Innovation in tourism
Sustainable tourism in peripheral areas of northern Sweden

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This thesis is for Morfar.
Abstract
This report explores the relation between innovation in tourism and peripherality in the light of sustainable regional development.

Case study observations in two peripheral tourist destinations in Sweden, Åre and Kiruna municipalities, provide the basis for analysing how peripherality factors effect innovation in this particular environment. Peripherality factors are divided into structural, institutional and local factors. Based on innovations literature, innovations and regional innovation system are broken down into three activity groups - knowledge, resources and market access.

The emphasis is on sustainable tourism as opposed to conventional mass tourism.

The report challenges the traditional view that innovation is rare or inexistent in tourism and in peripheral areas and concludes that innovation is well present among tourist firms in these regions. Innovations in peripheral areas tend to involve a reinvention of cultural and natural resources and be characterized by sustainability.

The report concludes that providing support structures facilitating innovation and innovation systems based on tourism in peripheral areas is vital in order to maintain living and sustainable peripheral regions.
Executive Summary

We all know that globalization forces are restructuring the political and economic landscape all over the world. This report takes a closer look at the regional and local level where the impacts of economic restructuring have forced people to adapt to new employment opportunities as the traditional industries are moving to other parts of the world. Globalization and the pooling of political and economic decision-making in multilateral unions, notably the European Union, has also meant a new emphasis on regions rather than nations divided by state borders, especially when it comes to sustainable development. The recent gathering of European regional ministers in Åre, Sweden, for the 7th Environment Conference of the Regions (ENCORE) reflects the highlighting of regions in the work towards sustainable development.

Regions can be divided into urban, rural and peripheral areas depending on the level of population density. Within the EU, regions of extremely low population density receive financial support to be able to structurally adjust and to overcome some of the challenges that characterize these regions. To a large extent the peripheral regions of Europe are found in northern Scandinavia where the distance from urban areas combined with tough climate conditions makes them relatively inaccessible compared to the rest of Europe. Traditionally, extraction of natural resources has represented the basis for economic activity in these areas but since the 1970s, economic restructurings in the forest and mining industry have changed the profile of many places. Instead of natural resource extraction and manufacturing industry, turning to the service sector has been one way of dealing with the downsizing of the traditional sectors.

Tourism, today the world’s largest business sector, represents one aspect of the service sector that has gained much attention in the peripheral regions of Sweden, not only as an alternative or complement to forestry and mining, but also as a tool for regional development. Tourism to the mountainous areas of Sweden has traditionally been centred to a few destinations that early on have distinguished themselves as winter destinations. But recently, a trend towards nature- and culture-based tourism in many other peripheral parts of Sweden is being observed. This type of tourism is one characterized by small and medium sized tourist firms, often family based, that provides all-year-around activities and experiences marked by quality, uniqueness and authenticity. Its strength lies in the possibility to use the existing local resources in terms of nature and culture while at the same time preserving the nature for future generations and to steward the local culture. Hence, this type of tourism suits the definition often referred to in the literature as sustainable or eco-tourism. Although it has been debated to what extent tourism is the solution to structurally weak regions, its role in maintaining vital rural and peripheral regions should not be understated.

This is where innovations theory enters the picture. Innovation and innovation systems have traditionally been centred around the manufacturing industries but is increasingly being applied to the service sector and to tourism in particular to explain and analyse this sector’s development and climate. Some argue however that innovation is rare or close to inexisten in tourism, and especially so in peripheral areas. Researchers offer a range of explanations as to why this is the case, including the very nature of the tourist firm as a small and family based enterprise, the geographical distance to urban areas and research centres, the little input of knowledge and resources, and the distance to markets. However, with the assumption that tourist firms in peripheral areas do indeed have to be able to innovate, and do innovate, in order to overcome the challenges related to peripheral areas (such as geographical distances, distance to markets, low population levels, etc), I set out my search for practical evidence of
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innovation in two peripheral municipalities in the mountainous areas of northern Sweden. As tourism innovations were encountered in Åre and Kiruna municipalities, the aim of the report was extended to also include an analysis of how innovations are affected by peripherality factors, in order to broaden our understanding of innovations and how they appear in different environments.

Innovations and innovation systems are broken down into three major components in this report in order to provide a thorough analysis. The three components, or innovation criteria, are knowledge, resources and access to market. These basic criteria are considered necessary for innovations and innovation systems to take place according to traditional innovation literature. At the same time, the criteria may also be regarded as the main functions of an innovation system. The availability of knowledge and the generation of new knowledge and competence as well as the diffusion of knowledge represent the knowledge-criterion of an innovation system. Likewise, resources in terms of financial and organizational resources must be available, as well as physical resources such as infrastructure. Hence, the second criterion is resources. Access to market is vital for innovations and innovation systems since the market aspect is what distinguishes the innovation from the invention (the innovation is adapted to fit the market while the invention is brought about without any strategic intention in mind). The market criterion of an innovation system is therefore necessary to ensure and to facilitate market access of innovations.

The peripheral factors affecting the criteria briefly described above are divided into structural and institutional factors and local capabilities. The structural factors of peripheral areas are typically its demographic and geographic profile, for example the population size and age structure, its location and environmental features. Institutional factors include the political organization and culture, the way of cooperating and relations between the public, private and civil spheres of the peripheral community. Finally, local capabilities are made up of the community’s shared culture and social capital. It is typically the level of trust, reciprocity and communication among actors in the community that characterize the local capability.

The first case study region is Åre municipality. Åre village and its near surroundings are well-established winter sport destinations with a tourist history dating back to the early 1900s. However, the region is facing challenges related to seasonality problems that are typical for seasonal-based attractions and activities. To deal with this issue, both individual tourist firms and the municipality together with civil society organizations are promoting all-year around attractions. This has meant a new emphasis on small and medium sized tourism firms providing nature-based tourism experiences during all four seasons. In terms of innovation, the amount of new combinations of activities and experience-based attractions put together by individual tourist firms and/or umbrella initiatives show that innovation is present within the tourism sector in Åre. From an innovation systems perspective, the region of Åre fulfil the three innovation criteria of knowledge, resources and market. The close connection to an educational and research centre in Östersund, the necessary resources including structural financial aid from the EU and a local manufacturing sector much linked to tourism, combined with much effort in marketing the region qualifies the region of Åre a regional innovation system.

The second case study was carried out in Kiruna municipality. Although tourism is not the major business sector in Kiruna, the region is experiencing important growth in this sector. The region has traditionally attracted tourists (mainly hikers) during the summer season, but is today experiencing more visitors during winter. Also here are small and medium sized tourist firms playing an important role in levelling out seasonality related problems. The variety of tourist oriented activities and experiences offered by these firms show that innovation is very
well present in Kiruna too. The region has potential to qualify as a regional innovation system but more effort is needed to fulfil the knowledge-criterion. A deepened collaboration with Umeå and Luleå Universities would be one way for actors in Kiruna to bring new knowledge into the region. When it comes to resources, EU financed projects are important to the region’s development of tourism but they could be complemented by better cross-sectoral collaboration networks. Such networks would bridge Kiruna’s competence and resources in the areas of tourism, space and environmental research as well as testing activities.

Now as to how the peripherality factors influence innovation in the two regions: First of all, the structural factors observed in both Åre and Kiruna were characterized by low population density, out-migration but also in-migration, geographically remote areas and a well preserved natural environment. In terms of knowledge, this resulted in a synthetic knowledge base which to a large extent consisted of tacit knowledge with a close connection to the natural environment. In-migrants played an important role in bringing new knowledge to the regions although some competence was also lost with people leaving the regions. Åre has an advantage with regards to knowledge due to the nearby location of the Mid Sweden University and the European Tourism Research Centre in Östersund. The knowledge and competence generated at these institutions will have an opportunity to be better spread among persons working in the tourism sector with the formal establishment of the regional innovation system, Peak of Tech Adventure. In terms of resources, the structural factors contribute with an important basis for innovations, namely the natural environment. Remoteness and well preserved nature and wildlife have been turned into strengths for tourism firms in both regions and are considered as unique resources instead of obstacles. Institutional factors were characterized in both Åre and Kiruna as positively influential on resources in terms of organizational structures. Finally, local capabilities consisting of the social capital and local culture played its part in generating innovations. The high level of entrepreneurs and the increasing number of Sami firms offering tourism activities at both destinations showed that the local capabilities were important in generating innovations. While constituting an important attractor the Sami firms ensured the maintenance and diffusion of knowledge of the Sami culture and traditions.

Based on the observations and analysis of this report, the following conclusions have been drawn. First, contrary to what is often argued in traditional innovations literature, innovation in tourism in peripheral areas is very well present. Secondly, the criteria for fulfilling an innovation system also exist in peripheral regions. Third, peripheral factors influence the innovation system and rather than representing “handicaps” the peripheral factors are turned into important bases for innovations. The innovations found in tourism in peripheral regions tend to be closely connected to the natural and cultural resources of the region and much innovative activity lies in turning the attractor (e.g. the natural environment or the local culture) into a scene that is attractive enough to bring visitors to the area. However, what is typical for innovations in communities with a close relation to the natural environment (i.e. peripheral regions), is that the innovations ensure a sense of uniqueness, authenticity and integrity towards the local nature and culture. This means that the “disneyfication” of these regions is less likely to occur as long as ownership remains in the hands of locals.

General recommendations to policymakers based on the conclusions include the provision of facilitating mechanisms to spur innovation and innovation systems within tourism in peripheral regions. Nature-based tourism is important to regional development and the presence of innovative tourist firms in the Nordic periphery means job opportunities, stewardship of local nature and culture and the maintenance of vital peripheral regions. It is recommended that triple-helix constellations involving business, municipality and universities work together to facilitate the generation and diffusion of new knowledge and resources as
well as to smooth the progress of accessing the market. A first step in this direction has been taken in Åre with the creation of a regional innovation system, the Peak of Tech Adventure, that is based on nature-based tourism and outdoor gear/clothing. This agglomeration of firms and specialization around a specific sector will likely strengthen the position of rural/peripheral firms and facilitate the exchange of knowledge, ideas and experiences. In the case of Kiruna, it is suggested that the actors involved in tourism and in sectors that potentially can be connected to tourism such as the space and environmental research and testing activities, join in a similar agglomeration structure to facilitate for innovation and a competitive peripheral region. It is also recommended that tourist firms in Kiruna together with representatives from the municipality and Umeå University engage in a so called Destination Management Organization (DMO). The role of the DMO would be to ensure knowledge, resources and market access to stimulate innovation among tourist firms and to work strategically with sustainable tourism development in the region.
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1 Introduction

Nature-based tourism is undoubtedly one of the most rapidly growing types of tourism. It comprises tourism in natural settings, often with a focus on specific elements of the natural environment (e.g. safari and wildlife tourism, marine tourism) and tourism that is developed in order to conserve or protect natural areas (e.g. ecotourism, national parks) (Hall and Boyd, 2005). Besides the complex relationship between tourism and the physical environment in rural and natural areas, nature-based research has grown to also include social and economic relations. In practice this has led to an increasing emphasis on sustainability and how the tourism sector can contribute to sustainable development.

Tourism, and especially nature-based tourism has increasingly become an important aspect of regional development in rural and peripheral areas. With globalisation forces moving manufacturing and industry from traditional places to new places where labour and resources are cheap, many of the abandoned regions have had to turn towards new sources of income. In many of the developed countries where this takes place, the alternative is to engage in the service sector. In many rural and peripheral areas where population density generally is low and the natural environment is well preserved, the only alternative has been to turn towards tourism. Tourism therefore, has played an important role in the making of national development strategies, especially in rural and peripheral areas, with national and local governments enthusiastically investing in this sector. Some argue that there has been too much emphasis on tourism as the solution for the preservation of nations’ rural and peripheral areas and that it fails to deliver the awaited positive effects, especially in terms of employment opportunities (Lundmark, 2006), while others still see the potential of nature-based tourism in these areas but do recognize that a number of reasons can explain why the initiatives have not been more fruitful (Hall and Boyd, 2005).

One aspect of the tourism sector that has not gained enough attention and which possibly has an impact on the limited results, is innovation. Innovation research has mostly focused on the manufacturing industry and has only recently been applied to the service sector. With regards to tourism in particular, only a limited number of scholars have made contributions to this field of research (Abernathy and Clark, 1985; Hjalager, 1997, 2002; Nordin, 2003; Carson et al. 2004; Mattson et al., 2005). Their results include the development of useful models and frameworks in order to better understand how innovation applies to this specific sector. Consequently, policy makers should be better equipped to make policies that stimulate innovation in the tourism sector. In 2002, the Swedish government gave the Tourist Authority (Turistdelegationen) the mission to promote innovation within the tourism sector in order to stimulate Swedish tourism development. The mission was given the form of a programme (Innovationsprogrammet) and included a budget of 40.5 million SEK (Turistdelegationen, 2005). The three-year programme has allowed for more than 90 projects and support for conferences and seminars that aim at stimulating innovation in the Swedish tourism sector.

However, innovation in tourism has not been researched enough when it comes to how innovation is affected by differences in the specific context where the innovation takes place. In other words, there is a knowledge gap when it comes to the impacts of different settings, i.e. urban, rural and peripheral settings, on innovation. The basic assumption here is that innovation is important to the tourism sector and especially so for destinations with “unfavourable conditions”, e.g. peripheral areas remotely located from core areas and/or areas with harsh climate conditions. Overall, innovation becomes extremely important in this age of globalization when travel costs and accessibility becomes relatively small obstacles to tourists.
and the destinations encounter competition from all parts of the world and thus constantly have to innovate to remain competitive and to attract visitors.

Similarly, despite the large volume of research and publications about tourism and its sub-categories such as ecotourism and sustainable tourism, the majority of studies have examined the impacts of tourism and recreation on a particular environment or component of the environment, rather than over a range of environments. As argued by Hall and Boyd (2005) there is substantial research undertaken with respect to rainforests, reefs and dolphins and whales for example, but very limited research undertaken on what are arguably less attractive environments or animals. Therefore, this report seeks to contribute to the knowledge area of relatively little focus, the physical area often subjected to “unfavourable conditions”, namely the peripheral areas. Within the context of sustainable development, the report will look at tourism in peripheral areas from an innovations perspective. With the help of two case studies in the peripheral areas of Northern Sweden the report will investigate how peripheral settings affect the type of innovations that emerge among tourist operators in these areas.

1.1 Problem definition

Peripheral areas tend to be characterized by remoteness, low population density, unemployment and well preserved natural environments. Despite the many peripheral problems encountered in these areas, tourism activities have developed in some of the places thanks to the many environments of outstanding beauty found in peripheral areas. However, the tourism activities are often focused to one particular season which has negative implications on mainly employment during low seasons. Besides peripherality and seasonality problems, Gloersen et al. (2005) also identifies remoteness, cold climate and spares population as three main constraints to economic activity in the peripheral areas of northern Scandinavia.

The tourism sector in general and the small and medium sized tourism enterprises in particular, are rarely connected to innovation since several factors argue against such connection. For example, the level of innovation tends to increase with the size of the business, thus excluding a majority of tourism enterprises from the innovation potential; employees in the tourism sector in general receives little or no sector relevant training resulting in insufficient transfer of innovative knowledge; there is normally a high labour turnover which hampers the possibilities for the human-based transfer and development of knowledge and innovation; and finally, persons working in the tourism sector are in most cases pursuing a certain lifestyle rather than adhering to traditional career issues of prestige, money and progress (Hjalager, 2002; Hall and Boyd, 2005). Following this logic, this would mean that, combined with the unfavourable conditions that characterizes peripheral regions, tourism enterprises in peripheral areas would have no possibilities to be innovative whatsoever. Moreover, lack of innovation among tourist operators in peripheral regions would mean that the situation experienced by peripheral tourist destinations in terms of seasonality problems and limited possibilities to develop is constant and that peripheral areas only have little potential to actually become vital, prosperous and sustainable regions.

Such reasoning may have damaging consequences when it comes to policymaking. Classifying peripheral regions and small tourism firms in these areas as hopeless cases when it comes to innovation will most likely deteriorate the peripherality problems rather than solving them.

The problem is not that there is a lack of innovation in peripheral areas and among tourist operators found there. Rather, the problem is to recognize that innovations take different shapes depending on the context. So far, innovation and tourism research has mainly covered phenomena occurring in urban and rural settings. Consequently, one tends to believe that the
type of innovations found among tourist operators in these areas provide the rule for what innovations in the tourism sector should look like. As a result, it may be very difficult, if possible at all, to identify innovations in other settings, such as the peripheral. Therefore, innovations among tourist firms in peripheral areas are rarely seen. But this does not mean that there are no innovations taking place in these areas; it is just that they take a different shape and therefore may be harder to detect.

1.2 Purpose and research questions
The purpose of this thesis is to extend out understanding of innovation in tourism by analysing its relation to peripherality. The focus is on nature-based tourism in peripheral areas of northern Sweden, as exemplified by the case studies in Åre and Kiruna. The two case studies of tourism activities in peripheral areas will challenge the common assumptions that innovation is rare or non-existent among tourist firms, and that peripheral areas tend to lack innovation. My argument is that rather than lacking innovation or innovation potential altogether, innovation takes different shapes depending on contextual factors. This means that innovation may well be present in sectors and geographical areas traditionally argued incompatible with the concept of innovation, for example the tourism sector or peripheral areas, but that the context will have an impact on how the innovation will show (or not show). Consequently, this will challenge the traditional ways of detecting and identifying innovations. In addition to my argument that innovation does take place among tourist firms in peripheral areas, I argue that these innovations in many cases are more likely to be more environmentally, socially and culturally sustainable than innovations emerging in urban contexts.

Thus, the guiding research question of this thesis is as follows:

By definition, small tourist firms in peripheral regions should lack any conditions for innovation, but does this really reflect reality?

Besides defining the concepts and characteristics of small and medium sized tourism firms, peripheral regions and innovations, a set of sub-questions will also be necessary to reach a conclusion: How does the peripheral context influence innovation in tourism? What are examples of innovation among tourist firms in peripheral areas? How do they differ from what is traditionally referred to as innovations?

The results of this report seek generally to contribute to a better understanding of innovation by applying it to a sector (tourism) and to a geographical location (the periphery) where the concept rarely occurs in its traditional sense. The report also aims to add to the limited research that exists on nature-based tourism in peripheral areas and innovation in the tourism sector. More specifically, the findings will hopefully be of use to policymakers working with tourism development in peripheral areas and/or with the support of innovation in the tourism sector, especially in peripheral areas. The results may facilitate for policymakers and coordinating organizations to identify, protect and stimulate innovations among tourist firms in peripheral areas. Consequently, this might reduce some of the typical peripherality problems experienced by these regions. Finally, the results may also be of interest to entrepreneurs in peripheral areas who previously has received little or no recognition for their role in preserving the environmental, social and cultural assets of the periphery through their “undetected” and unrecognized innovations.

Besides literature, two case studies taking place in Åre and Kiruna municipalities support the basis for this research. Both places lie within the internal periphery of Sweden and have been
designated two of the three most interesting areas of sustainable tourism development in Sweden by the Swedish Ecotourism Society.

1.3 Methodology
The methodology that best suited the purpose if this report was the qualitative research method since it allows for gaining a deeper understanding of a phenomenon (innovations in tourism in peripheral areas). The qualitative method is used to when you want to collect a large amount of information from a small number of people and when there is great interaction with the research subjects.

1.3.1 Case study
The research of this report takes a case study approach because this approach is of value when you want to achieve a deeper understanding of a particular phenomenon – which is the case of this report. The case study is an empirical inquiry that attempts to examine a contemporary phenomenon in its real-life context, especially when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used. The use of two case studies enhances the validity of the results and allows for cross-case analysis. Because the report aims at describing a phenomenon within its context and answering to how-questions, the case studies are of descriptive character.

1.3.2 Review of the literature
Since the study in this report takes place at the conjunction point of three different but yet interrelated subjects – Regional sustainable development, nature-based sustainable tourism, and innovation theory – a review of the literature of each field of research was necessary. With regards to regional sustainable development and nature-based sustainable tourism, the selection of literature was based on relevancy in terms of geographical focus and year of publication. The criteria was that the literature covered issues in developed countries, preferably European or Scandinavian countries, and that they were relevant to rural, peripheral and/or mountainous areas. The publications should also be recent, here meaning published during the last decade. Regarding the review of the literature in the field of innovation theory, the year of publication was of less importance with most of the books and articles being published throughout the 20th century. More importantly was that the innovation literature was not too specialized on industrial innovation systems but concerned tourism or could easily be applied to the service sector and to tourism in particular. Therefore, literature dealing explicitly with the manufacturing sector was excluded from the review of innovation literature. Most emphasis was put on the literature dealing with innovation in tourism.

1.3.3 Sources of data collection
The sources of data collection were primarily based on literature and personal interviews. The process of gathering information sources in forms of books and articles continued throughout the thesis period but was most intense during the initial phase with the review of the literature.

1.3.4 Interviews
Semi-structured personal interviews were carried out with actors in the two case study areas, Åre and Kiruna. In Åre, interviews took place with municipal representatives and with a number of small-scale tourist operators and lasted between 40 and 90 minutes. Key persons
within the tourism sector were also interviewed in Kiruna, including representatives from the public, private and civil spheres. Besides identifying key persons for interview, the “snowball” method was also useful. Telephone interviews were conducted with specialists and occasionally e-mail was used if the situation did not allow for personal or telephone interviews.

1.3.5 Selection of cases
The selection of Åre and Kiruna as case study areas has two main motivations. Choosing Åre was a continuation of the SED exercise taking place in the month of April 2006 where a group of four IIIEE students, myself included, were invited by Åre municipality to conduct field research within the area of Strategic Environmental Development (SED). Both Åre municipality and the Institute wished to continue the collaboration and consequently the decision was made that this thesis should include a case study of Åre. Information is always more valuable if it can be presented in relation to something else and therefore a second case study was sought for. Since the topic was sustainable tourism with the focus on mountainous regions in the northern part of Sweden, the criteria was to choose one other place within the North of Sweden that matched the topic. The Swedish Ecotourism Society’s selection of the areas around Åre, Kiruna and the Stockholm archipelago to be the three most interesting areas for the development of sustainable tourism, facilitated the choice. Kiruna, with its similar environmental features to Åre with mountains, forests, lakes and rivers, and with growing tourism development, justified the choice of the second case study. Arguably, one could have chosen to select two destinations with more radical differences than Åre and Kiruna. However, since the aim was to depict peripheral mountainous regions of northern Sweden, there would be similarities regardless of which destinations were chosen. Still, there are notable differences between Åre and Kiruna.

1.4 Scope and limitations
The geographical scope of this report is restricted to the rural peripheral areas of Northern Sweden, and to two municipalities in particular, Åre and Kiruna municipalities where case studies have been conducted for the purpose of this thesis. The report deals with alternative nature-based sustainable tourism in peripheral areas as opposed to mass tourism focused to urban areas or destination centres offering one major activity. Although the activities taking place in the peripheral areas cannot and will not be considered in isolation, what takes place in the urban centres of Åre village and Kiruna is not the focus of this report. Since many others have covered tourism in Åre village with skiing in focus, doing the same would only add to the same discussion. Therefore, the task of this thesis is to shift the focus of the reader to the peripheral areas around the traditional tourist hotspots.

Of course there are limitations to this study which should be considered before drawing any conclusions from this report. First, the very limited time made it impossible to cover all the issues that I would have liked to include and sometimes prevented me from going into detail in some issues that may deserve more attention. Time and limited availability of interviewees was another obstacle that may have prevented me from achieving a fully accurate picture of the situation in each of the case studies.

1.5 Validity of results
Despite the limitations of this report, the findings should say something about innovation in alternative nature-based sustainable tourism in peripheral areas. Hopefully, the results should
contribute to placing more focus on this type of tourism and the areas where it occurs, and to the understanding of the importance of innovation in other areas than the ones traditionally referred to as innovative, i.e. the urban industrial areas. Consequently, the findings should contribute to the increased understanding among especially policymakers of innovation in sustainable nature-based tourism in peripheral areas within the broader context of regional development; what factors stimulate innovation and what can be done to further stimulate innovation and further the development of this type of tourism in the peripheral regions of Scandinavia.

1.6 Outline of thesis

The report begins with section 2 – Tourism and innovation in peripheral areas. In this section the topic is broken down to discuss each of the subjects separately before bringing them together. Thus, the first part of section 2 introduces the reader to the concept of peripherality, i.e. to what categorizes peripheral areas. Then, the sector under study, the tourism sector, is presented, with special emphasis on the factors influencing the tourism system, sustainable tourism and tourism in peripheral areas. The last part of section 2 brings in innovation theory, first with a general introduction to the concept of innovation and then with regard tourism and peripherality.

Section 3 presents the framework that guides the following case studies and analysis and is centred around the factors influencing innovations in peripheral areas (institutional, structural and local factors) and the innovation criteria (knowledge, resources and market). Section 4 explores innovations in terms of knowledge, resources and market (the innovation criteria) in each of the case studies (Åre and Kiruna) and ends with a summarizing section of the observations made. In section 5 the case study observations are analysed according to the logic of the framework. Finally, based on the analysis, section 6 presents conclusions and recommendations.
2 Tourism and innovation in peripheral areas

2.1 Peripheral areas

What is referred to as the periphery differs depending on the context. In a national context, peripheral regions may be defined as internal peripheries, while from a global perspective, countries may be considered peripheral and referred to as international peripheries (Lundmark, 2006). The areas under study in this report are peripheral in both a national and global context but will be discussed mainly from a national perspective, hence as internal peripheries.

There are several features that characterize peripheral areas. In contrast to centres or urban areas often densely populated and characterised by intense communication and information flows, the periphery is situated on the opposite side of the axis. In urban areas firms often form agglomerations and what Edquist (1997) defines as systems of innovations. These systems have also been characterized as “knowledge bases” (Asheim and Coenen, 2005) and “learning economies” (Lundvall, 1992) because of the interactive learning process that takes place among the members of such systems. With regards to tourism, firms located in urban areas enjoy the geographical proximity to other tourist firms which facilitates horizontal and vertical connections among companies directly or indirectly linked to tourism.

Peripheral areas on the other hand are geographically remote from the centres described above; this means both challenges and opportunities. In their assessment of the socio-economic impacts of low population density and peripherality, Gloersen et al. (2005) correctly states that sparsely populated areas and remoteness are two distinct concepts that do not necessarily have to go together, but that in the Nordic countries they do tend to coincide. Therefore, additional costs in terms of transportation and communication in core-periphery relations, low population density, lack of labour resources, insufficient relevant skills, distance to knowledge centres, migration outflows and unemployment are some of the challenges often associated with peripheral areas (Gloersen et al., 2005; Hall and Boyle, 2005; Lundmark, 2006).

Moreover, Hall and Boyle (2005) summarizes that peripheral areas tend to be governed from elsewhere which may result in a sense of alienation among the people in these areas, and because of their special conditions, peripheral areas are often subjected to interventionist measures such as grant schemes and structural funds issued by the national or local government. In their study, Gloersen et al. (2005) adds the aspect of climate and the challenges harsh climate conditions adds to what they call the “syndrome of disadvantage” found in the areas characterised by sparsity, peripherality and structural weakness. Further, they state that measures of ground accessibility show that Nordic peripheral regions are among the least accessible in Europe but that the overall airport network is relatively good. However, the lack of transversal flight connections reduces the potential for interaction between peripheral regions and increases the dependence on the capital region (Gloersen et al. 2005).

However, some of the challenges also bring opportunities for peripheral areas. Because of the low population and limited construction and infrastructure, large areas of unspoiled nature are

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1 In the context of the EU, regions belonging to areas of extremely low population density, defined as 8 persons or less per square kilometre (corresponding to the red areas in figure 2-1 below), fall under the “Objective 6” category and is thereby granted financial aid (Structural Funds) aimed at develop and structurally adjust these regions.
Amelie Trolle, IIIEE, Lund University

often typical and represent an important asset to many peripheral areas, providing opportunities for nature-based tourism. Likewise, the cultural heritage of these regions is often well preserved which also has the potential to attract visitors.

With regards to population in peripheral areas, and in an effort to provide the reader with a correct sense of the population structures in these areas, two attempts are presented, based on Gloersen et al. 2005.: The two maps below, figure 2-1, illustrate the average population densities in Sweden (and Finland) and sparsely populated areas in terms of population potential. The map to the left shows the regions with an average of eight or less inhabitants per square kilometre, illustrated by the red areas; areas of 8.01 – 12.50 persons per square km in orange; and 12.51 – 50.00 persons per square km in yellow. The figure tells that the Northern half of Sweden on average has eight inhabitants or less per square kilometre. However, Gloersen et al. (2005) argue that it is not the population of an area as such that is important, but the number of persons that can be “reached”. Therefore they have calculated the population within a 50 km radius, corresponding to the generally accepted maximum commuting distance, and come up with a “population potential” of 100,000 persons or less within a radius of 50 km (corresponding to a population density of 12.5 inh /km²), illustrated by the map to the right. Further, there will be population potential thresholds above which the extent of the challenges related to low population densities and dispersed settlement will increase significantly, and Gloersen et al. here refer to the critical population mass necessary to maintain important service functions, or for preserving a minimal width and variety in the local labour market (Gloersen et al. 2005). Thus, only looking at the average population density may be misleading and may result in decisions based on information that has little connection with reality, while the population potential approach presented by Gloersen et al. (2005), provides a better and more detailed profile of population structures as it takes into account the issues of special relevance to peripheral areas and thus allows to make decision that better reflects the special conditions of these areas.

Figure 2-1  Average population density vs. population potential
Although the differentiation between average population density and population potential is a valid remark and potentially useful in many occasions, there will be no further reference to population potential in this report. This is due to the fact that information about population in the two case study regions was only available in terms of population density and not in population potential. Nevertheless, the maps show that both case study regions (Åre and Kiruna) fall within the area of average population density of less than 8 persons per square kilometre and within the area of a population potential of less than 100 000 people within a radius of 50 kilometres.

### 2.2 Tourism

With some 700 million international travellers per year, tourism has grown to become the world’s largest business sector, making up 11% of the world’s GDP and over 8% of all jobs. Tourism can be defined as “the temporary movement of people to destinations outside their normal places of work and residence, the activities undertaken during their stay in those destinations, and the facilities created to cater to their needs” (Mathieson and Wall, 1982, in Gunn, 1994). This broad definition shows the complexity of tourism, encompassing transport, lodging, activities and sights, as well as regulations, controls and standards that will have an impact on the quality of what is offered and consequently on the satisfaction of the traveller (Gunn, 1994). The diversity of actors and businesses involved in delivering the equally diverse tourism products makes Gunn (1994) prefer to talk about tourism as an “agglomeration of land development and programs designed to meet the needs of the travellers” rather than the common denomination of tourism being an industry. Further, he divides this tourism agglomeration into three main sectors, namely the business sector, the non-profit sector, and the governmental sector. Together they make development and management decisions for tourism.

There are nine main factors that influence the function of a tourism system. Gunn (1994) has identified them as natural and cultural resources, government policies, competition, community, entrepreneurship, labour, finance, and organizational leadership (Figure 2-2). The factors will be further discussed below. The order has nothing to do with the factor’s level of importance to a functioning tourism system. This section aims to present the traditional view of a tourism system while the extent to which it applies to peripheral areas will be explored in the case studies and the analysis.
Natural Resources

Natural resources play a fundamental role in attracting the tourist, and even more so when it comes to nature-based tourism destinations. Mountains, lakes, rivers, marshlands, forests, open fields, deserts and canyons are natural physical features that often represent the major motivation for travel. Moreover, the level of diversity, uniqueness, abundance, accessibility and attractiveness of scenic, ecological and/or recreational features, are also determinant factors. The climate, geographical size and the location of the destination in relation to important markets, are also variables that will affect the attractiveness of the natural resource.

Natural resources can be divided into two types: those that are renewable and those that are not (Ritchie and Crouch, 2003). Renewable natural resources can for example be a fish population in a lake, provided that the fish stock is well above a sustainable level. However, this resource might be lost forever if the fish suffers from excessive fishing. The same goes for a sensitive ecological reserve; as long as it is managed in a sustainable manner, its plant species can be considered a renewable natural resource. If on the other hand the reserve is poorly managed, the species may become distinct and eventually die out, thus, in that sense they are no longer necessarily renewable. Non-renewable natural resources, with regard to the tourism destination, are for example special rock-formations, or man-made objects of historical significance. However, while it might be feasible to repair a damaged resource created by humans, the damages made to a rock formation or to a landscape might be impossible to repair and can thus be classified as non-renewable natural resources.

In many places around the world, the aim for short-term economic gains results in devastating consequences with long-term and widespread negative impact on all living species in and around the area. Deforestation, depletion of plants and animals, soil erosion, desertification and salinization are only few of the impacts that result when natural resources such as wood, minerals or animals are being harvested and sold. Another option is to sell the use of the resource in the form of an experience to tourists. As stated by Ritchie and Crouch (2003),
there is a fundamental difference in the sale of an experience related to the use of a resource as opposed to the sale of the resource itself: “in contrast to the sale of resources such as oil or minerals, tourists do not return home with any significant physical elements from the “exporting” country (other than the odd artefact or photograph). Thus, these resources are not depleted, despite the fact that people have paid for their use” (Ritchie and Crouch, 2003). Although, it should be remembered that tourism can produce negative externalities unless the tourism flow and the destination is managed in a sustainable manner. Just as the natural resource destined for sale needs to be enhanced to increase the (economic) value of it, the value of the natural resource aimed at tourism can be altered by improving for example the accessibility of it, i.e. making the destination more accessible for tourists.

The wise stewardship of resources is critical to the long-term competitiveness of a destination. Stewardship is understood here as something that we do when we make use of something, in this case of natural resources, without damaging it. If we do not steward the natural resources that make the basis for a tourist destination, the resources will deteriorate and loose its attractiveness. Consequently, the tourists will stop coming and with them, the economic gains will equally be gone. Andersson (n.d.) distinguishes between “central” and “local stewardship” where the former occurs when the responsibility of stewarding the resources takes place away from the people being affected by them. In contrast, and which is to prefer according to Andersson, “local stewardship” takes place where the people being affected by the resources in question themselves have the responsibility for stewarding the resources. Andersson emphasises the emotional aspect of being affected by in this case the natural resources; thus, just as you do not have to live in the place you choose to care for or steward, you might just as well live in a place that you to not care for. With regard to the tourist destination, local stewardship goes hand in hand with locally owned small scale sustainable tourism initiatives that are based on the local natural resources. On the contrary, central stewardship can easier be associated with conventional mass tourism which is normally based on charter tours. In such cases, there is normally a central office far away from the tourist destination itself that manages a large number of different destinations in a number of different places. Following Andersson’s argument, such tourist operators are more likely to have a less degree of stewardship towards each of the charter destinations than the level of stewardship exercised by the local sustainable tourism operator who lives, operates and is directly affected by the surroundings, i.e. by the natural resources that make the basis for his or her activity.

Cultural resources

Cultural resources are made up of traditions, habits, and ways of life that are special for the defined area or for the people living there. They can be tangible, for example archaeological artefacts and historical remnants such as ruins, monuments, architecture and townscapes, battlefields, art galleries, and artwork, handicraft, local food and museums. Cultural resources can also be intangible, such as customs and traditions, music, language, life styles, values and literature. With regards to the area under study in this report, one important part of the cultural resources of the northern parts of Scandinavia is the Sami population, one of the indigenous peoples in Europe (Petterson and Müller, 2001). With their special history, traditions, language and great knowledge of the flora and fauna in the mountainous regions, they make up an enormously important part of the region’s cultural resources.
The Sami

The Sami population is traditionally spread out across the central areas of Sweden and Norway to the northern parts of Finland and the Kola Peninsula in Russia. This area is called Samiland or Sàpmi. There are approximately 70,000 Sami with more than 40,000 living in Norway, about 20,000 in Sweden, 6,000 in Finland, and 2,000 in Russia.

Traditionally the Sami were hunters and gatherers. The first traces of Stone Age people in Sàpmi dates back to 9000 BC. Wild reindeer hunting and salmon fishing were their main livelihoods. During the 17th century hunting and fishing gave way to the herding of domesticated reindeer as the main livelihood of the Sami. This change came at the same time as the Sami were integrated in the Swedish tax system and were forced to pay taxes to the Swedish Crown.

The rest of the Sami history is characterized by oppression and discrimination of Sami culture, religion and life. They were pushed away from their traditional lands to leave place for settling farmers and their herding areas were increasingly shrinking. Their religious rites and sacrificial sites were banned and destroyed, and they were no longer allowed to carry Sami names but had to change to Swedish names.

However, in 1977 the Swedish Parliament recognized the Sami as an indigenous people in Sweden and in 1986 the Sami flag was adopted. The Sami today has a Parliament and a Sami Parliamentary Councils where the Swedish, Norwegian and Finnish Sami Parliaments meet. The Russian Sami has observer status.

Today only 10% of the Swedish Sami population is active in reindeer herding but despite hundreds of years of repression, the Sami population has managed to save much of its cultural heritage which is something that increasingly attracts tourists to Sàpmi.

Source: [www.samer.se](http://www.samer.se), personal interview with Maud Mattson at Njärka Sameby

Entrepreneurship

The concept of entrepreneurship has its origins in the French verb “entreprendre”, meaning “to undertake”. Depending on where one decides to draw the line between what is entrepreneurial and what is not, the empirical frequency of the presence of this phenomenon will vary (Gloersen et al., 2005). According to the definition of Lordkipanidze et al., (2005), the entrepreneur is viewed as a person who “either creates new combinations of production,
or as a person who is willing to take risks, organizing and reorganizing of social and economic mechanisms, or as a person who, by exploiting market opportunities, eliminates disequilibrium between supply and demand, or as one who owns and operates a business” (Lordkipanidze et al., 2005). This broad definition relates to the personification of the concept, one of four different theoretical meanings of entrepreneurship as identified by Gloersen et al. (2005). Besides entrepreneurship personified as the entrepreneur, the theoretical meaning of entrepreneurship may also be entrepreneurship as a behaviour, function or process (Gloersen et al., 2005).

The entrepreneurship factor in sustainable tourism development has gained increasing importance and has been emphasised by Lordkipanidze et al. (2005). With the right driving factors such as motivations and some specific conditions for success, the entrepreneur has the potential to make a positive contribution to the rural economy, community and to sustainable development at large. A prerequisite is that the entrepreneur takes into account the social, environmental and economic aspects of his or her activity. As stated by Lordkipanidze et al. (2005), the role of entrepreneurs in rural areas can be vital for the development of these areas since they are the ones who innovate and find new means of livelihood in these places. Environmentally responsible entrepreneurship can be based on the resources and experiences offered by nature, which in an increasing number of rural places takes the form of various sustainable tourism initiatives. These initiatives create jobs and add economic value to the region and community without exporting the physical resources of the region.

Finding new ways of supporting the livelihood of rural areas is therefore often in the hands of the entrepreneurs. But a decisive factor to the development of entrepreneurial activity is the climate in which they operate. Among the climate elements identified by Lordkipanidze et al. as important to entrepreneurs, the culture, education and quality of life are especially critical in forming a favourable entrepreneurial environment. It is argued that there is a connection between the culture of a people and its tendency to be entrepreneurial since it is believed that persons with an entrepreneurial tradition in their family is more likely to become entrepreneurial than others (Lordkipanidze et al., 2005). According to this view, additional factors that contribute to the supply of entrepreneurs is the family position, social status and the level of education. Therefore, Lordkipanidze et al. suggests that understanding of the cultural and social basis of a particular community or region can provide an appropriate starting point for building a more entrepreneurial society and economy (Lordkipanidze et al., 2005).

**Finance**

The financial resources available will decide how much can be invested in the tourism activity. The amount of financial resources will of course depend on how well the existing businesses perform. The tourism sector has experienced a financial performance with mixed levels of success over the years, and with a high proportion of small businesses where financial competence has not been a priority, the investment climate in the tourism industry has suffered. However, one area within the tourism sector that on the contrary has attracted more investors is sustainable- and eco-tourism.

**Labour**

The tourism sector is characterized as one made up of both tangible goods and intangible services, together forming the destination. Labour falls into the category of intangible services and is extremely valuable for providing the product, i.e. the destination or the experience. The sector is characterised as very labour intense with a high number of employees involved in
providing the experience that the tourist pays for. With the focus mainly on the quantity of labour, both quantity and the quality of human resources become extremely important in providing the product. The quality of labour is in many cases decisive to the survival of the business, but in spite of that, knowledge resources are often over-looked or underestimated and the sector is often related to one of low-skilled and low-paid workers.

The diverse aspects of tourism require an equally diverse range of personnel and diversified source of skills and knowledge. The quality of people, their skills, knowledge and know-how have the potential to turn human resources into productive assets. In order to develop the right knowledge among employees within the tourism sector, research institutes and educational institutions increasingly tend to match the need of increased professionalism within the tourism sector. This is being done in many places through educational programmes at universities, often in close geographical location with tourist destinations. Moreover, the general level of salary in the destination’s economy, labour productivity, work ethics, labour unions, and typical working conditions and employee benefits will affect employees’ ability to deliver and their attitude as well as the cost of personnel (Ritchie and Crouch, 2003).

**Competition**

A certain level of competition is healthy for the tourism system and especially for the development of the tourism destination. If several actors are providing a similar product, the competition to attract the customer will raise the quality level as well as the level of innovativeness. However, before an area begins tourism expansion it has to research the competition, i.e. investigate what competitors are there and what other areas can provide the same opportunities with less cost and with greater ease (Gunn, 1994).

**Community**

This refers to the level of support that the tourism development in an area has from the local community. If the community is positive about tourism development it may result in synergies between many enthusiastic local actors who want to contribute. But, if on the other hand the local citizenry opposes such development, for example on the grounds of increased social, environmental, and economic competition for resources or other negative impacts, this may break the proper functioning of the tourism system (Gunn, 1994).

**Government policies**

From a national and regional to the local level, statutory requirements may foster or hinder tourism development. Whether laws and regulations are administered loosely or rigidly can influence for example the amount and quality of tourism development. Moreover, policies on infrastructure by public agencies may favour one area over another.

In the case of Sweden, tourism development has become increasingly part of the broader development policies for the country’s regions. It is the County Administrative Board (Länsstyrelsen) that has the responsibility to manage regional development and to co-ordinate local and regional visions and the implementation of national goals. Swedish authorities and
businesses have together formulated a strategy for sustainable tourism development. (Hållbar utveckling i Svensk turismnäring, Turistdelegationen, 1998). It resulted from a series of seminars and meetings between authorities and businesses during 1997 and 1998, with the aim of providing a strategic framework for environmental issues within the tourism sector and constituting a resource for the actors involved: businesses, organizations, and authorities (Swedish Tourist Authority, 2004).

Organizational leadership

Organizational leadership refers to programmes, structures, systems and processes that are managing the destination’s competitiveness and sustainability. Organizational leadership takes place on different levels, from national to local levels. It includes product development, packaging and marketing of the destination as well as innovation to serve the changing needs of the travellers. It should also facilitate the connection between the destination and the potential consumer, and selection of target markets. Organizational leadership may take different shapes depending on the specific factors of a destination but should in any case be functional from both the strategic and the operational perspective. It may be managed by individuals or organizations or through collective action.

Destination Management Organization (DMO) is a rather recent conceptualization of the organization function for destination management (Ritchie and Crouch, 2003). Since “tourists are buying experiences, and experiences are made up of all of the interactions, behaviours and emotions which each tourism permits their five senses to perceive and experience” (Ritchie and Crouch, 2003), a well functioning DMO would according to Ritchie and Crouch (2003) require to examine the total travel experience and to develop a total quality-of-experience approach to visitor satisfaction. Moreover, included in role of the DMO is also to provide incentives to stimulate private investment for tourism development, for examples by providing investors with seed funding, grants, loan guarantees, or taxation concessions within the frames of public policy. The DMO would also deal with marketing, quality of service/experience, information and research, human resource development, finance and venture capital, visitor management, resource stewardship and crisis management (Ritchie and Crouch, 2003).

2.2.1 Mass-tourism vs. sustainable tourism

Tourism represents important economic benefits to many areas. Direct benefits are for example income to businesses and government, employment opportunities, investments and spending income. With the aim of delivering these economic benefits, tourism has been heavily promoted by the businesses and governments in many parts of the world. However, the strive for rapid economic gains have in many places come on the expense of long-term economic, social and environmental sustainability. Ownership is often focused to a few large actors leaving little to gain for small-scale local businesses, and the income is rarely channelled back to the local community, i.e. the destination, since owners increasingly are located in other places. This type of economic leakage represents a major reason why local communities often are prevented from benefiting from tourism development. With respect to environmental consequences, aggressive construction policies and intense use of natural resources for tourism purposes has lead to overexploitation of natural resources and destruction of natural habitats in mainly coastal areas. Pollution, waste and littering are also consequences of this

through four years and are financed by partnership members, the state, and the EU. The EU Structural Funds represent an important resource in implementing the Regional Growth Programmes(NUTEK, 2006:11).
type of tourism development. Moreover, conventional mass-tourism has negative impacts on the social and cultural assets of the destinations. Historical remnants risk being damaged by intense tourist flows and local cultural traditions risk being diluted by the influences of the visitors’ different lifestyles.

However, and as argued by Gunn (1994), “whereas some erosion and pollution of resources is caused by great numbers of visitors, most environmental damage is caused by lack of plans, policies, and actions to prepare for economic growth”, a failure of governments and the private sector to cope with economic growth in general, that is, not only with regards to tourism. The response to this failure with respect to tourism, what is in practice mass-tourism, is the development of what is referred to as sustainable tourism.

Following the United Nations Conference on the Environment and Development held in Rio de Janeiro in 1992 where the global environment and sustainable development was in focus, the World Travel and Tourism Council, the World Tourism Organization and the Earth Council adopted what was known as the “Agenda 21 for the Travel and Tourism Industry”, which adopts the concept of sustainable development to tourism. Sustainable tourism builds on the assumption that if development destroys the resources that attract tourists to a destination, tourism cannot be sustained there (Bosselman et al., 1999). Thus, sustainable tourism may be defined as any form of tourism development which respects to the environment, ensures long-term conservation of historical and cultural resources, and is socially and economically acceptable and equitable. In general, the sustainable tourism firm is small in size and deals with a small number of tourists. Further, they are in general owned and run by local people in the destination area and the activities often build on the natural and cultural resources provided by the local environment. Since the businesses in most cases build directly on the assets found in the region, i.e. the natural landscape, cultural traditions, etc., it lies in the interest of the firms to preserve it so that the tourists will continue to find the place attractive and worth visiting. As opposed to conventional charter destinations where negative impacts (e.g. waste, water discharge, low wages, fauling labour standards, etc.) are easily hid or exported, the sustainable tour operator deals transparently with these issues while trying to minimize the negative impacts of the firm’s activities. In many cases, activities provided by sustainable tour operators often involve learning opportunities and/or activities where the visitor has an active and participating role. For example, and with regards to the Northern Scandinavian scope of this paper, such activities can be fishing with a Sami guide, where besides fishing, the tourist learns about Sami traditions and their relation to the environment, or mountain photographing tours where the visitor learns about both photographing and the mountainous environment, or yet hikes where the visitor learns about survival skills in the wilderness.

Based on the characteristics mentioned above, sustainable tourism contributes positively to the social, environmental and economic aspects of sustainable development. With regard to social aspects, sustainable tourism contributes to education and promotes understanding in various ways. As already mentioned, the interaction between local people and guests is often characterized by mutual learning opportunities and cultural exchanges, leading to increasing understanding for each others’ differences and similarities. Tourism can also contribute to the stewardship of historical traditions as these are maintained or re-established to be exposed to the guests. This has been the case of the Sami traditions for example. Along with tourism management, the quality level of local service is improved which benefits both guests and the local people. Everything combined, the local people create added value to their community or region, consequently enhancing the feeling of togetherness and pride over their culture and over what they have achieved. Moreover, sustainable tourism helps to break down social barriers such as class, race, political, religious, and gender barriers.
Sustainable tourism enhances the environmental awareness of people and creates arguments to conserve natural areas and archaeological or historical sites. It allows for visitors to experience these places without damaging the environmental resources and it might even lead to the improvement of environmental quality as the tourists demand it. The income from this type of tourism is channelled back to the communities who may invest in the protection of species, or in improving the environmental standard in the area. Sustainable tourism creates income opportunities in areas where the conditions for other types of activities are small. This type of business creates new markets for local products and handicraft and thus allows for economic diversification. Consequently, this results in income and employment growth among the people in the area.

For the individual company, having a sustainable profile adds value to the organization and may represent a competitive advantage in marketing situations. For example, individuals and organizations increasingly tend to choose their suppliers of products and services based on sustainability or environmental criteria. This puts the sustainable tourism operator in a beneficial situation since he or she will be preferred before the operator who lacks a sustainability profile on his business. Moreover, the sustainable tourist operator is also likely to make financial savings due to energy-efficient measures or water-saving appliances.

In Sweden, the Swedish Ecotourism Society together with the Swedish Environmental Protection Agency and VisitSweden, have developed a quality label for sustainable tourism, called the Nature’s Best. Individual tourism firms may apply for certification according to the criteria of the scheme, and if they pass they may use the label, for example for communication and marketing purposes. However, the major advantage of this labelling scheme for a tour operator is perhaps not the marketing part of it, but the fact that you become part of a network where a lot of useful information circulates and is shared among the members. Regular seminars and workshops are part of the Nature’s Best way of enhancing quality, professionalism and environmental consciousness among its members. The Nature’s Best labelling scheme is of course voluntary and there are many operators that could qualify but who simply do not see the added value of being labelled. Based on interviews with tour operators of this opinion, the argument is that you can just as well carry out your activities according to sustainability principles without being certified, plus that you save the money you would otherwise have spent on the membership fee. However, the Swedish Ecotourism Society was granted the Great Tourism Award (Stora Turismpriset) this year (2006) for its efforts in developing more and better ecotourism in the country, and it must be argued that the association bringing together almost 300 small enterprises and organizations deserves this recognition for its role in promoting sustainable tourism in Sweden.

2.2.2 Sustainable tourism in peripheral areas

Research and publications on sustainable tourism tend to focus on communities in rural areas with rainforests or reefs as the basis for tourism activities. Less has been researched on the role and effects of tourism over a range of environments, and especially those that may be regarded as less attractive environments (Hall and Boyd, 2005) such as deserts or peripheral areas in general. However, what is regarded as less attractive environments by some, for example peripheral areas with attributes of remoteness, poor infrastructure and wilderness, is exactly what attracts others to these areas.

In the case of Sweden, tourism to peripheral areas has a long history and dates back to the early 20th century. At that time, mainly hikers travelled to the northern parts of Sweden where the famous King’s Trail made the mountainous nature more accessible to the average family. Towards the end of the century, winter sports attracted many to the Swedish mountains and
the summer was no longer the high season. However, since about a decade ago, emphasis has been put on offering summer activities and consequently, an increasing number of small tourist firms started to offer activities also during summer. This has lead to more people travelling to the peripheral areas of Sweden, many of them coming from other European countries.

The key elements of tourism in peripheral areas are defined by Hall and Boyd (2005) as naturalness, accessibility or remoteness, and trip numbers. The concept of naturalness is commonly used to evaluate the relative qualities of natural environments and there are both biophysical and aesthetic dimensions to it. Naturalness, sometimes also referred to as primitiveness, is a relative concept that may be quantified in terms of factors such as number of plant and animal species (Hall and Boyd, 2005). Another concept with similar function is that of remoteness from human settlement and access points such as roads, measured in geographic distance or time distance. The concepts of naturalness and remoteness have been combined by Hall and Boyd (2005) in a two dimensional continuum approach (Figure 2-3) to identify remote areas with high natural values, usually termed wilderness.

**Figure 2-3 The wilderness continuum**

<table>
<thead>
<tr>
<th>Settlement Land</th>
<th>Undeveloped Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing Remoteness</td>
<td>Increasing Primitiveness (Naturalness)</td>
</tr>
<tr>
<td>NO WILDERNESS QUALITY</td>
<td>Wilderness Quality</td>
</tr>
<tr>
<td>LOW</td>
<td>MEDIUM</td>
</tr>
</tbody>
</table>

*Source: Hall and Boyd, 2005.*

In order to depict tourism in peripheral areas, Hall and Boyd (2005) expand the continuum approach to a three dimensional approach that includes naturalness, accessibility and trip numbers (Figure 2-4). Accessibility is used as a more inclusive term than remoteness since it better conveys the significance of connectivity between trip generation and destination that makes the travel experience. Although accessibility comprises both a social and a physical dimension, it is mainly the physical dimension of the ability of people to reach the destination that is used in the figure. The third dimension is that of trip numbers. It shows that the number of trips undertaken from an individual or collective central point (i.e. from “home” or from urban areas) decreases as the level of accessibility is reduced and the relative naturalness increases.
The figure also reveals several of the challenges of developing nature-based tourism in peripheral areas. First, since the level of naturalness is determined in part by the level of human settlement and impact, increasing the number of visitors may therefore reduce the natural qualities that attracted visitors in the first place. Second, with the aim of fostering tourism and overall economic activity, the improvement of access may also result in the loss of natural and cultural values. As a consequence of these two observations, Hall and Boyd (2005) rightfully recognize that nature-based tourism in peripheral areas involves a difficult balancing act between achieving regional development goals and retaining high levels of naturalness as well as cultural integrity.

In peripheral areas where sources of income typically are limited to very few options, tourism development has in many cases been the response of local and national governments who, uncritical about the issues discussed above, enthusiastically have thought about tourism as the solution to local economic and social crises. However, policies of regional development based on tourism have in many cases failed to deliver the expected results in terms of long-term sustainable development, mainly because the tendency by both government development agencies and tourism researchers to fail to see tourism within the larger development context (Hall and Boyle, 2005; Lundmark, 2006). Several reasons for such policy failures have been identified: First, policy makers appear to be struggling with national versus local priorities, for example “while recent government programmes have sought to address peripheral problems and imbalances by way of local and/or regional tourism development programmes; simultaneously, many governments have adopted restrictionist economic policies, which have compounded the difficulties of peripheral areas adjusting to economic and social restructuring (e.g. by way of centralisation of health and transport services)” (Hall and Boyd, 2005). A second reason is that policy makers are sometimes not familiar enough with the special
features of peripheral areas which may lead to the selection of inadequate policy instruments. One such feature is especially emphasised by Lundmark (2006) who argues that insufficient human capital is a major obstacle to tourism development in peripheral areas that experience economic restructuring. According to Lundmark “this means that when the economic base of an area changes, those taken out of employment are not truly available for tourism employment unless appropriate training is available” (Lundmark, 2006). Consequently, the lack of human capital tends to lead to seasonal in-migration, an occurrence that brings seasonality problems mainly in terms of infrastructure supply and economic leakage (IIIEE report, 2005). Related factors that according to Lundmark further complicate tourism development in peripheral areas are out-migration, especially among young people, and consequently, unbalanced age structures. A third reason for perceived policy failure identified by Hall and Boyle (2005) is that the initial expectations for tourism as a means for regional development were too high, particularly with regard to nature-based tourism which almost by definition tends to be of small scale, often seasonal and fails to attract the large number of tourists. Nevertheless, as Hall and Boyd (2005) correctly states: “at a local scale such developments can still be extremely significant, allowing population and lifestyle maintenance and possibly even a small amount of growth, although not the dramatic improvements that many regions and their politicians seek” (Hall and Boyd, 2005). Likewise, Lundmark (2006) acknowledges that “tourism in [peripheral] areas is an alternative development that helps maintain population and the local service level” (Lundmark, 2006) but with regards to the sparsely populated regions of Northern Sweden she argues that tourism has in fact little to contribute:

“Although tourism is a good complement to other sectors and could act as a generator of seasonal migration, it does not necessarily provide year-round employment in the Swedish mountain municipalities. Furthermore, the character of the employment is low-skill and low-pay, demanding high flexibility on the part of the employees as well as the small businesses. With this in mind, the contribution to the general restructuring and to positive regional development is limited in a majority of the mountain municipalities. This is clearly demonstrated by the high level of seasonal labour mobility to some parts of the mountain area. Thus the myth about tourism as the most powerful weapon against problems of restructuring has been dispelled.”

Lundmark’s argument that tourism is in itself does not provide the solution to problems related to peripheral or sparsely populated areas may well be valid and it is true that tourism does not necessarily provide year-round employment in the Swedish mountain municipalities. However, the strong emphasis on all-year around activities in several of these municipalities and the development of tourist activities (nature-based activities in particular) spread throughout the year must entail that tourism is playing an increasingly important role when it comes to contributing to solving the problems of restructuring in peripheral areas. Tourism in peripheral areas is taking new shapes where innovation is decisive.

2.3 Innovation theory

The previous sections have introduced the characteristics and challenges related to peripheral areas, tourism and to sustainable tourism development in peripheral areas in particular. The conclusion can be drawn that communities in peripheral areas tend to be isolated from sources of learning, investments and markets. Therefore, and as argued by Carson et al. (2004) innovation is required to increase the competitiveness of regional destinations, and to ensure long-term sustainability of tourism development. This is the reason why this section and the main part of this report will focus on innovation and on innovation with regards to tourism in peripheral areas.
Before turning to innovation in tourism in peripheral areas, it is necessary to define the concept of innovation and to present a brief historical overview of the development of innovations theory.

The term “innovation” should be distinguished from the closely related term “invention”. Whereas an “invention” is a major scientific and technological development brought about without any specified industrial use in mind, the “innovation” occurs with the further development of the invention for industrial handling, together with the institutionalization of the methods of production or the bringing of the new product to the market (Hjalager, 1997). Thus, a crucial element that differentiates the concepts of invention and innovation is that of the adaptation to markets and production systems that comes with the latter. Put differently, innovation involves “taking an original approach and finding new ways of using existing resources while looking to develop additional resources” (Carson et al., 2004). For the purpose of this report and with respect to the geographical location under study (the periphery), a broad definition of innovation will be used, following Aaersaether’s (2004) approach to the concept:

*By innovation we understand the process of bringing new solutions to local problems, as responses to the challenges presented by the transformation of an increasingly globalising and knowledge-based economy. Innovations are new practices creating better conditions for living, employment and economic activity in the localities.*

Innovation literature tends to distinguish between process and product innovations where the former concerns how goods and services are produced and the latter what is being produced. Process innovations can be either technological or organisational, while product innovations concern either goods or services (Figure 2-5).

*Figure 2-5*  
*A taxonomy of innovations*


The study of innovation as a mechanism for regional economic prosperity emerged from the work of Schumpeter (1975) who argued that firms which remain competitive and sustain growth enter into dynamic patterns of innovation. Early theories of innovation sought to explain the relationship between innovation and space since empirical studies increasingly pointed at a distinctive geography of innovation. Studies of the rapid economic growth of SMEs in industrial districts in Northern Italy, the industrial system of Silicon Valley, and other successful cases all pointed at the importance of territorial agglomeration as the best context for an innovation-based globalising economy. This view, that leading industries tend to group on relatively small geographic areas – in competitive clusters, was raised by Porter (1990). The
concept of innovation was later extended by researchers such as Edquist (1997) and Lundvall (1992) to a “system of innovation”, that includes “all important economic, social, political, organizational, and other factors that influence the development, diffusion, and use of innovations” (Edquist, 1997, 2001). Such factors may be organizations - physical entities such as firms or government departments, or institutions - the laws, health and other regulations, cultural norms, social rules, technical standards, or conventions that influence the behaviour of the system (Carson et al., 2004). Because of the localised learning processes and “sticky” knowledge grounded in the social interaction found in these clusters or systems, researchers emphasised the importance of learning and knowledge and developed the concepts of the “knowledge-based” and the “learning-economy” (Lundvall, 1992; Asheim, 2001).

Innovation systems may exist on different geographical levels; hence referred to as Regional Innovation Systems (RIS) or National Innovation Systems (NIS). The system boundaries are usually very difficult to specify but in most cases they follow either geographical or sectoral boundaries.

The contributions to the research on innovation have mostly been case study oriented and acted on the assumption that innovation is an underlying characteristic of “successful” systems. Successful systems are those which demonstrate economic viability and sustainability (Carson et al., 2004). However, as stated by Carson et al. (2004), “it should be recognized that innovation approaches do not talk about systems reaching or exhibiting “optimum” performance. Under the innovation models, systems may strive for continuous improvement, but there is no optimum state due to the dynamism inherent in the system”. A number of innovation indicators have been developed and presented in the literature to assess which systems demonstrate innovative behaviour and what influences the development, diffusion and use of innovations (Edquist, 1997). Examples include indicators relating to the size of the sector, the knowledge base of the sector, and the economic performance of the sector.

Another way of measuring the performance of the system is to assess how well the innovation system fulfils a certain set of activities or functions. According to Liu and White (2001), the fundamental activities of the innovation system are:

1. research (basic, developmental, engineering)
2. implementation (manufacturing)
3. end-use (customers of the product or process outputs)
4. linkage (bringing together complementary knowledge) and
5. education

Johnson and Jacobsson (2001) assess the system according to its functionality, i.e. how well it serves a certain set of functions:

1. to create “new” knowledge
2. to guide the direction of the research process
3. to supply resources, i.e. capital, competence and other resources
4. to facilitate the creation of positive external economies (in the form of an exchange of information, knowledge and visions), and
5. to facilitate the formation of markets

To summarize, Carson et al. (2004) identify a set of characteristics present in systems of innovation considered successful in the literature:

1. economic competence
2. clustering of resources
The activities, functions and characteristics identified in past research as fundamental to a functioning innovation system tend to cover three basic areas, namely:

- KNOWLEDGE
- RESOURCES
- MARKET ACCESS

Each of the groups will be further developed on in section 3 as part of the framework for analysis. First however, it is necessary to introduce how innovation pertains to the tourism sector.

### 2.3.1 Innovation in tourism

It has been debated whether innovation theory in relation to the manufacturing industry can be applied to the service sectors such as tourism. There are arguments both for and against. Some general characteristics however, seem to distinguish innovations in services while others are similar to those in manufacturing. First, and as stated by Mattson et al. (2005), innovation in services bring to the fore “softer” aspects of innovation based in skills and inter-organizational cooperation practices. In contrast to the manufacturing sector where technology is often the focus of innovation, innovations in the service sector are more social or organizational in nature and mainly driven by practical experience rather than by R&D (Mattson et al., 2005). Secondly, innovations in services are often limited in size and result in minor changes of existing services or procedures. Still, these innovations may involve important organizational changes that rely on support from external stakeholders or on the collaboration between a network of firms (Mattson et al., 2005). In general, innovation activities in services are less structured than in manufacturing but tend to involve more employees in the process.

There are also similarities between service and manufacturing innovations, for example, innovations in both sectors can be identified although they are more integrated in services (Mattson et al., 2005). Moreover, the service sector increasingly understands the benefits of systematically organizing the innovation activities, and service firms are more likely to establish R&D departments although they rarely engage in fundamental or long-term research.

Research on innovation in tourism has been rather limited (Abernathy & Clark, 1985; Hjalager, 1997, 2002; Nordin, 2003; Carson et al., 2004; Mattson et al., 2005). Traditionally, the innovation literature separate between product and process innovations, but in order to enable these terms to be used appropriately about the tourism sector and to add novel understanding about tourism innovations, Hjalager (1997, 2002) divides tourism innovations into five categories; product, process, management, logistics and institutional innovations. Product innovations consist of changed or new products or services ready to be

3. the existence of networks
4. the presence of productive development blocks
5. entrepreneurial activity
6. an effective critical mass of resources
7. institutional infrastructure
8. a leading role of the local government
9. the production and distribution of knowledge; and
10. the quality of social capital
commercialized. These products or services are based on the exploitation of the natural resources available and are commoditised thanks to what Hjalager refers to as peripheral economic activities, such as the guiding system, promotion and packaging of the product, and units of infrastructure such as accommodation and transportation. The product’s novelty should be evident to producers, suppliers, consumers or competitors. Examples of innovative products in recent years are special brands of environmental tourism, such as “conservation holidays” or “voluntary work holidays” (Hjalager, 1997). Process innovations involve a way of raising the performance of existing operations with means of technology or other production inputs. Sometimes process innovation goes in line with environmental principles. This is for example the case when energy saving measures are implemented, or when environmentally friendly products are used in the process instead of conventional environmentally damaging products. However, in tourism process innovations are most often induced by the manufacturers of equipment and raw materials, which leaves little opportunity for the tourism firm to independently engage in process innovation. Process innovations can be combined with or result in product innovations. Hjalager’s third category is management innovations. The main issue here is (environmental) communication to and co-operation with people, i.e. staff, tourists and residents. This type of innovations may include training of staff, strategic staffing, organization of voluntary work, or by appealing to the eco-consciousness of the tourists, for example by asking tourists to source-separate their waste. The fourth innovation category is the logistics innovations. Materials, transactions, information and customers constitute examples of the flows handled. Recent innovations in this field are Internet marketing, enhancement of airport hub systems and integrated destination information systems (Nordin, 2003). The last category is the institutional innovations which goes beyond the individual firm and deals with collaborative and regulatory structures in communities. One important factor leading to new institutional innovations is the increase in environmental concern. Pollution abatement is for example not regarded the task of the individual tourism firm but of the whole community and requires institutionalization. Examples of institutional innovations are the Blue Flag initiative dealing with bathing water quality in coastal destinations, and the Swedish ecotourism quality label, the Nature’s Best.

Abernathy and Clark, (1985) have developed a model over tourism innovations. The model illustrates four types of innovations (Figure 2-6); regular, niche, revolutionary and architectural innovations. The vertical axis indicates the knowledge and competence used for the production of services and products. The horizontal axis indicates whether specific innovations make existing business linkages obsolete or whether they lead to an entrenchment of the existing ones. The regular innovations are the least radical ones, but their impact can on the long run have considerable effects. Niche innovations are characterized by new collaborative structures that occur without challenging competence and knowledge. Revolutionary innovations however, tend to conserve existing linkages while having a radical effect on competence. The last category, architectural innovations, normally restructures or replaces existing linkages and competence. The model provides a framework for a clearer understanding of the nature of particular innovations in tourism, but it has also been criticised for being too descriptive and static (Nordin, 2003).
Rather than describing the type of innovation, Mattson, Fussing-Jensen and Sundbo (2005) have investigated the origins and process of innovation in tourism. They emphasise the role of what they refer to as the “attractor”, the “scene”, the “scene-maker”, and the “scene-taker” as the basis for the tourism innovation system. Their approach differs from the general innovation system approach applied to tourism since it identifies a clear originator of the innovation, namely the attractor and the scene maker, and suggests a line of development (Figure 2-7). The attractor refers to an event, a natural phenomenon, activity or the like that attracts people. It is only when the attractor has been conceptualized by the scene-maker that it is turned into a tourist attraction. In order for the conceptualization to take place, or “to create the scene” in the words of Mattsson et al. (2005), an innovator is required; a person who sees the possibilities of using the attractor to draw visitors to the area.
The scene-maker may be a person, an organization, a private firm or a public organization and does not necessarily come from the tourist sector. Unless the scene-maker continues to manage the scene and ensures its continuation, another actor needs to take on the role of “scene-taker”. This would imply maintaining the scene as well as marketing and networking activities. Subsequent incremental innovations are most likely necessary to renew the scene from time to time (Mattsson et al., 2005).

2.3.2 Innovation in tourism in peripheral areas?

Up until this point, the subjects of this report have been treated somewhat separately - innovation and tourism on the one hand and peripheral areas on the other. Likewise, the literature tends to cover innovation in tourism as one topic and tourism and peripheral areas as another. Following the logic of researchers in innovation theory, by definition innovations should be nearly non-existent in peripheral areas and even less so when it comes to tourism firms in peripheral areas. However, although presented relatively separate throughout the previous sections of this report - innovation, tourism and peripheral areas – may very well be interlinked and should be interlinked.

As mentioned earlier, traditionally, innovation and tourism received little attention, but a few researchers pointed out the importance and characteristics of innovation in this particular sector (as presented in section 2.3.1). The conclusion was that innovation does exist in the tourism sector although with a few different characteristics compared to how it appears in the manufacturing industry, and that tourism development requires innovation to remain competitive in a globalized market.
With regards to the geographical location, innovation and systems of innovation almost always refer to urban industrial areas. Peripheral areas are almost never mentioned in relation to innovation, and if they are, it is in the context of their comparative lack of innovation relative to urban and industrial centres. Likewise, research on sustainable tourism is limited to a few geographical locations with main focus on a few environments, for example coastal areas or jungles. The research on innovation in tourism is limited to even less different geographical settings, and the ones that exist are mainly case study oriented. This leaves a gap. Namely, we do not know what happens to innovation in tourism if we change the context from the one commonly covered in the literature, i.e. urban and rural areas, jungles and reefs, to the geographical context of the periphery, characterized by challenging social, economic and environmental features.

Knowing how the contextual factors affect innovation in tourism is necessary in order to direct policies and investments in the best way to achieve sustainable and competitive tourist destinations. It is even more important to develop an understanding of how these factors affect innovation in tourism in areas that are particularly sensible to economic, social and environmental restructurings. Peripheral areas are typical examples of such areas. In addition, since tourism is expanding in peripheral areas, the need to know more about how the special features of the periphery affects innovation in this particular sector becomes even more important.

This ends the section providing the background, literature review and theory behind the topic of this report. The following part presents the framework for analysis before turning to the case studies, analysis and conclusion.
3 Framework for analysis

The analysis will explore how the context based factors that are unique to peripheral areas affect innovation in tourism with regards to knowledge, resources and market.

The previous sections provided the background information and characteristics of peripheral areas; the traditional view of factors influencing the tourism system in general (based on Gunn, 1994); and the theory of innovation and how it applies to tourism in general. It remains to be uncovered by the two case studies in what ways peripherality has an impact on innovation in tourism and how it contrasts to the traditional views presented earlier.

In order to establish the link between innovation, tourism and the periphery, I first uncover the criteria of innovation as outlined in the innovation literature, relate it to tourism and then examine the case studies through a schematic model that links the innovation criteria and periphery context (Figure 3-1).

Figure 3-1 Framework

3.1 Peripheral factors
The peripheral factors that will be investigated have been divided into three types following Aarsaether’s work on “Innovations in the Nordic Periphery” (Aarsaether, 2004). Hence, the following definitions are taken from Aarsaether.

3.1.1 Structural factors
Structural factors of peripheral areas that municipalities and firms need to deal with include demographic and geographic structures. The demographic aspects include age structures, level of education, population trends and employment trends. The geographic structures involve size and location of the area, as well as the physical environment that provide unique conditions for the area.

3.1.2 Institutional factors
Institutional factors include political and institutional arrangements, policies and the interplay between different actors within the social space. Informal institutional settings influencing networks and cluster formations typically belong to this category.

3.1.3 Local capacities
The local capacities of a region include the social capital (usually understood as networks, trust and norms of reciprocity), culture and sense of individual and collective identity among the people of a community. A shared identity is the result of communication, reciprocal relations and trust (Aarsaether, 2004). According to Putnam, social capital is necessary for economic development (Putnam, 1993).

3.2 Innovation system criteria

3.2.1 Knowledge
The shared argument among innovation scholars is that in the globalising economy, knowledge is the most strategic resource and learning the most fundamental activity for innovation and competitiveness. Hence, the knowledge dimension to innovation systems is expected to bring together complementary knowledge, provide research and education, create knowledge and competence and to diffuse new knowledge. Synthesizing on the literature, the function of an innovation system related to knowledge include providing knowledge infrastructure, interaction and learning among actors in creating new knowledge, and institutional arrangements facilitating new knowledge developments or greater links to knowledge pools.

Asheim and Coenen (2005) distinguish between two types of knowledge base with regards to innovation: the analytical and synthetic. The analytical knowledge base refers to “the way of reasoning by which the truth of a proposition is established independent of fact or experience involving interference from general principle”, in other words, where scientific knowledge is highly important and where knowledge creation is often based on cognitive and rational processes. The synthetic knowledge base, on the other hand, refers to “knowledge having a truth value determined by observation or facts”, thus, where innovation takes place mainly through the application of existing knowledge or through new combinations of knowledge (Asheim and Coenen, 2005). It is further characterized by interactive learning with clients and...
suppliers; dominance of tacit knowledge due to more concrete know-how, craft and practical skill; mainly incremental innovation (Asheim and Coenen, 2005).

Increasingly, the university-industry interaction that has long characterized the manufacturing sector's relation to new knowledge, is also being observed in the tourism sector. Educational institutions with a focus on tourism are becoming more common and they have an important role in contributing to the generation of new knowledge and research that spurs innovation within the tourism sector. The knowledge and competence generated in universities and research centres become especially tailored to fit the needs of the tourist firms if the institutions are located in close connection to the place where the tourist firms operate. For example, the Mid Sweden University in Östersund is increasingly putting a local touch to its tourism programmes providing courses that are specifically aimed at tourism in mountainous regions.

Another way of disseminating knowledge that may contribute to innovations is through networks. Organizing in collaborative structures provided by networks may help the individual small or medium sized tourist firm to gain new knowledge as experiences and ideas are shared among the members, provided that communication functions. Such networks may be formal or informal. A network is characterized as formal if it sees itself as a group and network members recognize that they belong to the respective group; and informal if there is no organization in which the network operates and/or when members do not consider themselves belonging to the network (Fadeeva and Halme, 2001). In general there is little mutual trust among tourist firms who tend to see each other more as competitors than as colleagues (Hjalager, 2002); this challenges the formation of collaborative inter-firm networks in the tourism sector. Rather, as stated by Hjalager (2002) “Collaboration between tourism enterprises is mostly the result of intermediation by other organizations, e.g. tourist offices, where activities are undertaken at an arms-length from the individual proprietor”. She concludes that this offsets some of the potential for knowledge transfer between the firms.

While networks are characterized by cooperation and inter-firm transfer of knowledge, the cluster concept defined by Porter (1998) as “geographic concentrations of interconnected companies and institutions in a particular field, linked by commonalities and complementarities” involves cross-sectoral relations, bringing together actors around a specific link or knowledge base. As stated by Nordin (2003), the cluster concept not only provides opportunities for economic growth in the manufacturing sector where it commonly appears but also in the service sector. A difference between a cluster and a network is that a network can occur among firms situated anywhere, whereas clusters usually refers to a core of firms in a more limited geographical area (Nordin, 2003). With regards to tourism and innovation, the formation of clusters is becoming increasingly important since the link to other sectors (although indirectly or directly related to tourism) allows for new knowledge to enter the system that may provoke new innovations.

Researchers within the field of innovation in tourism tend to agree that the major influences on innovations come from forces outside the tourism system rather than from within it (Mattson et al., 2005). Hjalager (2002) emphasises the role of the suppliers rather than the tourist firm itself as the generator of new knowledge and innovations: “Indirect infusion of knowledge into the destinations occurs because of the multitude of suppliers that together provide the services making the tourist product. These other facilities are much more likely to develop relations with R&D institutions than the primary tourist enterprise, and they benefit more easily from the products of academia”. Moreover, Hjalager identifies four different channels for knowledge transfer that affects innovation in the tourism sector (Hjalager, 2002);
these are the trade system, the technological system, the regulatory system, and the infrastructural system (Figure 3-2).

**Figure 3-2 Knowledge transfer channels to the tourism business**

In conclusion, the type of knowledgebase, the level of industry-university interaction, the kind of networks, clusters, and influencing sources will have an effect on the knowledge dimension of innovation. How this pertains to peripheral areas remains to be seen in the two case studies.

### 3.2.2 Resources

The second criterion for innovation can be summarized in the term resources. It encompasses financial capital, physical resources such as the natural environment, constructions and infrastructure, as well as intangible resources such as cultural traditions, talents, human capital, institutional and organizational dimensions, and power to influence. The important issues from a systems perspective is availability and access to resources at the firm and individual level, and the institutional arrangements at the local/regional levels facilitating mobilization of resources as well as easy and affordable access. Based on the assumption that a region’s capacity to mobilise its innovative resources is linked to the regional government’s budgetary availability, Cooke et al. (1997) emphasise the importance of financing in the configuration of a system of innovation. With regards to regional systems of innovation, they distinguish between two different regional profiles arising from differences in financial-, infrastructural- and competence resources that permit the region to carry out a more or less autonomous innovation policy. For example, and this refers to both the budgetary capacity of the local
government and of entrepreneurs; whether the region has the capacity to impose taxes or autonomously decide on spending, and whether firms need to approach the national capital market or not; will have an impact on the region’s level of innovation (Cooke et al., 1997).

Physical resources such as the natural environment, buildings and constructions also constitute important resources when it comes to innovation in tourism. These resources make up the context, or as Mattson et al. (2005) would say constitute the “attractor” which provides not only the basis for tourist activities in the first place but also the basis for innovations. Cooke et al. (1997) also identify telecommunications infrastructure and other infrastructures vital to the creation and diffusion of innovations as important elements when configuring a regional innovation system. Intangible resources such as cultural traditions, communication networks and human capital are also important to the resource-dimension of innovations. A region’s cultural traditions may yield new creative ideas of ways to attract visitors; the institutional and organizational dimension involves communication networks that link different parts of the region and its actors which facilitates the generation of innovations; and the professionalism and availability of human capital is of course vital in terms of adding talents, skills and competence. The presence of entrepreneurial activity strongly contributes to the level of innovation in an area. But entrepreneurs need driving factors and motivations to innovate and therefore, a leading role of the local government in supporting innovations is crucial.

### 3.2.3 Market

The final criterion for innovation is that of the market. Without a market, the innovation is worth nothing. As mentioned by Mattson et al. (2005) “To ensure a permanent effect, it is not sufficient to transform the attractor into a scene. The scene must also be maintained.” Therefore, the task of the innovation system also involves marketing activities as well as the formation of a critical mass to support the making of the “scene” to use the words of Mattson et al. (2005). Thus, the market dimension of innovation includes: 1) to create or facilitate the formation of markets, i.e. to create end-users or customers of the product or process output; 2) to enhance access to this market, and; 3) to enlarge the market for firms within the system.

There are several tools that may be used to fulfil the roles related to market. Conducting market surveys is one way of gaining information about what the market wants and will help responding to that demand. However, this requires that the obtained market knowledge is diffused among the firms. In the tourism sector, market surveys are not always formal but are often conducted informally, especially so among small and medium firms, through direct interaction with customers.

In a sector that is becoming increasingly product oriented, “branding” is gaining more and more importance among innovative tourist firms and whole destinations in their attempt to attract visitors on the basis of selling unique travel experiences (Fussing, 2006). Branding involves giving a new identity to a destination (or enhancing the existing one) by gathering different organizations around a common understanding of the qualities of the particular geographical space, and the effort to promote this understanding to potential investors and customers in general. According to Ritchie and Crouch (2003), the task of enhancing the overall quality of the visitor experience would be maintained and improved by the Destination Management Organization (DMO): “The DMO first seeks to create a critical mass of core attractions. It then seeks to coordinate the efforts of these attractors and functional service providers in such a way that they realize how interdependent they all are in the delivery of a high-quality total visitation experience” (Ritchie and Crouch, 2003). The quote is equally relevant to describe the process of a concept known as “signature landscape” which involves
strengthening the cultural and environmental profile of a region making it an attractive destination. Regions that successfully have promoted their nature-based experiences by these means are for example Alaska, British Columbia, Quebec and the coastal areas of Canada. European examples where branding and the creation of signature landscapes have been successful are Ireland, Scotland and Wales. Chile and New Zealand are good example of how destinations within a relatively short period can renew its identity and attract visitors. These two destinations are today considered “powerhouses” within nature-based experiences and sustainable tourism (Turistdelegationen, 2004).

Another important feature of the market dimension to innovation is that of networks. Depending on their purpose and character, networks will of course have different implications on the individual firm, but in general networks connecting tourist firms facilitate internal as well as external relations. The benefits relating to internal relations were described in the section on knowledge. With regards to market, networks may support external relations by providing coherent and easily accessible supply of tourist activities, and thus facilitating for the customer. At the same time, this means that the network acting as an intermediary between the firm and the market saves the individual tourist firm from its marketing efforts.

The network can also be of a guiding character for the customer in terms of quality or environmental standards and only include firms that fulfil certain criteria. This is for example the case of the Swedish Ecotourism Society’s quality certification scheme the Nature’s Best which includes about 300 firms, most of them providing nature-based activities. The environmental and quality criteria that need to be fulfilled in order to use the Nature’s Best label in marketing situations forces tourist firms to innovate.

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4 Case studies of tourism and innovation in peripheral areas

The following sections will present the two case studies, Åre and Kiruna municipalities. After a brief background and overview of the current situation regarding sustainable tourism in the areas, the destinations will be studied from the perspective of knowledge, resources and market.

4.1 Åre

Background

The municipality of Åre is located in the county of Jämtland in the west-central part of Sweden (Figure 4-1). The largest village is Järpen with about 1700 all-year around inhabitants. The total number of inhabitants in the municipality was 9 821 in the end of 2004, and with a surface of 7 263 km$^2$, this equals 1.35 persons/km$^2$ (Kommunfakta, 2005). The municipality is counted as a region of extremely low population density and is therein falling under the EU’s Objective 6 area which covers regions with 8 persons per km$^2$ or less. Objective 6 areas, which to a large extent cover North Sweden, North Finland and Mid-Sweden, are entitled to Structural Funds in order to promote the development and structural adjustment of these regions.

The modern history of Åre began with the opening of the railway between Östersund and Trondheim in 1882, Åre became easily accessible for the so-called “air-guests” who came to breathe the fresh air and experience the mountainous environment. Throughout the first half of the 20th century, the Swedish upper-class and British game hunters dominated the clientele of Åre. In 1910, the first ski lift in Åre opened as a result of the efforts of one visionary, Carl Olof Rahm, who wanted to make Åre into a winter sport destination. In 1954, Åre village was the host of the alpine world cup which made the destination world famous within the skiing community. At this time, skiing was still an exclusive sport which a majority of the Swedes had no possibility to benefit from. But in the 1970s, the Swedish government decided to invest in Åre village in order to make the destination affordable for the Swedish working class. The investments allowed for the cable car to be built and opened in 1976 and Åre thereby became Sweden’s most important winter destination.
During the 1980s, the destination experienced a period of extensive investments and development of Åre village, much following the national trend of a strong economic situation. The flourishing period lasted until the mid 1990s when the upward trend stagnated and resulted in increasing prices. Consequently, Åre was faced with heavy competition from other tourist destinations in both Sweden and in the Alps and suffered from the absence of tourists. Combined with image problems of being an expensive, snobbish and trendy destination, and a sequence of bad winter seasons, Åre underwent difficult years in the mid 1990s. To reverse the negative trend, the actors in Åre together with smaller destinations South of Åre village came together and developed a common strategy with a common goal for the destinations in the region. The development project included competence improvements and new service concepts which enabled Åre to retake its position as one of Sweden’s most prominent tourism destinations.

During the last couple of years and since the announcement of Åre being designated the host of the alpine world cup in 2007, the village is currently undergoing a construction boom and experiencing new important investments in preparation for the world cup.

Nature-based tourism in Åre

In the periphery of the Åre village, a substantial number of alternatives to alpine skiing have emerged during the last five or six years. A few, however, have run their businesses for longer, starting in the mid 80s. The development of new innovative nature-based activities in the area has contributed to attract visitors to the area and has reduced the negative effects of seasonality. These tourist operators are often organizations of small scale and are often family-based, or run by a couple. Several of the nature-based tourist companies around Åre are certified according to the Swedish Ecotourism Society’s quality label, the Nature’s Best. The label aims to guide the consumer, i.e. the tourist, to activities with as little environmental impact as possible and guarantees the good quality of the activities, accommodation and service. Nature-based tourism in the peripheral areas around Åre takes place during the whole year, often with the same operator running both winter and summer activities. Examples of activities are wildlife safaris, horseback riding, dogsled, hiking, mountainbiking, fishing, rafting, canoeing, hunting, and snowmobiling (not all the activities qualify for the Nature’s Best label, e.g. hunting and snowmobiling). Fishing is very popular in the area with fishermen coming from all over Europe jigging for char and salmon trout in the local waters. There are also more culture and educational oriented tourism activities such as Sami experiences where the tourist learns about the history and traditions of the Sami people.

4.1.1 Knowledge

The relative proximity to educational centres, i.e. the Mid Sweden University and the European Tourism Research Institute (ETOUR), constitute an important asset to the tourist firms in the Åre region. The Mid Sweden University offers specialist training programmes within the industrial, tourism, outdoor technology and sport tech sectors. The university has through ETOUR recently applied for a grant from the Vinnova programme Vinnväxt to build a regional innovation system. The innovation system named Peak of Tech Adventure is focused around tourism, sport science and adventure technology with the aim of developing products and services related to tourism and outdoor equipment. The project was approved 2 million SEK by Vinnova in June 2006 and has a total budget of 7.9 million SEK. Other investors are the municipalities of Östersund, Åre and Krokom, the Mid Sweden University, Jämtland Applications AB, and other local companies and organizations.
Networks play an important role among tourist firms in Åre and the number of memberships in Nature’s Best exceeds that of any other region in Sweden. The main reason to participate was for the firms interrogated the exchange of knowledge that being part of the network entails. Since lack of time and resources prevents some of the smaller operators to invest in new knowledge on their own, the network is an option that requires relatively small investments. Moreover, the network is a constellation with members supporting each other. This produces a cohesive group of tourist firms and together they become an important group. Regular network meetings allow members to interact, to change ideas, to share experiences and knowledge. Under the leadership of Nature’s Best, cluster meetings are also held from time to time, involving not only members of the network but other actors directly or indirectly related to tourism who contributes to shape a favourable environment for nature-based tourism in the area.

The region of Åre has a number of outdoor equipment manufacturers that produce high quality gear. In order to develop competitive products, the R&D department needs input from the ones who uses the equipment. In some cases this has led to partnership being established with nature-based tour operators who uses the equipment and provides the manufacturing company with input regarding its products. The proximity to users and to the environment where the products are used makes this a favourable location for the manufacturing companies.

Some of the tourist firms have linked with a large actor in the village of Åre, Holiday Club, the large-scale hotel, adventure bath and conference centre. This means that if tourists staying at Holiday Club wish to go for a nature-based experience or activity, this is easily organized and carried out by one of the tourist firms that specializes in that particular activity, for example dogsled or fishing. To facilitate the organization of these activities, an intermediary organization, Camp Åre, was set up in 2005. The organization is constantly growing since more operators are included in the network. Although being certified with the Nature’s Best is not a criterion for being selected, Camp Åre is trying to maximise the number of certified operators in its networks.

### 4.1.2 Resources

With regards to the financial resources, there is a high level of private investments in Åre, both small and more important in size. Åre municipality was elected the Growth Municipality of 2006, much thanks to investments in preparation for the Alpine World Cup 2007. Approximately 3 billion SEK will be invested in Åre within a ten year period. But it is also likely that the development of nature-based tourist activities in the area contributed to the election of the municipality. It is not the role of the municipality to support entrepreneurs and start-up companies financially but in cooperation with AMS (The National Labour Market Board) and ALMI (state-owned business-development companies for SMEs), the municipality may assist on a consultancy basis providing a business development process for entrepreneurs who want to test their business ideas or get help with the start-up process. With a total of 154 new companies in 2005, about one third followed this process.⁴

Physical resources that allow for innovations are present in Åre. The natural environment with its mountains, forests, rivers, lakes and wildlife, constitute a central playground and source of innovation for tourist entrepreneurs in the area. The diversity of natural resources offering a variety of different activities and recreational opportunities are used in a variety of ways in

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⁴ Personal interview with Magnus Dahlin, 13 June, 2006.
nature-based tourism, from providing the scenery in photo-safaris to the provision of berries and mushrooms used in wilderness cooking. Besides the financial and natural resources with its scenic, ecological or recreational features, there are other types of resources that also belong to the resource-dimension of an innovation system.

An important resource for innovation systems is infrastructure, both physical and intangible. Visitors may access Åre either by airplane to Östersund, by train to Åre village, or by car. There are good transportation possibilities to most of the nature-based activities, and the general accessibility level is relatively high. Despite the existing physical infrastructure, concern was raised in the interviews that an (intangible) infrastructure platform is missing. As the situation is now, there are a lot of diverse actors that act independently from one another who would benefit from the coordination provided by an infrastructure platform.

With regards to intangible resources, Åre municipality is characterized by a high level of entrepreneurship with approximately 1 465 businesses within the municipality of only 9 000 inhabitants. This makes the number of companies per inhabitant in the municipality among the highest in Sweden with 10.3 companies per 1 000 inhabitants as compared to the national average of 7.5 companies per 1 000 inhabitants (Kommunfakta, 2005). The dominant business is tourism which directly or indirectly employs the majority of the inhabitants of Åre municipality, but there are also successful companies within IT, trade, manufacturing and agriculture. The special entrepreneurship and creativity found in Åre municipality can be explained by different reasons. According to one interviewee the problem of seasonality and unemployment has simply forced people to be creative and to find out new ways of earning an income. The winter season used to be the major reason for tourists to visit the municipality with the main attraction of downhill skiing on the Åreskutan. This made it easy for people to find jobs during the winter months and many people from other parts of the country also moved in as season workers. But when the summer came and the tourists and a majority of the workers left, the jobs connected to tourism also disappeared for the ones who chose to stay. Many of the persons are described by the interviewees as very active and innovative people who in general are young with both energy and courage to invest in their business ideas, many have experiences and lessons from other parts of the world, and they have a passion for outdoor activities related to the mountainous environment. This profile characterizes the innovative people behind many of the new activities that have popped up in the municipality. The activities that they run are mainly nature-based sports and adventure experiences that stretch over the whole year, with a new focus on the summer season. Kayaking, rafting, hiking, mountainbiking and paragliding are some of the activities that have contributed to less seasonality-related problems such as unemployment and depopulation of the area. This development is also putting the periphery in focus as many of the activities takes place outside the core area of Åre village.

The cultural resources of a region include for example art, language, traditions, values and history as well as local food, archaeological artefacts and historical remnants. Local food is one such asset that has been capitalized on in the county of Jämtland, resulting in a product label representing the added value and quality of locally produced food. The label, called Smakriket Jämtland, is today found on various products such as fish, jam, cheese and meat and is easily recognizable in the local stores. Also with regards to the cultural resources of the region, the Sami traditions are present in the municipality and in the county at large. Increasingly, the Sami villages have opened up for tourism and the traditions and life-style of the Sami

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5 Personal interview with Dan Jonasson, 12 June, 2006.

6 Personal interview with Stefan, Äventyr i Åre, 14 June, 2006.
population today attracts visitors from all over the world. Within the municipality, there is one Sami camp, Njarka Sameläger, situated 30 km from Åre village, and one Sami village, Anariset. There are a total of twelve Sami villages in the county of Jämtland and neighbouring county of Härjedalen. Njarka Sami camp hosts tourists during the summer months and visitors to Njarka are told about the history, traditions and know-how of flora and fauna that the Sami population has possessed for centuries. The cultural resources related to the Sami population are enormous and has proved to interest a large number of tourists who are willing to pay for what Petterson and Müller calls “indigenous tourism” (Petterson and Müller, 2001), to learn about the Sami traditions and life-style. At Anariset Sami village, tourists can stay overnight and go on hikes with reindeers and Sami guides to remote mountain areas. Engaging in tourism has become an important way for many Sami as a means to be able to continue with reindeer herding since herding alone no longer is enough to support the livelihood of Sami families.

With regards to institutional and organizational resources, the role of the municipality should not be neglected. As the first municipality in Sweden to do so, Åre municipality decided to sign the Earth Charter in 2002. By signing the Charter, Åre municipality wanted to show its commitment to sustainable development and to ensure that the social, economic and environmental aspects were taken into consideration in every decision made by the local government. The effects of adhering to the principles of the Charter may not be directly visible today but the municipal representatives ensure that the Earth Charter has framed the way in which they think and act, and that the consequences may be observed in the long run. Thus, although there is no formalized connection between signing the Charter and the tourism sector, the fact that the tourism sector is the largest business in the municipality, it is reasonable to believe that the principles will have implications on the way tourism is developed in the area.

A very recent initiative undertaken by the municipality that directly aims to stimulate the rural tourism development in the area is the Nature-based Experiences and Arrangements project (Naturbaserade Opplevelser og Arrangement, NOA). The NOA project stretches across the border to Norway and involves Åre municipality and the neighbouring municipality of Meråker Figure 4-2). After two years of planning processes, the project was accepted as an EU Interreg project in March 2006 and so far involves a dozen companies and organizations within the two municipalities. The project time is scheduled from January 1st 2006 until the end of November 2007 and the cost is about 2 million SEK. 70% of the Swedish cost is financed by the EU, and the remaining 30% consists of contributions made by Åre municipality, the Swedish Ecotourism Society, and private sponsors.

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7 Since the NOA project is fairly recent, there are very limited sources of information and therefore this section builds primarily on personal interviews with one of the project managers, Magnus Dahlin, and on the project’s communication material.
Innovation in tourism - Sustainable tourism in peripheral areas of northern Sweden

Figure 4-2 Geographical scope of the NOA project

Source: Project manager Magnus Dahlin

The baseline of the NOA project is to create friendship and collaboration between the municipalities through activities and cooperation within the areas of sustainable development, education and culture. However, directly related to the tourism sector, and specifically the nature-based tourist companies, the overarching project goal is to increase the understanding, engagement and potential in the development of eco- and nature-based tourism among local society and small scale businesses. The target groups consist of the local society, networks, organizations, public sector, small scale tourism operators, environmental experts, etc. Other sub-goals are to increase competence and knowledge among the project participants, stimulate an attractive and sustainable tourism destination development in the region, and to collaborate with other networks, processes and projects that strengthen the region.

4.1.3 Market

Åre has an advantage when it comes to the market dimension because of the area’s early positioning as a tourist destination. The first use of Åre as a trademark has been dated back to the early 20th century. Today Åre is a well established and recognized trademark in Sweden and in Scandinavia at large.

Together with the business sector, Åre municipality has developed a branding policy of Åre All Year Around (Åre Året Runt) with the aim of promoting Åre as an all year around destination and counter balance the strong focus on the winter season. This policy had strong implications on the businesses providing nature-based alternatives to skiing, and especially so the summer activities. The policy strongly pushed the development in favour of new innovative activities that attract visitors during all four seasons. A key contributor to the success of the all year around project has been the construction and establishment of Holiday Club. The centre has created almost 200 new job opportunities in the village and channels many of its clients to several of the smaller nature-based tourism companies, via the intermediary organization Camp Åre.

To stimulate the region to become a sustainable nature-based tourism destination requires product development among existing and new market actors. Tools, products and services need to be further developed, which can be done in groups or networks. Currently, within the
scope of the NOA project there are several initiatives that aim at raising the region’s attractiveness by finding new products that the market wants and are in line with the policies and goals of the municipality.

The NOA initiatives aimed at stimulating the region’s tourist- and attraction development towards a sustainable nature-based tourist destination are:

1. Information efforts through means of mass communication, courses and seminars
2. Business-, product-, and activity development
3. Sami activities related to tourism
4. Eco- and nature based tourism across the border
5. Seminar and certification activities throughout the region
6. Continuous evaluation, review of results and finance

On the initiative of a steering organization of the Swedish Ecotourism Society, the Åre region will be subjected to the formation of a signature landscape. As mentioned already, the concept of the signature landscape involves strengthening the cultural and environmental profile of a region to attract visitors and has evolved internationally with Canada being one of the most advanced countries in this respect. In the case of Åre, the first and ongoing step of the project process consists of an inventory mapping out actors and environmental attractions along a trail, for example hotels, museums, restaurants, various activity providers and small entrepreneurs. According to Dan Jonasson at the Swedish Ecotourism Society, there is an agreement among the actors that something needs to be done to better coordinate and market actors involved in the outdoors. The idea is not only to focus on ecotourism but to link the products related to the outdoors. Considering the rich fishing waters in the region it is likely that the signature landscape in the region of Åre will be based on fishing.8

With regards to nature-based tourism in the region, marketing is mostly taking place on a mouth to mouth basis. In addition, ecotourism firms being members of the Nature’s Best network facilitates some of their marketing activities. The member firms are displayed on the network’s website, sorted by activities provided or by geographical location and are thereby easily available to people planning a trip to the area. However, although being part of the network, a few interviewees meant that their major marketing channel was not through Nature’s Best but through the connection with activity companies such as Camp Åre. The tourist office in Åre also plays an important role in marketing of activities found in the region. On its website www.visitare.se the tourist office provides a large collection of tourist firms that offer summer and winter activities. The website is interactive and is easy to navigate. The tourist firms are presented according to the activity that they provide and the website also includes information about happenings, competitions and festivals in the area.

8 Personal interview with Dan Jonasson, Ecotourism Society, 12 June, 2006.
4.2 Kiruna

Background

Located at 170 km north of the Polar Circle within the County of Norrbotten, Kiruna municipality is the northernmost and by area the largest municipality in Sweden (Figure 4-3). The area counts over 19 000 square kilometres and with a population of 23 135 this makes only 1.2 inhabitants per square km. The municipality is thus extremely sparsely populated and the majority, 85%, lives within the community of Kiruna. As of December 2005, there was a negative population change of minus 119 persons in Kiruna. This is also the trend observed in the County of Norrbotten which has seen a large migration deficit since 1968. The population structure has changed, with a considerable increase in the number of elderly people and a drastic decrease in the number of younger people.

Kiruna is a young municipality and its modern history only dates back to the early 1900s. The city was founded due to the expanding mining activities in the area and its construction attracted social planners and researchers from Sweden and abroad. The city was connected to Luleå on the Baltic coast and to Narvik on the Norwegian Atlantic coast with the construction of the Ofoten Railway Line that involved about 4 000 workers. By 1910 the city had grown to include 7 500 inhabitants and the mining for iron ore in the Kuirunavaara mountain occupied most of the people. The mining activities have continued and still constitute the major business in the municipality. The mining operations are conducted by Luossavaara Kuirunavaara AB (LKAB) which employs about 1 500 people in what is the world’s biggest and most technologically advanced underground ore mine. LKAB have announced new investments of 10 billion SEK in the region.

The second important business in the municipality is space research, dating back to the 1950s. With space research, environmental research and cold-technology research, Kiruna has become one of Sweden’s leading research centres and the sector is growing each year. The proximity to the North Pole and the relatively mild climate caused by the Gulf Stream makes Kiruna a suitable place for this kind of research.

Third, tourism is growing into an important sector in Kiruna, today having a turnover of 400 million SEK and employing 600 people. Almost 50% of the guest nights spent in Norrbotten
are spent in Kiruna municipality which makes it the leading tourist municipality in Norrbotten. Within the municipality there are three main skiing destinations, namely Abisko, Björkliden and Riksgränsen. The small community of Jukkasjärvi, 12 kilometres from Kiruna, has become world famous for its Icehotel that attracts about 60 000 visitors every year. The majority of persons employed in tourism in Kiruna works at the large tourist attractions such as the Icehotel and the mountain stations, but the number of small and medium tourist firms in the area is increasing notably. One new feature of tourism that has developed in Kiruna is scientific tourism. This involves for example site visits to the space centres, lectures on space research and excursions to experience the Northern Lights under the leadership of experts in this field. Moreover, British Virgin Galactic is planning the world’s first commercial space trips from the rocket base Esrange in Kiruna. This would allow tourists to experience five minutes of weightlessness at 1 200 kilometres height, at the cost of about 1.5 million SEK per person.

**Nature-based tourism in Kiruna**

Known for being one of the last untouched wilderness areas, the natural environment around Kiruna attracts visitors from Sweden as well as from other countries. There are more than 6 000 lakes in Kiruna municipality and seven large rivers that have all been spared from hydropower installations. This makes canoeing conditions in the area extremely favourable as well as fishing. The summer season, which used to be the high season, is short but provides a variety of activities such as canoeing, fishing, mountainbiking, hiking and kayaking. Instead it is now the winter season, especially between February and May when the conditions for all types of winter activities are at their best that attracts most visitors to Kiruna. During the last twenty years nature-based tourism has evolved in Kiruna from being one characterized by independent backpackers finding their own path into the wilderness, to one providing a large number of packaged tours and products. The flagship trademark is the Icehotel but the number of small and medium sized tourist firms is steadily increasing. Apart from recreation and adventure activities in the mountainous environment, the region also offers several activities run by Sami companies which provide the visitor with insights and experiences of the Sami traditions. Only a few of the tourist providers are certified according to the Nature’s Best labelling scheme.

**4.2.1 Knowledge**

Competence and industry-university relations in Kiruna are centred around space and mining research and engineering. With regards to tourism, the educational potential is under development.

LKF (Lapplands Kommunalförbund) is a regional coalition organization of Kiruna, Gällivare, Jokkmokk and Pajala municipalities. LKF collaborates with universities to bring higher education to the region, mainly in the form of distance education courses. Luleå Technical University and Umeå University are the two closest educational centres which also work in collaboration with LKF. Since the two universities have been designated by the Swedish government to specialize on space and environmental research, these areas of science are also reflected in the educational profile of Kiruna.

There used to be a tourism programme in Kiruna provided by Folkhögskolan in Kiruna, the so called tourism-sport programme. It offered two specialization tracks; alpine tourism and hunting/fishing. The two-year programme attracted important competence to the region and many of the students remained and are now the managers of several tourism firms. The programme was put to an end in 2005 due to lack of students but with the expansion of
tourist activities and increasing interest for tourism there are plans to re-launch the programme again in 2007.

Placed under the department of cultural geography at Umeå University, a distance education programme on tourism is available in Kiruna under the management of LKF. The programme provides education in planning and administration on a municipal and county level and is not a permanent programme but is entirely driven by demand. A decision will be taken in 2007 as to continue to provide the programme or not.

Again based on demand, LKF has plans to launch a guide-programme within the field of tourism, starting earliest in autumn 2007. This two-year programme will have a less academic profile than the tourism programme and will be more oriented towards practical work in tourist management, product development and guiding. The programme is supposed to have close connections with the business sector and would facilitate for cross-sectoral relations in the region. There are also plans to introduce a so called outdoor education course at Abisko which would be connected to the guide-programme in Kiruna. Moreover, there are also plans to involve the Climate Impact Research Centre (CIRC) based in Abisko in the new programme.

Networks involving tourist firms in Kiruna are rare. Only three tourist firms in the municipality are certified according to the Nature’s Best criteria and belong to the Nature’s Best network. For them, being part of the network involves horizontal contact with tourist firms outside of the municipality. For the majority of tourist firms in the region however, inter-firm relations are insignificant.

Although not a knowledge network, the local economic association, Kiruna Lappland Ekonomisk Förening is owned and run by the tourism sector in the municipality. Established in 1993, Kiruna Lappland today includes 120 members including the municipality, the ICEHOTEL and the mountain stations and SMEs. The creation of the cooperative reflected the increasing will among actors in the tourism sector to start collaborate after years of dispersed and uncoordinated activities during the 1980s. Their main purpose is to market the region and the activities of the 120 members. The role and importance of Kiruna Lappland will be more elaborated in the market-section below. Although, one important and recent project owned by Kiruna Lappland involves networking among tourist firms in the region but its main purpose is still marketing. The project, called The Best of the Arctic, is presented below. In the case of this project, networking takes place as a means to promote each others’ tourist activities rather than sharing knowledge and experiences. Several small tourist firms expressed their wish to see a collaborative knowledge-based network connecting the many and diverse tourist entrepreneurs.

On an umbrella level, a cross-sectoral network of four key persons representing private and public interests was formed in 2005 in what is called Fyrklövern. The network includes the CEO of Kiruna Lappland (Peter Salomonsson), the head of business development of Kiruna municipality (Mats Dahlberg), the business association Företagarna (Hans Sammelin) and the CEO of Progressum (Bengt Jaegtnes), the organization for business development. The group acts as a forum for dialogue and aims at a better collaboration between the sectors in Kiruna.

### 4.2.2 Resources

With regards to financial resources, Kiruna municipality supports the tourism sector indirectly by being member of Kiruna Lappland and by putting money into marketing initiatives managed by Kiruna Lappland. 1 million SEK was invested by the municipality in the latest
marketing campaign of summer activities while the tourist sector invested 3 million SEK. The municipality also supported the financing of the Best of the Arctic project and supports Innovation Norrbotten, a national and regional organization promoting innovations and development.

The structural funds provided by the EU and financial resources obtainable through Interreg projects are important financial assets that enables regional innovations to be realized and marketed. The municipality and Kiruna Lappland have much experience with EU projects but has also been criticised for failing to follow up and evaluating the projects (SR, 2006). The amount of EU financed projects in the region has caused concern that the projects in fact deliver little and that the money could be used in better ways. But the municipal head of business and industry is positive to the EU projects and means that the projects always result in something of value to the region. Also the CEO of Kiruna Lappland is positive to the EU financial support in the form of grants and projects and means that these are important for making the region an attractive tourist destination (SR, 2006).

However, the main task of the municipality when it comes to tourism development is not to provide financial grants but to produce an attractive context for entrepreneurs and to facilitate for a sustainable development. Mainly, this takes the form of providing physical infrastructure in the form of trails and roads that facilitates accessibility, but historically the municipality in Kiruna also took on the task of constructing buildings including the major hotel in Kiruna. The Communications Council was set up on the initiative of Progressum to promote infrastructure in terms of air-, train-, bus- and taxi connections to and within Kiruna municipality. Today air traffic is well developed with two daily flights to and from Stockholm during the summer season and the double during winter season. Train connections however are very poor. The Communications Council is actively lobbying to increase the frequency and quality of trains connecting Kiruna to other cities as well as to the ski destinations of Abisko, Björkliden and Riksgränsen.

The main physical resource forming the basis for all tourism activity in the region is of course the natural environment. Often referred to in marketing situations as “Europe’s last wilderness”, the region of Kiruna has attracted tourists since the beginning of the 20th century when the Swedish Tourist Association (STF) established the famous King’s Trail, a 450 km trekking and skiing path between Abisko and Hemavan. There are two National Parks within Kiruna municipality; Abisko National Park (where the King’s Trail starts) was designated national park in 1909 and comprises 7 700 ha and is renowned for its flora and bird population. The other is Vadvetjäkka National Park of 2 630 ha and was designated in 1920. The mountainous region of the municipality also includes Sweden’s highest mountaintop, Kebnekaise, which raises 2 117 metre above sea level.

From having been a major summer destination in the early 20th century, it is now the winter season that attracts the most visitors to the region. The mountain stations of Abisko, Björkliden and Riksgränsen offer great opportunities for alpine skiing but many visitors also come during winter to experience dogsled or reindeer tours, to see the Nordic light, or go for snowmobile safaris. What all tourist providers in this region have in common is that the activities that they provide are based upon the natural resources available. One concrete example of this is the ICEHOTEL in Jukkasjärvi. In the autumn each year, ice is harvested from the Torne River that later is used to construct the hotel made entirely of ice and snow. In the Spring, the ice melts back into the river. Summer activities that also depend on the natural

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9 Personal interview with Mats Dahlberg, Head of Business and Industry, Kiruna municipality, 15 August, 2006.
environment and the wildlife include fishing, trekking, wildlife safaris, horseback riding and the activities and experiences provided by Sami enterprises.

The cultural resources in the region also lay the basis for innovative tourist firms, many of them being Sami entrepreneurs who increasingly are turning to tourism as a complementary occupation to reindeer herding. The tourists may take part of the Sami handicraft and artworks, daily life with reindeer herding and listen to Sami guides talking about the history and traditions of the Sami people. Much care is taken among Sami tourist firms to prevent the disneyification of the Sami culture. The fear of ending up as the Finnish Rovaniemi (“home of Santa”) motivates entrepreneurs to maintain a strong sense of integrity while presenting the Sami culture to tourists.

The Sami tourist firm owners constitute an important and growing group of the region’s entrepreneurs. The municipality has a tradition of entrepreneurs but these have been more manufacturing-oriented than related to tourism. The trend now though is that the number of entrepreneurs within the tourist sector is growing and the region is enjoying a favourable entrepreneurial climate. Today’s conditions may be explained by investments in the 1980s which supported start-up companies who were given the chance to develop. Consequently, this attracted tourists and new firms evolved due to the new market. New knowledge was built and refined and with incoming entrepreneurs new ideas entered the region.

When it comes to organizational and institutional resources with regard to tourism, an important actor is again Kiruna Lappland. Despite the municipality’s claim that tourism is a top priority, the feeling among tourist entrepreneurs is that the municipality is much more focused on the large-scale investments and developments centred around LKAB and the city centre of Kiruna that there is little room left for developing the tourism sector. Kiruna Lappland on the other hand, through its projects and initiatives does provide these types of resources and has the organizational leadership in managing the destination’s competitiveness and sustainability.

Another important actor when providing organizational and institutional resources is Progressum, a local development company that aims at stimulating a diverse business environment based on the region’s special conditions in terms of resources. The role of Progressum is to engage in projects and create meeting points that enables actors from various sectors to interact. Hence, within the framework of Progressum, actors from various sectors are brought together which enables a creative environment. One project initiated by Progressum that relates to tourism is Kiruna Test Area. The project aims at developing test activities in the area. The testing activities of for example cars and airplanes are combined with selling experience and adventure travels and thereby promoting the destination.

4.2.3 Market
Snow, cold, silence, the Nordic light, the midnight sun, wilderness and Sàpmi – these are regional assets that have been capitalized upon by the entrepreneurs and are central to marketing the region of Kiruna. Branding activities have become increasingly important for the region but should be understood here as enhancing existing values and identity rather than creating new ones.

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10 Yngve Bergqvist, founder and CEO of ICEHOTEL, e-mail, 2 August, 2006.
A first step towards creating something close to a signature landscape was taken in 2004 with the start-up of the Interreg project The Best of the Arctic. Kiruna Lappland owns the project which builds on cooperation between Swedish and Norwegian tourist firms to promote the region as an all-year-around destination providing high quality activities and experiences. The project is the first of its kind in this region and its geographical scope includes the municipalities of Kiruna, Narvik and Tysefjord (Figure 4-4). Kiruna municipality is also a co-investor in the project.

Figure 4-4 Geographical scope of The Best of the Arctic

Source: www.thebestofthearctic.com

The basic idea of the project is that because of the region’s diverse nature, culture and climate, it is always possible to find high season somewhere within the project area. The activities are presented in packages and are provided by tourist firms on both the Swedish and the Norwegian side. The project is supposed to make tourist firms in the region market each other in order to channel customers to the different sub-regions depending on the season. So far, marketing is primarily directed towards groups and conferences. The reason for selecting this tourist category is that the travels entails costs that may be perceived as expensive for the average individual traveller or family but affordable for a group. The next step though in the project process is to develop travels in different price categories while maintaining the same high quality standards. Included in marketing the region is also to make an end to the “myth” about distances. Despite of the region’s distant geographical location of about 200 km north of the Polar circle, the availability of airports in Kiruna and Narvik drastically shortens the time distance from major European cities. Therefore, using the time notion becomes extremely important in marketing situations, something that is emphasised by the project manager of the Best of the Arctic.11

11 Personal interview with Carina Johnsson, Marketing Co-ordinator Kiruna Lappland and project manager of The Best of the Arctic, Kiruna 18 August, 2006.
The Best of the Arctic project puts a lot of emphasis on international marketing and has established contacts with travel agents in major European cities like Paris and London. International tourists are important for the region since the cost of travelling to the North and the activities provided there lie within the same price category as travelling to other parts of Europe where other types of activities and experiences are offered. Similarly, for travellers coming to Europe from America or Asia, the additional cost of taking a trip north is relatively small in comparison for what they pay to go to Europe. Hence, European, American and Asian tourists constitute important groups for the destination due to their willingness to pay.

Another cross-national project (Barmarks-satsning project 2006) was carried out for the first time in the region during the summer 2006. Managed by Kiruna Lappland, the project’s centerpiece is the marketing campaign entitled *Lappland gratis för alla barn* (Lapland free for all children) which aims at attracting more families to spend their summer vacations in the region of Kiruna and Narvik; a destination otherwise considered expensive by many Swedish tourists. Consequently, this would create more all-year-around employments in the region. If the campaign is successful, it will mean that more jobs are created in the region and that less competence is lost with out migrating season workers, thereby levelling out the seasonality problem. The municipality has invested 1 million SEK while the big actors of the private sector invest 3 million SEK into this project which, if successful, will continue in 2007 and 2008. The campaign project will be evaluated in early Fall 2006.

The expected positive effects of the BMS project in summary are:

1. Seasonal employments are made into more all-year-around employments. Within three years time the project will result in 100 new all-year-around jobs
2. Tourist firms will be able to make new investments
3. Increasing number of employees within the tourism sector has a positive impact on the population trend in the municipality
4. Indirect and direct tax incomes to the municipality (28% increase)
5. Contribute to reverse flight companies’ negative financial trend during bare ground season.

The municipality of Kiruna invests 750 000 SEK to Kiruna Lappland for marketing purposes annually. It is Kiruna Lappland that runs the Tourism Office which facilitates small tourist firms’ access to market. The ICEHOTEL has set up its own network of tourist firms providing activities during both summer and winter. An initiative aiming at centralizing the booking system for all the tourist firms in the region failed; it was simply impossible to gather all actors under one roof. Hence, there are a number of internet sites serving as gateways to tourist firms and activities throughout the region.

The overall aim of both the municipality and of Kiruna Lappland is to develop more tourist products based on the existing assets without destroying the purity and uniqueness that the region holds. This requires that more firms develop, package and sell quality tours while maintaining cultural integrity and ensuring environmental sustainability.
4.3 Synthesis of case studies observations

The following bullet points synthesise the observations derived from the case studies in Åre and Kiruna on a general level. A synthesis related to knowledge, resources and market is presented in the table following this section (Table 4-1).

- Both municipalities have a long history of nature-based tourism. Tourism is traditionally the main business sector in Åre while mining and space research activities are dominant in Kiruna. However, tourism development is becoming increasingly important to Kiruna.

- Both places are relatively easily accessible with daily flight and train connections despite their geographically remote locations.

- Despite their low population densities, there is a high level of entrepreneurship in both Åre and Kiruna. The number of Sami entrepreneurs is increasing notably.

- Both are increasingly subjected to national and international competition to attract visitors. In both places, well preserved cultural and environmental resources constitute the basis for competitive advantage.

- Both Åre and Kiruna are developing new ways to better promote and manage the destinations.

- Åre has a more direct access to educational sources related to tourism (Mid Sweden University/ETOUR) than does Kiruna.

- Kiruna has put much effort to market the region internationally with sales contacts in Paris and London while Åre has more national-oriented marketing approach.

- The number of tourist firms certified according to Nature’s Best is considerably higher in Åre than in Kiruna.

- Åre municipality is actively involved in tourism projects while Kiruna municipality is passively involved.

- Manufacturers that are closely related to the tourism sector are situated in the Åre region. It is more difficult to make connections to nature-based tourism with the ones located in Kiruna (mainly space and mining).
### Table 4-1 Synthesis of observations

<table>
<thead>
<tr>
<th>REGIONAL INNOVATION SYSTEM</th>
<th>PERIPHERAL AREAS</th>
<th>ÅRE</th>
<th>KIRUNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNOWLEDGE</td>
<td></td>
<td>Yes. Mid Sweden University/ETOUR, Östersund</td>
<td>Limited. Distance education and programme provided by LKF.</td>
</tr>
<tr>
<td>Networks for knowledge transfer among tourist operators?</td>
<td>Yes. Nature's Best and NOA project</td>
<td>To some extent. Kiruna Lappland</td>
<td></td>
</tr>
<tr>
<td>Linkage to other sectors?</td>
<td>Yes. To manufacturers of outdoor gear through the Peak of Tech Adventure project</td>
<td>Limited. Through the Fyrklövern group and space sector (plans for space tourism)</td>
<td></td>
</tr>
<tr>
<td>Major contributors of “new” knowledge?</td>
<td>Umbrella organizations – Nature's Best, NOA</td>
<td>LKF</td>
<td></td>
</tr>
<tr>
<td>BUDGETARY CAPACITY OF LOCAL GOVERNMENT/ENTREPRENEURS?</td>
<td>Above average, EU structural fund adds financial resources</td>
<td>Above average, EU structural fund adds financial resources</td>
<td></td>
</tr>
<tr>
<td>Natural and cultural attractions?</td>
<td>Rivers, lakes, mountains, snow, wildlife, Sami culture</td>
<td>Mountains, rivers, lakes, snow, Nordic light, wildlife, midnight sun, Icehotel, Sami culture</td>
<td></td>
</tr>
<tr>
<td>Surrounding industries related to tourism?</td>
<td>Yes. Outdoor gear manufacturing industry</td>
<td>Potentially. Space and environmental research, and testing activities</td>
<td></td>
</tr>
<tr>
<td>Skills, professionalism and availability of labour?</td>
<td>Increased professionalism among small tourist firms is demanded</td>
<td>High level of unemployed young people</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial activity?</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Interest of local government?</td>
<td>Yes. Tourism development is a main priority and the municipality is proactive in its role of promoting nature-based tourism in the region</td>
<td>Tourism development is one of the prioritized areas</td>
<td></td>
</tr>
<tr>
<td>Coordination of product development and marketing?</td>
<td>Are Året Runt, NOA, Jämtland Härjedalen</td>
<td>The Best of the Arctic, Kiruna Lappland</td>
<td></td>
</tr>
<tr>
<td>Intermediary to facilitate access to market?</td>
<td>Tourism office, Camp Åre, Nature's Best</td>
<td>Kiruna Lappland, Tourism office, Icehotel</td>
<td></td>
</tr>
<tr>
<td>Frequency of environmental and/or quality certifications among tourist firms?</td>
<td>High. Mainly Nature's Best</td>
<td>High. Mainly ETOUR quality label</td>
<td></td>
</tr>
</tbody>
</table>
5 Analysis and key findings

The analysis and presentation of key findings derived from the case studies takes place on two levels. Based on the general observations made in Åre and Kiruna, the first level of analysis will expand our understanding of innovations in relation to the periphery. The second level of analysis will go into more detail, looking at how the peripheral context in terms of institutional factors, structural factors and local capabilities affect the innovation criteria (knowledge, resources and market).

5.1 Innovations in tourism in peripheral areas – general observations

5.1.1 Innovation for survival

As was mentioned in the introducing part, the tourism sector and especially the small and medium sized enterprises, are rarely connected to innovations of revolutionary or architectural kind as defined by Abernathy and Clark (1985). The significant innovations tend to appear in larger firms where enough human and financial resources are less sparse than in the smaller enterprises. It is also argued that employees in the tourism sector, and especially so for employees in small or medium sized firms, receive little or no sector relevant training which results in insufficient transfer of knowledge (Hjalager, 2002). Other “handicaps” of the tourism sector that are said to hamper innovation is that there is normally a high labour turnover which hinders the possibilities for the human-based transfer and development of knowledge and innovation; and finally, persons working in the tourism sector are in most cases pursuing a certain lifestyle rather than adhering to traditional career issues of prestige, money and progress (Hjalager, 2002; Hall and Boyd, 2005). Innovation is unlikely to take place in peripheral areas according to traditional innovation theory.

Despite the literature of tourism and peripheral areas lacking innovation, both case studies show evidence of the contrary. In fact, based on the observations in Åre and Kiruna, innovation in peripheral areas and in the tourism sector in particular is often seen as a necessity for the survival of destinations located in geographically remote areas. In both cases, constantly innovating is a prerequisite for the destination as a whole in order to remain competitive and attractive to the changing demands of customers. Both destinations constantly innovate to make visitors make the trip in the first place and then to make tourists come back. In the case of Åre, new concepts constantly emerge as individual firms further develop their business ideas or as “umbrella initiatives” are carried out to strengthen the destination’s attractiveness. Some of the predominant examples in Åre are the Åre Året Runt (Åre All Year Around) campaign; the development of the tourism office to make use of information and communication technology with the establishment of the VisitÅre webpage; the packaging of outdoor trips that stretches over several days including various means of transportation (dogsled, snowmobile, helicopter, by foot, reindeer or skis); the NOA project which promotes nature-based experiences in the region involving both Swedish and Norwegian firms with the attempt of providing missing infrastructure; and, the number of tourist firms run by Sami who constantly find new ways of presenting their culture and way of life to visitors. The same trend of continuous innovations was identified in Kiruna. Perhaps the best example of an innovative tourist firm in the Kiruna region is the Icehotel. This innovation has been groundbreaking not only in the tourism sector but also among architectural and design circles all over the world. Other examples include the Moose safari in Vittangi; the various firms offering Nordic Light tours and during summer, midnight sun walks; various Sami firms offering visitors to have a glimpse into Sami traditions and culture
as well as to take part in reindeer herding; and Kristallens Stensliperi where the visitor can look for gold. On an umbrella-level, The Best of the Arctic is a good example.

In both cases, innovative thinking and innovations in general were simply a way to deal with seasonality, especially with regards to employment. If a person running a firm providing winter activities does not want to move elsewhere in order to find a job during summer, he or she is obliged to innovate a summer based occupation. In general, there is a trend in both Åre and Kiruna to find more all-year around jobs within the tourism sector.

There are several ways tourist firms in the case study areas work to overcome the innovation "handicaps" so often related with the tourism sector and with the periphery. One handicap is said to be the relatively small size of tourist firms and the assumption that small firms rarely, if ever, are innovative. However, the small size were often “compensated” by joining in local or regional networks (Nature’s Best, NOA, The Best of the Arctic, Kiruna Lappland) and thereby gaining some of the resources otherwise difficult to achieve, mainly in terms of new knowledge, training, contacts, and access to market. Another way of how the firms access new information is thanks to the close service-provider – customer relation that is typical for the tourist sector. This unique channel of information allows the entrepreneur to obtain first hand input from the customers regarding everything from marketing issues to new demands and trends found internationally. Because of the small nature of the tourist firm, it is flexible to respond quickly to such input, an advantage that larger firms do not have. Another important counterbalance to the perceived knowledge-handicap among these tourist firms was that of in-migrants. Especially observed in Åre, a large number of foreigners had settled down in the area because of the passion for mountain areas, and with them they often brought valuable experiences from other parts of the world. In many occasions, such experiences lay the basis for ideas that were new to the region of Åre. Although not new to the world, these ideas represented innovations in the eyes of the people of Åre. In the case of Kiruna, the situation was similar during the 1980s although the in-migrants were mostly Swedes.

With regards to the peripheral location of the tourist firms, the distance to market is commonly considered a handicap. This was dealt with in both Åre and Kiruna much thanks to communication and information technology. A number of web pages with a few major sites allow for online booking and information about the individual tourist firms in each of the two destinations.

In both Åre and Kiruna, tourist firms have managed to turn some of what Gloersen et al. (2003) termed “the syndrome of disadvantage”, i.e. the regions’ harsh climate conditions, into attractive tourist experiences. In Åre, one firm (ATI Fjällsupport) is specializing in preparing hikers for the tough climate and wind conditions. With the help of a big fan, the visitor gets to test his or her resistance and the quality of outdoor gear in this snowstorm simulator. In Kiruna, again the Icehotel is a great example of how to turn the perceived disadvantage of cold, snow and ice into a major advantage.

5.1.2 The type of innovations found in the periphery

The innovations observed in Kiruna and Åre take place in the different spheres of society, e.g. the business-, public- and civil sphere. Some innovations involve several spheres, especially the “umbrella” initiatives such as the NOA in Åre and the Best of the Arctic in Kiruna.

Innovations taking place in the business sphere (business innovations) tend to be related to new commodification of natural resources (Nordic light tours, midnight sun walks, wildlife safaris) and to the implementation of environmentally friendly techniques and practices.
(alternative fuels to run boats and snowmobiles, source separation, environmentally preferable technology, environmental strategies).

Following Hjalager’s typology of innovations related to tourism and the environment (Hjalager, 1997), the new commodification of available resources in both Åre and Kiruna relate to what she refers to as product innovations, i.e. products or services that are based on the exploitation of the available natural resources and are commoditised through guiding systems, units of infrastructure (accommodation and transportation) and promotion and packaging. Examples are the recent developments in both destinations of educational tourism, research tourism and health tourism. The process of developing a signature landscape around fishing in the region of Åre exemplifies the increasing importance of product innovations in peripheral areas as a means to attract visitors. Also a common business innovation among tourist firms in the observed regions was the switch to more environmentally friendly techniques and practices. Again relating to Hjalager, this refers to process innovations, which involves a way of raising the performance of existing operations with means of technology or other production inputs. Hjalager’s third innovation type is management innovations, and also this type was observed among the tourist firms in Åre and Kiruna, especially so with regards to handling of information and quality control exemplified by the Nature’s Best and Tour Quality labels. Why the rate of certified tourist firms was higher in Åre than in Kiruna may have to do with the fact that key persons from the Ecotourism Society are based in the Åre region, although this relationship has not been proven. The fourth innovation category, the logistics innovations, was observed in both destinations in the form of internet marketing. Institutional innovations were mainly exemplified by the work of the Ecotourism Society in certifying tourist firms according to the Nature’s Best.

Among the innovation types identified by Hjalager, the predominant one observed among tourist firms in both Åre and Kiruna was product innovations. Although, important innovations taking place on the umbrella-level were of both product and management types. This is perhaps best exemplified by the NOA project in Åre where not only packaging nature-based products are central (product innovation) but also to make all stakeholders contribute to a sustainable development in the region (management innovation).

What characterizes the innovations observed in Åre and Kiruna is that they often imply a strong link to the local environment. This is where the advantage of peripheral areas becomes visible, i.e. in terms of well preserved natural areas and a strong cultural integrity among indigenous people. The last wilderness, snow, ice, silence, enormous surfaces and mountains – these are features of the local environment that serve the basis for innovations in these areas. For example, without the crystal clear ice from the Torne river there would be no Icehotel; without the mountainous scenery there would be no photography-tourism; and without the untouched natural areas there would be no basis for wildlife watching, and so on. Likewise, the culture and traditions of the Sami people lay the ground for new innovations among Sami entrepreneurs. New ways of presenting the Sami culture and way of life to tourists in both Kiruna and Åre sometimes involved relocating some of the activities in order to make them more accessible, i.e. by bringing the Sami culture closer to tourists (Njarka Sami Camp, Nutti Sami Siida). Many examples of the opposite approach, by bringing the tourist closer to the Sami culture without improving accessibility, were also observed at both destinations. Thus, in both Åre and Kiruna, tourist firms had taken the possibility to re-invent available natural and cultural resources in the form of tourism oriented products. This occurrence refers strongly to the role of the scene-maker in Mattson et al. (2005) model of the tourism innovation process.

Before continuing the presentation of the general observations, the table below identifies some of the innovations found in the tourism sector in Åre and Kiruna (Table 5-1). It should
be mentioned that these are *examples* of innovations and that most likely there are other innovations to be found as well. The innovations below are categorized according to the sphere in which they take place (Aarsaether, 2004); the type of innovation according Hjalager (2002) and Abernathy and Clark (1985); and according to what constitutes the basis for the innovation.

**Table 5-1 Innovations in Åre and Kiruna**

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Sphere</th>
<th>Type</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icehotel</td>
<td>Private</td>
<td>Product innovation</td>
<td>Nature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Architectural</td>
<td></td>
</tr>
<tr>
<td>Kristallen Stenslip AB</td>
<td>Private</td>
<td>Product innovation</td>
<td>Nature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Architectural</td>
<td></td>
</tr>
<tr>
<td>The Best of the Arctic</td>
<td>Private, public, civil</td>
<td>Product innovation</td>
<td>Nature, culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Niche</td>
<td></td>
</tr>
<tr>
<td>Moose Safari</td>
<td>Private</td>
<td>Product innovation</td>
<td>Nature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Niche</td>
<td></td>
</tr>
<tr>
<td>Nordic light tours</td>
<td>Private</td>
<td>Product innovation</td>
<td>Nature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Niche</td>
<td></td>
</tr>
<tr>
<td>Research tourism</td>
<td>Private, public</td>
<td>Product innovation</td>
<td>Nature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Niche</td>
<td></td>
</tr>
<tr>
<td>NOA</td>
<td>Public, civil, private</td>
<td>Product innovation</td>
<td>Nature, culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Niche</td>
<td></td>
</tr>
<tr>
<td>Njarka Sami Camp</td>
<td>Civil</td>
<td>Product innovations</td>
<td>Culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Architectural</td>
<td></td>
</tr>
<tr>
<td>Peak of Tech Adv.</td>
<td>Public, private, civil</td>
<td>All</td>
<td>Nature, culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATI Fjällsupport</td>
<td>Private</td>
<td>Product innovation</td>
<td>Nature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Revolutionary</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.visitare.se">www.visitare.se</a></td>
<td>Public, private</td>
<td>Management innovation</td>
<td>Nature, culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regular</td>
<td></td>
</tr>
</tbody>
</table>

### 5.1.3 The role of the municipality

As observed in the case studies, the municipality plays an important role in triggering innovations and a favourable business climate. On a general level, the role of the municipality in peripheral regions in Sweden has become more important in securing local employment opportunities as the manufacturing industries have diminished in importance. In the case of Åre, the proactive role of the municipality is exemplified by its engagement in the NOA project and by hiring a key person from the Swedish Ecotourism Society working 20% for the municipality. Being initiators of the NOA project together with the Norwegian municipality of Meråker, Åre municipality has shown its commitment to actively take part in the region’s sustainable tourism development in a project that is new to all actors involved. Although indirectly linked to SMEs, Åre municipality has made considerable investments in the realization of Holiday Club, something that have benefited many of the small tourist firms through increasing tourist flows spread over the whole year. Åre municipality’s involvement in
the regional innovation system Peak of Tech Adventure is yet another example of the willingness to provide a supportive structure for innovations in the region, making the destination even more attractive for visitors, investors and local residents.

In the case of Kiruna, tourism is not the top priority as it is in Åre, but still counted as one of the most important areas of focus. The municipality of Kiruna is less directly involved in initiatives that aim at stimulating innovation within nature-based tourism firms. However, indirectly, the municipality does support a number of initiatives, mainly through its membership in Kiruna Lappland. The support is mainly directed at marketing the region and its contribution must be considered important in helping innovations reach the market. Kiruna municipality is also co-owner of Progressum, and thereby indirectly contributes to facilitate for innovations, not only related to tourism.

5.1.4 Importance of umbrella-organizations

Yet another general observation made in both case study areas was the role of umbrella-organizations and networks. The initiatives taken by umbrella-organizations and projects such as the NOA project in Åre, the Swedish Ecotourism Society, Kiruna Lappland and the Best of the Arctic, were besides being innovations in themselves important to spur innovations among the individual tourist firms. From the individual firms’ point of view, being part of such project or network compensated the individual firm’s limited access to knowledge, resources and market. The umbrella-organizations and initiatives play an important role in bringing about a critical mass from where innovations can emerge. In the two Interreg projects, NOA and the Best of the Arctic, the pluralism brought by the cross-national collaboration network of public and private actors further contributes to the creation of a favourable climate for innovations and creativity.

To sum up this section, the survival of tourist firms in peripheral areas basically depends on their ability to innovate – to reinvent existing resources and turn them into attractive products. The type of innovations found in the periphery is therefore mainly product oriented involving individual firms as well as whole clusters of actors related to tourism. Because of the reinvention of existing resources (rather than inventing new ones) the innovations found in the periphery are closely linked to the local environment, both in terms of nature and culture. Less observed but still present and of great importance are also management innovations, mainly with regards to information technology. Finally, the role of the municipality and umbrella-organizations and networks are important when it comes to compensate for some of the handicaps associated with peripherality.

5.2 How peripherality affects innovation in tourism

This second level of analysis goes into more detail and aims at exploring how the special context found in peripheral areas affects innovation in tourism with respect to knowledge, resources and market. The context factors are categorized according to structural factors, institutional factors and local capabilities.

5.2.1 Structural factors

Structural factors are mainly related to demography and geography. In peripheral areas these factors have unique features that affect innovation. With respect to demographic factors, they include population density or population potential (Gloersen et al. 2005), migration flows, age
structures and educational level. Geographic factors include geographical features such as environment, location, size, distance and accessibility.

The observations made in Åre and Kiruna supports the statement that sparsity and remoteness coincide in the case of Sweden (Gloersen et al., 2005). Although Kiruna municipality is twice the size of Åre municipality in terms of both size and population\textsuperscript{12}, the average population density becomes similar: 1.35 persons/km\textsuperscript{2} in Åre and 1.2 persons/km\textsuperscript{2} in Kiruna. The low average makes both cases represent areas of extreme low population densities and falls under the support of the EU Structural fund. But despite the low population density, entrepreneurial activity is relatively high. The number of firms is one way of measuring entrepreneurial activity and both Kiruna and Åre has an important number of mainly small and medium sized companies; a fact that reflects the level of innovation to a certain extent. The fact that the majority of tourist firms are SMEs means that innovations take place within small organizations and in most cases only involves two or three people (e.g. owner, manager, employee/s). Despite a few networks involving tourist firms, there was little collaboration and interaction between the firms and consequently, this isolated the innovations taking place in each individual firm. It also meant that the innovations rarely were communicated amongst the firms. Instead, the focus was on making the innovation reach a market.

Åre and Kiruna have until recently experienced negative population trends but during the last year both municipalities are growing; in Åre much thanks to Holiday Club, and in Kiruna due to the present and coming investments made by the mining company LKAB. Negative population trends otherwise risk damaging the innovation climate as competence leaves the region with out-migrating people. Out-migration is mostly connected to young people who move to urban areas for higher education and city life. But what makes some move out of peripheral areas makes other move in. Both Åre and Kiruna have experienced in-migrants who settle because of the attraction to the natural environment, and in many cases these people bring with them experiences and knowledge that contribute to innovations. In the case of Kiruna, a large group of the in-migrants are immigrants to Sweden who have not chosen to live in Kiruna. Because plurality is important for creativity and innovation, this group represents an important resource to the municipality which could be better taken care of in order to stimulate the innovation climate in Kiruna. Other peripheral areas have the same possibility.

When it comes to the second type of structural factors for peripheral areas, the geographical factors, the first aspect that affects innovation in both Åre and Kiruna is remoteness, i.e. distance to major markets. The geographical distance forces both destinations to construct what Mattson et al. (2005) refer to as a scene. The scene needs to have a pull factor that is strong enough to make tourists pay less attention to the distance that they need to travel in order to reach the destination. In some cases the natural environment found in peripheral areas is enough to be the scene in itself, but in most cases, a scene-maker or innovator is needed to conceptualize the attractor into a scene. Only when the attractor has been conceptualized will tourists start coming. Tourist firms and umbrella-organizations in Åre and Kiruna are both trying to deal with the role of scene-makers. This involves individual tourist firms developing new services, activities and packages, as well as on the umbrella-level efforts were put on conceptualizing the region, which was for example seen in Åre with the work on the signature landscape. A way of supplementing the conceptualization of the destination was observed in Kiruna. The tourist firm organization Kiruna Lappland emphasised time rather than geographical distance in their marketing campaigns as a way to avoid discouraging

\textsuperscript{12} 19 000 square kilometre compared to 7 200 square kilometre and 23 000 people compared to about 10 000 in Åre.
tourists to make the trip. For example, by communicating the flight time from Stockholm Arlanda to Kiruna (which is only 1.5 hours).

A second geographical factor is the natural environment found in peripheral areas. Åre and Kiruna are characterized by mountainous environments that provide unique conditions in terms of vast areas of well preserved nature, unique wildlife, clean air and water, and challenging climatic conditions. These conditions constitute the basis for the majority of tourism activities in the two destinations and as observed, also for many innovations. As already mentioned, the innovations among tourist firms were in most cases product innovations. But what is special when it comes to tourism firms in peripheral areas is that the product innovations tend to be based on the natural assets and natural phenomenon more than on anything else. The Icehotel, wildlife safari, Nordic light tours, and Midnight sun walks are a few examples of innovations that are directly linked to the natural environment. On the umbrella-level, much is being done to conceptualize on the features that are special to the regions; such features are for example SNOW, COLD, SILENCE; CLEAN WATER, FRESH AIR, WILDERNESS, etc. The ongoing signature landscape project in Åre and the marketing of the Kiruna region as Europe’s last wilderness are examples of how these assets are being conceptualized, corresponding to the process of turning the attractor into a scene.

The geographical factors presented above influence the innovation criteria in the following ways: With regards to knowledge, peripheral areas typically have a synthetic knowledge base which was illustrated by interactive learning between visitors and tourist firms, a dominance of tacit knowledge due to concrete know-how of the environment and practical skills among tourist firms at both destinations. In terms of resources, the natural environment and the features of peripheral mountainous areas constitute physical resources that serve the basis for a majority of the innovations observed. Hence, the link between innovations and the environment was significant. When it comes to market, the geographical factors are extremely important, especially for marketing purposes. Again, the example of Kiruna – Europe’s last wilderness illustrates exactly this.

5.2.2 Institutional factors

Institutional factors shape the political and administrative environment of peripheral areas in Sweden which indirectly will have an impact on innovation. The institutional factors of relevance to peripheral areas and innovation include policies at the level of regional development agencies, EU structural funds, networks and municipality coalitions. Sweden adheres to EU policies which guide the development of the regions. Both Åre and Kiruna belong to areas of extremely low population density and therefore receive financial assistance from the EU through the Structural Fund. This input of finance has allowed for the realization of numerous development projects related to tourism in both case study areas including the two important initiatives presented in this report, namely the NOA project and the Best of the Arctic. Another institutional factor found in both Åre and Kiruna is decentralization from the centre, leading to more collaboration between municipalities. The LKF, the collaboration between Kiruna and three other municipalities in Lapland had a crucial role in bringing education to the region. In the case of Åre, Åre municipality together with Östersund and Krokom municipalities collaborates within the regional innovation system Peak of Tech Adventure. Networks, both formal and informal, were observed in both destinations but were more common in the case of Åre where the Nature’s Best network involved a large number of tourist firms.

The observed institutional factors are important in forming the peripheral context. With regards to knowledge, the EU financed projects help to bring actors together in creative
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initiatives where new knowledge is exchanged and experiences are shared. Institutional factors have also lead to the LKF municipal collaboration, vital in its role in bringing knowledge and competence to the region in forms of distance education programmes and teachers. This is especially important in peripheral areas like Kiruna where there is a large distance to the closest universities (Umeå University and Luleå Technical University). In the case of Åre, an advantage is of course that the region is situated close to the Mid Sweden University and ETOUR at Östersund. The networks also play a role in bringing knowledge to the peripheral regions. Networks found on the national level such as the Nature’s Best and local networks such as Kiruna Lappland help to generate and spread new knowledge among its members. Establishing such networks is therefore especially important in peripheral areas where tourist firms otherwise rarely get the chance to meet and exchange ideas.

The institutional factors also make available resources, especially in terms of finance. The EU structural fund is an important asset to both Åre and Kiruna which enables the realization of projects and innovations related to tourism. EU and national policy also provides the framework for how the natural environment is supposed to be dealt with. Therefore, innovations in tourism in peripheral areas will have to fit within this framework.

With respect to market access, the observations made indicate that institutional factors have a role to play in peripheral areas. The main role of Kiruna Lappland is exactly to market the region, and with a strong emphasis on the international market the organization has managed to make the Kiruna region an attractive destination for a large group of international travellers. In the case of Åre, the preparation for the Alpine World Cup in 2007 has mobilised a range of actors in the private, public and civil sphere. The investments made by Åre municipality in infrastructure and buildings and the positive attitude towards hosting the event will have a positive effect on the innovation climate among tourist firms in the region. Hosting big events is extremely important for both destinations in order to place the region on the map in the international context. On the local level, these events have positive spin-off effects on the local tourist firms since the event creates a basis around which new innovations can develop as well as it gets easier for innovations to reach the market. Similarly, once space tourism becomes reality in Kiruna, it will have a huge impact on marketing the region internationally which will help local tourist firms to easier access the market. The planned project will also mean that a new basis for innovations will appear.

5.2.3 Local capacities

Local capacities of peripheral areas were identified as influential on innovation, especially in terms of local culture and identity. This was particularly observed by the number of Sami entrepreneurs in both Åre and Kiruna. As reindeer herding alone barely can support the livelihood of a family anymore, more and more Sami chose tourism as a complementary source of income (Petterson and Müller, 2001). The ways in which Sami culture can provide the basis for tourism activities were numerous, ranging from the display of Sami culture at a relocated Sami Camp (Njarka Sami Camp, Sami Siida) easily accessible for visitors, to week-long excursion together with the Sami and their reindeers where the tourist actively participates in the daily activities. Even if the Sami culture was made easily accessible to tourists by relocating some of the physical elements, or if the concept involved taking the tourist out to less accessible areas, Sami firms in both Åre and Kiruna were strictly concerned with keeping a strong cultural integrity and prevent any disneyfication of the Sami culture and way of life. Thus, innovations among Sami firms never went beyond what presented a fair image of their culture. In contrast to the Finnish Rovaniemi, where the concept around the home of Santa Claus has taken the local culture away from its origins, the destinations of Åre and Kiruna were both very careful in their approach to the preserving the local culture. In
Kiruna, a German travel agency once tried to convince Kiruna Lappland to organize so that the tourists would experience Sami culture in ways that were opposite to how the Sami live in reality. The travel agency basically wanted to have Sami people to pop out of each and every bush like Santas or Disney figures to please the tourists. Despite the financial importance of the contract, Kiruna Lappland decided not to sign it on the basis that it would completely “Disneyfy” the Sami culture – something that was unacceptable. This illustrates the importance of maintaining integrity and a sense of purity and authenticity when it comes to conceptualizing a culture as the basis for tourist attraction. It also means that innovations based on culture need to ensure that integrity, authenticity and purity are not forsaken if the innovation is to be socially accepted and sustainable. As long as the firms offering Sami experiences are run by Sami people, which was the case in Åre and Kiruna, the innovations based on the Sami culture will most likely continue to ensure authenticity and to respect the integrity of the Sami way of life and culture.

The Sami culture as a local capacity notably affects the three innovation criteria. In terms of knowledge, it contributes to spread knowledge about Sweden’s indigenous population via the interaction between the host and the visitor. This knowledge is thereby communicated to Swedish and international tourists. With regard to resources, the Sami culture is important since it provides the basis for new attractions in the peripheral areas. Meanwhile, the culture-based innovations, i.e. the activities and experiences offered by Sami tourist firms, ensure that the cultural traditions are maintained and passed on to the younger generation. With respect to market, the Sami culture represents a strong attractor that increasingly draws the attention of international and Swedish tourists. This benefits other tourist firms in the regions as well who easier reach out to the market with their innovations.

In addition to the Sami culture present in Åre and Kiruna, the level of social capital observed in the two regions influences the innovation system. Networks, trust and norms of reciprocity were present in both Åre and Kiruna, involving actors in the public, private and civil spheres. In Åre, a shared identity around the trademark of Åre has evolved during the last two decades. Firms and investors have understood the benefit of being associated with Åre and have strategically chosen to settle in the region. This has created a strong feeling of identity among actors in Åre which today serves the basis for networks and a high level of trust. The NOA project and the Peak of Tech Adventure exemplify how concrete projects have emerged based on the high degree of social capital found in the Åre region. Besides bringing together key actors from different spheres related to nature-based tourism, these initiatives also seek to form a critical mass in the region, and thus further enhancing the region’s social capital. The mutual trust between the public and the civil was exemplified in Åre by the municipality’s decision to hire a key person from the Ecotourism Society working part-time for the municipality in managing issues related to nature-based tourism. Moreover, the social capital was further enhanced by cross-national cluster meetings involving tourist firms and nature conservationists on both the Swedish and the Norwegian sides. The recent launch of the NOA project has already resulted in much creativity and is expected to generate innovations related to nature-based tourism and experiences.

In the case of Kiruna, the social capital around nature-based tourism is also well developed. But unlike Åre, tourism is not the main sector and involves less people. Since mining and space research and technology so far has had little to do with tourism, the social capital tends to be grouped according to the different sectors. However, thanks to key persons and initiatives such as Progressum, there is a bridging and pooling effect taking place between the different sectors, which has enhanced social capital within the community. The Best of the Arctic is an example of an innovation that has had a positive influence on the local identity by bonding regions closer to each other. However, improving the communication between tourist

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firms is one area that deserves more attention and which could generate more social capital in the region of Kiruna. As observed now, there is little networking and trust between the individual tourist firms but the Best of the Arctic initiative may represent a first step in filling this gap.

In conclusion, the small number of people that characterizes peripheral regions in general and the case studies in particular, creates a situation where each member of the community brings his or her human capital, be it in terms of knowledge, resources or contacts that facilitate market access. Friendship becomes especially important since everyone tend to know everyone in such small communities. This combined with the often unique culture found in peripheral areas (in this case the Sami culture), create a situation with a high level of social capital. In such environment one would assume that networks were commonplace, but the observations made in Åre and Kiruna (in Kiruna especially) showed that inter-firm networks were not as developed as one would expect. This observation may be explained by the very nature of social relations in peripheral areas, that of friendship and trust, which may cause a perception of networks being of no use. Nevertheless, an important number of tourist firms were either members of the Nature’s Best or whished to see more networking and collaboration in between the firms.

Table 5-2 summarizes what the analysis has revealed; how peripherality factors (institutional, structural and local) affect the innovation system in terms of knowledge, resources and market.

**Table 5-2 Peripherality factors’ effect on innovation criteria**

<table>
<thead>
<tr>
<th>PERIPHERALITY</th>
<th>Regional Innovation System</th>
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<tbody>
<tr>
<td></td>
<td>KNOWLEDGE</td>
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<tr>
<td>Structural factors</td>
<td>• Inflow and outflow of knowledge</td>
</tr>
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<td></td>
<td>• Tacit knowledge</td>
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<tr>
<td></td>
<td>• Synthetic knowledge base</td>
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<tr>
<td>Institutional factors</td>
<td>• Facilitates knowledge transfer to peripheral regions</td>
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<td></td>
<td></td>
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<tr>
<td>Local capacities</td>
<td>• Spread knowledge about local culture</td>
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<td></td>
<td>• Social capital</td>
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</tbody>
</table>
6 Conclusions and recommendations for policy makers

The observations presented and analysed in this report have revealed results about innovation as it appears in a context that previously has gained little attention. Likewise, the results highlight a specific activity within the business spectrum that so far has gained little credit for its role in innovation.

Based on the findings in Åre and Kiruna, this report concludes that innovation in tourism and in nature-based tourism in particular is very well present in peripheral areas. This conclusion challenges the traditional assumption that innovation is close to inexistent both in tourism and in peripheral areas. It also answers the research question of this report with the argument that there has been a misperception of reality which explains why innovation in tourism in peripheral areas has not received the attention it deserves.

What the observations and analysis show is that innovations take place on two levels in particular with respect to tourism in peripheral areas; within the individual tourist firm and in umbrella constellations involving actors within the tourism sector. In the case of the first one, the tourist firm, innovations tend to emerge from new combinations of already existing resources or activities, or they build on imported ideas. There are of course exceptions to this generalization – the Icehotel being one example. In both case study areas the focus is very much on product innovations. Common for the product innovations was that they have a very strong link to the local environment and/or culture and that the local assets in many cases represent the basis for innovations. The umbrella organizations observed in both Åre and Kiruna played an important role in developing innovations. They acted facilitators and often identified areas of tourism potential. The trend observed at both destinations was that these organizations no longer look at the immediate destination only but take a broader view to include the whole region. In both cases this was realized in collaborative networks with actors on the Norwegian side. Product packaging and landscaping were the main occupations of these umbrella initiatives – and, although not new to the world (Canada, New Zealand and Scotland are far ahead when it comes to product packaging and landscaping) the initiatives are new to the peripheral areas of northern Sweden, hence regarded as innovations. To be part of a network that extended beyond the immediate locality such as the Nature’s Best, represented an important way for small and medium sized tourism firms to gain access to knowledge, resources and market.

The case study observations underlined the importance of sustainable nature-based tourism in peripheral areas and confirmed my hypothesis that successful small and medium tourist firms are constantly innovating in order to overcome external environmental constraints that come with peripherality. The geographical distance and remoteness is one such constrain that has forced firms and organizations to innovate, i.e. to turn the attractor into a scene and to make it attractive enough so that it makes tourists come despite the distance. These external constraints may even turn small and medium tourist firms in peripheral regions to be more rather than less innovative than firms in core urban areas. Moreover, the tourism innovators in peripheral areas are people who live close to nature and who live off what the environment provides. Because of this dependency relationship, the innovator will make sure he or she does not innovate anything that could harm the environment and local culture, i.e. the basis for his or her activity. The tourist firms in peripheral areas are therefore very likely to contribute to the preservation of their local nature and culture by turning the attractor into a scene based on quality, uniqueness and authenticity. This was illustrated by nature-based tourist firms in both Åre and Kiruna.
The findings also showed that peripheral factors in many cases represent strengths rather than disadvantages with regard to innovation. The small size of communities allow for collaborations across sectors and national borders which brings together actors from different sectors of society in networks and clusters where plurality drives innovation. This was especially observed in Åre. In- and out-migration of people is also typical for peripheral areas. Although some competence and resources are lost when people leave the region, both Åre and Kiruna benefit from in-migrants who bring with them new ideas that often serve basis for new innovations. Given the available resources in terms of nature and culture in peripheral areas and the willingness to preserve it, innovations were often the result of new combinations of already available resources. Moreover, unique features such as ice, snow, the Nordic light and the wilderness found in peripheral regions often provided the basis for innovations at both case study areas. Hence, innovation in tourism in peripheral areas very much follows Mattson et al.’s model of the innovation process that builds on the attractor.

The analysis revealed that peripherality factors (structural, institutional and local) do have an effect on the activity groups of an innovation system. The impact structural factors had on knowledge, resources and market was quite significant. The impact was positive in terms of satisfying resources and market but less so with regards to knowledge. Factors such as distance and out-migration of young people caused a shortage of knowledge, especially in Kiruna. Åre on the other hand, was actively and successfully trying to overcome potential shortage of knowledge in the region. Here the role of networks on the local, regional and national level play an important role in compensating for the absence of or distance to research centres and knowledge. Common to both regions was that people were constantly trying to find ways out of unemployment and seasonality. The strong sense of the individual being responsible for her own situation was something that characterized the inhabitants of both regions which potentially explains the high level of entrepreneurship and creativity present in both Åre and Kiruna. Hence, a major factor driving innovation and tourism development in the destinations was a typical peripherality handicap – the seasonality situation.

The institutional factors, mainly in terms of local political culture and EU policies primarily supported knowledge and resources. The small communities of both Åre and Kiruna facilitated a political culture with close ties to the private and civil sector. Cross-sectoral collaborations were well advanced in Åre and under development in Kiruna which facilitated exchange of knowledge and mobilisation of resources. The EU Structural fund meant inflow of financial capital to the regions and was in many occasions decisive for the realization of projects and innovations. The projects and initiatives undertaken by actors in Åre targeted all three innovation criteria while the ones in Kiruna mainly focused on the market aspect.

The local capabilities of Åre and Kiruna were very similar and proved to be important in overcoming some of the structural challenges facing peripheral communities. The most prominent local capability was the Sami culture present in both Åre and Kiruna. The Sami culture constituted an important attractor with a strong marketing value and the increasing number of Sami entrepreneurs engaging in tourism was one visible example of how local capabilities are contributing to knowledge, resources and market access. The Sami firms contributed strongly to the maintenance of Sami culture and diffusion of knowledge about the Sami to visiting tourists. The level of social capital was also significant in the two regions and was reinforced by the small size of the communities and the strong sense of identity.

In conclusion, it should be emphasised that innovations taking place in peripheral areas (within the tourism sector) very much reflect the scene-maker’s ability to turn the attractor into a scene without causing harm to the local culture and environment. In both case study
areas, the scene-makers were both individual firms and umbrella organizations such as NOA and the Best of the Arctic. The role of key persons was extremely important for the initiation, development and management of the umbrella organizations and projects facilitating for innovations.

In spite of the challenges that come with peripherality, the observation and analysis of this report revealed two major factors that challenge the centralization trend and facilitate for innovation in peripheral areas. The first factor is the availability of modern communication and transportation technology. Modern communication technology makes the physical location less relevant and allows for online booking and planning of the trip as well as it facilitates the firm’s access to market and for the umbrella organization’s marketing efforts. Likewise, transportation has drastically changed the notion of distance since it has increased and simplified accessibility to remote areas. The second factor that challenges arguments against innovation in tourism and in peripheral areas is the observed occurrence of firms and individuals reinventing natural and cultural resources in the form of tourism oriented landscaping and niche products. These two factors are also in line with Aarsaether’s findings regarding innovations in the Nordic periphery. The observed phenomenon of the reinvention of local assets is well reflected in the model by Mattson et al. (2005) where the scene-maker is innovative and turns the attractor into a scene.

This conclusion recognises the observed landscaping, product development, packaging and marketing based on existing natural and cultural assets of peripheral areas of Sweden as evidence of innovation. Such recognition is important in order to direct more attention to areas of structural weakness and to show that there is creativity, innovation and entrepreneurship present also outside of urban centres. In Åre, where a regional innovation system (Peak of Tech Adventure) has been formalized around tourism and high-tech outdoor gear, investing in knowledge, resources and facilitating access to market has showed that innovation systems are possible also in peripheral areas. The regional innovation system has received important financing from Vinnova and from other investors. Kiruna is also moving towards what may become a regional innovation system based on tourism and high-tech equipment, potentially by combining the growing tourism sector with the available environmental and space research.

For policymakers in peripheral areas, the findings of this report should facilitate the identification of innovation in tourism. Once innovations have been identified, support structures may be put in place, targeting knowledge, resources and/or access to market. In the case of Kiruna for example, more emphasis on tourism related knowledge should complete a regional innovation system. In Åre, much remains to be seen as the Peak of Tech Adventure matures, but it is obvious that a lot of effort has been put to fulfil all of the three innovation criteria. Support structures in terms of collaborative networks and cluster formations have proven to be important to innovation in both areas and should therefore be further broadened and deepened. This is especially important to Kiruna where actors within the tourism sector still are relatively dispersed and were more networking was sought for.

In addition to the pooling of actors in regional innovation systems, innovations in tourism destinations may also be promoted by the establishment of a Destination Management Organization. The DMO would ensure human resource development, encouraging and stimulating education and training programmes as well as ensuring resource stewardship, i.e. the effective, yet sensitive deployment of all the resources within the destination. In addition to the role of managing and coordinating actors involved in tourism, such DMO would have first hand knowledge about how peripheral factors affect innovation and being able to act accordingly. Finally, certification schemes such as the Nature’s Best and TourQuality are
important in triggering innovations among nature-based tourist firms since adhering to the certification criteria often forces the firms to be innovative.

In conclusion, it is my hope that this report adds to the discussion of innovation in tourism in peripheral areas since it has showed that whether the characteristics of peripheral environments spur or constrain innovation is not a black or white issue. This report has introduced the reader to the fact that innovations and regional innovation systems are not exclusive for urban centres but that there is evidence of innovation also in peripheral regions. The basis of peripheral innovation is found among the ones utilising the value or the space of the local nature and culture, turning the peripheral handicaps into strengths. In addition, these innovators or scene-makers (e.g. firms and umbrella organizations) constantly have to innovate in order to overcome external challenges that are unique to peripheral areas. The fact that they do so is vital for regional development and the way that they do it is decisive for sustainability. Innovation in nature-based tourism in peripheral regions is therefore a key issue if we want to achieve sustainable economic- social- and environmental development in all parts of the country. This requires more knowledge about innovations in the peripheral context – something that I hope to have contributed to with this report.

Further research

Breaking down the innovation system into its basic components – knowledge, resources and market – and analysing the effect peripheral factors have on each of them was an important and challenging part of this report. However, there are still issues that had to be left outside the scope of my research and that are left for further research. For example, gaining a better understanding of the innovation process and dynamics of learning in peripheral areas is one such issue, and investigation the socio-, economic- and environmental effects of innovations in the periphery is another issue that could be the subject of future research. Moreover, it could be of interest to explore how innovations appear in other peripheral areas, other than the Swedish mountainous region, and how innovations appear in other sectors than tourism in peripheral areas.

Post mortem findings

In the paper about peripheral areas in a knowledge-economy presented at the Conference Innovation Pressure in Tampere, Finland, in March 2006, Seija Virkkala emphasises that we need more understanding of the innovation process of economic actors in the peripheral regions in order to achieve a sustainable path of development and to prevent a mosaic of different levels of socio-economic regional development. The paper examines the mechanical wood industry, electronics industry and software in the Finnish periphery. In line with the conclusion of my thesis, Virkkala states that “peripheral areas (or the actors) can adapt and adopt innovations developed somewhere else, but they can also create new innovations and alternative innovation systems”. Virkkala also shows that firms are compensating for peripheral handicaps which may even make firms in peripheral regions more innovative than their counterparts in core regions, and instead of looking at peripherality as a disadvantage, we should look at the possibilities. Virkkala continues that one possibility for innovation in peripheral areas is through interactive learning which comes about through external networking, beyond the boundaries of proximity. This was for example seen in my thesis as tourist firms chose to be members of the Nature’s Best network which is a national network.
Virkkala emphasises that successful firms in the periphery must be outward-looking, seeking knowledge and markets outside of the local region and that innovation is the coping strategy for SMEs in areas with dense localized networks, and that peripheral places may provide firms with certain advantages in specific areas; something that is very much in line with the case of tourism presented in my report. Although Virkkala does not cover tourism in her paper, the following quotes very well support my own findings: “...innovative firms in northern rural areas have the ability to use specific local assets in ways which develop their competitive advantage” and that “One of the main strengths of the rural peripheral areas in the north is their assets which create unique forms of tacit knowledge, providing the basis for innovation. The traditional practical knowledge (e.g. knowledge of cultural and environmental aspects of rural communities), which is interwoven with local identities, can produce innovative products that appeal to a broader market. There may be new sustainable solutions (way of life, ecological production, and food chain), new material or alternative energy forms” (Virkkala, 2006).
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Useful websites:

www.vinnova.se Vinnova [Swedish Governmental Agency for Innovation Systems]
www.visitsweden.com VisitSweden
www.nordregio.se Nordic Centre for Spatial Development (Nordregio)
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