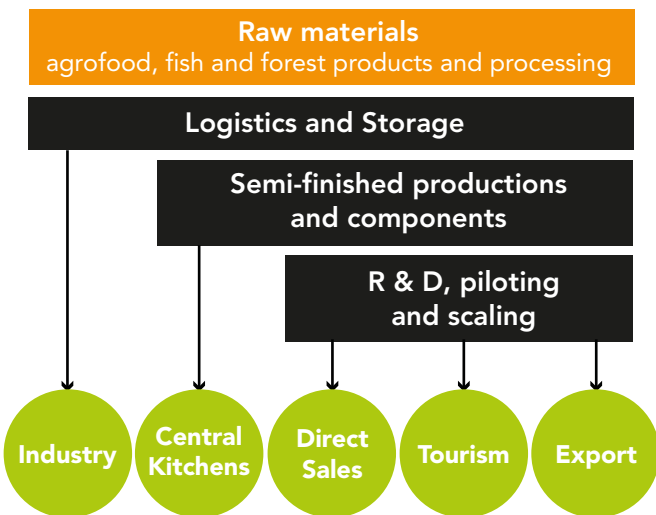


# Food and energy – needs of rural community

In rural Lapland, almost everything what is needed for living can be produced locally. Now the raw materials are processed outside and brought back as consumer products. By balancing the economy between decentralised and centralised systems is the key for sustainable rural development.

Communities are holding enormous amounts of biomass, at the same time energy is transferred from outside. Sustainable energy could be produced in the communities to decrease capital leakage. Modern agriculture is needed for profitable energy production.

By developing smart food processing and logistics in rural Lapland the capital outflow is reduced. Energy production from local raw materials and transfer can be decentralised and localised to the arctic rural area as well.



The development model of the food value chain where the financial benefits stay in the communities.

Arctic Smart Rural Community cluster is connecting small entrepreneurs and developers inside to modern cluster model. Cluster adds value to food production enterprises, SMEs, farmers and decentralised energy production in Lapland region.

We only borrow nature from our children. Sustainable utilisation of natural resources guarantees carbon neutral energy production. The carbon neutral economy is the key to climate change prevention.

## Consumption balance of village Kierinki



Our case study of village Kierinki in municipality of Sodankylä. All inhabitants and companies were interviewed how much they are using energy. The main findings were the potential of bioeconomy, capital outflow through transportation fuels, electricity and heating.



**ARCTIC  
SMART RURAL  
COMMUNITY**

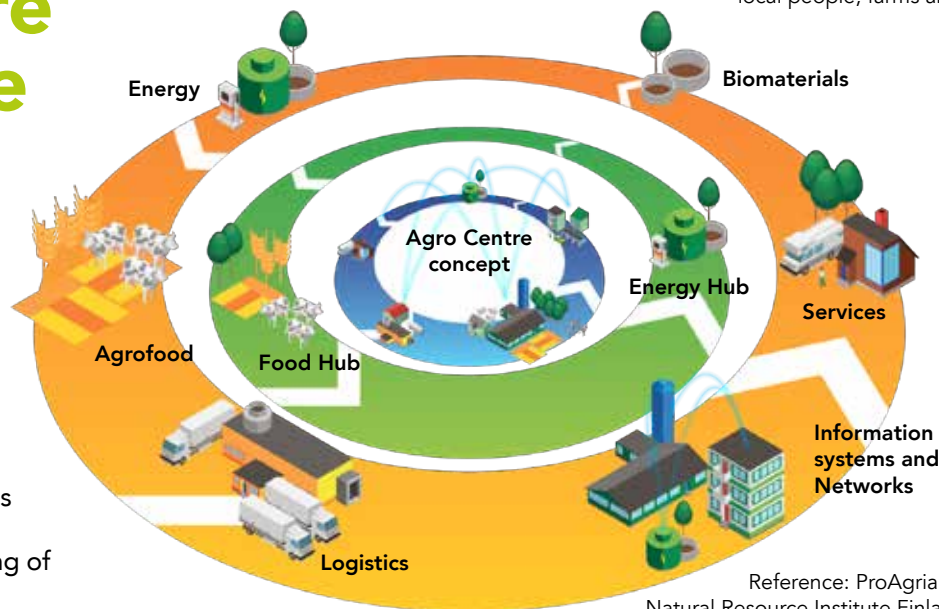
CLUSTER

# Base for our business is nature

The mission of Arctic Smart Rural Community is to avoid capital outflow from rural Lapland and create new innovative enterprises based on circular economy. The cleanest corner of Europe offers a surplus of raw-materials to wide-range smart resource-intensive business. Our goal is to transfer the added value of local natural resources for a benefit of the communities.

# Circular economy – the future of rural life

Our vision is that villages of the rural Lapland can develop a functional circular economy of energy, food and tourism. Nowadays a local village of 150 people consumes energy for one million euros a year. By investing to own energy production this same amount of money stays in the village. Excess energy and local capital offers an opportunity for modern processing of local resources.



Agro Centre concept of balanced energy, food and business activity system where the ownership is local people, farms and firms.

Reference: ProAgria Lapland Natural Resource Institute Finland 2014

Localised food production and processing will decrease dependency on industrial subcontracting. This new concept offers fair earnings, stronger social community, digitisation and market's ownership.

When capital stays in the region the positive socio-economic impacts are measurable. The circular economy evolves and takes a leap to the next wider circle of energy, food and business activity.

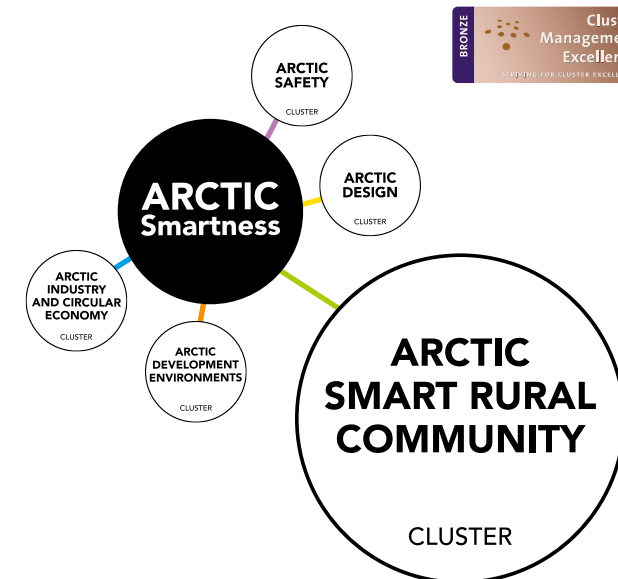
## Our Vision – by thinking small we can develop something big

### LAPLAND TODAY

- European northernmost region
- 100 369 km<sup>2</sup> – 8 % water area
- 181 000 inhabitants – ca. 200 000 reindeers
- Migration to the urban areas
- Strong mining, forestry and tourism industry
- Purest air in the world and the cleanest water in the EU
- The largest controlled organic picking area in the world, strong concentration of flavonoids and antioxidants

### GOAL FOR LAPLAND RURAL COMMUNITIES DEVELOPMENT 2025

- Strong cluster facilitated local value chains
- Vital rural communities refining natural products and agrofood with modern technology
- Turning outflow of euros into income to the local communities
- Smart local energy production solutions at place
- Cut off the migration from the rural communities
- Villages are hubs of diverse entrepreneurships



Arctic Smart Rural Community 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

### ARCTIC SMART RURAL COMMUNITY

Cluster Manager Johannes Vallivaara  
johannes.vallivaara@proagria.fi  
+358 40 684 5741

### ARCTIC BIOECONOMY

Project Manager Tanja Häyrynen  
tanja.hayrynen@lapinliitto.fi  
+358 40 704 3130

### ARCTIC SMARTNESS

Cluster Development Manager Ilari Havukainen  
ilari.havukainen@lapinliitto.fi  
+358 40 621 6116



Leverage from  
the EU  
2014–2020

