due to high investment costs of training employees. The positive culture of Jostedalen can be observed in the way the mutual support networks. This opens up for constructive and critical thinking. “*It makes one believe that one can achieve something and it helps to develop and push each other forward*”, says Kurt Brun.

More general difficulties linked to the context are:

Penetrating the market, this is a big cost for a small company. If the stove becomes a major success, BN will have capacity challenges. They do not have the financial capacity to expand the production line or buildings. It can also lead to low priority of production of the hospital surgery tables. (although admittedly this is a luxury problem) Product development is expensive but necessary to keep competitors at bay. In the market of indoor heating the price is set by the market. Profit therefore depends on price level.

On the positive side BN expects a modification of the law regulating indoor stoves. The change will allow pellet-stoves to be connected to a small outlet through the outside wall, instead of a traditional chimney.

6.3 Content of the project

6.3.1 Mobilisation of actors from the territory

As previously stated BN is a subsidiary of Jostedal Industrier (JI). Without JI BN would probably not exist. The mobilisation of JI happened as a result of Kurt Brun being laid off from his job at LMI. At the same time there was an industrial building for sale in Jostedalen. At an earlier point K.B had discussed the possibility of producing hospital surgery tables with his uncle Mr. Snotun. After some negotiations JI was created, although it was not large enough to make a sustainable living and guarantee long term employment for the stakeholders.

JI joined the *Nature use project*²⁰ initiated by the agricultural department of the County Governor in Sogn og Fjordane. They hoped to find sustainable development areas and highlight difficulties for innovation of businesses in the area, and to help overcome and promote these. The successful businesses created through this project were to be flagship businesses to promote the County as a place to work, live and visit. In addition they hoped to strike a balance between local business development and the preservation of the national parks. The innovators from JI identified the possibility of using the local forest as a source of timber for making wooden pellets for pellet-stoves. After some considerations they realised that this would be too expensive²¹ and that there was insufficient timber. They subsequently decided to develop building pellet-stoves instead. They disassembled a pellet-stove and in the words of K. Brun decided. “*This we can do much better*” said K. Brun, this was the start of BN.

²⁰ This was a project giving grants to different community associations. The grants were used to support different business ideas with the community associations. The goal of the *Nature use project* was to develop businesses in and around the national parks by making use of nature or culture. Kurt B from JI attended one of the brainstorming sessions held by the community association.

²¹ The distance to the marked would make transportation cost high.

The four private shareholders have an informal obligation to contribute their individual expertise to the business. So far Luster Energiverk has had a passive role, but this is expected to be much more active in the future.

6.3.2 Quality control and innovation

BN was founded with 63.290,- Euro as booked equity. The private shareholders are personally doing most of the work. They do product development, administration, sales, PR, marketing, electronics and assembling of the stoves.

Table 22: Budget and grants, all amounts are Euro. (Source: E. Brun president of Bio Nordic Oct 2005).

	Start-stop	Step	Budget	Grants	Founders
Phase 1	mar 03 - oct 2003	Planning of project	27.800		
Phase 2 a	nov 03 - feb 2005	project development	366.450	139.240	Innovation Norway
Phase 2 b	mar 04 - june 2004	Design	53.200	25.320	Innovation Norway
Phase 3 a	dec 04 - dec 2005	Market mix	208.860	101.26	Innovation Norway
Phase 3 b	feb 05 - july 2005	Testing and final adjustments	112.660	36.700	Innovation Norway
Phase 4	Mar 05 - dec 2005	Planning Finland	56.960		
Phase 5	oct 05 - dec 2006	"Nigard" – budget second generation	189.870	56.960	ENOVA
			1.015.800	359.480	

In addition to the financial support, BN also has supporting partners with theoretical knowledge. Since BN and JI are practical experts, the alliances with theoretical know-how have been and still are important to them. These are:

SINTEF²² - NBL is the Norwegian fire resource centre. They do fire testing, documentation, research and consultancy. SINTEF NBL is accredited according to ISO/IEC 17025.

ENOVA²³ - SF's main mission is to contribute to environmentally sound and rational use and production of energy, relying on financial instruments and incentives to stimulate market actors and mechanisms to achieve national energy policy goals.

Nemko²⁴ - Comlab is a leading test lab for telecoms and radio equipment.

NoBio²⁵ – Norwegian Bio energy union focuses on promoting increased production of bio energy in Norway.

The pellet-stoves are a combination of electronics and mechanics, as are the surgery tables produced by JI. In addition the developers of the stove have achieved thermal knowledge by working closely with SINTEF NBL.

BN test all their stoves before they leave the production line. Each stove is tested on all functions and the test takes between 2 and 3 hours. They submit some stoves to vigorous testing, which takes several days.

²² http://www.sintef.no/content/page3_2274.aspx

²³ <http://www.enova.no/?itemid=425>

²⁴ <http://www.comlab.no>

²⁵ <http://www.nobio.no/>

The stove has been approved by SINTEF on the fire technical parts and functions and by Nemco on the electronic functions and parts.

Experience in connection with regional authorities and future expectations

Positive: They have received large grants and have a very good relationship with Innovation Norway.

Negative: “Too much paperwork” says K. Brun, the product developer of BN and JI, and he goes on to say “With out help from others to do the paperwork, neither BN og JI would exist. I am a simple and practical man, I can not stand paperwork’s”.

Expectations: The regional authorities need to follow up on the marketing now needs to be done. BN has a good product, but they are afraid that penetrating the market will cost more than they can support. Also, expertise is expensive and time consuming. BN would like to receive some support in this area..

Experience in connection with local authorities and future expectations

Positive: Although the local authorities have less financial support to give, they are necessary. The municipality of Luster has been supportive and assisted both projects. Luster municipality has help to identify funding sources and participated in several meetings.. Financially the municipality has granted BN interest free loans. “The non financial support is of importance as it makes us believe that we are doing the right thing and that we can make it” says E. Brun. The local bank (there is only one bank) has extended liquidity when there have been cash flow problems.

Negative: BN is totally satisfied with the assistance from local actors.

Expectations: “we hope they can aid us financially, but we don’t know. I know that they will probably do so, but I do not know what or how much it will be” Says K. Brun.

K. Brun also stressed that he would like to see some sort of “paperwork assistance” with knowledge of local and regional programs and grants. “Such a function could help founders, individuals like me, to get started.” He also said that there is a need for buildings to work in, where start up companies can hire low manufacturing facilities during the start up phase...

6.3.3 Legal protection

BN has obtained a patent upon the fire and thermal functions of the stove. It is this that makes the BN stove unique from other pellet-stoves and is the reason why it achieves such a high efficiency factor on used energy.

In order to be allowed to sell a heating device in Norway, one must have a technical approval. This is an approval of safety and is given by SINTEF NBL²⁶. Also the electronics in the stove have to be approved; this is done by Nemco Comlab²⁷.

²⁶ SINTEF NBL is a technical control instant that is given governmental accreditation to test and approve fire safety.

²⁷ Nemco Comlab is a technical control instant that is given governmental accreditation to test and approve radio- and telecommunication standards. They offer testing and license of approval.

6.3.4 Marketing (commercialisation) improvement

The stove has the domestic market as its primary target. It is sold to retailers with knowledge about pellet-stoves and pellets. BN is also working on launching the stove in Finland.

The marketing budget is almost 209.000 Euro and has two areas of focus, 1) towards the market and 2) towards national administrative and political functions. The strategy towards the market focuses on locating retailers who are experts in the pellet-stove market it is also important that they sympathise with the key values of the stove, especially the environmental values. The Strategy towards the national functions is twofold. Firstly it focuses on making national functions realise the positive environmental advantages of the pellet-stove compared to a traditional one, and. the secondly it is working towards Governmental approval functions to have them acknowledge the safety advantages the stove has compared to traditional stoves and other house heating sources.

Key values of the stove are: user friendliness,, this is based on knowledge about consumer behaviour and economy. In addition the stove has an environmental friendly profile and design, it is designed for the Norwegian consumer and to fit Norwegian houses.

6.3.5 Financing and knowledge capacities

BN has a close working relationship with Innovation Norway, they help them survey the available funding opportunities and knowledge capacities. The municipality of Luster also assists in this area. BN now feels that they have a good general view on capacities regarding knowledge and finance.

6.4 Description of the action / intervention of the territorial authorities

6.4.1 Which territorial authorities supported the project?

The municipality of Luster, Nuts 4, Enova, Nuts 1, and Innovation Norway, Nuts 2.

6.4.2 Description of the intervention of each territorial authority

Table 23: Intervention of Innovation Norway, Nuts 2

Who?	Name of the territorial authority	Innovation Norway Nuts 2
For which purpose?	What are the concrete actions supported?	Planning of the project Design Testing and final adjustments Marketing (commercialisation) Research and development
How?	Type of the intervention	- support for investment - support for coordination (management) - support for running costs
	Direct beneficiaries of the intervention / measure	- organisation, BN (shareholders/stakeholders)
	Conditions to be fulfilled by the beneficiaries	Written report at end of project period, including accounts showing actual expenditure and how funds have been used
	Modalities and duration of the intervention	Investment grants linked to budget and costs for each development phase (planning, design, testing etc.)
How many?		- Amounts granted (302.520 €) - financing rates (29,8 %) : - financial ceiling 1.015.800 €

Table 24: Intervention of Municipality of Luster, Nuts 4

Who?	Name of the territorial authority	Municipality of Luster (NUTS 4)
For which purpose?	What are the concrete actions supported?	Mobilisation of the chain actors Financing capacities : interest free loan
How?	Type of the intervention	- Financing - interest free loan - support for coordination (management)
	Direct beneficiaries of the intervention / measure	- organisation, BN (shareholders/stakeholders)
	Conditions to be fulfilled by the beneficiaries	Not been asked

Table 25: Intervention of Enova (National level) Nuts 1

Who?	Name of the territorial authority	Enova Nuts 1
For which purpose?	What are the concrete actions supported?	Research and development
How?	Type of the intervention	- support for running costs
	Direct beneficiaries of the intervention / measure	- organisation, BN (shareholders/stakeholders)
	Conditions to be fulfilled by the beneficiaries	Not been asked
	Modalities and duration of the intervention	- Grant is given only for development of second generation stove.
How many?		- Amounts granted (56.960 €) - financing rates (5,6 %) : - financial ceiling 1.015.800 €

Complementary questions [one answer by intervention of territorial authority]

A) Level of accuracy in the definition of the intervention

Innovation Norway: The grants of the territorial authorities are dedicated to the project in tranches.
Enova: Grant is given only for development of second generation stove.

B) Context of the intervention

Innovation Norway: The intervention corresponds to an existing frame.

C) Partnership between territorial authorities and holders.

No.

D) Non financial intervention

Luster municipality: provided information, advice and mental support.

Innovation Norway: provided information, advice and mental support.

Enova : provides knowledge support on environmental use and production of energy,

6.4.3 Financial information

Look at table 26 for more detailed information.

Table 26: Financial information

	Territorial authorities						Self-financing
	Europe	Nuts 1 (State)	Nuts 2	Nuts 3...	Nuts 4	Nuts 5	
Amount (€)	0	359.480	0	0	0	0	656.320
Share (%)	%	35,4 %	%	%	%	%	64,6 %

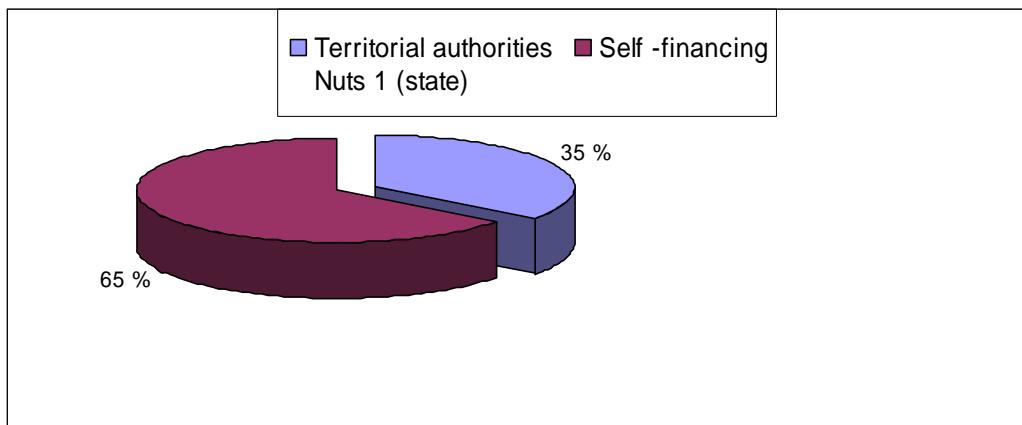


Fig 6: Public grants vs self-financing

7 Analysis of the intervention of the territorial authorities in the project

7.1 Our analytical approach

The case study in Sogn og Fjordane began in September 2005. At that time we did not have a final version of the common methodology. At the time the focus of the common methodology had been on studying the private businesses; their success and how they experienced the support actions of the regional authorities. This was also how we designed our case study. We chose three private businesses as cases and started collecting data regarding the selected cases; that is data on their economic success, their views on the role of regional authorities and other factors they believed were important in hampering or promoting their business development.

After we had finished most of our data collection – that is conducting interviews with representatives of the selected case businesses – a new version of the common methodology description was issued in which a radical shift in focus was introduced (cf figure below). In this new version we were asked – in addition to what we may denote as a bottom-up approach – we were also asked to evaluate the effects of the intervention of the territorial authorities – even a means-by-means evaluation. This shift in focus implies also a shift – or rather a supplementation – in data collecting; thus collecting data from the regional authorities as well (a top-down approach). We have not had the time or resources to manage such a shift.

Our way of addressing the issue of evaluating the intervention of the territorial authorities in the project is thus to sum up the opinion of the businesses as to how they have experienced the interaction of regional authorities in relation to their own business development goals. In other words, we have *not* evaluated the effects of the different kind of interventions of the regional authorities in relation to the goals set up by the regional authorities for such interventions. Specifically related to the figure below we thus evaluate to what extent regional authorities contribute in promoting: outcome in relation to goal D; we do *not* evaluate the ratio between outcome relating to any of the goals A1 through C3.

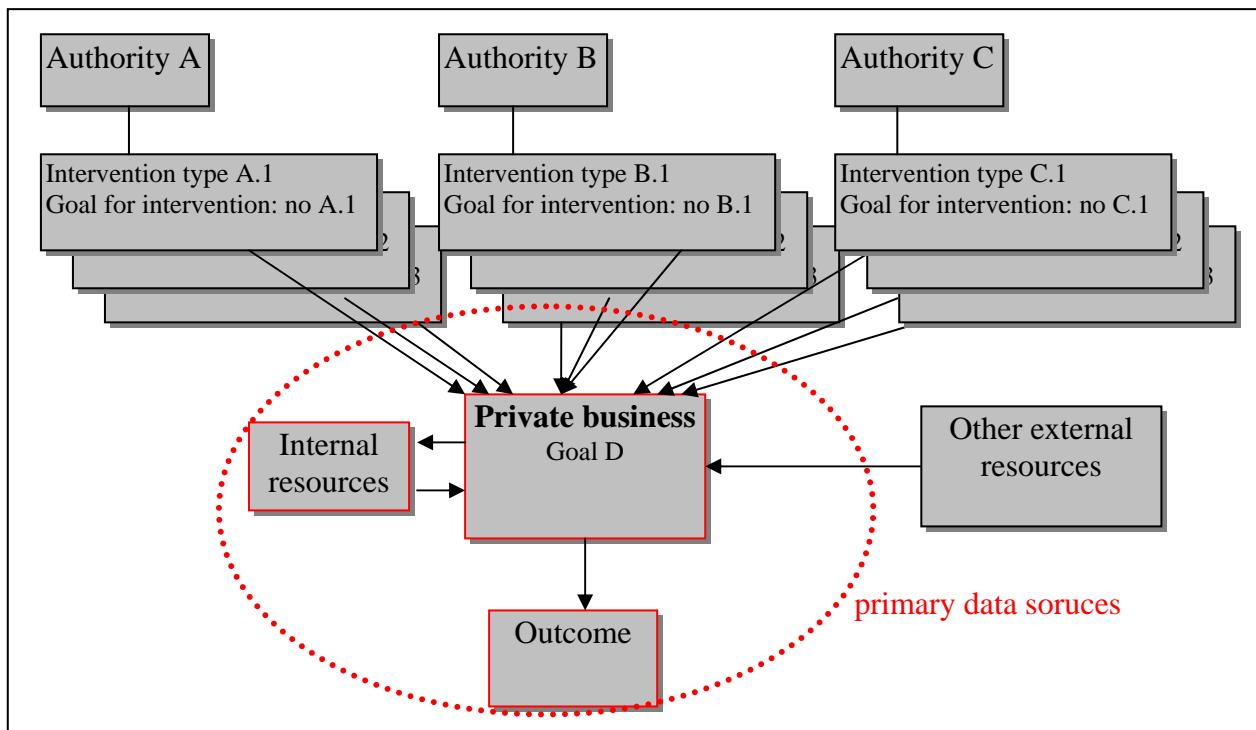


Figure 7: The analytical model for the case studies of Sogn og Fjordane.

7.2 Some general reflections ranging across the three cases

The impression from our three case studies is that regional authorities – including the local authorities (the municipality) – are of great importance for local business development. However, their importance and roles differ.

There are many *types* of intervention, ranging from immaterial support to major economic support. There are differences between the following types of intervention present in our three cases:

- Economic support in the form of loan, grants and public ownership
- Economic support to initial pre-business establishment development processes
- Economic support to physical infrastructure investments
- Economic support to marketing efforts
- Know-how support within development processes

Two factors seem to have been important when deciding the success of intervention from regional authorities:

- Sufficient institutional capacity
- A political will to act in opposition to general neo-liberalistic trends within public government.

In Norway there is a trend in *reducing* the institutional capacity for public intervention within all levels of government. The numbers of *municipalities* which have dedicated business development personnel are declining. Some municipalities – like the two we have investigated – have their own economic means for supporting local business development; mostly as a result of hydroelectric power development compensation funds. Others have no or very small economic resources.

We highlighted the need for public intervention in *several stages* of local business development – ranging from the initial development stage, via the business establishment stage and further also to some specific actions (e.g. design and marketing) during the normal functioning stage of running the business. And as a third point, we illustrated the importance of public bodies focusing on *territories* – not only on concrete product and businesses. All three cases illustrate the importance of working within a three levels approach: community infrastructure, business network and single business development.

The study gives examples on successful development of innovative industry in areas without any industry clusters due to the high competence and professional networks, both locally and external, of the entrepreneurs. The enterprise Jostedalen factory and Bionordic are here good examples. The case Flåm Utvikling shows the results of a political will to make use of *public ownership* in securing public interests. Strategic use of economic and political capacity at municipality level has safeguarded continued management of the Flåm valley railway. The railway is a key actor for tourism industry locally and in the region. In the Underdal cheese case co-operation among the farmers during the last 20 years has given them important experience and competence in joint action, especially in how to solve conflicts and how to support each other. This competence is as important as production and processing competence. Without the farmers' 'go-ahead spirit' and positive determination, the project would probably not have been successful. The success of the venture is also due to the farmers' informal agreement with the local grocery shop for marketing the cheese and to the high volume of direct sales of the product to consumers. All the three cases are depended on their commitment of burning solves. Their capacity to assess framework conditions, see business opportunities, mobilises local and external resources including knowledge is essential.

The overall goal by the authorities is often to maintain rural community and good living conditions. Focusing on product and business development is a part of this, but has to be supplemented with other important elements for living conditions in rural communities. And at least, illustrated in our cases is key-factor knowledge. Not only related to natural resources, but also who people in rural communities use their knowledge, and supplement their knowledge in cooperation with other people and institution within and outside the area.

Our case gives some findings interesting for further investigations. How do people and SME in rural community compensate for less density of knowledge institutions, and how can authority support the creation, development and use knowledge for innovation and social change in rural areas.

Country : Norway

Table 1: Clarification of the organisation of authorities and councils in each partner region

Local authority or council (number)	NUTS	Historic	Election way	Competencies	Role/ responsibility in policy implementations	Competencies and means for intervention for promotion/ valorisation of products	Type of financial resources and/or funds managed
State	1						
County Council/ County Administration (18)	2	County councils established in 1838: County Administration established in 1975 as a territorial authority; first elections	Direct Universal suffrage of County councils since 1975	<ul style="list-style-type: none"> • Economical development • Training (High school – 15-18 year old) • Transport • Tourism • Culture 	<p><i>County level is under debate in Norway. Several politicians argue for bigger and fewer counties, and to make them major political levels. The European context favour this tendency</i></p>	<p>Regional department with experts in regional planning, economic activities, etc (agriculture mostly supported directly by State/ Government)</p> <p>County plan for regional development, revised 4-yearly.</p>	Funds from Government and own economic activity for regional development; managed partly directly and partly distributed to lower territorial authorities, organisations or other managing bodies (ex. Innovation Norway)
County Governor (18)	2	Established 1685. Until 1975 the County Governor was the leader of the County council	The County Governor is appointed by the King/ Government	The County Governor is the chief representative for King and Government at county level. Important field of actions are environment protection, agriculture, local government finances and family matters. He also acts as a guardian for civic rights	The County Governor works for implementation of central government decisions. <i>The role of the Governor is stable, but might be influenced by the expected changes in size and number of counties.</i>	Experts from the County Governor's office supervise and instruct local activities. The agricultural department promotes and give advice in different matters directly to farmers.	The County Governor manages different funds for promotion of agriculture and regional development; cooperates and liaises with the County Administration, the municipalities and other bodies in managing and distribution of funds.
Regional Councils Regionråd (Community of communes) Up to 5 in each county	3	Grouping of municipalities set up during the 10-15 last years. Region of Nord Gudbrandsdalen/ region of Valdres, including 6 municipalities each, was established in 1993	The Regional Councils consist of 2-3 politicians from each participating municipality; may have a smaller Executive committee.	The general objective of the regional councils is to work for common tasks and to promote the interest of the region towards the county and state authorities.	<p>Voluntary based grouping of municipalities.</p> <p>Compensate the limited size and weakness of action of the local level.</p> <p><i>Is of particular interest in terms of local development</i></p>	<p>Most regional councils have few or a very small employed staff. Practical matters and execution of council's decisions are mostly taken care of by staff at the municipalities.</p>	<p>In Oppland the regions Nord-Gudbrandsdalen/ Valdres have been given authority to manage development funds from the state and other sources.</p> <p>Both in Oppland and Sogn og Fjordane the regional councils have entered partnership agreements with the county council, and have responsibility for carrying out some development initiatives of the County plan.</p>
Municipalities/ Communes (433)	4	Established in 1837 by the Acts of Local Government	Direct universal suffrage (men since 1896, women since 1910)	Compulsory competencies: Primary and lower secondary education, social services, municipal roads, water and sewage, zoning regulation.	<p><i>Municipality level is under debate in Norway. Several politicians argue for fewer and bigger municipalities, more like the level NUTS 3.</i></p>		Basic funding of the municipalities are taxes (income and property) and support from the State. Many mountain municipalities have income from hydro electric power plants

