

BUSINESS INDEX NORTH



Photo: Arctic Warriors

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...MANY WAYS TO SUCCESS

INTRODUCTION 4SUCCESSFUL ARCTIC BUSINESSES:
A MAP OVERVIEW 6FINDINGS 9BRANDS FROM THE ARCTIC:
WHAT KIND OF VALUES ARE COMMUNICATED? 11MEET ARCTIC ENTREPRENEURS 14WHAT IS ARCTIC COMPETITIVE ADVANTAGE? 16WHAT KIND OF CLUSTERS ARE
DEVELOPED IN THE ARCTIC? 23SUMMARY AND IMPLICATIONS 26SUCCESSFUL ARCTIC BUSINESSES:
ADDITIONAL INFORMATION 28



Photo: Valery Vasilevsky

INTRODUCTION

The Arctic is often described in terms of its locational properties of extreme climate, unique natural phenomena, snow, ice, permafrost, culture, distances between people, poor transportation system and constraints to on starting, operating, - and maintaining a business. These conditions foster a unique interplay between people, technology, nature, market, and ways of doing business. The most obvious business opportunity in the Arctic is normally associated with extraction industries of resources such as wood, the mining industry, the oil and gas industry, and the food industry (i.e., fishing), and also tourism. Yet this project is a first attempt to question the established connotations of business in the Arctic in Norway, Sweden, Finland, and Russia. The project team identified companies that are not only successful with regard to traditional profitability metrics but are known to the public as successful companies with a sustained competitive advantage. These companies have a unique set of resources, identity, culture, brand name, market, and clustering with other companies. We started with an inventory of a large set of companies followed by background information and subsequently visiting and conducting 63 interviews with leading companies from each country. A revised image of business in the Arctic in Norway, Sweden, Finland and Russia is starting to appear.

The most obvious picture of resource extractive industries is still valid but complemented with an entirely new set of growing companies. Our project shows that the region is attractive in many other ways. Cold climate, (silence), abundance of space in combination create a multi-billion-dollar industry in which products can be tested (e.g., car and

winter testing) and storage of data in data centers. There are high-tech industrial environments and environmentally friendly manufacturing industries, as well as unique opportunities for tourism. Furthermore, our inventory shows that the Arctic brand and values added in products originate from Arctic conditions. Many of the entrepreneurs are aware of it and tend to promote Arctic values in their products and services. We report explicit examples of how Arctic values, culture, and identity are used in the food, construction, tourism industries, as well in professional services. We also noted throughout the project that many stakeholders tend to lack a comprehensive overview of the entrepreneurial activities in Arctic and ignore the fact that these companies originate from this region. This report is therefore an attempt to stimulate more research in this area and to make way for a revised image of the region.

Based on the firsthand information, at the conceptual level we define arctic business as a modern phenomenon with specific features in four perspectives: motivation, competitive advantage, branding, and clustering. Motivation is about the rationale for starting up and operating a business venture with a base in the north. In the competitive advantage perspective we look at how businesses are sustained and how their core capabilities add value. The branding perspective shows how Arctic- based businesses present themselves and communicate their values. Finally, the clustering perspective is about ways of cooperating and building collaborative business environments in the North. It turned out that, despite differences between countries and industries, the successful companies in the European Arctic have commonalities much in common with these four perspectives.

Key findings about new generation of Arctic businesses:

MOTIVATION to operate from the North is associated with strong identity with place, nature, local culture, and life style, access to unique local natural resources or settings, as well as the origins of the business owners.

COMPETITIVE ADVANTAGE is achieved through long-term relationships and competence building, organic growth, focus on quality, embeddedness in local networks, and paying attention to people.

BRANDING often builds upon the values and lifestyle of the North / Arctic in terms of words (brand names), images, and meanings. There are also big brands building upon universally accepted value concepts.

COOPERATION VIA CLUSTERS builds upon modern concepts of circular economy, technological leadership, integrated supply and value chains, commercialization of knowledge, and capitalizes on unique nature-geographic-climatic settings. The clusters are based on local communities of people and businesses closely related to each other in terms of culture, identity, and geographical proximity.

The remainder of this report is structured as follows. In the next section we present an overview and map of the business cases studied with a short description of the study method. In the four subsequent sections we present in more detail our findings about the companies’ motivation, brands, competitive advantage, and cooperation through clusters. The section summary and implications concludes the report. In the report we also include a separate spread “meet the Arctic entrepreneur” providing several shining examples of successful businesses and their founders. Certainly, many more great examples could be presented. These examples should be regarded as just an illustration. More detailed information on all the business cases studied can be found in the attachment at the end of the main report.

SUCCESSFUL ARCTIC
BUSINESSES:
SELECTED CASE COMPANIES





The map in pages 6–7 presents only the business cases we have studied. Of course, this is only one of the first steps in this direction and more successful Arctic businesses can be identified, studied, and added to the map. A more complete map, also its online version may be produced in the future.

Our way of grouping businesses by type is fairly general and used only for purposes of visual overview.

Below in the report, more detailed attention is paid to the companies as they are grouped by the four perspectives (motivation, branding, competitive advantage, clustering). Within each perspective there are sub-themes or categories specifying the core common features of the companies.

Methods summary

- 63 BUSINESS CASES in the North of:
- Norway (13)
 - Sweden (20)
 - Finland (17)
 - Russia (13)
- Types of businesses studied
- High-tech, bio-medical or ICT solutions and products
 - Industrial and professional services
 - Culture, sport, tourist, and recreational experiences
 - Manufacturing and services
 - Producers of food and drinks
 - Renewable energy and waste management
 - Cluster organizations

- Inquiry:
- Visits and face-to-face interviews
 - Telephone interviews
 - Photos of businesses
 - Collection of visuals (e.g. photos, logotypes)

- Topics:
- Motivation to operate from the North
 - Ways to maintain competitive advantage
 - Communicating values through branding
 - Cooperation via clusters

FINDINGS

WHAT IS THE MOTIVATION
TO START AND OPERATE A BUSINESS
WITH A BASE IN THE NORTH?

We found that the rationale among our companies for starting up and operating business in the north falls into four major categories: Identity, Resource, Location, Origin. These categories emerge from content analyses of interviews. Below we present some illustrative quotes.¹ We also present examples of Arctic entrepreneurs throughout the section.

Many businesses IDENTIFY STRONGLY with place, natural environment, local culture and lifestyle, sense of belonging. These are embedded in the way of doing business:

- The Arctic perception is in our DNA and reflects the way we communicate and build relationships (Vinter, Sweden)*
- We cannot operate from elsewhere, our products, the way we produce and our entire image originate from here (Jokkmokks korv, Sweden)*
- This is our home; we have no way out just to work hard! ... unique northern nature attracts tourists, but remoteness makes services more expensive (Visit Murmansk, Russia)*

¹ More examples can be found, all cases studied can be grouped under these four categories. Belonging to one category does not exclude the possibility of belonging to others.

- We would like to create a producer center in connection with the North Character festival for attracting cinema producers, making new films in the North and presenting them to Northern audiences (Northern Character, Russia)*
- The North is my native land. In addition, it is an industrial region, which corresponds to our company's type of activity (Industrial Safety Systems, Russia)*
- We are northerners; it is because we live where we live... There was no other alternative for us (Momek Services, Norway)*
- To be here in Northern Norway is really important. The goal of our firm is to spread optimism about the sea, the coast and the people (SALT, Norway)*
- Another reason for establishing and operating businesses is access to unique local natural RESOURCES:
- Our product is based on a local resource (roe of the small salmonid fish species vendace), developed into a unique brand name (Kalix löjrom), which is processed by a technique handed down from generation to generation (Bröderna Stålar, Sweden)*
- We produce drinks and the natural purity and cleanliness are very important and the materials we use come from the north (Tornio Brewery, Finland)*



Photo: OuluHealth/BusinessOulu

Why are we here in the north? Because it all started in the north. We depend on the raw materials here (Biotech North, Norway)

The role of LOCATION is very strong as many businesses operate in settings where the natural environment, climate, geography and industry are unique:

A combination of a unique infrastructure, climate, and our peripheral location offer a unique set-up for car testing (ArcticFalls, Sweden)

Oulu has been a good place to build a high-tech company. The competence of the workforce is very good and it is a good place to hire new talent and to do R&D work (Optomed, Finland)

Arctic conditions are our biggest attraction. They are related to our natural wonders such as winter, snow, icy conditions, northern lights and midnight sun (Tourism / House of Lapland, Finland)

The company is the legal successor to the Murmansk Fish Processing Plant and the Medical Cod-liver Oil Plant. Our location has historically influenced specialization of our business (Biokontur, Russia)

Our advantage is snow, red king crab, a location close to Finland, where we recruit many people. Also, many Asian tourists arrive in Scandinavia via Finland (Kirkenes Snow Hotel, Norway)

A lot of successful businesses were started in the Arctic because their owners (entrepreneurs) have originally lived and worked in the region. They have universal business concepts which in principle could work anywhere. In these

cases, motivation to start and develop businesses in the North is associated with the ORIGIN of the entrepreneur and their personal decisions to live in and work from the North:

Our concept is general and we can operate from anywhere in the world but our mindset originated from this region (Leos Lekland, Sweden)

The only reason we operate from this region is the growing market and the fact that we come from this region (ElTrio, Sweden)

We find no reason to do press releases about our new products from Stockholm. We operate on a global market and London is then a better place (TreeHotel, Sweden)

Sometimes it is difficult to describe some Arctic entrepreneurs in terms of geographical or market conditions peculiar to the region. For example, during an interview with Rapunzel we observed far more general motivations. Rapunzel perceived a global need for hairpieces and hair products.

Motivation section SUMMARY

Reason for starting up and operating a business based in the north

- Strong **identity** with place, nature, local culture and lifestyle
- Access to unique local nature **resources**
- **Location** in the unique natural, climatic-geographic, or industrial setting
- **Origin** of business owners

BRANDS FROM THE ARCTIC: WHAT KIND OF VALUES ARE COMMUNICATED?

In general, we observed that innovative Arctic businesses have a strong sense of belonging to their region. It seems that such a sense of belonging, together with access to unique resources, is a source of inspiration for the companies. They are proud of being located in the North. This is also reflected in terms of communicating values through branding, as we show in this section.

We found quite many brands making a strong reference to the Arctic and North. The words “Arctic” and “North”, or related terms (e.g. “Polar”, “Snow”, “Winter”), appear in the brand names. Often the brands include local place names or product types. The owners of all these brands attach a lot of meaning to the brand names. The meaning is associated with local values, place, identity and lifestyle. Another type of brands are those with a universal value concept. Such brands are not directly associated with the Arctic/North. They are designed for global markets or general purposes but developed by local entrepreneurs from the Northern regions. Some examples of the brands follow next.

BRANDS WITH STRONG REFERENCE TO THE “ARCTIC”, “NORTH” OR LOCAL PLACES

| Brand | Core business | Communicated Arctic related value | Country |
|------------------------|--|--|---------|
| Arctic Warriors | Natural superfoods manufacturing | Unique natural resources to add value to food products | Finland |
| SKIOT | Skiing performance measurement and analysis device | Proximity to testing facilities, expert knowledge of skiing as core resource | Finland |
| Tornio Brewery | An artisan brewery | Pure and clean materials that originate in the North | Finland |
| Arctic race of Norway | Annual bicycle race held in Northern Norway | Unique geographic-climatic area to add value to a sporting activity | Norway |
| Arctic zymes | Recombinant enzymes from cold water marine species | Unique nature condition or resource to add value to zymes products | Norway |
| Kirknes Snow Hotel | Tourist experiences and recreation | Unique natural resource and setting to add value to tourism activities | Norway |
| Nordland Musikkfestuke | Annual music festival | Local culture, lifestyle, and nature/ geographic setting to add value to cultural activities | Norway |
| Biokontur fish oil | Fish oil and OMEGA 3 based dietary supplements | Unique natural resource made into dietary product | Russia |
| Northern Character | International Film Festival | Local culture, life style, and nature to add value to cultural activity | Russia |
| Sami village SAM-SYYT | Tourist experiences and recreation | Local culture, lifestyle, and nature to add value to tourist activities | Russia |
| Jokkmokks korv | High quality food manufacturing | Local values, culture and lifestyle to add value to food products | Sweden |

BRANDS WITH STRONG REFERENCE TO THE “ARCTIC”, “NORTH” OR LOCAL PLACES

| Brand | Core business | Communicated Arctic related value | Country |
|----------------------------------|--|---|---------|
| Kalix l jrom Br derna St larm | Fishery and caviar production | Unique natural resource and lifestyle to add value to food product | Sweden |
| Vinter | Integrated communications agency and consultancy | Unique values, lifestyle, cultural properties to add value to consultancy services | Sweden |
| Polarbr d | Bread bakery | Local values, culture and lifestyle to add value to food products | Sweden |
| Arctic bath | Tourist and recreational experiences | Unique natural resources and cultural-historical setting to add value to tourism activities | Sweden |
| Skellefte  Kraft | Electric power production | Unique natural resources and setting to add quality to energy | Sweden |

BRANDS FROM THE ARCTIC WITH UNIVERSAL VALUE CONCEPT

| Brand | Core business | Country |
|----------------------------------|---|---------|
| Leos Lekland | Indoor fun park | Sweden |
| TreeHotel | Tourist experiences and recreation | Sweden |
| Max Hamburger | Burger restaurant chain | Sweden |
| 9Solutions | Health care security and communication systems | Finland |
| Bioactive Bone Substitutes (BBS) | Bioactive bone-graft substituteimplants | Finland |
| Cmicro | Measuring device for the temperature of food or drink prepared in a microwave | Finland |
| Kipuwx | Health and pain measurement device | Finland |
| Optomed | Eye disease screening device | Finland |
| ProWellness | IT solutions for the prevention and care of chronic diseases | Finland |
| Rapunzel | Hair extensions for retail customers | Sweden |



Photo: Lapland Material Bank, Jaana Severidt

All in all, the brands presented contribute to the positive image of the Arctic as a region of innovative and successful businesses. Reference to local places and product types in brand names certainly adds a new dimension to the Arctic identity. Thus, the Arctic region can be perceived not only as a unique natural environment and climatic area or as area for the extraction of natural resources, but as a place full of locally developed and branded products and services.

Branding appears a strong way of communicating values and opportunities in the Arctic. Based on the reviewed examples, we can summarize that following values associated with the Arctic are communicated through branding: PURITY, QUALITY, UNIQUENESS OF THE NATURAL CONDITIONS, TECHNOLOGICAL EXCELLENCE.

Section summary - Brands from the Arctic

- **Brands with a strong reference to the Arctic** - Arctic, North or other closely related words appear in brand names; evocative meanings associated with the Arctic or local values, places and lifestyle are communicated as value added.
- **Brands with a universal value concept** - brands not directly associated with the Arctic/ North and designed for global markets or general purposes.
- **Arctic values communicated:** Purity, quality, uniqueness of the natural environment, technological excellence

MEET ARCTIC ENTREPRENEURS²



Oleg Terebenin is a Murmansk-based entrepreneur, founder and director of several travel companies. One of the most successful is "Visit Murmansk", which provides a wide range of services for tourists coming to Murmansk mostly from Russia and Asia. Oleg Terebenin is the first and only entrepreneur in the region to offer Igloo-houses for Northern lights viewing; he uses special software for forecasting Northern lights occurrences. He emphasizes the prominent role of origin and location saying that "The North is our home, where we have no way out just to work hard".



Kent Lindvall and **Britta Jonsson-Lindvall** developed the entire brand Treehotel by combining natural attributes with architecture and are now about to extend and launch a new concept also including culture.

Treehotel offers a unique hotel experience: rooms on the trees with contemporary design in the middle of unspoiled nature.

Kent and Britta have built a life together, a working place, an international metropolis, in the trees, in their little home village. With both feet on the ground, they have bloomed where they were planted, their high flying treetop dreams have become a reality and are continuing to expand by the day.



Kjersti Eline Tønnessen (Ph.D. in Aquaculture) and **Kriss Rokkan Iversen** (Ph.D. in marine system ecology) founded SALT - an independent consultancy and research company with expertise on and for the coast and sea. Kjersti and Kriss were students together, and agreed that they would use their educational backgrounds to contribute to coastal development – at the place where the resources and value creation actually took place. The entrepreneurs claim that to be in Northern Norway is really important, and the goal of their firm is to spread optimism for the sea, the coast and the people.

Photo: Astrid Waller



Jonny Stålmarm, who represents a small fishery summarize his entrepreneurial activity with a unique resource (fish roe) combined with a way to harvest roe and to brand the product with a specific name - Kalix löjrom or Caviar of Kalix).

The fishing starts in the second half of September and ends five weeks later. The cold brackish waters of the Bothnian Bay where the sea meets great rivers makes the water high on minerals.

Photo from www.sverigeferie.se: Stålmarm brothers fishing in Bothnian bay.



Marko Höynälä is an entrepreneur who has established three firms using Internet of Things (IoT) at the core of its main products. "Cmicro is a patented IoT device that measures the temperature of food or drink prepared in a microwave and has global market appeal. SklloT is an IoT device worn on a skier's ankle that measures skiing performance and the surrounding conditions. The device, according to Marko was developed based on his personal interest in skiing, later working with top athletes and combining high tech innovation. A product called Kipu-wex was developed to measure pain providing preventive pain alarms even when the patient is unable to express him/herself (e.g. infants, anaesthesia patients, disabled and elderly).

Photo: Juho Karjalainen, Kuume Productions



Konstantin Rubanovsky is the owner and founder of various companies in the Murmansk Region of Russia, where one of the most successful is "Kola Krai". Kola Krai is a dynamically developing company engaged in harvesting northern wild and cultivated berries with customers within and beyond the region. Konstantin claims that the berry from the Kola Peninsula is valued for its rich vitamins and minerals all over the world. This allows Kola Krai to cooperate with such world-famous companies as Valio, Bama and many other Scandinavian and European companies.

²This presentation material is based on interviews with the entrepreneurs or official information on their web sites.

WHAT IS ARCTIC COMPETITIVE ADVANTAGE?

Photo: Treehotel

At some stage some companies grow to an extent that their likelihood of sustaining substantially change to the better – they become established companies with clear competitive advantage. What constitutes their core capabilities to add value? How do such companies in the Arctic ensure economic sustainability and stay competitive? Having analyzed our case companies, we identified several commonalities about the sources of their competitive advantage. In this section we present these main sources and support our arguments by examples - self-reported qualities of the companies.

ENVIRONMENTAL EXPERTISE AND HIGH-QUALITY MANUFACTURING

Harsh climatic conditions as well as specific natural conditions, industry and the topography of the Arctic serve as an enabler to develop high level technical expertise and high-quality manufacturing products. While low-quality mass production can be a source of competitive advantage for other places, it is the opposite for the Arctic. What is developed and manufactured here is of high quality and can be used everywhere in the world. Below are several examples.

Industrial Safety Systems LLC is a Murmansk-based company offering professional services in the field of environmental design and oil spill warnings since 2007. The uniqueness of the company is its female personnel with high-level technical expertise. The company managed to expand its business to other regions (St. Petersburg, cooperation with the Norwegian coastal administration). Due to early market entry the company gained experience and qualified specialists who are even called on to serve as experts by Rosprirodnadzor (the Russian nature safety authority). A team composed of women is an advantage as they have such properties as competence, patience, a common language in achieving defined aims. These properties are highly appreciated by the man-dominated customer industry (oil).

Yet ideas for companies also come to fruition thanks to natural conditions. Mikael Kyrk and **Swevind** started measuring wind at the beginning of 2002. They found that cold wind is heavier (i.e., higher density), the wind is relatively stable and there are few conflict zones between different interests. These conditions allowed them to plan service provision for wind energy parks. So far they have had three projects in the largest wind energy park in Europe. Mikael

Kyrk describes the process as extremely long-term oriented including numerous challenging administrative tasks. As most of the Swedish wind energy parks are expected to be land based and 90-95% are in the Arctic, Mikael sees a promising market to operate from in the Arctic.

A North Norway based company, **Nofir**, was founded in 2008 with the purpose of establishing a nationwide system for collecting discarded equipment in Norway. A total of 15 000 tons of plastic equipment from the fishing and fish farming industry is discarded each year in Norway alone. In 2012 Nofir was granted support from the European Union through the Eco Innovation scheme. Since then the company has collected material all over Europe through its branches in Norway, Lithuania, Turkey, and Poland. Director of the company, Øistein Aleksandersen, believes that their competitive advantages are strong owners (which gives secure access to capital and raw material resources) and a package of licenses and permits which are difficult to get in the waste management industry.

Stefan Johansson in **Älvsbyhus** refers to a critical era when they overcame the difficulties in the 90s. This is also the period and the starting point to refine the product and the segments they targeted. Yet Stefan argues that their

prefabricated houses are affordable to a large proportion of the market and their standards based on cold climate promise quality in other (warmer) climatic conditions. However, Stefan claims that the access to raw material and established relationships with relatively few suppliers support their business idea. Stefan Lindbäck, CEO of **Lindbäcks bygg**, represents a similar idea but targets the commercial buildings market. Their set-up for manufacturing commercial buildings allows them to cut costs and ensure that quality is met. Stefan Lindbäck also says that human capital is important to maintain quality and that is achieved in the Arctic at a lower cost.

Havator is an established Arctic company, founded in Tornio. The company supplies lifting, special transportation and heavy haulage services in over 30 locations in the Nordic countries. It offers specialized services that are essential for construction projects in the north. Investing heavily in safety, having a long tradition, Havator is expecting growth in the business due to growing metal, mining and construction industries in the north.

TECHNOLOGICAL LEADERSHIP

There are quite a lot of high technology firms originating in the Arctic addressing global challenges. The technological leadership of these companies is a result of a long-term focus on R&D and innovation.

Population ageing is at the heart of the **9Solutions** firm that provides solutions for personnel security, nurse calls, home access management and locating for both hospitals and care homes. Originally established in Oulu, 9Solutions relies on the region's long traditions in innovations and wireless communications and appreciates the availability of skilled workforce in the region.

Population aging creates a need for medical solutions in bone replacement too. These are offered by **Bioactive Bone Substitutes (BBS)**. BBS develops, designs, and manufactures innovative bioactive bone-graft substitute implants that required over 20 years of research and are protected by five global patent families. BBS was established in 2003 as a spinoff of a research project at the University of Oulu, Finland. In relation to Arctic resources, the implant is based on reindeer bone proteins, which contain effective bone growth factors for the bone-graft markets.

ProWellness, a provider of IT solutions for the prevention and treatment of chronic diseases (e.g. diabetes, cardiovascular diseases), cooperates closely with Oulu University Hospital (OYS) and OuluHealth (an internationally recognized health ecosystem), BusinessOulu and private actors that all work closely together in the region. Mika Sipilä, CEO of ProWellness, comments on the firm's vision of clinics for chronic conditions and entering such markets as China and the Middle East.

Seppo Kopsala is CEO of **Optomed**, a company that specializes in retinal imaging devices and with a mission is to make eye disease screenings available for everyone, wherever needed. Seppo says that product development required basic research and R&D to the tune of three million euros. He comments that Oulu is a good place to establish a high-tech company, with great expertise available it is easy to hire new talent and engineers.

Brokk Robotics in Northern Sweden is a unique and advanced technology-oriented manufacturing company that provides small robotics for the construction and manufacturing industries. Brokk is not only the global market leader in demolition robot sales, but also in R&D and innovation.

KNL Networks has developed a satellite independent method for maritime industry connectivity providing networks accessible in every corner of the world where ships are sailing - including both the Arctic and Antarctic regions. The founders complimented the innovation ecosystem in Oulu and the benefits of a supply of competent employees released from Nokia. The firm profits from being connected to the networks of other companies and subcontractors in Oulu. IoT and digitalization are the main drivers for the firm development. In the future more and more cargo will be shipped through the North-West Passage, where KNL Network technology is needed.



ARCTIC EXPERIENCE

Being located in the Arctic close to unique resources is not enough to be regarded as a source for competitive advantage. The advantage comes from what you do with the resource and what kind of experiences are associated with it. There are good examples of innovative companies and entrepreneurs which create Arctic experiences with help of modern technologies (architecture, digital technology) through reference to natural, cultural and historical context.

Unique Arctic hotels

Snowhotel Kirkenes, Norway opened for the first time in 2006 with eight rooms, and a small ice-pub and a reindeer. Since then they have grown towards the snowy clouds and are now one of the most famous igloo hotels in Norway, and in the world. The idea was to create something unique and natural. That's why the hotel is built completely of snow and ice, and each spring melts back into the fjord. It offers unique experiences like king crab fishing, husky safaris, and viewing the Aurora Borealis.

Kent Lindvall developed the entire brand **Treehotel** by combining nature with architecture and is now about to extend and launch a new concept also to include culture.

Situated under the northern lights in winter and the midnight sun during the summer months, **Arctic Bath** is a unique hotel and spa experience that welcomes guests to immerse themselves in the elements and reminds them of logs rafting down the river as it was a hundred years ago.

Another example is the first **igloo hotel** 50 km from the city of Murmansk in Russia, where in complete darkness visitors can experience the northern lights. Here we have observed the outcomes of how natural resources can be creatively transformed into unique experiences with the help of modern architecture and reference to the cultural and historical context.

Creative industries

OOO Rec.A is local filmmaking company whose studio for documentary films is well-known in the Murmansk Region. The company has clients in the Murmansk region and Northern Europe. The uniqueness of the company - a highly professional team, an openminded attitude to new technologies, and high product quality. Product quality is much higher than all regional competitors and competes with federal ones, which are appreciably larger and have better access to capital and human resources. Most documentary films by Rec.A are devoted to cultural and historical aspects of the Murmansk region.

Photo: Nord University

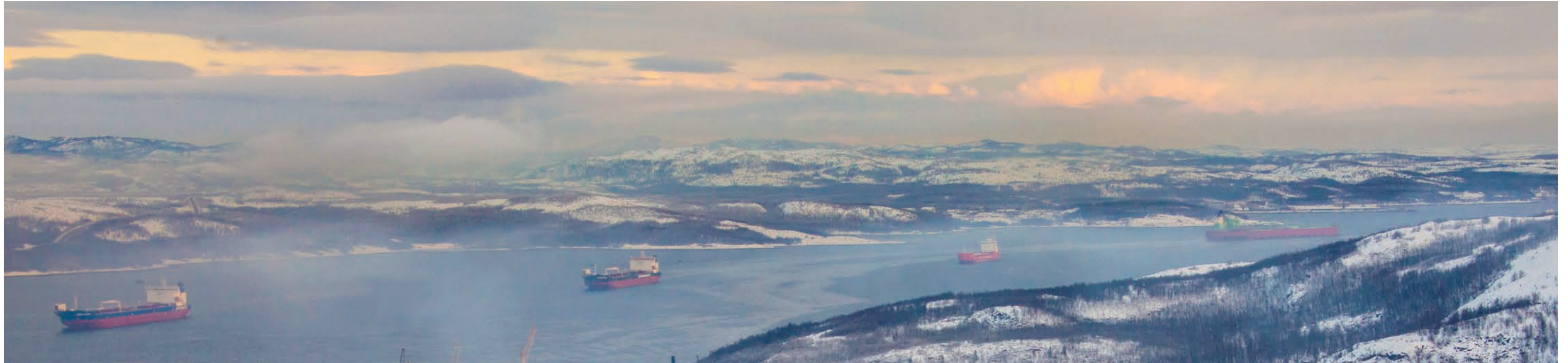


Photo: Valery Vasilevsky

THE RIGHT PLACE

Indeed, the remoteness of the Arctic territories, the difficult and limited logistics and the challenges related to infrastructure are important limitations on the development of new businesses. However, there are many examples of successful companies who manage to utilize their surroundings and turn them into remarkable business opportunities. In this respect, being “in the right place” can be a source of competitive advantage rather than a disadvantage as it gives companies a unique position in terms of resource base (including human resources, energy, favorable natural conditions), lack of other competitors, closeness to customers, advantages of cross-border cooperation. The examples below are taken from different industry segments and countries, but they are all examples of companies developing from the “right places”. Such “right places” are not simply taken but often created.

Momek AS (Momek Group) is a North Norwegian industrial group of companies operating in maintenance, modification, fabrication, construction work and staffing. The company is headquartered in Mo Industrial Park, Mo i Rana. What is today the Momek Group started in 1998. As of 2014, the company has about 350 employees spread around the eight different subsidiaries. The company serves many industries: mining, process industry, oil and gas, aquaculture and renewable energy. A company representative claimed that access to customers that are close and access to employees within the cluster (industrial park) is a source of competitive advantage. Moreover, he says that the company has developed a great culture throughout the years, a

flexible culture, a mix of heavy technical competence and an assertive culture - a positive culture which gives an advantage.

HermanIT is a high-availability data center offering private cloud services and software development for digital products and services. The firm utilizes space, the abundance of renewable energy and the cold climate, all of which are very favorable for data centers’ operations.

OOO Murman SeaFood represents the fishing industry of the Murmansk Region. The main activity is catching and processing sea-frozen fish products, fillets and canned fish, seafood products at coastal factories, operating transport vessels. The area of activity is Murmansk Region and the northern water areas. The company exports to many countries and is known for its high-quality products. The company also has vessels equipped with facilities for fish processing. Closeness to the resource and low competition between the local companies in the segment is a precondition for the continuity of the company.

OOO “Murmanplast” is the only producer on the Kola peninsula of fish boxes made of styrofoam for chilled fish and frozen fish. The company has local origins and supplies fish boxes to all fish (breeding) farms and processing companies in the Murmansk region. It also exports its products to St. Petersburg. This is a niche company with advanced technology using Finnish raw materials. The company **Barel** was founded in Kirkenes, Norway in 1993. Today Barel develops and manufactures electronics for the global markets for the international lighting and heating industry. The company’s location entails both disadvantages and advantages. As explained by the company representative, logistically it is a

disadvantage to be located here (far away from the customers) as the cost of shipping is quite high. An advantage is that the location is close to the Russian border. The company has a production unit in adjacent Russia, which lowers its production costs.

GENUINE QUALITY AND TRADITIONS

For some companies, quality is not a strategic choice, but rather an authentic property based on knowledge and traditions. For such companies, resources are much more than materials. They are considered gifts from Nature which are treated with a grateful attitude, not forgetting respect for the local community who share an identity with the same resources. Below are some examples from the food companies. Many more can be found.

The agricultural production cooperative **Tundra** has long historical roots since 1930, when the collective farm was established. Today, the company produces reindeer meat, has all the required processing facilities, a workshop for sewing items made of fur and hide, and a construction team. Good quality products are in high demand among the inhabitants of the Murmansk region and beyond. The unique feature of the company is high quality natural products and community based work places for indigenous people.

Tornio Brewery, is an artisan brewery still operating in the same place where the brewery was built as far back as in 1873. Tornio Brewery re-opened the legendary brewery that was closed in 2010. At the core of the business are the purity and cleanliness of materials that originate in the north. Kaj Koster, CEO of the brewery, who is originally from the north,

likes the mentality of the people from the north and has plans for the international expansion of craft beer from Lapland.

Arctic Warriors is a superfood producing firm using unique herbs, berries, and plants from Lapland that are sourced from a network of local pickers. According to Tuija Kauppinen, sales and marketing manager, Arctic Warriors are proud to be based in Lapland and support local communities. The company’s project manager Katja comes from a family where herbs have been a natural part of everyday life for centuries and the knowledge has been passed down from one generation to another.

Summary of the section

Many of our case companies clearly have access to unique natural resources or capitalize on unique natural surroundings (for example, most of the food and drink producing companies, some manufacturing companies and providers of professional services, tourism and culture companies). Others are historically embedded in the business communities and industrial infrastructure in the Arctic cities and areas (e.g. ICT and high-tech companies, several manufacturing companies). Yet there are some companies developed by entrepreneurs from the north with universal product concepts not directly related to the Arctic (e.g. Leo’s Lekland, Max Hamburger, Brokk, Prowellness, Optomed). For example, Leos Lekland says that their idea is to support children’s activity. This relatively unique concept is general and allowed Leos Lekland to rapidly grow in Sweden and now also in Norway, Denmark, and Finland. Joakim Gunler said his role model was Max Hamburger, also originally from this region.



Photo: ООО “Systemy promyshlennoi bezopasnosti” (Industrial Safety Systems)

Tommy Enstedt, representing Max Hamburger, describes their success by unique values and loyal staff saying that “we grow organically and ownership is important to us”. Indeed, organic growth and local ownership are common features for many successful companies in the Arctic.

However, commercialization of business ideas needs a lot of systematic work and a lot of time. Despite differences between industries and countries, we identified major ways of building and sustaining competitive advantage. These ways are often associated with the northern values and lifestyle which are part of the identity of the business owners. As we have shown in the previous report, Business Index North (issued in 2018), innovative companies in the north often grow with limited access to human resources and capital. Their sense of belonging, their embeddedness in their local environments, pride in from and living in the north allows them to capitalize on nature-related resources in a creative way and develop efficient solutions based on their local networks.

Section summary - major ways to sustain competitive advantage:

- High-level expertise in environment and manufacturing
- Technological leadership
- Arctic experience
- The right place
- Genuine quality traditions

WHAT KIND OF CLUSTERS ARE DEVELOPED IN THE ARCTIC?

Cluster is used here to refer to a number of organizations sharing similar aims, characteristics, goals, and activities with a shared sense of geographical belonging. Due to this geographical sense of belonging they benefit from shared goals, strategies, and operations that are mostly stronger and more specialized than if developed independently. A cluster is typically easy to observe as activities and goals hang together. A tourism cluster often has natural boundaries determined by a natural resource such as a mountain or an island. A manufacturing cluster may on the other hand have a strong locomotive company supported by a myriad of small specialized organizations that together build one or multiple products. Some of these clusters are formed spontaneously with initiatives from individual companies while others are related to a university or other politically motivated initiative. Many cities have clusters but these are often related to technology or capital because administra-

tion can easily be coordinated and competence guaranteed to a greater extent. Clusters are thus agglomerations of organizations of some sort.

The European Arctic is home to many remarkable clusters. They are relatively small but each has a unique business idea and clear cooperation concept. Members of the clusters capitalize on access to unique local resources and locations in a unique climatic-geographic or industrial setting. Cold water, snow, biomass, fish, space, darkness and silence, access to renewable energy, as well as the highly developed technical and knowledge infrastructures available in the Arctic serve as crucial resources for commercial cooperation via clusters. Some clusters are organized in response to a large industry being established in the area (e.g. Oil and gas, pulp and paper, mining). The others are developed to attract customers to the area (e.g. car testing, tourism). The table below provides some remarkable examples.

CLUSTERS IN THE NORTHERN NORDICS AND MURMANSK REGION OF RUSSIA

| Name | Business idea | Cooperation concept | Origin |
|-------------------------------|--|---|-----------------------|
| Bioeconomy | Local raw materials from the North are processed for commercial purposes | Circular economy | Lapland Finland |
| Biotech North | Local bio-marine resources are processed for commercial purposes | R&D | Tromsø Norway |
| Circular Economy | Industrial waste is processed for commercial purposes | Circular economy | Lapland Finland |
| Mo Industripark | Big industrial environment placed in favorable geographic-climatic-infrastructure setting | Circular economy and shared infrastructure | Mo i Rana Norway |
| Murman Tourism | Whole region is made available and positioned for tourists | Total supplier / integration Murmansk Region | Russia |
| Oil and gas cluster Helgeland | Meeting procurement demands of the oil industry in the North | Total supplier / integration Helgeland District | Norway |
| Smart Construction Cluster | Building advantage through digitalization of the construction industry | Technology development | Alta Norway |
| Space | Unique technical and knowledge infrastructure in the North serves as a base for space applications | Technology development | Helsinki (HQ) Finland |

CLUSTERS IN THE NORTHERN NORDICS AND MURMANSK REGION OF RUSSIA

| Name | Business idea | Cooperation concept | Origin |
|----------------------------|---|--|------------------------|
| Swedish proving grounds | Unique climatic-geographic setting serves as a base for car testing | Total supplier / integration | Älvsbyn Sweden |
| Swedish Wind Energy | Unique climatic-geographic setting and infrastructure enables wind power production | Total supplier / integration | Piteå Sweden |
| Tourism / House of Lapland | Whole region is made available and positioned for tourists | Total supplier / integration | Lapland Finland |
| Winter testing | Unique climatic-geographic serves as a base for car testing | Total supplier / integration | Lapland Finland |
| NCE Aquaculture | Commercial production of farmed fish and seafood for the global market | Total supplier / integration | Nordland county Norway |
| Server technology cluster | Unique geographic-climatic setting serves as a base for server plants | Shared infrastructure and technology development | Luleå Sweden |

A specific feature of these clusters is compact communities of people and companies with geographic proximity and shared culture, history and identities. For example, as reported by our case company:

“Closer relationships, shorter distances in between advisory engineers, entrepreneurs, suppliers, and university... Operating from Finnmark gives an opportunity to quickly implement our ideas and concepts...The relative advantage is up, is that you are a kind of “Petri dish” (Smart Construction cluster, Norway)

The Arctic clusters presented above are strongly positioned both for delivering products to markets far outside their region and for providing services attracting customers from other parts of the world.

Section summary - Arctic clusters

- Clusters are rather small but many
- Cooperation concepts: circular economy, commercialization of knowledge, technological leadership, integration of supply/value chains.
- Empowered by close-knit local communities

CLUSTERS IN THE NORTHERN NORDICS AND MURMANSK REGION OF RUSSIA





Photo: Kirkenes Snow Hotel

SUMMARY AND IMPLICATIONS

We found a new generation of innovative companies in the Arctic part of Norway, Sweden, Finland and North-West Russia. They have developed high quality niche products and services. These products and services reach domestic

and international markets outside the Arctic, or they attract customers to the region. The findings of this report are briefly summarized in the table below.

TABLE: COMMON SUCCESS FACTORS AMONG ARCTIC COMPANIES

| | |
|--|---|
| <p>Motivations to operate from the North:</p> <ul style="list-style-type: none">• Identity with place, nature, and local culture• Unique natural resources• Location in unique natural, climatic, -geographical or industrial settings• Origins of business owners | <p>Participation in clusters:</p> <ul style="list-style-type: none">• Clusters are rather small but many• Cooperation concepts: circular economy, commercialization of knowledge, technological leadership, integration of supply/value chains.• Empowered by close-knit local communities |
| <p>Brands communicate Arctic values:</p> <ul style="list-style-type: none">• Purity• Quality• Uniqueness of the natural environment• Technological excellence• Universal value concepts | <p>Main sources of competitive advantage:</p> <ul style="list-style-type: none">• Environmental expertise and high-quality manufacturing• Technological leadership• Arctic experience• The right place• Genuine quality and traditions |

We interviewed the companies and made an analysis in order to share knowledge about business in the Arctic. These companies are examples of remarkable businesses developed in the High North that people can be proud of. In our view the Arctic is a land of opportunities with successful innovative businesses and entrepreneurial activity: it is more than a resource province and periphery. It is possible to build on the North – as seen in the examples of Optomed (successful globally) and BBS (underwent IPO). Leo Lekland and Max Hamburger are also good examples of fast international expansion and gaining recognition. Many local producers say that being located in the North is a privilege and opportunity rather than a disadvantage. Companies creatively use natural resources and put them into products and services with high value added. We have successful global companies from the north and shining examples of rapid international expansion and recognition. With this report we aim to overcome the main challenge - lack of knowledge about successful business in the Arctic. Future research may include data collection on different sectors and industries and a study of Arctic business models. Business Index North continues to be a reliable provider of a detailed overview of business development in the High North.

Implications of this report:

- Being located in the North is perceived by many as a privilege and opportunity rather than a disadvantage
- Residents of the European High North have reason to be proud of remarkable businesses developed here
- Readers are encouraged to use the examples shown in this report to spread the optimism for doing business in the Arctic

The main idea of this report was to encourage the development of a strong and healthy identity of the Arctic regions associated with successful and innovative businesses. We concede that we did not explicitly present any challenges while aiming at drawing a clearly positive image. Certainly, the challenges persist and they are quite well known – limited access to human and economic capital. These challenges are perhaps serious barriers to extensive development of business in the Arctic. Yet Arctic business is not for amateurs, but when things are made in the Arctic, by the Arctic and for the Arctic they are valued in most places in the world.

SUCCESSFUL ARCTIC BUSINESSES: ADDITIONAL INFORMATION

PROVIDERS OF CULTURE, SPORT, TOURIST AND RECREATION EXPERIENCES

| Name | Core business | Origin | Website | Country |
|------------------------|---|--------------------------------|---|---------|
| Arctic race of Norway | Annual bicycle race held in Northern Norway | North Norway | https://www.arctic-race-of-norway.com | Norway |
| Arctic bath | Tourist and recreation experiences | Boden | https://arcticbath.se/ | Sweden |
| Kirkenes Snow Hotel | Tourist experiences and recreation | Bjørnevatn | https://www.snowhotelkirkenes.com/ | Norway |
| Leos Lekland | Indoor fun park | Luleå | https://www.leoslekland.se/ | Sweden |
| Nordland Musikkfestuke | Annual music festival | Bodø | http://musikkfestuka.no | Norway |
| Northern Character | International Film Festival | Murmansk | http://northchar.ru/eng/ | Russia |
| Rec.A | Filmmaking | Murmansk | http://www.rec-a.ru/ | Russia |
| Salma tour | Tourist experiences and recreation | Polyanye Zori, Murmansk Region | http://salma-tour.narod.ru/ | Russia |
| Sami village SAM-SYYT | Tourist experiences and recreation | Lovozero | http://lovozero51.ru/ | Russia |
| TreeHotel | Tourist experiences and recreation | Boden | https://treehotel.se/en/ | Sweden |
| Visit Murmansk | Tourist experiences and recreation | Murmansk | https://visitmurmansk.info/ru/ | Russia |

HIGH-TECH, BIO-MEDICAL OR ICT SOLUTIONS AND PRODUCTS

| Name | Core business | Origin | Website | Country |
|----------------------------------|--|--------------------|---|---------|
| 9Solutions | Health care security and communication systems | Oulu | https://9solutions.com/en/ | Finland |
| Arctic zymes | Recombinant enzymes from cold water marine species | Tromsø | https://arcticzymes.com/ | Norway |
| Bioactive Bone Substitutes (BBS) | Bioactive bone-graft substitute implants | Oulu and Reisjärvi | http://www.bbs-artebone.fi | Finland |
| Biokontur | Fish oil and OMEGA 3 based dietary supplements | Murmansk | http://www.biokontur.ru/ | Russia |
| Brokk | Robotics manufacturing | Skellefteå | https://www.brokk.com/ | Sweden |

HIGH-TECH, BIO-MEDICAL OR ICT SOLUTIONS AND PRODUCTS (continues)

| Name | Core business | Origin | Website | Country |
|--------------|---|------------------|---|---------|
| Cmicro | Measuring device for measuring the temperature of food or drink prepared in a microwave | Oulu | http://www.cmicro.io/ | Finland |
| HermanIT | High availability data center and software development | Oulu and Kajaani | https://www.hermanit.fi/en | Finland |
| IT Pole | Implementation and integration of business-oriented software | Murmansk | http://jokkmokkskorv.se/ | Russia |
| Kipuwex | Health and pain measurement device | Oulu | http://www.kipuwex.com | Finland |
| KNL Networks | Communication services for the maritime industry | Oulu | https://knlnetworks.com/ | Finland |
| Optomed | Eye disease screening device | Oulu | https://www.optomed.com/ | Finland |
| ProWellness | IT solutions for the prevention and care of chronic diseases | Oulu | http://www.prowellness.com/ | Finland |
| SKIIOT | Skiing performance measurement and analysis device | Oulu | http://www.skiiot.com/ | Finland |

MANUFACTURING AND SERVICES

| Name | Core business | Origin | Website | Country |
|------------------|---|-----------|---|---------|
| Barel | Electronics for lighting and heating industry | Kirkenes | www.barel.no | Norway |
| Elektriska trion | Electric services supplier | Luleå | http://www.el-trion.se/ | Sweden |
| Havator | Lifting, special transport and heavy haulage services | Keminmaa | https://havator.com/ | Finland |
| Hybricon | Electric bus manufacturing | Umeå | https://www.hybricon.se/en | Sweden |
| Lindbäcks bygg | Production of multi-dwelling houses | Piteå | http://lindbacks.se/ | Sweden |
| Momek Services | Industrial manufacturing and services | Mo i Rana | https://services.momek.no/ | Norway |
| Murmanplast | Production of styrofoam fish boxes | Murmansk | N/A | Russia |
| Rapunzel | Hair extensions for retail customers | Umeå | https://www.rapunzelofsweden.com | Sweden |
| Älvsbyhus | Construction of houses | Älvsbyn | https://www.alvsbyhus.se | Sweden |

PRODUCERS OF FOOD AND DRINKS

| Name | Core business | Origin | Website | Country |
|-------------------|---|-----------------|---|---------|
| Arctic Warriors | Natural superfoods manufacturing | Narkaus | https://www.arcticwarriors.fi/en/ | Finland |
| Jokkmokks korv | High quality food manufacturing | Jokkmokk | https://www.arcticwarriors.fi/en/ | Sweden |
| Kola Krai | Harvesting northern wild and cultivated berries | Murmansk Region | https://www.thekolaland.com/ru | Russia |
| Max hamburger | Burger restaurant chain | Luleå | http://www.mip.no | Norway |
| Murman SeaFood | Fishing and manufacturing of seafood products | Murmansk | http://www.msf.mels.ru/ | Russia |
| Polarbröd | Bread bakery | Älvsbyn | https://www.polarbrod.se/ | Sweden |
| Bröderna Stålmarm | Fishery and caviar production | Luleå | http://www.caviarofkalix.com/ | Sweden |
| Tornio Brewery | An artisan brewery | Tornio | http://www.tornionpanimo.fi/ | Finland |
| Tundra | Agricultural food production cooperative | Lovozero | N/A | Russia |

INDUSTRIAL AND PROFESSIONAL SERVICE PROVIDERS

| Name | Core business | Origin | Website | Country |
|---------------------------|---|----------|---|---------|
| Arctic Falls | Car testing services | Älvsbyn | http://www.arcticfalls.se/ | Sweden |
| Industrial Safety Systems | Professional services in the field of environmental design and oil spill preparedness | Murmansk | https://www.vipsyst.com/ | Russia |
| SALT | Research and consultancy services related to the coast and the sea | Svolvær | https://salt.nu | Norway |
| Vinter | Integrated communications agency and consultancy | Luleå | https://vinter.se/ | Sweden |

RENEWABLE ENERGY AND WASTE MANAGEMENT COMPANIES

| Name | Core business | Origin | Website | Country |
|------------------|---|------------|---|---------|
| Nofir | Waste management - discarded equipment from fisheries | Bodø | https://nofir.no/ | Norway |
| Skellefteå Kraft | Electric power production | Skellefteå | https://www.skekraft.se/ | Sweden |
| Svevind | ITechnical consultants related to wind power | Umeå | https://svevind.se/ | Sweden |

CLUSTERS

| Name | Core business | Origin | Website | Country |
|-------------------------------|---|---------------------------------|---|---------|
| Bioeconomy | Bioeconomy solutions for paper and cardboard producers | Lapland | https://www.lapland.fi/business/ | Finland |
| Biotech North | Marine bioprospecting and marine rest raw materials | Tromsø | https://www.biotechnorth.no | Norway |
| Circular Economy | Circular economy solutions for industry and community | Lapland | https://www.lapland.fi/business/ | Finland |
| Mo Industripark | Green industrial park and development zone | Skellefteå | https://www.brokk.com/ | Sweden |
| Murman Tourism | Tourist experiences and recreation | Murmansk Region | http://murmantourism.ru/ | Russia |
| NCE Aquaculture | Farmed fish and seafood | Nordland county | http://nceaquaculture.com | Norway |
| Oil and gas cluster Helgeland | Manufacturing and services related to the oil and gas industry | Helgeland district | http://www.oljegassklyngehelgeland.no | Norway |
| Smart Construction Cluster | Implementation of «Digital Roadmap” for the construction industry | Alta | http://www.smartconstruction.no | Norway |
| Server technology cluster | Farm of server plants related to Facebook servers | Luleå | N/A | Sweden |
| Space | Development of international space related business | Helsinki (HQ), all over Finland | http://spacefinland.fi/ | Finland |
| Swedish proving grounds | Automotive winter testing | Älvsbyn | https://spga.eu/ | Sweden |
| Swedish Wind Energy | Wind power and renewable energy | Piteå | https://swedishwindenergy.com/ | Sweden |
| Tourism / House of Lapland | Tourist experiences and recreation | Lapland | https://www.lapland.fi/business/ | Finland |
| Winter testing | Winter testing in the transportation and logistics sector | Lapland | https://www.lapland.fi/business/ | Finland |

Photo: Shutterstock

BUSINESS INDEX NORTH

Business Index North (BIN) is a project that contributes to sustainable development and value creation in the Arctic. The overall goal is to set up a recurring, knowledge-based, systematic information tool for stakeholders. This is the special issue of the "Business Index North" analytical report that focuses on innovative companies from the BIN area – northern regions of Norway, Sweden, Finland and Murmansk Region of the North-West Russia. For the future issues of the report we would like to include more territories of the Russian High North, as well as Greenland, Iceland, Alaska and the Northern territories of Canada. BIN project is implemented through an international network of universities, research organizations, as well as representatives of business and public sector institutions. The main implementing partner is the High North Center for Business and Governance at Nord University Business School. Nordland County Council and The Norwegian Ministry of Foreign Affairs provide basic funding for the BIN project.

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