



What does symbiosis between rural and urban areas mean?

Symbiosis between rural and urban areas refers to multidimensional interaction that benefits both parties. It is not productive to set rural and urban areas against each other. The system cannot function without a symbiosis between them. The symbiosis is vital for society.

In this project, the symbiosis between rural and urban areas is studied in the light of ten elements. The elements are cross-sectional, but each of them includes unique perspectives. All elements share the same feature of active interaction between rural and urban areas.

This study emphasises that contrasting between rural and urban areas is not purposeful. They are dependent on each other, they benefit one another and they form an interlinked entity that thrives in close interaction, a symbiosis.

The project was carried out by WSP Finland Oy on behalf of the Central Union of Agricultural Producers and Forest Owners. The working group included Professor Jorma Mäntynen, Doctor of Science (Tech.) Jarkko Rantala and Masters of Science (Engineering) Riku Huhta and Riina Isola.

ELEMENTS OF THE SYMBIOSIS



1. HOUSING



The freedom to select a suitable mode of housing, free time and entrepreneurship is important in today's society. People can live flexibly in a rural or urban area according to their personal circumstances. People are free to spend a part of the year in a city and the rest of year in a rural area, or vice versa. The price of housing is increasing in urban areas and decreasing in rural areas, which can be seen in the polarisation of prices in the housing market. This also provides many people an opportunity to make their dreams of moving to a rural area come true. The demands for housing vary and change between locations.

POPULATIONS ACCORDING TO THE **URBAN-RURAL AREA** CLASSIFICATION

1,7 million 32 % Inner urban area

1,4 million 27% Outer urban area

> 0,6 million 11 % Peri-urban

0,3 million Local centres in

0.4 million

0,6 million

0,3 million

Rural areas are interesting

Living in a rural area is becoming increasingly popular. More than half of young people in Finland would prefer to live in a natural environment in a rural area and close to a city in the future.

Multi-locality is becoming more commonplace

People have more than one meaningful location in which they live alternately. Your home can be in an urban or rural area and, depending on the situation, you can work remotely in either location. Multi-locality is particularly apparent in the Finnish people's enthusiasm towards spending time in cabins in rural areas. There are more than 500,000 cabins, and their level of equipment improves every year. On the other hand, an increasing number of Finnish people own secondary residences in city centres that are used for weekend trips, for example. The popularisation of multi-locality increases the demand for people to be able to move and build dwelling units wherever they like.

Kuhmonen 2014. Turun yliopisto

Dynamic people change populations

It is very common to overestimate the populations of urban areas and, conversely, underestimate the populations of rural areas. In July, almost 450,000 people lived somewhere else than their home. 51% of Finland's surface area consists of seasonal areas.

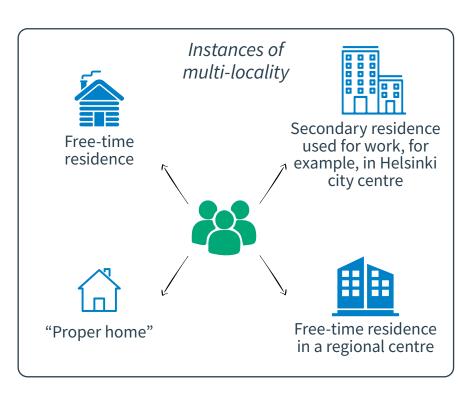
Remote work is increasingly popularThe popularity of remote work has risen many times over in

the 2000s. Approximately one fifth of employed people worked remotely on a regular basis in 2017. People who live in urban areas work remotely significantly more often than people who live in rural areas. Strategically important broadband connection and 5G investments will create even more ideal conditions for mobile work.

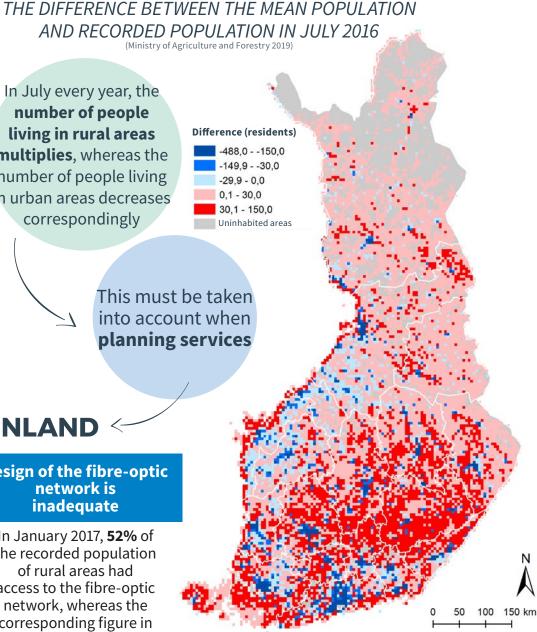
Pitkänen & Strandell 2018. SYKE



1. HOUSING







DYNAMIC POPULATION OF FINLAND

Urbanisation does not necessarily cause depopulation of rural areas

In 2005-2016, the seasonal population of sparsely populated rural areas has increased by 37%.

The population of rural heartland areas and sparsely populated rural areas in July is over 10 times more than the population in January.

Population statistics do not tell the whole truth of demographics

On a regional level, for example, there are approximately 32,000 more people in South Savo in July than there are permanent residents in the region.

Design of the fibre-optic network is inadequate

In January 2017, **52%** of the recorded population of rural areas had access to the fibre-optic network, whereas the corresponding figure in July was 26%.

2. ENERGY



The production of energy for urban areas relies on the raw materials of rural areas. Urban areas increase demand for raw materials and create jobs in the energy sector and, indirectly, in other sectors as well. Wind farms are located in rural areas. Forestry and the construction and maintenance of wind farms use private roads in rural areas. The decline in the use of peat to produce energy does not eliminate its critical role in the security of energy supply: in exceptional circumstances, its significance in maintaining supply to the critical sites in urban areas is remarkable. The use of biogas will increase significantly in the 2020s. In 2019, the number of gas cars in Finland doubled. The raw materials of rural areas have the primary potential for producing biogas, but the waste generated in urban areas also has potential.

The role of renewable energy will become more important

The goal is to increase the share of renewable energy in final energy consumption to more than 50% in the 2020s. According to the energy and climate strategy of Finland, the use of forest chips, wind power and biofuels in traffic should be increased significantly. The role of bioenergy will also become more important due to the European Union's commitments for 2030.

Finnish cities aim to become carbon neutral

Energy production is the most important part of this goal, which can only be achieved by using bio-based and other renewable sources of energy. The role of rural areas in making energy policies will become increasingly more important as the share of renewable sources of energy increases.

for example, the network of Carbon Neutral Municipalities (HINKU) 2020

Enabling local energy production

One of the purposes of the EU RED II directive that entered into force in 2018 is to promote local energy communities that consist of consumers or various communities that can produce electricity or fuels out of biogas, for example, for local use.

Net electricity imports Other Oil Peat 22 % 5 % Energy sources in Finland 8 % Coal 27 % 2018 **Wood fuels** Statistics Finland 2018 5 % Natural gas Wind power Nuclear Hydropower energy The carbon neutrality

goals of urban areas require the bio-based raw materials of rural areas

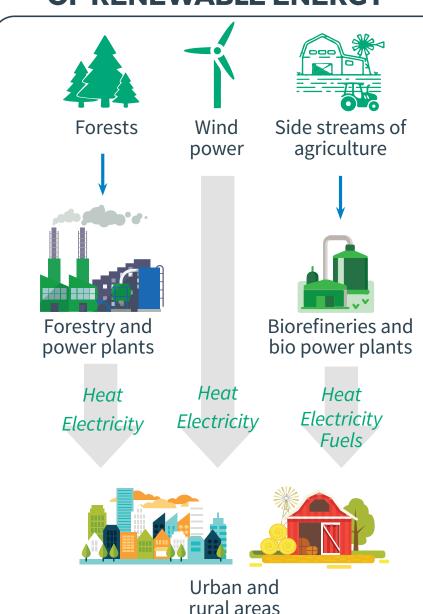
Demand for biofuels increasing

In order to achieve the climate goals of the transport sector, the share of biofuels must increase. According to the targets of the EU, the share of renewable sources of energy in road transport should be 14% by 2030. Finland has set national distribution obligation levels of 20% and 30% for 2020 and 2030, respectively. The demand for biofuels in other modes of traffic is also increasing, which will increase the consumption of bio-based products.

The Finnish Information Centre of Automobile Sector

2. ENERGY

AN EXAMPLE OF THE ORIGIN OF RENEWABLE ENERGY



TAMPEREEN SÄHKÖLAITOS

For example, the new furnace of the Naistenlahti power plant can be allocated to wood fuels only

DEMAND FROM URBAN AREAS

SUPPLY FROM RURAL AREAS



HEAT

The forests of Pirkanmaa provide heat to the urban areas



On average, 35 wood chip lorries visit the Naistenlahti power plant every day



Total consumption of wood energy more than one million cubic metres in the Pirkanmaa region

JOBS

More than 9,000 jobs in forestry in the Pirkanmaa region

3. FOOD



Food is produced in rural areas but primarily consumed in urban areas. In addition to primary production companies, two thirds of Finnish food companies are located in rural areas. The food industry provides approximately 34,000 jobs, and the industry's indirect effect on employment is significant. In Finland, there are approximately 1,800 companies in the food industry and approximately 1,000 local food companies.

Interest in locally produced food has increased lately. Safe and environmentally friendly food has had a positive effect on both producers and consumers. Short and local food supply chains are flexible and can anticipate the demand for products better. This helps decrease the amount of food waste and provides the producers with better profits.

Rural areas provide the residents of urban areas an opportunity to acquire their own food by foraging berries or mushrooms, fishing and hunting.

Luke 2019, MUA 2011, Puupponen 2009, Puupponen & Taipale 2008

Consumer-oriented approach

Consumers' demands for the quality and attributes of food are increasing. The food market is becoming increasingly polarised, which is why the demand for both expensive premium products and cheaper products is increasing. The Finnish food industry is attractive to consumers and, on a global scale, it is environmentally friendly, clean and animal-friendly.

Local food has become a part of daily life Organic and local food are evolving from trends to

Organic and local food are evolving from trends to permanent phenomena. Many consumers value locally produced food with a transparent production chain and short transport distances. This is apparent in the selections of grocery stores and restaurants.

Growth in food exports

The Finnish expertise in nutrition and the high hygienic quality of Finnish food products are valued all around the world. In 2018, the turnover of the food industry was more than EUR 11 billion. According to the preliminary data of 2019 exports reached a new high of EUR 1.75 billion. 13.7% in the first six months of 2019 compared with the corresponding figures in the year before. For example, China is a growing market for Finland.

ETL 2019

"THE FRENCH HAVE REALISED
THAT, IF THE RURAL AREAS
THRIVE, PARISIANS CAN EAT
WELL AND HEALTHY"

12551

6470

People employed in the food production and

sectors by region in 2018

Standard Industrial Classification

primary production

industry areas 01, 03, 10 and 11

Statistics Finland

- Head Chef Ari Ruoho, Restaurant Nokka



RESTAURANT NOKKA

The ingredients of the renowned seasonal meals served in Restaurant Nokka in Katajanokka, Helsinki are delivered to the restaurant from various small farms around Finland and the forests of Salla.



The Head Chef/Restaurant Owner, Ari Ruoho, hunts actively and is part of the supply chain of the game meat used by the restaurant.

Promotion of local food in public food service procurement processes, for example, increases employment in rural areas and enables high-quality restaurant activities that are attractive to international tourists in urban areas.

The supply of local food depends on the vitality of rural areas.



3. FOOD

SOUTH OSTROBOTHNIA FOOD PRODUCTION INDUSTRY

The agriculture-food product cluster is highly important. Well-functioning regional systems in rural areas quarantee the supply of food to urban areas.



Reindeer

Wild reindeer from Salla

Cheese

Peltolan

iuustola

Fava beans

Gobbas Gård

Restaurant Nokka

Mangalica pork

Kohonen

Farm

ORIGINS OF THE

RESTAURANT

Organic meat

Laidun Hereford

Fish

Piipanoja

Organic herbs

Ahlberg's garden

Organic vegetables

Svarfvars organic farm

Primary production in rural areas, deliveries to the food production facilities of the Seinäjoki region, including Atria and Valio

FOOD PRODUCTION INDUSTRY



Delivery of food products from the Seinäjoki region to the logistics centresaround Ring Road III



Delivery from the commercial logistics centresalong Ring Road III to nation-wide markets and grocery stores

4. WATER AND AIR



The quality of Finnish water and air is one of the highest in the world. On a daily basis, 155 litres of water is used per resident. Domestic water used in urban areas often originates from rural areas far away. In addition, the lakes, rivers and coastal areas of Finland are important in terms of recreation, such as swimming, boating and fishing. Most water treatment plants are located in large cities and localities. They serve the purpose of processing the wastewater of an urban area and the surrounding rural areas.

The air of rural areas is clean, which is very important in terms of tourism and recreation. The quality of air in urban areas varies a lot, which is why more attention is paid to the local emissions of traffic, for example. In order to combat climate change, the level of carbon dioxide emissions is controlled and the emissions are absorbed as well as possible. The land use sector, i.e. agriculture and forestry, controls the level of carbon binding. Looking after the soil's growth and carbon binding capability and revegetation compensate the emissions of the land use sector and other areas of society. The key factor is replacing fossil raw materials with renewable biomass that recycles its carbon emissions.

MTK 2019, Motiva 2019

Finnish emission offsetting is increasingly popular

Companies and private persons have started to offset the emissions caused by their activities. An increasingly varied range of offsetting services are available. These services allow the parties responsible for emissions to compensate for their emissions by investing in Finnish forests, wetlands and fields.

More than 60% of forest owners are interested in providing paid carbon binding services if there was an established market. An increasing portion of the 600,000 private forest owners in Finland live in urban areas.

Central Union of Agricultural Producers and Forest Owners 2019. Metsätutka survey, MHY 2019



IN 2017, THE SOIL AND TREES OF FINNISH FORESTS

> BOUND **27 MILLION TONNES OF CO2 EQUIVALENTS OF CARBON**

> > Ministry of Agriculture and Forestry 2019

Clean water and air as attractions

People who live in urban areas spend most of their time indoors. An important mode of recreation is to spend time in a natural environment and enjoying clean air. The rural areas surrounding urban areas provide an easy opportunity for this not far from home.

Most free-time residences are located close to water in rural areas. Going outdoors and nature tourism have become increasingly popular. Clean air and water are also attractive to international tourists.

PÄIJÄNNE WATER TUNNEL

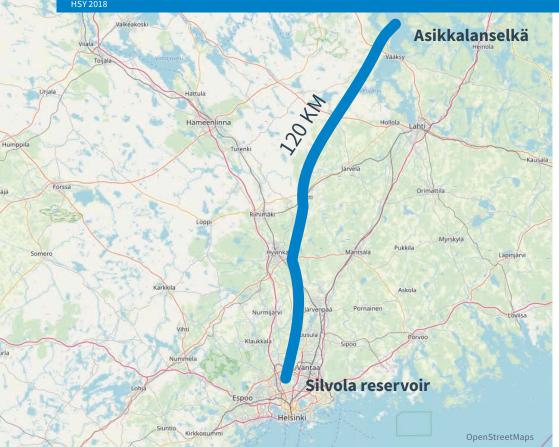


4. WATER AND AIR

- UNTREATED WATER OF THE HELSINKI METROPOLITAN AREA

The Päijänne water tunnel is used to deliver untreated water from Lake Päijänne to the Helsinki region. It provides more than one million people with adequate supply of clean untreated water.

The water enters the tunnel at the southern end of Lake Päijänne, in Asikkalanselkä. The end of the tunnel is at the Silvola reservoir, close to HSY's water treatment plant in Pitkäkoski. The quality of water in southern Lake Päijänne is near natural, and it provides a good example of the outcomes of decades-long water protection work. There's plenty of water in Päijänne as only one percent of the water flowing to the Kymijoki river is directed into the tunnel.





5. EMPLOYMENT



People commute between rural and urban areas. Eastern and Northern Finland are generally considered to be the areas of recreation and raw materials, but there are lots of jobs in these regions as well, for example, jobs in exports provided by industrial companies and jobs in the service industry.

The unemployment rate of sparsely populated rural areas is high, but, on the other hand, rural areas have a lot of employment potential. The share of foreign employees and seasonal workers is large in rural areas. People often commute to urban areas from adjacent rural areas. Conversely, experts, in particular, often commute to rural areas from urban areas (Pellervo Economic Research).

400 000

business locations in Finland



Urbanisation changes the structure of the workforceUrbanisation is caused by underlying factors. It is more efficient to arrange sustainable

Urbanisation is caused by underlying factors. It is more efficient to arrange sustainable services and modes of transportation in urban areas, for example. Urban areas also have large job markets and training opportunities. There is a shortage of workforce in rural areas due to the low supply of workforce and mismatches (Pellervo Economic Research 2019). The costs of living in city centres and the distances of commuting have increased due to urbanisation. As the distances between homes and workplaces grow, an increasing number of people work on a train or bus.

Urbanisation has already peaked in certain cities of Europe, such as Paris. Multi-locality, remote work and the need for natural environments may shape how urbanisation affects Finland. This, however, requires investing in the infrastructure of services in rural areas.

250 000

in urban areas

Statistics Finland 2019

150 000

in rural areas

Mobile and remote work have become increasingly popular

The popularity of remote work has risen many times over in the 2000s. Approximately one fifth of employed people worked remotely on a regular basis in 2017. Remote work is most popular among senior salaried employees. According to Haukkala (2011), people who live in urban areas work remotely significantly more often than people who live in rural areas. The conditions for mobile work improve constantly as the availability of public transport and telecommunication network connectivity improves.

Sutela ia Lehto 2014: TEM 2018

More extensive broadband and mobile networks

Valtioneuvos ja TEM

The goal of Finland's digital infrastructure strategy is to provide everyone with access to a high-speed broadband network connection. Fast 4G and 5G connections can also improve the conditions for remote work.

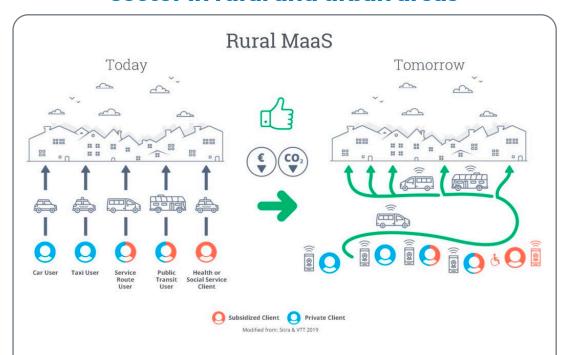
Finland is one of the poorest countries in Europe in terms of fast networking connections in rural areas. This needs to be improved quickly. There is not enough incentive for the market to establish these connections. Instead, public aid and a stricter universal service obligation are required. Good examples of ideal solutions include Internet hotels and remote work stations in tourist centres or community centres, for example.





5. EMPLOYMENT

Digital and crowd-sourced transport services have a revolutionary impact on the transport sector in rural and urban areas



New crowd-sourced service solutions can improve the transport services provided by municipalities by improving the attractiveness of the municipalities. Various transport services for urban and rural areas have already been developed and more are under development, and they may become closely interlinked in the future.

For example, the All Aboard service provides a solution based on the platform economy that combines public transport services with personal transport. It is not necessary to own a car in rural areas if transportation is arranged in a new way. Combining different modes of transportation saves time and money and reduces carbon dioxide emissions. Municipalities become more attractive, people's daily lives become easier and the sense of community often valued in rural areas improves.

SUBSIDISED COMMUTING

It is not always possible to move to another location in order to find a job, for instance, due to family life circumstances. People's spouses also need jobs or their elderly parents might require assistance. In order to make it more attractive to work in another location, social support is available in the form of deductible taxes of commuting expenses and, for people who work at least 100 km from their home, deductions for a secondary residence.

SHARED COMMUTING

Various commuting experiments have been conducted in rural areas in order to make daily commuting easier. For example, in 2017, the municipality of li, north of Oulu, arranged an express bus line between the municipality and Oulu. In North Savo, there is an ongoing experiment in which a commuter bus is operated on a route between Iisalmi and Vieremä.

The purpose of this experiment is to address the shortage of workforce for Vieremä's businesses in the metal industry. The experiment, due to end in 2021, is arranged by the City of Iisalmi, the municipality of Vieremä and the North Savo Centre for Economic Development, Transport and the Environment. According to the national public broadcasting company Yle, even devoted motorists have started using the bus.

6. LIFESTYLES



The awareness of the worrying state of the Earth and the environment currently has a very defining effect on the lifestyles of young generations. The rural way of life of previous generations has become attractive again. The rural way of life of the 1960s cannot and should not be fully followed. Instead, modern society and current operational models establish the framework of lifestyles. **More than one third of the people in Finland have a double identity**, i.e. they feel that they belong to urban and rural environments (Natural Resources Institute Finland). The change in the nature of work has a major impact on lifestyles. Work-life balance is easily disrupted, especially in expert positions, and work is less and less bound to a certain physical location, which enables the symbiosis of lifestyles.

In Finland, the level of material wealth is among the highest in the world, although unemployment and financial problems are major restrictive factors of a safe life for a part of the population. As the material needs of an individual are fulfilled, they begin to pay attention to mental wellbeing. In Finland, the structural changes in livelihoods, the long trend of migration from rural areas to urban areas and international trends shape what people consider to be wellbeing and determine their lifestyles.

Digital lifestyle depends on various factors

Ilonet Oy, owned by the municipality of Ilomantsi, has established an extensive broadband network to which all residents of the municipality can connect. Fibre-optic networks are investments in the future that make services even more online-based than before. Today, studying online and working remotely are also possible for people who live outside localities.

Ilonet.fi

Sustainable development is becoming more commonplace In addition to living an easy daily life, people aim

In addition to living an easy daily life, people aim to make their lifestyles more sustainable. Climate awareness and environmentally friendly activities are trending, which affects the consumers' behaviour and demands. People also act in a socially and culturally sustainable fashion. Minimising the environmental impact is trendy, which is apparent in the packaging and labelling of consumer goods and how companies act.

The mobility and location independence

of work allow for living a natural life

Mobile work and the retirements of baby boomers allow for spending longer periods of time in a rural or urban area. Approximately one fifth of employed people worked remotely on a regular basis in 2017. The revolution of work enables the existence of the double identity referred to in the introduction, which allows for people whose work involves processing of information to work close to a natural environment.

Pitkänen & Strandell 2018, SYKE



THE IDEAL HOME OF ONE THIRD OF THE FINNISH POPULATION

IS LOCATED IN A

RURAL AREA

Taloustutkimus 2016

23% prefer living close to a major city and 28% prefer living in a small city or a locality

Rural areas provide great environments for carbonneutral life and regional carbon binding models

Urban and natural lifestyles are integrated

Many people aim to combine the vibrant life of an urban environment and experiences of nature. Urban and rural lifestyles can vary alternately on a regular basis or over entire seasons. In 2014, 55% of the people of Finland wanted to live in a rural area close to an urban area. In such areas, nature is present and the services of an urban area are easily available.

Y

6. LIFESTYLES

France shows signs of changing trends

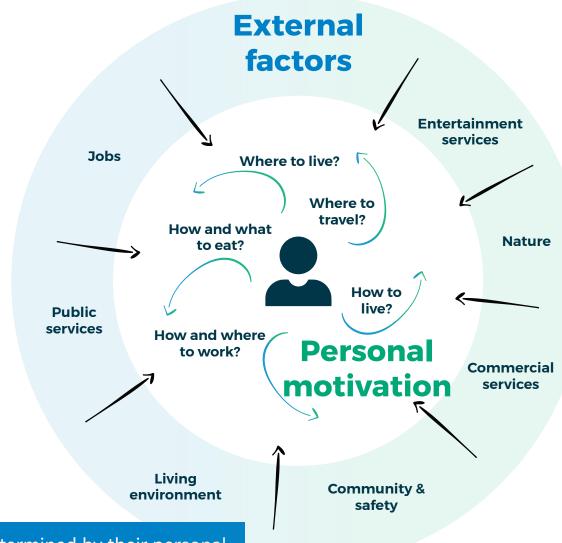
In Paris, France, the rate of urbanisation is slowing down, and more people are beginning to move out of the city.

- Between 2011 and 2016, 59,648 people moved out of Paris
- Typical profiles include young families and experts who are not motivated by money
- **88**% of the senior salaried employees in Paris aged 26–35 consider moving out of Paris
- **57**% of people living urban areas in France dream about moving closer to nature

Smaller locations are attractive to the residents and entrepreneurs of the Helsinki metropolitan area due to their better quality of life, nature, lower prices, larger homes, entrepreneurs' innovation, employment and financing services and welcome packages (a free "vacation" in the area, tasting local products, learning more about local companies, etc.)

INSTITUT D'ÉTUDES OPINION ET MARKETING EN FRANCE ET À L'INTERNATIONAL 2019 Cadremploi 2018

Insee 2018



People's lifestyles are determined by their personal motivation based on values and attitudes. Nevertheless, external factors based on national policies and regulations may have a restrictive or enabling effect on lifestyles.

7. RAW MATERIALS

Foreign trade is an important source of income and wellbeing for Finland. The majority of Finnish raw materials originate from forests, fields and mines. Nearly 70% of the raw materials of the exporting industry originate from rural areas, from which they are delivered to various processing facilities, and the final products are transported to exporting ports or the logistic centres of the domestic market. The exporting industry creates jobs in all phases of the supply chain, from the procurement of raw materials in rural areas to information work performed in urban areas.

The earnings of exporting the raw materials of rural areas benefit both people who live in urban areas and people who live in rural areas. Forest-based products are closely integrated into the daily lives of people who live in urban areas: they provide the heat in the radiators, fibre in their clothes, cellulose derivatives in their food products, parquet flooring for their homes and toilet paper. Everyone in Finland is constantly involved with forest-based products.

The food industry is heavily focused on the domestic market. The value of exported food products in 2018 was EUR 1.6 billion, and the share of exported products is increasing. The consumption of food products is naturally the highest in densely populated urban areas. The raw materials of rural areas are very beneficial to the residents of urban areas and, through exports, to the residents of both urban and rural areas.

The raw materials of rural areas enable the wellbeing of rural and urban areas

Bioeconomy is growing

Natural cycles are taken advantage of in the production of biogas, for example. Biogas is produced from the raw materials of agriculture and forestry and municipal waste. Finland has set a goal of 50,000 natural gas cars by 2030.

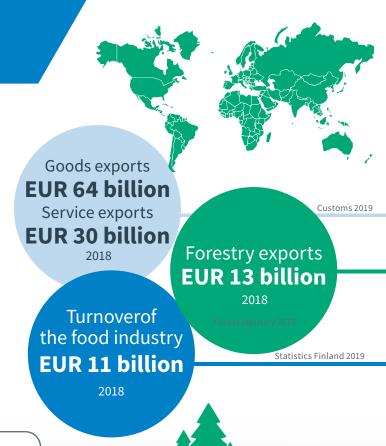
Circular economy transforms businesses radically

Raw materials will be and are already used efficiently and for extensive periods of time. This retains their value and minimises their environmental impact. For example, the plans of construction projects can include information on how the materials can be re-used.

Finland has a particular advantage in its ideal conditions for the bioeconomy and circular economy. In an economy, new raw materials are always required. In Finland, they can be produced sustainably from natural resources while investing in circular economy.

Electrification of road transport

An increasing number of electric vehicles are used in road transport, especially in urban areas, where the demand for such vehicles is the greatest. As a result of electrification, the demand for minerals used in making batteries increases, which requires more extensive use of natural resources. In Finland, this means an increasing demand for mining lithium oxide, for example.



There are 600,000 private forest owners in Finland, of which an increasing number live in urban areas

RENDS

7. RAW MATERIALS

NEW USES FOR FINNISH CELLULOSE



Kotkamills

Coffee cups. Customer companies include Lavazza, for example



Sulapac

Straws, packaging materials and hangers. Customer companies include Lumen and Berner, for example



Durable Ioncell fibre

Textile fibres derived from various raw materials, such as cotton and cardboard waste.

Kotkamills, Sulapac & Aalto-yliopisto 2019

ELECTRIC TRANSPORT



The materials for electric transport, such as the batteries of cars, busses and scooters, are acquired from around the world. In Finland, **Keliber mines lithium hydroxide from the soil in Kaustinen** for the purpose of making batteries for electric cars, for instance.

Keliher 2019



The raw materials of rural areas enable the electrification of road

Due to its range and lack of local emissions, electric transport is most attractive in urban areas, where it has grown the fastest.

Finland has set a goal of 250,000 registered fully electric or hybrid cars by 2030, and several cities are planning the use of electric buses.

LVM 2018

transport

The transport chain of forestry indicates that the entire transport system must be taken into account



8. CONSTRUCTION I



THE DEVELOPMENT OF PRICES OF HOMES IN 2015-2019 IN MAJOR URBAN AREAS

Helsinki

Kauniainen

-Es poo-

-Vantaa

Tampere

Turku

Rapid urbanisation has increased the demand for construction **projects in growth centres**. Construction projects require increasing amounts of materials that are delivered ever further away from the construction sites, primarily from rural areas. As the demand for construction materials increases, so does the significance of the raw materials of rural areas. Reusing the materials and prolonging their lifecycles is also becoming more commonplace. The demand from urban areas creates a need for construction projects in rural areas, including bio power plants, wind farms, logistics solutions and data centres.



Urbanisation supports the development of infrastructure and properties

As more people move to urban areas, the need to develop infrastructure and properties increases. Consequently, the demand for soils, mineral aggregates and timber increases. Major investments in public transport and street infrastructure are required in heavily populated and growing urban areas. Urbanisation also increases the volume of traffic between urban areas. and in order to ensure the sustainability of transport, investments in the rail network are required.

THE RESTRICTIONS OF BUILDING MAY BE MORE PERMISSIVE IN **RURAL AREAS, WHERE THE COSTS** OF LIVING MAY ALSO BE SMALLER

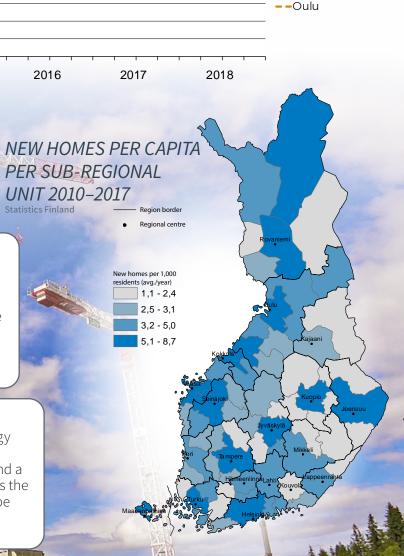
Timber building is becoming more popular

The popularity of timber building is growing in Finland. Nearly all free-time residences are made of timber and lately, timber has been used in the construction of blocks of flats to an increasing degree. Timber building contributes to combatting climate change as the timber binds carbon. When used as sawn timber, this carbon is not released to the atmosphere. At the end of the 2019, there were 87 blocks of flats of more than two storeys in Finland. Puuinfo 2019

New major energy projects

Carbon neutral and sustainable urban areas create a demand for new energy and data infrastructure projects in rural areas. Bio power plants that take advantage of agriculture and forestry are becoming more commonplace, and a total of nearly EUR 2 billion were invested in wind power in 2016 and 2017. As the profitability of wind farms improves, more investments in wind power can be expected to take place in the near future.

Finnish Wind Power Association





8. CONSTRUCTION

MATERIALS OF THE EARTHWORK PROJECTS OF THE CITY OF TAMPERE

Mineral aggregates for various property development and infrastructure projects are acquired from the rural areas of Pirkanmaa around the urban area. Circular economy is a growing trend in earthwork projects, but the increased use of recycled earthwork materials does not eliminate the demand for bedrock aggregates.

Estimate: 1-1.5 million tonnes

Use of crushed bedrock

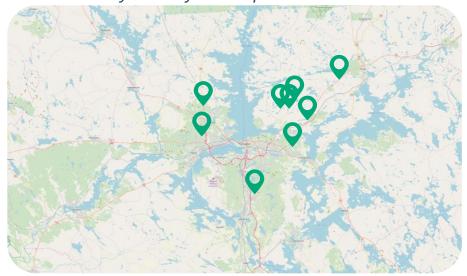
15-30 kilometres

Transport distances of bedrock aggregates

30-50 kilometres

Transport distances of gravel aggregates

Some of the aggregate collection sites used by the City of Tampere



• Aggregate collection site

TIMBER FROM RURAL AREAS-SUSTAINABLE CONSTRUCTION IN URBAN AREAS

Comfortable, healthy and breathing

Fireproof

Environmentally friendly

Timber is the best solution in terms of carbon binding. Carbon is bound to timber for a long period of time.

Carbon-neutral Helsinki 2035

Measure 88: The city supports timber building with its urban area development plan.

Measure 89: The city will increase the share of timber building in its own projects.

50 000 - 100 000 new jobs

by promoting timber building in different phases of the manufacturing process, especially in sparsely populated areas, where most of the sawmills and timber product industry facilities are located.

9. SERVICES



Services make it possible for people to live in both rural and urban areas. Rural areas and small municipal centres do not typically offer all types of services. Instead, some services are only available in the nearest urban area. This applies to both private and public services. Conversely, the dynamic population of areas with heavy tourism and lots of free-time residences increases the demand for a wider range of services than required by the permanent population of the area. Ageing population increases the demand for various health and care services, for example.

The structures of commerce are also changing. Online commerce has a revolutionary effect on the market, and the number of hypermarkets has most likely reached its peak. New stores aim to provide special products and to offer a pleasant customer experience by high-quality products and unique product ranges.

Online commerce introduces new opportunities

Online commerce is growing rapidly and more the share of food products sold in online stores is slowly increasing. The share of online commerce in the trade of goods is already significant. Online commerce provides entrepreneurs in rural areas with access to large markets. The development of various local services and extension of networks are becoming more popular than making deliveries directly to the end customer.

Markets as the foundations of service centres

The service structure of conventional local grocery stores has changed due to the effect of online commerce. An increasing number of stores provide a parcel pick-up service. The trend is to establish multi-service centres that provide a wider range of services near local grocery stores that may benefit from centralisation of services.

THE AVAILABILITY

OF SCHOOLS

AND DAILY

SERVICES

MAKES IT POSSIBLE

TO MOVE

TO RURAL AREAS

Typical services available in nearby urban areas

- » Hospital services
- » Special product stores
- » Cultural services
- Sports and fitness services, for example, public swimming pools and ice rinks

Remote health care services make daily life easier

Health care services have also become more online-based than before. Secure connections allow for nurses and physicians to perform examinations through a live video feed instead of physical examinations. Several medical clinics already offer such a service, and in the future, people in rural areas can also be diagnosed remotely in various health kiosks by a physician or nurse located in an urban area.

Digitalisation of services

The digitalisation of services is already well under way in Finland, on both national and municipal levels. In 2019, the Government allocated EUR 30 million to the digitalisation of municipalities, and the corresponding figure in 2020 is EUR 40 million. For example, the digital services of Kela and Posti are already very advanced, but the services of specialised health care, for example, still need development.

Kuntalehti 2019





CASE MÄNTYHARJU

The level of equipment of the cabins in Mäntyharju has improved, and an increasing number of them can be inhabited in the winter.

9. SERVICES

- The typical mode of travelling to a cabin is by car, but the municipality has been advertised as a free-time residence location for households in the Helsinki metropolitan area without a car.
- Vacant residences are available in the centre of the municipality, easily accessible by
- Older couples who want to spend their holidays in Mäntyharju have also purchased free-time residences in the centre instead of travelling to remote cabins due to health issues.

6000 permanent residents

18 000 population in summer

200 km

from Helsinki

5000 cabins

4 people/cabin

average

The second highest

ratio of free-time residences and permanent residences in Finland

70% of cabin-goers from outside the municipality

"Cabin-goers appreciate the slow rhythm of Mäntyharju that supports mental wellbeing."

Services

- Three convenience stores
- Lots of consumer goods stores per capita
- Alko, three gyms and two hardware stores
- Cinema Kino and free-time equipment available in the library

Tourism

- » Mäntyharju's tourism is largely based on culture and physical activities
- Key attractions include Repovesi National Park and Art Centre Salmela
- The first padel court in Eastern Finland is located in the municipality

Thanks to the number of free-time residents, the municipality has been able to maintain a good provision of services although the permanent population has decreased



10. TOURISM 9

Urban and rural areas together make Finland an attractive destination to both domestic and international tourists. Urban areas provide tourists with services and culture, but the majority of international tourists see Finland as a destination with clean and calm nature. Natural and urban environments support each other. The exceptionally extensive everyman's rights in Finland make it possible for everyone to enjoy nature.

Urban areas are gateways of international tourism from which tourists can be directed to rural areas by well-functioning travel chains. In addition to tourists, the travel chains are useful to local residents and commuters.

Offsetting the emissions of tourism

The emissions caused by tourism are typically due to flying and consuming energy at the destination. Offsetting this carbon footprint is becoming more commonplace. Many flight companies provide an offset service. Offsetting is performed concretely in rural areas through afforestation, for example.

Long journeys are also avoided. Domestic tourism and travelling in local areas while enjoying locally produced goods are preferred.

Nature tourism is trending

The Finnish nature and its recreational use are the most important tourist attractions. Natural tourism in forests and near bodies of water and unique experiences are behind the popularity of tourism in Lapland, for example. In the international market, the themes with the largest potential include hiking, biking, mountain biking, canoeing and wildlife.

Business Finland

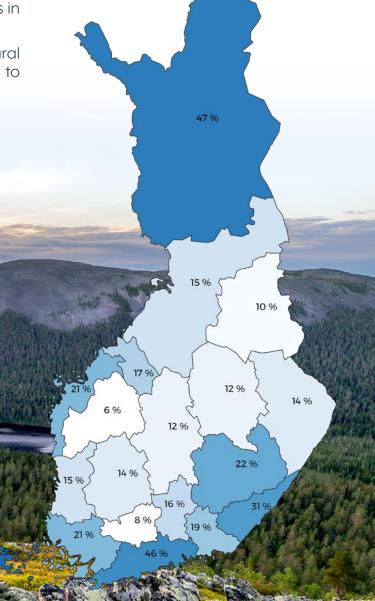
New types of luxury change tourism

The perception of luxury has changed from gold, glitter and caviar, i.e. explicit luxury, to unique services, high-quality sharing economy, conscious consumerism, personalised wellbeing and memorable experiences.

Authenticity and local identity are the most important aspects Finnish rural and urban areas have to offer.

Pucinocc Einland

Share of foreign people who used accommodation services in 2019



10. TOURISM

SIX TARGET TOURIST GROUPS OF VISIT FINLAND







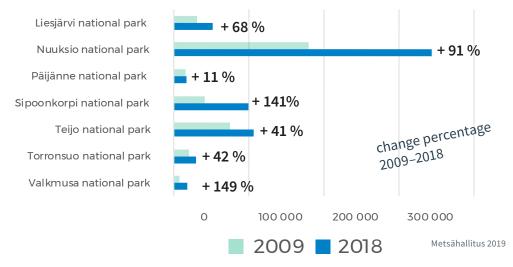


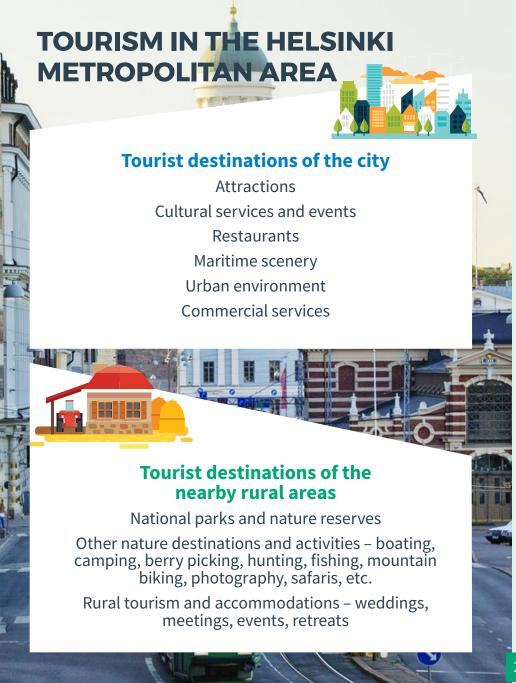




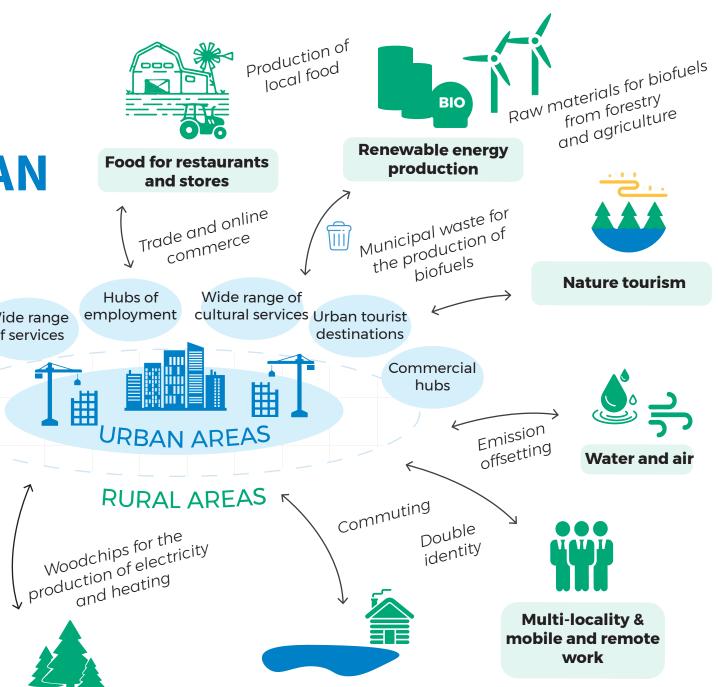
Business Finland 2019

Change in the number of visitors in national parks within a two-hour drive from Helsinki in 2009–2018





SYMBIOSIS BETWEEN RURAL & URBAN AREAS



Main grid substations and distribution network

Soils and mineral aggre-

gates for buildings and

infrastructure

Raw materials for timber building

Demand for

supplies of

rural areas

Recreational use of forests

Wide range

of services

Wood-based products for exports

Secondary and free-time residences

ENERGY AND NUTRITION AT THE HEART OF THE SYMBIOSIS

The role of rural areas in the production of energy and nutrition becomes more important

Urbanisation increases demand

Renewable energy and local food are growing trends

CHANGING LIFESTYLES

High quality of life and experiences increasingly important

Double identity of Finnish people: urban and rural identity

Natural values and recreation are important in daily life and tourism

DEMAND FOR RAW MATERIALS IS CONSTANT

Exports increase the vitality of Finland

Demand for raw materials in industry and construction is constant – usage methods are becoming more diverse

Forests are significant in various ways: energy, ownership, exports, timber building, new methods of using timber and recreational use





