

Arctic business potential from Oulu region's perspective – opportunities and obstacles

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Tiivistelmä: The future of the Arctic and the prospective Arctic business opportunities have been studied from Oulu region's perspective in two separate projects. Observations from these projects form the core of this article. Conceptualisation of the Arctic is a crucial precondition when processing Arctic themes and topics. The Arctic can be interpreted as special conditions and operations and know-how related to them or the Arctic can be defined as a location of various economic activities related to Arctic resources. It is suggested that by focusing on the strategic significance, networking by creating business-oriented clusters and increasing visibility by highlighting and promoting Arctic expertise it would be possible to clarify Arctic concepts and business opportunities. Versatile information presented in approachable and illustrative form should be combined with appropriate promotion of the different aspects of the Arctic. The gap between public policy and private sector actions should be narrowed with all means possible.

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Näin viittaat tähän julkaisuun

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The future of the Arctic and the prospective Arctic business opportunities have been studied from Oulu region's perspective in two separate, yet strongly connected projects. The systematic work done in these projects to define arctic trends, analyse technological needs and evaluate relevant business potential has been based on a large amount of multidisciplinary expert knowledge and insight.

The aforementioned projects, The Finnish Funding Agency for Innovation's (Tekes) strategic opening SMARCTIC and The Council of Oulu Region's funded project Arctic business and RDI-activity in the Northern Ostrobothnia provide some interesting and novel guidelines to utilise and direct Arctic expertise in the future. Observations from these projects form the core of this article. From here on, these two projects are referred collectively as SMARCTIC projects.



Defining the Arctic

Reasonable and beneficial processing of versatile Arctic themes and topics requires conceptualisation of the Arctic as a context and a phenomenon as well. In the SMARCTIC projects, a notable amount of the actions were put to formulate common and to some extent relatively general definition of the Arctic. The selected approach combining foresight workshops and innovation policy roadmapping was aimed to facilitate the participants of the projects, representing the key stake-holders for the Arctic issues, to contribute to these definitions and specifications [\[1\]](#).

For operational purposes, the Arctic can be interpreted as special conditions - light, ice, natural resources or culture, to mention the most relevant - in addition to operations and know-how related to them. On the other hand, the Arctic can be defined as a location of various economic activities related to Arctic resources. From the latter perspective, the Barents region is often regarded as a highly potential location for Finnish companies since it has been estimated that the total budgets of the investment projects starting before 2020 in the Barents region are 58–81 billion euros [\[2\]](#).

Arctic business context

The Arctic business context can be defined in several ways and the potential for confusing and misleading concepts seems to be high. The Arctic is sometimes regarded as a general feature that is a pervasive and unavoidable element in all actions carried out in the region. According to this definition, every function of every organization operating in the Arctic requires and reflects arctic know-how. On the other hand, the Arctic competence is occasionally expressed as a quite tightly defined special expertise (e.g. cold-related expertise) that does not evolve without determined development actions. These two interpretations were identified as the

extreme ends of the spectrum and hence, a new type of classification of the arctic business activities was introduced.

As was suggested in the SMARCTIC projects, the main economic activities in the Arctic business context can be classified so that (1) the core of arctic business is directly related to arctic resources (e.g. natural resources, tourism). This core business is supported by (2) specific products, operations and services that are based on Arctic know-how. Furthermore, as the Arctic core business and necessary support activities evolve, a sort of (3) generic businesses emerge to respond to various needs of the core businesses. The importance of Arctic expertise can be regarded as minimal with these last type of business activities. Therefore, it is reasonable that some Arctic business actors do regard Arctic as some sort of implicit feature that is not a target of any specific and systematic development activities per se whereas for other actors the Arctic is the main guiding factor in their development processes ^[3]. The former group of actors corresponds to class (3) business and latter to classes (1) and (2).

The abovementioned classification is intended to help the stakeholders to find a common understanding when assessing and evaluating different future scenarios from the business development perspective. Additionally, the presented classification can be used to identify the main foci of various development actions, both past and forthcoming. For instance, when defining the demand for products and services associated with the Arctic procurements and investment projects (figure 1) it is relatively easy to conclude that the relevance of the Arctic specialization differs between industries and even inside of an industry – for some (e.g. providers of energy solutions for the Arctic conditions) the Arctic know-how is in the core of their competitiveness ^[4].

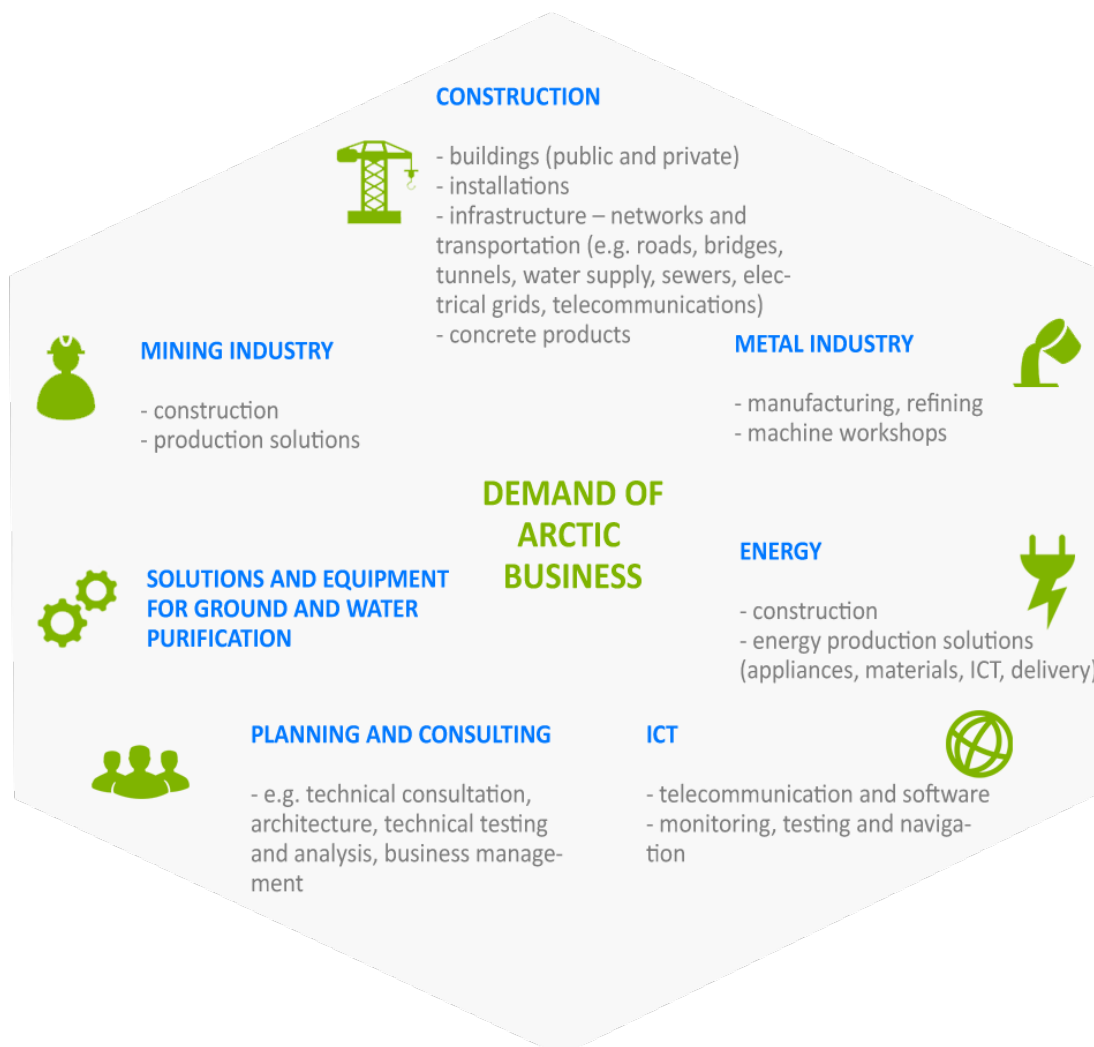


FIGURE 1. Current state of Arctic business (tenders in the Barents region and upcoming investment projects)

Recommended proceedings for the Arctic business development

To clarify the existing confusion and even lacking shared concrete vision of the future Arctic business opportunities, the SMARCTIC projects propose three actions to be performed. Focusing means understanding the strategic significance of the Arctic for companies and the clarification of RDI-actors' position in the arctic context. Networking means e.g. creating business-oriented clusters in which the public and RDI-actors have a supporting role. Increasing visibility means that a solution for highlighting and promoting Arctic expertise is needed. Some practical arrangements for these actions are presented in the project reports and first proactive developmental steps have already been taken.

It is noteworthy that in the conducted research it turned out to be extremely difficult to set priorities for investigated future scenarios. Looking into Northern Ostrobothnia's expertise and Arctic trends and technology needs simultaneously, no single industry could have been valued over another. The project activities have helped divide Arctic context into categories according to technological needs but in the future when measures are taken in exporting Finnish expertise, market analysis (e.g. technological needs and demand derived from them) should be continued with a close co-operation with the customers.

The SMARCTIC projects have worked as a platform to collect and analyse the range of different views of the Arctic business context itself and, additionally, of the present state of the Arctic know-how as identified by the stake-holders. With these projects the transparency of the so-called Arctic scenarios and trends has increased, enabling individual actors and organisations to define or reconsider their position in the Arctic business context. So far, companies from the Oulu region have not been very active in various major investment projects in the Arctic – this phenomenon has led to speculate reasons for the observed behaviour [5]. Even though it is possible that reasons for this inactivity can be found in strategic – and hence justified – decisions of companies, it is equally plausible that there exists information shortages and asymmetries. To eliminate the latter cause, there is a need for well-established and attractively organised information gateways, supporting the continuously improving meeting of the needs and the potential.

Highlighting Arctic know-how in the future

One example of promoting Arctic business opportunities has recently been a collective idea of the main areas of the Scandinavian Arctic formulated as an "Arctic Valley" initiative. The main focus of the "Arctic Valley" concept is to create and brand an innovation valley with the Arctic business life in focus. Main objectives are to raise awareness about the arctic as a region of opportunities for international business, as well as build a stronger cooperation within the region's actors (academia, business, politics, investors, financiers and culture etc.) [6].

In Oulu region, the centrepiece for collective development activities is Oulu Innovation Alliance (OIA), which has been reformed as an ecosystem based entity for the next five years (2016–2020). The exploitation of Arctic opportunities is presented as a one of the two horizontal theme for all five ecosystems included in OIA. However, the Arctic has remained in minor role in the preparation of the new era of OIA – nevertheless, the transformation of OIA into innovation ecosystem improves the opportunities to bring the Arctic dimension into focus [7].

Regardless of the practical implementation of "Arctic Valley" or operationalisation of newly designed Oulu Innovation Alliance, it can be concluded from the SMARCTIC projects that especially in the region of Northern Ostrobothnia a continuous and thorough discussion of the Arctic as a context and potential for the economic growth in the future is needed. Versatile information presented in approachable and illustrative form should be combined with appropriate promotion of the different aspects of the Arctic. The gap between public policy and private sector actions should be narrowed with all means possible. At the current economic situation, it is extremely important to exploit all the possible competitive advantages and in Oulu region arctic competence is an advantage that has not yet been fully capitalised.

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