

# Challenges and Opportunities for Rural Businesses in North Karelia, Finland

W-POWER project

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## FOREWORD

This report seeks to describe North Karelia as an operating environment for rural businesses. Moreover, the report provides an overview of companies operating in the North Karelian countryside and describes types of entrepreneurship in the province.

North Karelia offers many business opportunities, especially in the field of forestry and bioeconomy. In contrast, for many service sector companies that depend on local demand, the operating environment in North Karelia is challenging. The decreasing and aging population has meant a decline in local demand for services in the periphery of the province. The challenges posed by negative demographic developments are particularly acute for private services such as the grocery stores. On the other hand, the need for various care-related services has been growing strongly in recent years, which has generated new business activities in rural care services.

In some industries, the province offers business opportunities for creating global success stories. On the other hand, the maintenance of basic commercial services is often based on external demand, such as demand flows created by leisure residents.

The report does not aim to be an overall assessment of the state of vitality in North Karelia and the related development prospects. Some of the key factors describing the characteristics of the area have been raised for consideration. First, we look at the population development and demographic structure of the province. The following is a general description of the area's livelihoods and employment, as well as the characteristics of entrepreneurship. Particular attention has been paid to tourism and holiday housing, both of which play a special role in maintaining the rural service network.

Finally, an attempt has been made to assess the future prospects of North Karelia in relation to the megatrends presented in the national debate. It is noteworthy that this report was compiled and written before "the Black Swan" event took place in the form of the COVID19-pandemic. At the publication stage of the text, it is not yet possible to assess the immediate and far-reaching effects that the current global crisis will have on business activities in North Karelia and, more broadly, on the future prospects of the province.



# 1 BUSINESS ENVIRONMENT OF RURAL BUSINESSES

## 1.1 DEMOGRAPHIC TRENDS AND POPULATION STRUCTURE

North Karelia is characterized by low population density and extensive forest and lake areas. The urban center is represented by the Joensuu Provincial Center with its suburban population centres and the local rural centers Kitee, Lieksa, Nurmes and Outokumpu. Most of the province belongs to a sparsely populated rural area.

The population of the region has declined for a longer time. As in previous years, the decisive background factor is not the extent of emigration, but the increase in mortality and low birth rates due to aging, i.e. the natural population development of the province is negative. (Table 1.).

1975	1985	1995	2005	2015	2019
177,089	177,567	177,271	168,322	164,755	161,211

Table 1. Population of North Karelia 1975-2019 (Population according to age (1-year) and sex by area, 1972-2019. Statistics Finland 2020)

Not only the decline in the total population, but also the divergent development between different types of regions are problematic for the development of the North Karelia region. The population in the inner urban area and the city of Joensuu has steadily increased but in the countryside as well as in its local centers, the population has decreased (North Karelia Regional Council 2017). During the years 2009-2017, the population in the municipalities of the city of Joensuu and the surrounding area increased by 4.6% while the population of the municipalities located in rural areas decreased by 11.1% (Table 2).



TYPE OF THE REGION	Population 2009	Population 2017	Change (person)	Change (%)	Ages Under 15 (%)	Ages 15-64 (%)	Ages Over 64 (%)
Cities							
Joensuu (capital)	72,704	76,067	+3,363	+ 4.6	14.0	65.0	21.0
Lieksa	12,788	11,297	-1,491	- 11.7	10.5	54.6	34.9
Kitee	11,861	10,486	-1,375	- 11.6	11.8	55.6	32.6
Nurmes	8,573	7,765	- 808	- 9.4	12.2	54.9	32.9
Outokumpu	7,492	7,003	- 489	- 6.5	14.4	56.6	29.0
Suburb municipalities (Kontiolahti, Liperi)	25,810	26,980	+1,170	+ 4.5	20.5	61.6	17.9
Rural municipalities (Ilomantsi, Juuka, Polvijärvi, Rääkkylä, Tohmajärvi, Valtimo)	26,734	23,388	-3,346	- 12.5	11.4	55.0	33.6

Table 2. Demographic trends by different types of regions in North Karelia 2009 – 2017 (Statistics Finland: Statfin -database. 11ra -- Key figures on population by region, 1990-2018)

The decline in the working-age population in rural areas and the bias of population structure toward aging population is reflected in the local economy in weakening purchasing power and the demand for various private services. The situation is problematic for municipalities in peripheral regions. The need for public health and care services for the aging population increases as the municipal tax base becomes narrower.

## 1.2 INDUSTRY AND EMPLOYMENT

North Karelia's business structure is diversified (Table 3). Trade, construction and industrial sectors form the basis of the province's business, from the point of view of business size and employment. In 2016, 44% of the province's total exports came from the technology industry (Regional Council of North Karelia, 2017, 35).



Businesses with a lower volume of trade, but significant due to the employability, are primary production (7.4%), transport and storage (7.4%) and social and health services (7.3%). The employability of different administrative services, accommodation and catering is also significant in relation to the business (Table 3).

Sector (Standard Industrial Classification TOL 2008)	Premises (pcs)	Personnel (person-year)	%	Sales volume (€1,000)	%
A Agriculture, forestry and fishing	3,721	2,452	7.4	217,689	3.0
B Mining and quarrying	37	325	1.0	72,121	1.0
C Manufacturing	702	8,684	26.0	2,696,604	37.5
D Electricity, gas, steam and air conditioning supply	51	206	0.6	260,112	3.6
E Water supply; sewerage, waste management and remediation activities	85	246	0.7	61,646	0.9
F Construction	1,045	3,890	11.7	750,130	10.4
G Wholesale and retail trade; repair of motor vehicles and motorcycles	1,389	5,001	15.0	1,699,972	23.6
H Transportation and storage	648	2,455	7.4	311,746	4.3
I Accommodation and food service activities	408	1,596	4.8	158,334	2.2
J Information and communication	154	1,028	3.1	211,038	2.9
K Financial and insurance activities	133	519	1.6	..	..
L Real estate activities	629	447	1.3	166,570	2.3
M Professional, scientific and technical activities	667	1,305	3.9	143,868	2.0
N Administrative and support service activities	387	2,046	6.1	132,813	1.8
P Education	76	83	0.2	8,955	0.1
Q Human health and social work activities	598	2,432	7.3	204,155	2.8
R Arts, entertainment and recreation	125	199	0.6	69,402	1.0
S Other service activities	502	422	1.3	32,588	0.5
Industry unknown	1	1	0.0	19	0.0
IN TOTAL	11,358	33,338	100.0	7,197,763	100.0

Table 3. Business locations by industry, personnel and sales volumes in North Karelia 2017 (Statistics Finland: Statfin -database. 11db -- Establishments of enterprises by industry and region, 2013-2018)



Employment in North Karelia 31 December 2016 (Standard Industrial Classification TOL 2008)									
Municipality / sub-region	Primary production	%	Processing	%	Services	%	Unknown	%	Total
	( A )		( B-F )		( G-U )		( X )		
Joensuu	618	2.1	5,729	19.9	22,159	76.9	312	1.1	28,818
Outokumpu	98	4.5	744	34.0	1,320	60.4	25	1.1	2,187
Ilomantsi	185	11.5	303	18.8	1,096	68.1	26	1.6	1,610
Juuka	189	12.5	397	26.2	894	59.1	33	2.2	1,513
Kontiolahti	163	2.6	1,626	25.6	4,490	70.8	66	1.0	6,345
Liperi	381	7.8	1,191	24.4	3,251	66.5	68	1.4	4,891
Polvijärvi	243	16.5	398	27.0	806	54.6	28	1.9	1,475
Joensuu region	1,877	4.0	10,388	22.2	340,16	72.6	558	1.2	46,839
Lieksa	334	9.4	909	25.6	2,260	63.7	43	1.2	3,546
Nurmes	299	11.5	552	21.2	1,716	65.9	36	1.4	2,603
Valtimo	166	22.5	120	16.3	439	59.5	13	1.8	738
Pielinen Karelia region	799	11.6	1,581	23.0	4,415	64.1	92	1.3	6,887
Kitee	441	12.5	823	23.4	2,208	62.8	44	1.3	3,516
Rääkkylä	148	21.7	116	17.0	401	58.7	18	2.6	683
Tohmajärvi	257	16.7	262	17.0	999	64.9	22	1.4	1,540
Central Karelia	846	14.7	1,201	20.9	3,608	62.9	84	1.5	5,739
North Karelia (total)	3,522	5.9	13,170	22.1	42,039	70.7	734	1.2	59,465

Table 4. Employment in North Karelia 31 December 2016 (Standard Industrial Classification TOL 2008). (Statistics Finland: Statfin -database. & Regional Council of North Karelia 2018)

The importance of primary production and industry as an employer varies between municipalities (Table 4). The municipalities in North Karelia that rely heavily on primary production in their economic structure are Valtimo (22.5%), Rääkkylä (21.7%), Tohmajärvi (16.7%) and Polvijärvi (16.5%). It can be noted that industrial activity is relatively evenly distributed throughout the province, which in principle provides a good starting point for the business development of the municipalities. Outokumpu is a strong industrial operator in the province. In Outokumpu, the part of processing in the employed workforce was 34% in 2016.



SUB-REGION	Unemployed jobseekers		Change (person)	%	Part (%) labour	Job vacancies		Change (pcs)	%
	Dec 2018	Dec 2017				Dec 2018	Dec 2017		
Joensuu	7,666	8,902	-1,236	14	13.5	853	582	271	47
Central Karelia	1,049	1,250	-201	16	14.7	67	55	12	22
Pielinen Karelia region	1,207	1,576	-369	23	14.0	158	108	50	46
North Karelia (tot.)	9,922	11,728	-1,806	15	13.7	1,078	745	333	45

Table 5. Unemployed jobseekers and job vacancies at the TE Office by sub-region (Centre for Economic Development, Transport and the Environment 2019. Employment Bulletin December 2018)

Finding a skilled workforce has become a challenge for the economic development of the province. At the same time as the province's public finances are burdened by persistent unemployment, there are industries with a shortage of labour in the province (Table 5). In 2018, the average employment rate in North Karelia was 66.6%, while the average employment rate in the whole country was 71.7%. The monthly average number of unemployed jobseekers was about 10,000, of whom about one third were long-term unemployed (Centre for Economic Development, Transport and the Environment in North Karelia, 2019).

Viewing this with the future development of North Karelia in mind, the most important economic sectors in the private sector are forest bioeconomy and technology industries. Potential growth areas include mining and tourism (Regional Council of North Karelia, 2017, 33). Moreover, there are expectations in the agricultural sector, and, in particular in the production of local and organic food and in the semi-cultivation of the functional foods of the forests. The latter food production includes e.g. mushrooms, herbs and berries (Regional Council of North Karelia, 2017, 42)

The goal of North Karelia, which aims to eliminate the use of fossil oil in energy production by 2020 and in transport by 2030, will have a significant impact on business development guidelines. It is intended to replace fossil fuels with renewable energy (Regional Council of North Karelia, 2017, 34).

In the North Karelia Provincial Program, the core of the province's smart specialization is defined as 1. "New solutions in forest bioeconomy" and 2. "Technologies and materials as enablers for growth" (Regional Council of North Karelia, 2017, 44). The conditions for the development of forest bioeconomy in the



province are beneficial, due to forest resources and the forest industry tradition. It is estimated that there are more than 500 forest bioeconomy companies in the province, with a combined annual turnover of approximately EUR 2 billion. The forest bioeconomy industry employs about 6,000 people in the province (Jahkonen, 2018, 5).

The strong industrial base has been supported by a broad set of research, education and development know-how, focused on forestry and its development issues. Key players in the nationally and internationally networked competence network include: University of Eastern Finland, Natural Resources Institute Finland (Luke), Forestry Center, Karelia University of Applied Sciences and European Forest Institute (EFI). (Jahkonen, 2018, 5).

Table 6 summarizes the key areas of expertise in the forest bioeconomy of the province. In principle, all sectors also affect North Karelia's rural economy through decentralized value chains.

Forest technology and logistic of logging forest machine manufacturing, utilization of logging methods and technologies	Distributed biorefining the raw material chains, utilization of side streams and value chains, refining technologies
New biobased products biobased products with high value-added tax, biobased materials and production technology	Forest Information Management services based on electronic forest information and other large-scale utilization of information resources
Multiple use of forests refining the material and the intangible value of forest nature and reconciling the various uses	Renewable energy production and wood construction decentralized renewable energy production and hybrid solutions, wood construction know-how and demo targets based on renewable energy

Table 6. Key areas of expertise in forest bioeconomy in North Karelia (Regional Council of North Karelia, North Karelia's Regional Strategic Programme for 2018–2021)

The multifunctional use of forests and the natural products sector has increased its importance as a potential future growth sector for rural areas. Finland currently has the world's largest certified organic harvesting area. The area is approximately 12 million hectares and currently covers the provinces of Lapland, Koillismaa and Kainuu (Luke 2019). It is estimated that there are currently hundreds of small buying and processing companies in the natural products sector in Finland, with an



employment impact of around 2,000-3,000 man-years. The annual turnover of these companies is approximately EUR 300 - 500 million (Vanhanen, 2019). Exports account for a significant part of production. It is estimated that about half of the annual berry and mushroom harvest is exported.

There are currently four natural products purchasing companies in North Karelia. There are 17 berry processors, one large freezer and several individual processing companies in different sectors of the natural products sector. The combined net sales of the operators in 2015 were estimated for approximately EUR 9 million. In addition to the companies mentioned above, there are more than one hundred beekeepers in the province, of which about 60 are engaged in commercial honey production (North Karelia Municipal Education and Training Consortium 2017, 4).

### 1.3 ENTREPRENEURSHIP

The following is an overview of the state of business in North Karelia, with particular reference to the SME Survey of small and medium-sized enterprises. The available business statistics give a somewhat incorrect picture of the volume of business and the business structure of the province, since the statistics also include 'inactive' companies.

In 2011, there were 6,572 SMEs in North Karelia (excluding Agriculture, Forestry and Fisheries). About 55% of these companies were in services, 18% in trade, 15% in construction and 10% in industry. Companies in other industries accounted for 2%. (SME Barometer 2/2013). By 2017, North Karelia's SME industry structure had changed, with a 15% decline in trade and 9% in industry. The share of companies in the service sector, on the other hand, had grown by 59%, compared with 63% in the national SME sector in 2017. (SME Barometer 1/2019).

There have not been any significant changes in the number of SMEs in recent years, but the number of enterprises (headquarters) has remained stable at between 6,600 and 6,700 enterprises. (Table 7). The relatively stable situation may change in the future when entrepreneurs are aging. In the Business Barometer, 59% of SMEs said they planned to implement a change of owner within the next ten years. (SME Barometer 1/2019).



2011	2012	2013	2014	2015	2016	2017
6,572	6,499	6,723	6,744	6,707	6,614	6,669

Table 7. the number of SME's in North Karelia 2011 – 2017 (Suomen Yrittäjät SME Barometer 2012 – 2019, regional report North Karelia)

In 2018, 32 % of the employed persons who were entrepreneurs (total 6,761, Table 9.), were 55-74 years old. The number of entrepreneurs decreased by 20% in North Karelia between 2007 and 2018. (Statistics Finland, Statfin Database 2020.) The downward trend in the survey period is probably related to the structural change of the trade sector and agriculture, where the number of premises has decreased, due to retirement and business closure, among other things. The number of agricultural and horticultural enterprises decreased by 16% in North Karelia during the years 2011-2018. (The Centre for Economic Development, Transport and the Environment, Table 8.).

2011	2012	2013	2014	2015	2016	2017	2018
2,358	2,255	2,199	2,120	2,093	2,043	2,009	1,974

Table 8. Number of agricultural and horticultural enterprises in North Karelia 2011-2018 (Centre for Economic Development, Transport and the Environment 2011 – 2018, Natural Resources Institute Finland, 2019)

On the basis of their professional status, entrepreneurs are divided into male and female industries. According to the situation in 2018, sectors dominated by women included especially Other service activities (84.4%) and Health and social work activities (70.9%). Women also accounted for more than 40% of the entrepreneurs in the Education, Accommodation and food service activities, Arts, entertainment and recreation sectors. The predominant male sectors were Mining and Quarrying (100.0%), Water & Waste Management (100.0%), Construction (95.1%), Information and Communication (91.6%) and Transportation and Storage (89.2%). (Table 9).



INDUSTRY (Sector *)	Total	Male	Female	Female
				(%)
In Total	6,761	4,581	2,180	32,2
A Agriculture, forestry and fishing	1 935	1 409	526	27,2
B Mining and quarrying	9	9	0	0,0
C Manufacturing	361	266	95	26,3
E Water supply; sewerage, waste management and remediation activities	13	13	0	0,0
F Construction	699	665	34	4,9
G Wholesale and retail trade; repair of motor vehicles and motorcycles	661	479	182	27,5
H Transportation and storage	407	363	44	10,8
I Accommodation and food service activities	214	117	97	45,3
J Information and communication	95	87	8	8,4
K Financial and insurance activities	29	22	7	24,1
L Real estate activities	66	49	17	25,8
M Professional, scientific and technical activities	425	271	154	36,2
N Administrative and support service activities	217	140	77	35,5
P Education	33	14	19	57,6
Q Human health and social work activities	405	118	287	70,9
R Arts, entertainment and recreation	82	49	33	40,2
S Other service activities	405	63	342	84,4
X Industry unknown	705	447	258	36,6

\* The table has excluded sectors with no observations.

Table 9. Entrepreneurs by industry and gender in 2018 in North Karelia. (Statistics Finland, Statfin database. 115m. Employed labour force by area, industry (TOL 2008), occupational status, age, sex and year, 2007-2018)

The structure of rural business has been influenced especially by the development of traditional agriculture in North Karelia. The most significant change has been the reduction in the number of dairy farms. While there were 1,490 dairy farms in the province in 2000, only 435 farms remained in 2018. Over the same period, milk production in the province decreased by ca. 21%. Dairy farms are now significantly larger in production.

Average milk production per farm has nearly tripled in the 2000s. In 2018, the average milk yield of a dairy farm in North Karelia was approximately 287,000 liters. (Luke 2019, ProAgria North Karelia 2017). Regionally, dairy production is



concentrated in the cities of Kitee and Nurmee, as well as in the municipalities of Liperi and Tohmajärvi. (ProAgria North Karelia 2017).

The importance of organic farming has continued to grow in North Karelia. In 2017, 18.3% of all farms in the province used organic farming and organic farming accounted 26.9% of the total arable land. Organic farms are larger than average in arable land. In 2017 the average arable area per farm was 42.3 ha / farm and 62.2 ha respectively on organic farms. (ProAgria North Karelia 2018).

The share of multidisciplinary agricultural and horticultural enterprises in the farm stock has decreased slightly in recent years. In particular, the number of farms receiving their income from the service sectors has decreased and the number of farms engaged in industrial activities has increased. In 2016, North Karelia had 600 multidisciplinary agricultural and horticultural businesses (about 29% of all farms), of which 73% were revenue from service industries, 15% from industrial activities, 8% from trade and 3% from other industries. (Natural Resources Institute Finland, Luke; Farm Structure Survey 2018).

#### 1.4 TOURISM AND HOLIDAY HOUSING

During the period 2014-2017, the business volume of North Karelia tourism and leisure enterprises increased by approximately 32%. The combined turnover of companies in the sector was EUR 186 million in 2017 (Table 10). The development is partly due to the sector's recovery after the precipitous decline in volume after 2013. In 2013, for the first time, the number of registered overnight stays by travellers in the province exceeded 500,000. The growth at the time was explained by the increase of Russian tourists. In 2013, 18% of all registered overnight stays came from abroad, with Russian tourists accounting for 62%. In 2018, the number of overnight stays registered in North Karelia was approximately 470,000, of which 85% came from homeland. (BusinessFinland, Statistics Service Rudolf 2019).

The current number of overnight stays in the province corresponds to the long-term average of the 2000s. In the 2000s, 15% of the registered overnight stays typically came from abroad, with Russian tourists accounting for about a third. When compared, foreigners accounted for 11% of registered overnight stays in Kainuu, 26% in Kuusamo and 52% in Lapland in 2018. (VisitFinland, Statistics Service Rudolf 2019). The reasons behind the differences in the customer structure include regional differences in investment intensity of tourism activities.



The size of companies and, at the same time, their ability to invest and employ, vary by the region and the sector of tourism. In 2017, the turnover of tourism and leisure facilities in North Karelia averaged EUR 347,000, which is calculated to be about three full-time employees per company on average. (Table 10). Companies in the sector are smaller than on average, especially in rural areas. It is a peculiarity of the North Karelia tourism industry that the market leader in this sector accounts for about one fifth of the industry's volume and the rest is distributed among numerous small players. (Pohjois-Karjalan Osuuskauppa, 2018). Significant proportions of tourism businesses in the province are small and medium-sized enterprises and the threshold to employ nonfamily full-time workers is high.

2017 Industry (TOL2008)	Premises	Personnel	Turnover €1,000	Turnover/person €1,000
Tourist and leisure enterprises in total	536	1,798	185,918	103
55 Accommodation	92	375	30,086	80
56 Catering Activities	316	1,221	128,248	105
79 Travel Agencies and Tour Operators activities; booking services	51	60	11,833	197
93 Sports activities and amusement and recreation activities	77	142	15,751	111
2014 Industry (TOL2008)	Premises	Personnel	Turnover €1,000	Turnover/person €1,000
Tourist and leisure enterprises in total	485	1,566	140,477	90
55 Accommodation	88	452	43,986	97
56 Catering Activities	283	915	75,296	82
79 Travel Agencies and Tour Operators activities; booking services	55	70	9,418	135
93 Sports activities and amusement and recreation activities	59	129	11,777	91

Table 10. Business development of tourism and leisure enterprises in North Karelia 2014-2017. (Statistics Finland, Statfin-database. 11db -- Establishments of enterprises by industry and region, 2013-2018)



A particular strength of North Karelia's bioeconomy and tourism resources are state-owned large forest areas, which have contributed to the establishment of various public recreation areas and nature reserves. About 89% of the land area of North Karelia is covered by forests and the total area of forestry land is approximately 1.6 million hectares, of which 841,000 hectares are privately owned. Moreover, 318,000 hectares are owned by the state and 364,000 hectares owned by companies. (Centre for Economic Development, Transport and the Environment in North Karelia, 2018.)

Currently, there are three national parks and one state hiking area in the province. (Table 11). Nature conservation and recreation sites attracting tourists are also important from a local and regional economic point of view. Table 11 summarizes the most attractive nature sites in North Karelia as well as an estimate of their local economic importance. Information on Kolovesi National Park has also been included in the review, due to the municipal reform of Heinävesi municipality.

Target	Visits year 2009	Visits year 2018	Total revenue impact (€ million)	Total impact on employment (a man-hour)
Koli National Park	127,500	190,900	20.2	203
Petkeljärvi National Park	19,500	20,800	1.1	12
Patvinsuo National Park	12,000	15,800	0.3	3
Ruunaa Hiking Area	89,000	83,800	4.8	52
Kolovesi National Park *	7,500	16,800	1.8	17

\* The property is located in the municipalities of Heinävesi and Enonkoski

Table 11. Visits to national parks and state hiking areas and local economic impacts. (Metsähallitus luontopalvelut – Parks & Wildlife Finland, 2018 & 2019)

One of the features related to the Finnish culture is summer cottages or holiday homes. At the end of 2017, there were 507,000 summer cottages or holiday homes in Finland. Holiday homes owned by individuals and / or families are important for the vitality of rural areas, as holidaymakers each year bring a significant increase in income to sparsely populated areas, where the operating conditions of the private service are challenging. At the same time, private holiday homes are a way to support service for the local tourism industry as part of this building stock is rented. According to a survey conducted in 2016, Finns spent a total of about EUR 6.2 billion on holiday housing in 2014. The employment effect of this consumption was estimated to be around 60,000 jobs. (FCG Finnish Consulting Group Oy, 2016, 3).



The most popular years of holiday home construction took place in the 80's and 90's when the post-war age groups fulfilled their dreams of summer cottages. Since then, the popularity of holiday home construction has declined significantly (Table 12).

Year	Number of summer cottages	Change (%)
1970	176,104	
1980	251,744	43.0
1990	367,686	46.1
2000	450,569	22.5
2010	489,232	8.6
2017	507,200	3.7

Table 12. Development of the number of summer cottages in Finland 1990-2017 (Statistics Finland, Statfin-database. 116j -- Number of free-time residences by region, 1970-2018)

North Karelia is one of Finland's most water-rich provinces, as evidenced by the fact that lakes and rivers cover 18% of its area. The coastline in the province is approximately 21,000 kilometres. (Regional Council of North Karelia, 2008, 102-103). North Karelia's Regional Strategic Programme sets the following goals for the management of holiday housing construction (Regional Council of North Karelia 2008):

- Extensive and varied river basins create the conditions for quality holiday accommodation and for leisure. North Karelia offers a variety of holiday homes, both well-equipped holiday homes close to services as well as more peaceful, natural options.
- The increase in leisure time and wealth increases the length of stay in a holiday home, use as a second home and converting them into a permanent home. Communication networks extending in leisure areas improve the opportunities for remote work on a holiday home and increase its availability and time of use.
- The holiday homes, together with the permanent homes, support the services of rural areas to remain and to develop. New permanent homes and holiday homes will increase opportunities to maintain and further develop the existing network.
- The use of beaches in the vicinity of built-up areas for permanent housing is increasing.

Permanent living includes both new construction and changes in purpose from second homes to year round.



- North Karelia has a wide range of uninterrupted free beach areas suitable for recreation, which provide access to water and refreshment.
- Extensive water bodies are utilized in many ways for settlement, business, recreation, and leisure needs, taking into account their protective needs.

About 75% of the province's holiday homes are located in the waterfront area. (Hynönen, 2017, 4). One of the special features of North Karelia is that, contrary to the national trend, the holiday homes are often located in rural villages instead of sparsely populated areas. In 2014, 49% of the holiday homes were located either in rural villages or other built up areas in the province. Nationally, the corresponding figure was 18% (research data 2013). (Vesala et al. 2015, according to Hynönen 2017, 8). A possible explanation for this is the fact that properties which are not in residential use anymore have been converted into holiday homes. The construction of new holiday homes has slowed down also in North Karelia. (Table 13). A new phenomenon is that larger, well-equipped holiday homes are now converted into single-family homes, because the property owners want to spend their retirement days in their second home.

MUNICIPAL / YEAR	1970	1980	1990	2000	2010	2017
Ilomantsi	230	542	1,233	1,692	1,868	1,961
Joensuu	871	1,517	2,780	3,279	3,620	3,695
Juuka	224	559	1,306	1,570	1,741	1,882
Kitee	624	1,332	2,221	2,751	2,992	2,964
Kontiolahti	598	784	1,229	1,553	1,573	1,568
Lieksa	717	1,195	1,720	2,341	2,638	2,907
Liperi	1,113	1,581	2,188	2,842	2,843	2,556
Nurmes	333	575	1,025	1,201	1,307	1,411
Outokumpu	325	514	770	1,002	1,018	1,045
Polvijärvi	302	638	1,115	1,355	1,443	1,470
Rääkkylä	262	482	920	1,258	1,264	1,257
Tohmajärvi	248	427	867	994	1,027	1,005
Valtimo	63	160	319	376	406	414
NORTH KARELIA	5,910	10,306	17,693	22,214	23,740	24,135
Change (%)		74.4	71.7	25.6	6.9	1.7

Table 13. Number of summer cottages in North Karelia municipalities 1970-2017 (Statistics Finland, Statfin-database. 116j -- Number of free-time residences by region, 1970-2018)



## 2 SUMMARY AND CONCLUSION

Opportunities and challenges related to the operating environment of companies operating in rural areas of North Karelia are connected to the EU and the national policies. On the other hand, developments are driven by global megatrends that influence at the local level and are either dampened or reinforced by national policies. (Figure 1 and Figure 2).

From North Karelia's point of view, urbanization and migration to southern Finland have made it difficult for rural communities in particular to maintain local vitality. The direction of the future development of the province depends a great extent on decisions made at the national level e.g. major transport infrastructure projects, and policies on immigration and housing. Figure 2 illustrates the effects of these possible policy options at regional level.

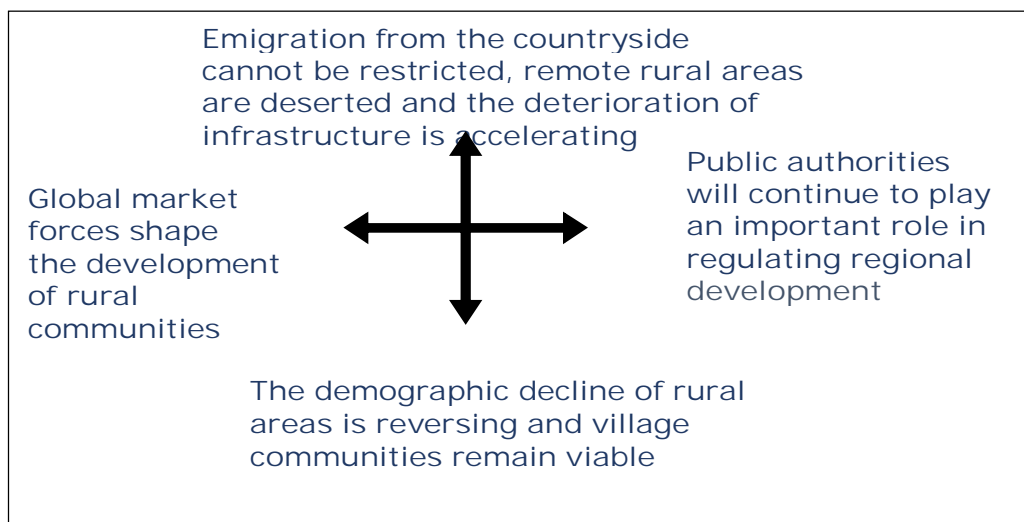


Figure 1. Possible future visions in the North Karelian countryside. (Koskinen & Tarkiainen 2017)

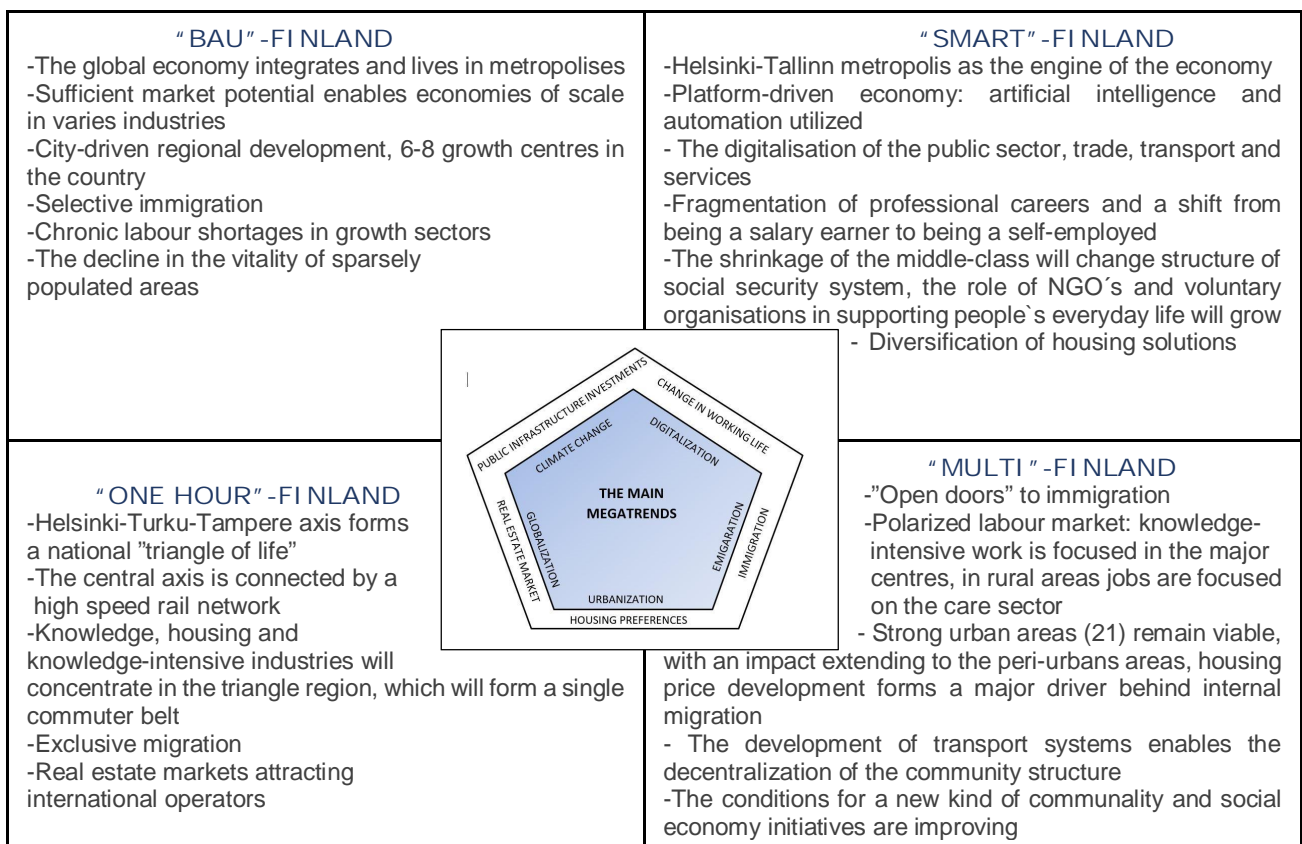
On the one hand, the acute development challenges in North Karelia from the point of view of rural entrepreneurship are the shrinkage of the local market due to demographic decline, which particularly affects small service companies. In agriculture, forestry and rural industrial enterprises, the shortage of skilled labour is a problem. The problem of labour supply in rural areas is complicated not only by the problem of shrinking working-age population, but also by the segregation of the housing market between growing and shrinking regions. Recent efforts have been



made to address the acute problem of corporate labour through the Eastern European and Russian labour markets.

The current demographic development of the province is characterized by a strong increase in the aging population and by a simultaneous decline in the birth rate. For the future, the growth of economically inactive population and simultaneous decline of the proportion of economically active working age people will weaken the economic carrying capacity of rural municipalities.

For some sectors of the economy, reversing the natural demographic trend will, in the longer term, lead to a worsening labour shortage and, on the other hand, to the difficulty of generational renewal or, in the worst case, to the disappearance of business.



**Figure 2. FINLAND scenarios from an urban perspective.** (Koskinen & Tarkiainen 2019, based on DEMOS Helsinki 2018)

On the other hand, the aging of the rural population offers new business opportunities, for example in the care and home care sector, based on private or



community-based entrepreneurship. To overcome market failures, future service delivery will require new forms of partnership between public authorities, the third sector and private companies. There is a social order for the resurgence of traditional rural cooperative activity.

In North Karelia, the center of the provincial vitality impact area mainly covers the metropolitan area of Joensuu and conurbations of the surrounding municipalities. Elsewhere in the province, including local rural centers, labor mobility is partly constrained by housing depreciation. The decline in the value of real estate is reflected in the credit policy of financial institutions. This development manifests itself in the tightening of collateral conditions and, through this, in the deterioration of the availability of financing for housing. In order to overcome this negative spiral, new housing solutions based on renting practicalities should be developed.

The role of leisure residents in supporting the vitality of rural municipalities has been discussed in Finland. A separate study by the government concluded that the so-called duality model was an excluded option. (Ministry of Finance, 2018, 65). This means that even if the leisure-time residents spend long hours a year in their cottage towns, their tax liability would be limited to the official place of residence, i.e., the locality of the place of residence. The benefit of the leisure residents to the cottage communities will thus continue to be realized through indirect effects, mainly through purchases by local operators. Such purchases include not only groceries but also services such as home improvement and other property maintenance services, which can be of significant importance to local rural entrepreneurs.

The local economic impact of the summer cottages is further enhanced by the improvement in the standard of equipment for second homes, which at its best allows the use of the property all year round. In Finland, too, rural areas often have access to telecommunication connections that allow residents to do teleworking in holiday homes. According to a survey conducted in 2016, telework had been carried out in about 60,000 cottage households and about 100,000 holiday homes had been used for work. (FCG Oy, 2016, 33).

The future growth areas of North Karelia include forest bioeconomy. In Finland, the concept of bioeconomy includes nature-based tourism, among other things. This kind of sustainable tourism is understood as part of bioeconomy services. Typical product themes for tourism are built around the rural cultural environment, forest and lake nature, national parks and other nature conservation sites in North Karelia.



The municipality has not become a target for mass tourism although in previous decades such goals had been set. The problem or "rescue" of the province has been the unfavourable location in relation to the national traffic freeways and, in part, due to this fact the area has not been sufficiently attractive to large real estate investors.

As tourism trends change, the province that has been left out of the focus of resort centre construction is gaining momentum as a destination for sustainable tourism. The change is reflected, for example, in the fact that holiday accommodation with cottages in the lake area has become the top product of tourism in North Karelia and the number of visitors to the provincial national parks has continued to grow. In addition to the accommodation and hospitality business, the present progresses are increasingly opening opportunities for local small businesses, which provide services such as cottage rental, property management, transportation and guidance to a growing number of tourists.

In addition to nature tourism, the forest resources of North Karelia provide a resource base for other types of bioeconomy business. Alongside with the traditional forestry, rural areas have become increasingly important, for example because of renewable energy production in local small units and the natural product industry. The climate change mitigation requires a global shift towards a more sustainable lifestyle. This change is already visible in people's values and consumption habits. For Finland and North Karelia, the strengthening of the trend means growth in the market potential of the natural products sector. Nationally significant forerunners have emerged from the natural products sector in the province. This tip is so far narrow but shows that small enterprises also have opportunities to penetrate the global market.

In North Karelia, for example, there are significant unexploited reserves in the processing of berries, mushrooms and natural herbs. The challenge is e.g. the fragmentation of value chains and poor coordination. It is estimated that only about 13% of the annual berry harvest in Finnish forests is utilized (Mehtola, 2016). In addition, the raw material entering the processing chain is dependent on foreign labour. In 2017, more than 90% of the wild berries collected for sale from forests were collected by foreign berry pickers in Finland (Honkanen, 2018, 38). The situation is risky for the functioning of the processing chain and the risk is increased due to the fluctuations in the yield of berries, because of the weather conditions, especially in recent years. In years with poorer crop prospects, there may not be enough pickers and the visa and residence permit policy for foreign workers will pose a challenge to the operation.



The most significant new opening in the natural products sector is an attempt to establish a regional processing centre for natural products in Kitee. The project aims to consolidate the productive resources of several small producers in such a way that volumes allow export trade. The second objective is to increase the degree of processing of natural products, while at the same time increasing the local economic benefits of the sector, especially employment (Heickell, 2019).

The future of the natural products sector is also affected not only by the climate change but also by the appreciation of the sector by forest owners. Traditionally, tree cultivation has been seen as the only possible source of income in the economic exploitation of forests. Particularly in private forestry, the natural products sector offers opportunities for expanding the income generation of forest products not harvested under the public right of access.

The bioeconomy offers a great opportunity for North Karelia. At the heart of the decentralized bioeconomy is the aim to develop solutions that use raw materials as close as possible to their sources. This will ensure that the economic benefits of the operation will also remain at local level. Recent positive investment decisions show that long-term provincial development work in this area is also delivering the desired results and benefiting the provincial periphery.



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## APPENDIX 1. Rural North Karelia as a residence and business environment – potentials and challenges\*



\* (Koskinen & Tarkiainen 2017)



W-Power