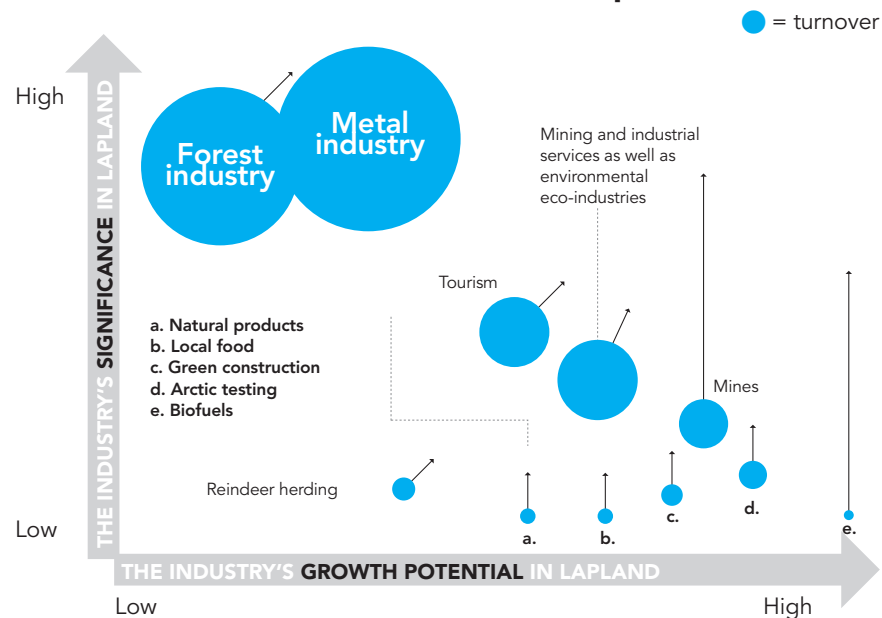


Refining natural resources throughout the value chains

Arctic Industry and Circular Economy cluster aims to develop its leading position in exploiting and commercialising Arctic natural resources and conditions while maintaining balance of sustainable development. Mix of industrial expertise and commitment to sustainable development are at the core of refining natural resources in the Lapland region. We are reaching the vision by promoting regional clusters and ecosystems of emerging industries that focus on refining natural resources throughout the value chains.

Key businesses

What is the growth potential of industries related to the Arctic business of Lapland?



Lapland possesses vast deposits of natural resources and pristine nature. Due to its forest and mineral potential Lapland has become one of the most prominent regions for the bio- and extractive industries at the global level. Large growing forests enable extensive utilisation of bio raw materials.

Lapland has vast, growing forest resources - the annual growth of the growing stock was 13,3 m³ from 2009 to 2013, with increasing forest quality. About half of the amount was annually utilised (National Forest Inventory nr. 11, VMI11). The driving forces are the sustainable use of natural resources and the support for the European Union objective to become more self-sufficient on raw materials production. The cluster utilise the Arctic knowledge, expertise and potential of emerging industries. Its focus is in the development of the seamless collaboration between multidisciplinary cluster-actors and cross-cluster cooperation.

The figure on the left visualises the industry's significance and growth potential in Lapland. Activity in Industry symbiosis, bioeconomy and circular economy are experiencing strong growth in the region.

The investors have plans to build two new large scale biorefineries in Lapland. These are concrete examples of industrial symbiosis cases that are in some extent based on circular and cross-sectoral value chains.



ARCTIC INDUSTRY AND CIRCULAR ECONOMY

CLUSTER

Sustainable utilisation of arctic natural resources

The Lapland region in Northern Finland aims to become the leading Arctic region in the sustainable utilisation of natural resources.

Modern cluster development approach is implemented through European Commission's model demonstrator region choice in order to contribute to the modernisation of the Arctic industry in Lapland with eco-innovative, bio-based and resource efficient solutions.

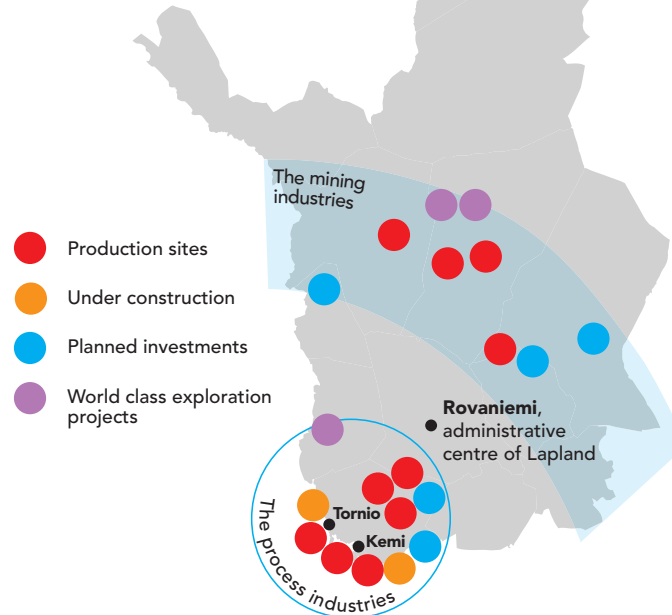
Modern Cluster of Arctic Industry

Arctic Industry and Circular Economy is an interregional cluster focusing on the Sustainable utilisation of the arctic natural resources. The cluster is focusing on the development of the ecosystem for the SMEs providing industrial services for utilisation of by-products and residues of steel, forest, energy, mining and wood product industries. The cluster is combination of over 100 SMEs, LSEs, development organisations, universities and research institutions. The cluster is led by Digipolis –Technology Park.

Ecosystem of the Arctic Industry

Ecosystem of the Arctic Industry is an operational environment and unique innovation platform. The process industry, which is largely concentrated in the Kemi-Tornio region, actively searches for new, eco-innovative ways to modernise its processes. As an example, management of by-product processes of industries and process optimisation in the Kemi-Tornio

region is a prioritised issue. It has been studied that the annual volume of by-products and residues of Kemi-Tornio large scale industries amounts to 1,7 million tonnes.



FACTS ABOUT THE NORTHERNMOST REGION IN FINLAND

- Lapland is the northernmost region in Finland and the whole of EU
- The land area of Lapland is 92 665 square kilometres, which is 25.7% of Finland's land area. Lapland has 182 810 inhabitants, which is 3.4% of Finland's population
- The largest residential centres are Rovaniemi (60 944 inhabitants) and Kemi-Tornio region (59 909 inhabitants)
- Industries in Lapland produce 10% of export in Finland

PROCESS INDUSTRIES ARE CONCENTRATED IN THE KEMI-TORNIO REGION

- Rovaniemi is administrative centre of Lapland and an important regional centre of public governance for mining in Finland
- Mining industries are concentrated in the mine belt of Lapland
- With the long traditions in Lapland the coexistence between industries using natural resources has been amicable



Arctic Industry and Circular Economy is one of the Arctic Smartness clusters in Lapland. With the five clusters Arctic Smartness is looking beyond the boundaries, cross-fertilisation, the best use of the regional expertise and strategic networking over the borders.

Contact

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the EU
2014–2020

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