

Digital architecture as a roadmap for food business operators in Finnish Lapland

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1. Background information

The unique arctic circumstances, light summers and pureness of the air add a great value to the food produced in Lapland. There is a strong pressure to support and develop food business in Lapland at many levels. In order to realize this, one goal will be to improve self-sufficiency towards food sovereignty in the Lapland area. This task will not be possible without developing the whole food chain.

The Finnish Lapland's food program was launched on 19th May, 2017 at the Multidimensional Tourism Institute, Rovaniemi. The launch was preceded by four workshops from 10th November 2016 to 8th May, 2017. The vision set forward by the program is scheduled to take effect from 2025, there will be interactive and collaborative possibilities to realize the vision of the program. The research aspect will involve the Natural Resources Institute

Finland (LUKE), University of Helsinki, and the Arctic Centre / University of Lapland.

The program main area of interest are on the food products that are produced in the Lapland region and how they can be processed within the region through value addition that will create jobs for the local inhabitants. The food products are divided into several sections: Milk and dairy products, Meat and meat products (reindeer, beef, sheep), Vegetables (potatoes, onions) Outdoor garden vegetables (carrots, turnips, cabbage), Natural and herb products. Other important features of the program are the "Food Club concept" where processing, storage, logistics and sales of these products can interact under one umbrella and the use of digital technology as a tool that will improve e-business and take advantage of the social media.

Full details of the program (in Finnish) available at: <https://issuu.com/lapinliitto/docs/elintarvikeohjelmaa4>

The project "Digital architecture as a roadmap for food business operators in Lapland or "Digiarkkitehtuurin tiekartta lappilaisille elintarvikeyrityksille" in Finnish, draws a roadmap of digitalization for food businesses in Finnish Lapland. The main goal of the

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project is to spread the knowledge or abilities acquired from adapting digitalization and utilizing the benefits of digital solutions in small and medium sized businesses. It also helps entrepreneurs to face the challenges of digitalization. Traditional and cultural features of the Arctic are seen to create a benefit in the food business. In addition, the customer-oriented approach will be an essential feature of the project. The project will deliver the knowledge by producing material and arranging workshops where experts and entrepreneurs can meet and discuss the challenges and possibilities of digitalization.

2. Work packages

In response to questions on how disruptive and emerging technology will decide how the food industry interacts with consumers, and whether traditional food processors are prepared for this shift in opportunity. It will be important to harness the digital age, encompass e-commerce, and other emerging trends that has the capacity to favor small and medium based food business operators and reach new audiences.

Digitalization – the use of information technology and digital solutions is spreading in different parts of the society. It offers even small companies solutions that help to develop their

business and make every day routine easier. In the Finnish Lapland food industry, digitalization is not yet fully adapted at every possible level. In particular, small and medium sized companies still have work to do and catch up with the latest trends. In the digital architecture as a roadmap – project, food business entrepreneurs will learn more about digitalization as a tool and its benefits.

The project is funded for 24 months by The European Rural Development Programme for Mainland Finland and granted by the ‘Center for Economic Development, Transport and the Environment of Lapland’ (ELY-keskus). The Northern Institute of Environmental and Minority Law at the Arctic Centre, University of Lapland is the main partner and executor of the project. Other participating partners are: The Natural Resources Institute Finland (LUKE) and Lapland University of Applied Sciences (Lapin AMK). In addition, the Faculty of Art and Design at the University of Lapland is participating. The project will benefit from the expertise delivered by the project partners and will start in January 2018.

The project aims to improve competitiveness and offer networking opportunities to small and medium sized businesses through digitalization. The appropriate digital solutions and

benefits of digitalization are produced and offered to food business entrepreneurs. The roadmap of digitalization is based on the diverse expertise of collaborating partners and it is co-created in collaboration with the entrepreneurs.

The main goal of the project is to help entrepreneurs to realize the possibilities of digitalization and encourage them to take advantage of existing digital solutions. Project will also activate the entrepreneurs to think of what could be the best way to benefit from digitalization in their own business in the future. During the project, the food business operators will start using digital solutions and new networks will be developed. The project is supporting small and medium sized businesses by increasing the knowledge of digitalization. It helps them to develop their businesses in a more up-to-date way without losing their traditional and cultural ways.

There will be four work packages in the project. The first work package (WP1) is about making existing digital solutions more familiar for entrepreneurs and making them to plan the digitalization process in their own business. The second work package (WP2) deals with the added value of tradition and locality in food production in Lapland, also from a customer-oriented approach. The third work package (WP3) will focus on cyber-

security issues that are related to digitalization. The fourth and final work package (WP4) binds together the whole activities in the project.

The fourth and final package is about producing the material that assembles the knowledge about digitalization in a clear format for small and medium food business operators. Each work package will be carried out by experts and there will be interacting possibilities in the activities of the work packages. The work packages will include workshops and production of relevant materials. The information gathered during the project will also be disseminated through the social media. This roadmap will be built with materials that are produced during the project including video clips, publications, reports etc. The outcome will be a digital material on digitalization meant for small and medium sized food businesses in Lapland – the digital architecture as a roadmap.

3. Benchmarking visits

Switzerland:

The 'digitalswitzerland' based in Zurich is constantly bringing digital transformation to small and medium enterprises in different fields including the food sector. This is carried out through the "Swisscom Digital Business and the "Venture Kick Accelerator"

initiatives. They help small companies to master the digital innovation ecosystem with coaching, advice and making connections both nationally and internationally.

Germany:

A visit to organizations in Berlin that are relevant to the food enterprises in Lapland.

- a) The Berlin Center for Digital Transformation creates a platform that supports both small and middle sized companies and start-ups as well as large companies in their digital transformation. The focus is on key and cross-sectional technologies for applications in healthcare, medicine, industry and production as well as critical infrastructures.
- b) The possibility of introducing the 'Kochhaus concept' in Lapland. This is in relation to the popularity of organic foods globally and will help to display the Lapland food ingredients in grocery stores for locals and tourists.
- c) Analyze and Realize (A & R) for innovation and clinical research on new products and how to go through the EVIRA / the

European Food Safety Authority (EFSA) rules in order to market the product. The company for more than 20 years have supported large, medium, and small companies in the food and drug industries both nationally and internationally.

4. Societal impacts

The societal impacts at the end of the project will help small and medium sized businesses to recognize the possibilities and challenges of digitalization. It will also activate entrepreneurs to take part in new kinds of networks. The project will increase the knowledge available to entrepreneurs on the opportunities that can be gained to add value to their business. During the project, entrepreneurs start to adopt digital solutions safely and become more motivated of being part of the development and trends of digitalization in the Lapland region. The roadmap produced in the project will be freely available for use by everyone interested.

The business of customers is constantly being impacted by the internet. By being able to tap into cloud based technology to provide quality management for food manufacturers will be an added value in Finnish Lapland food businesses. The application of digitalization in food is expected to enhance information on the

products for the consumers. Because of this, end customers are increasingly able to tell their manufactures directly - via the internet - exactly what they want and when they want it.

