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Nordtic Conference Report

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Auðlindir og afurðir

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| Styrktaraðilar /Funding: | NordBio | | |
| Ágríp á íslensku: | <p>Ráðstefna um Norræna lífhagkerfið var haldin 25 júní á Hótel Selfossi. Meðan á formennsku íslenskra stjórnvalda í Norræna ráðherranefndinni 2014 hefur staðið hefur lífhagkerfið verið miðpunktur norrænnar samvinnu en Nordbio er stærst af þremur áhersluatriðunum á íslenska formennskuárinu. Meginmarkmið NordBio er að styrkja Norræna lífhagkerfið með því að hámarka nýtingu á lífrænum auðlindum, takmarka sóun og örva nýsköpun, styrkja þar með Norræna lífhagkerfið.</p> <p>Nordtic ráðstefnan var haldin í tengslum við árlegan fund norræna ráðherraráðsins í sjávarútvegi, landbúnaði, matvælum og skógi (MR-FJLS). Um 100 gestir frá öllum Norðurlöndunum tóku þátt í ráðstefnunni. Ráðstefnugestum var boðið sérstakt bragð af nýsköpun norðursins er niðurstöður úr nýsköpunar og matvælaververknum, innan NordBio, voru kynntar og smakkaðar. Verkefnunum var stýrt af Matís.</p> | | |
| Lykilorð á íslensku: | <i>NordBio, lífhagkerfi, nýsköpun</i> | | |
| Summary in English: | <p>Conference on Nordic Bioeconomy and Arctic Bioeconomy was held on June 25th at Hotel Selfoss in Iceland. During the Icelandic chairmanship in The Nordic Council of Ministers in 2014 bioeconomy has been at the center of Nordic cooperation, as NordBio is the largest of three programs under the Icelandic chairmanship. The main objective of NordBio is to strengthen the Nordic Bioeconomy by optimizing utilization of biological resources, minimizing waste and stimulating innovation thus bolstering the Nordic Bioeconomy.</p> <p>The “Nordtic” conference was held in connections with an annual meeting of the Nordic Council of Ministers for Fisheries and Aquaculture, Agriculture, Food and Forestry (MR-FJLS). Around 100 people from all the Nordic countries participated in the conference. The conference participants were offered a special taste of innovation from the high north as results from food production projects, innovation projects under NordBio led by Matis, were presented and tasted.</p> | | |
| English keywords: | <i>NordBio, Bioeconomy, innovation</i> | | |



Final Report - Matis ohf

Sigrún Elsa Smáradóttir

Póra Valsdóttir

Nordtic Conference Selfoss June 25th 2014

Conference on Nordic Bioeconomy and Arctic Bioeconomy was held on June 25th at Hotel Selfoss in Iceland.

During the Icelandic chairmanship in The Nordic Council of Ministers in 2014 bioeconomy has been at the center of Nordic cooperation, as NordBio is the largest of three programs under the Icelandic chairmanship of the Nordic Council of Ministers.

The main objective of NordBio is to strengthen the Nordic Bioeconomy by optimizing utilization of biological resources, minimizing waste and stimulating innovation thus bolstering the Nordic Bioeconomy.

The “Nordtic” conference was held in connections with an annual meeting of Council of Ministers for Fisheries and Aquaculture, Agriculture, Food and Forestry (MR-FJLS). MR-FJLS is responsible for the implementation of NordBio, in cooperation with the Nordic Councils of Ministers for the Environment (MR-M), Trade, Energy and Regional Policies (MR-NER), Educations and Research (MR-U), and Culture (MR-K).

Around 100 people from all the Nordic countries participated in the conference. The conference participants were offered a special taste of innovation from the high north as results from food production projects, innovation projects under NordBio led by Matis, were presented and tasted.

A short presentation of each product is attached to this report as well as being available at the conference web page <http://www.matis.is/nordtic>.

Sigurður Ingi Jóhannsson, Minister for the Environment and Natural Resources and Fisheries and Agriculture, provided opening remarks.

The keynote speaker, Dr. Andreas Hensel, is the president of the German Federal Institute of Risk Assessment, BfR, in Berlin. His presentation gave an overview over the setting of standards worldwide and in the European Union and added to the discussion „How does European consumer protection affect Nordic food innovation”.

Matís ltd.-Icelandic Food and Biotech R&D coordinated the content and scientific part of the conference.

Your Host in Iceland (Gestamóttakan) coordinated practicalities.

The majority of the inputs provided at the conference are available at the conference web page <http://www.matis.is/nordtic>.

The agenda of the conference was as follows:

Innovation in the Nordic and Arctic Bioeconomy

- **09:15** Coffee and registration
- **10:00** Opening the conference | Sigurður Ingi Jóhannsson, Minister of Fisheries and Agriculture
- **10:15** No standard = no market | Dr. dr. Andreas Hensel, President at BfR
- **11:00** Product development in the Arctic Bioeconomy | Sigrún Elsa Smáradóttir, Research group leader, Matís
- **11:30** Industry success stories:
Janus Vang, Director, iNOVA and Leif Sörensen, Chef. Faroe Islands
Kim Lyberth, Inuili school, Greenland
Ingunn Jónsdóttir, Regional Manager Matís and Valdís Magnúsdóttir, farmer and local food producer Iceland
- **12:00** Lunch | Special taste of innovation
- **13:30** Branding of Nordic food | Emil Bruun Blauert, CEO, Executive Advisor and Developer, WNEAT
- **13:50** Microfeed: Turning wood into food | Clas Engström, Managing Director, SP Processum
- **14:10** Nutrition for the future - Possibilities of the Nordic areas? | Bryndís Eva Birgisdóttir, Associate professor, University of Iceland
- **14:30** Coffee break
- **14:50** Food waste: Problem or growth opportunity? | Nils Kristian Afseth, Research Scientist, PhD, Nofima
- **15:10** Investing in algae - Ingredients for future food production | Olavur Gregersen, Managing Director, Syntesa Partners & Associates
- **15:30** Assessing and mitigating risk in the Nordic Bioeconomy | Guðmundur Halldórsson, Research Coordinator, Soil Conservation Service of Iceland
- **15:45** Reflection panel | Nordic and Arctic bioeconomy in local & global perspective:
Julian Roberts – COMSEC (Commonwealth Secretariat)
Prof. Dr. Eberhard Haunhorst , President of Lower Saxony State Office for Consumer Protection and Food Safety
Alda Agnes Gylfadóttir, Managing director, Einhamar Seafood
Sigurður Björnsson, Head of Research and Innovation, RANNÍS
Ásmundur Guðjónsson, Senior Adviser, Ministry of Fisheries Faroe Islands
- **16:30** End of conference

Conference facilitator: Guðrún Hafsteinsdóttir, Chairman of the Federation of Iceland Industries

Key messages from the conference:

Opportunities in strengthening the Bioeconomy through innovation are massive both in the high north as well as all the Nordic countries. The focus of the Icelandic chairmanship on Bioeconomy is therefore welcome, paralleling well with Nordic, European and other international focus on the Bioeconomy.

Food safety needs to be the foundation of innovation and production in the food sector, stressing the importance of setting high standards for food production and within the whole food value chain.

The branding of Nordic food is strongly linked to quality, freshness, purity and wellbeing. Preserving this reputation and practising innovation and production that supports it, is important both for public health and with respect to export and tourism.

Food security and nutritional security are important focus points of innovation and should be supported through innovation in the Bioeconomy.

Studies of the ecosystem and ecosystem resilience are important when it comes to ensuring a sustainable utilization of bioresources, and as foundation for innovation mitigating effects of natural hazards.

Biotechnology will play an important role in value creation in the Bioeconomy providing new solutions when it comes to production of high value compounds and products from biomass and making biofuel production profitable and competitive. Biotechnology will also play an important role in innovation in the food sector and related sectors such as feed and fertilizer production sectors. The application of biotechnology will furthermore be vital for minimising waste by producing value from waste streams and to ensure sustainability of resources.

Macroalgae has been identified as an important and highly interesting underutilized bioresource. Further research and support is needed for innovation using algae as a resource for health promoting supplements, production of high value specialty chemicals and biorefinery feedstock for production of added value bulk chemicals and biofuels.

The opportunities in the high north for product development are vast. The high north countries distinguish themselves from other Nordic countries as they depend more on export of unprocessed biomass than export of processed finished goods. Therefore innovation that increases processing and production of higher value finished goods is especially important in the high north countries.

The Nordic countries have a lot to offer, and can take a more active leading role in an international strategic setting towards a healthier global Bioeconomy. The long history of democracy and public wellbeing in the Nordic region and a fairly good track record when it comes to sustainable use of bio-resources makes the Nordic countries a credible leader in this important area.

Media coverage from the conference

Much media interest was towards the new products presented at the conference and towards inputs of speakers at the conference. A list of media coverage with links to each report is as follows.

<http://www.visir.is/section/MEDIA98&fileid=CLP27873>

<http://www.ruv.is/neytendamal/sukkuladithari-og-fleira-nymeti>

<http://www.ruv.is/mannlif/vannyttar-audlindir-a-matbordid>

<http://www.visir.is/nyskopun-i-lifhagkerfinu-kynnt/article/2014706259973>

<https://secure.creditinfo.is/fmvopen/ScriptData.aspx?script=4019014>

<https://secure.creditinfo.is/fmvopen/ScriptData.aspx?script=4018966>

<https://secure.creditinfo.is/fmvopen/ScriptData.aspx?script=4018946>

<http://ruv.is/sarpurinn/frettir/25062014/26-nyjar-matvorutegundir>

<http://ruv.is/sarpurinn/tiufrettir/25062014>

<http://ruv.is/sarpurinn/frettir/26062014/ungt-folk-er-i-mestri-haettu-ad-fa-kamfilobakter>

<http://www.ruv.is/frett/norraenn-matur-a-althjoda-markad>

<http://www.visir.is/section/MEDIA99&fileid=VTVD6295999-C17E-469C-B28B-8BCCC76D4472>

<https://secure.creditinfo.is/fmvopen/ScriptData.aspx?script=4020964>

<http://www.responsiblefisheries.is/islenska/frettir-og-utgafa/frettir/ahugaverd-radstefna-um-norraena-lifhagkerfid/160/>

<http://www.skogur.is/um-skograekt-rikisins/vidburdir/2014/06/25/eventnr/93>

<http://www.bbl.is/folk/lif-og-starf/nyskopun-i-hinu-norraena-lifhagkerfi/250/>

<https://www.facebook.com/nordurslodanetid/posts/493227657474980>

Special taste of innovation – New products from the high north

At the conference projects and products from the first phase of the innovation projects under the Nordbio program were presented. Focus was put on product development in three countries, Iceland, Greenland and the Faroe Islands. The aim was to activate small and medium enterprises (SME's) as well as entrepreneurs in product development focusing on using underutilized local bio-resources for value creation.

In total, 26 products were exhibited and most of them could be tasted. Posters and leaflets that can be used for further marketing of the products were made for all the products. 13 producers attended the conference and presented their products. Those who could not attend sent samples of their products which then were presented by their advisor from Matís (Iceland), Research Park iNOVA (Faroe Islands) or Innovili School (Greenland).

Following is description of the projects/products presented.

Name of project/product

Seaweed barley pasta

Producer

Himinbjörg, Reykjavík

Advisor

Matís

**Description of project**

Seaweed Barley Pasta is a health food made from local Icelandic raw materials for consumers that want an exciting food based experience. Made from Icelandic barley and seaweed the pasta combines qualities of land and sea in a healthy new product. The raw materials used in the product are locally produced and from underutilized resources, like barley which has mainly been used for animal feed in Iceland.

The ideology behind the product is to contribute to the sustainability of local Icelandic food products and to increase domestic production. The target market for the product is an expanding health food market. While the image of processed wheat based pasta generally has taken a dive in recent years this product aims to image a more healthy pasta made from local Icelandic barley and seaweed.

Presentation at the conference

Poster, prototype on display. Presented by Matís.

Contact information

saemundur@matis.is

Name of project/product

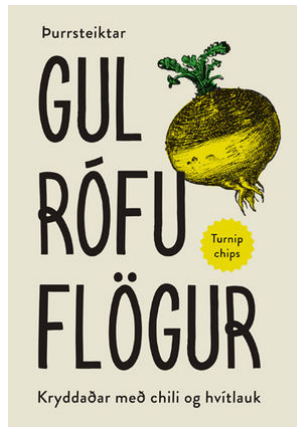
Turnip chips

Producer

Pomp og prakt ltd., Berufjörður

Advisor

Matís

**Description of project**

The product is turnip chips, oven baked and spiced with garlic, chili and Icelandic sea salt. The turnip chips are ideal snack by the TV, in the car or when reading a book. It is excellent as in-between meal being healthy and wonderfully tasty. In the project, the processing method was optimized.

Turnips are oranges of the north, excellent source of vitamin C and minerals. Despite its qualities and low cost, few applications have been for further processing into higher value products. Small turnips, that don't fit for the retail market, are used in the production of the chips, contributing to better use of this bioresource. Turnip chips are believed to have high marketing potential as consumers increasingly look for honest and healthy snack alternatives. No other Icelandic turnip snack is currently on the market.

Pomp og prakt Ltd. is owned by Svavar and Berglind at Karlsstadir in Berufjordur, East Iceland. Last year, Svavar and Berglind put their first product on market, Bulsur, Icelandic vegetable sausages. Bulsur, first of its kind in Iceland, where an instant success.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Pomp og prakt.

Contact information

www.bulsur.is or bulsur@bulsur.is

Name of project/product

Barbeque beef ribs

Producer

Kjot fra koti

Advisor

Matís

**Description of project**

The barbeque ribs are precooked and marinated, ready within 20 minutes on the grill or in the oven. Delicious and handy anytime you want give you self a treat. The ribs are sold both fresh and frozen. In the project, processing was optimised and packaging developed.

The cattle at the farm are solely raised on hay and mixed grain feed, free of antibiotics. Usually the meat from the ribs is used for mince. By further processing the ribs, higher value is created, strengthening the operational capacity of the farm. The product is sold directly to consumers from the farm. The farm is located close to large and popular vacation area which creates a great opportunity for marketing the product. Currently, no other similar product is on the market.

Unnsteinn and Valdís at Langholtskot farm in Hrunamannahreppur, South Iceland, breed and raise cattle from Galloway, Aberdeen Angus and Icelandic breeds. Since 2010 meat processing unit has been operated at the farm and the meat sold directly to consumers. Products include steaks, mince, burgers, goulash and gravad meat.

Presentation at the conference

Poster, prototype on display. Presented by Matís.

Contact information

www.kjotfrakoti.is

Name of project/product

Chondroitin from cartilage

Producer

Holtsbud 8

Advisor

Matís

**Description of project**

The project results indicate that processing of the chondroitin sulphate from shark cartilage is a simple procedure and may be profitable. Chondroitin sulphate shows considerable bioactivity, and is commonly used in nutritional products mainly against joint pains, both for humans and pets.

Shark is mainly by-catch and the cartilage is discarded today. In this project we set up a production line to isolate chondroitin sulfate from the cartilage. Chondroitin sulphate supplements are thought to help slow or prevent the degeneration of joint cartilage. Unlike many medications available to treat arthritis pain and inflammation, chondroitin sulphate supplements have very few side effects.

Holtsbud 8 has specialized in production of fermented shark meat and is among the largest suppliers of that product. The company intends to diversify their product line and fully use the raw material into valuable products

Presentation at the conference

Poster. Presented by Matís.

Contact information

Þröstur Sigmundsson; zrostur@gmail.com

Name of project/product

Herbal soap

Producer

Inuit Young

Advisor

Innovili - Matís

**Description of project**

In the product local plants are used. The project aims to optimise a method to extract the good ingredients that the Greenlandic herbs possess and further to determine who they are.

The Herbal Soap is made of imported oils and local herbs: Angelica, Labrador Tea, Seaweed, Arctic Thyme, Juniper Branches, No additives. Though using local plants in the manufacturing of soaps, the knowledge of local plants (herbs) and their effect on the human organism will expand. Furthermore it gives the locals inspiration to use more local dried herbs in the Greenlandic kitchen. Through finding new ways for utilisation, the old knowledge about the good effects of the herbs can more easily be kept in people minds.

The local made soap will be used in varieties of markets:

- Home market for soap without additives (maybe for people with skin problems).
- Tourists that visit Greenland
- Hotels in Greenland

The product is made in Narsaq in South Greenland. The company has only the owner as an employee. She makes the soap in her kitchen using low tech equipment.

Presentation at the conference

Poster, prototype on display. Presented by Innovili.

Contact information

www.inuityoung.gl

Name of project/product

Reklinger

Producer

Rodebay Fish Aps

Advisor

Innovili- Matís

**Description of project**

Reklinger is a naturally freeze dried product of sliced Greenland Halibut. The project should provide a method to make a product as close to the naturally product as possible using modern technology. To get added value to a limited resource and provide all year jobs and possibilities for the hunter/fisher to earn a living all year.

It's a traditional high value product produced for the home market. It is widely used in connection with several specials days. National Day, children's birthdays and so on.

The manufacturer is Rodebay Fish Aps. The product is produced in a small settlement in the northern part of the Greenlandic West coast.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Innovili.

Contact information

www.rodebayfish.com

Name of project/product

Ósnes Herring

Producer

Ósnes

Advisor

Matís

**Description of project**

Ósnes has been making herring products for the last 3 years. The herring we use in our products is all provided by Loðnuvinnslan hf. Fáskrúðsfirði and is freshly caught by Hoffell SU-80 outside the east coast of Iceland. We marinate/pickle the herring by an old family recipe and have mostly been selling to hotels and restaurants.

We have been selling to hotels and restaurants so far but now we embark on the local consumer market. We wanted to expand our business by making our products available in grocery stores and needed to make packaging in consumer size, suitable for that market.

We are knowledgeable of the fact that by using a product caught close to the place we manufacture the product, we are using fresher raw materials, enhancing the quality of the product with less waste.

Ósnes ehf. is a small family owned company that was established in 1996. We are located in the east fjords of Iceland in the small fishing town Djúpvogur.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Matís.

Contact information

osnes@simnet.is

Name of project/product

Blueberry-marinated and smoked meat

Producer

Bjarteyjarsandur

Advisor

Matís

**Description of project**

At Bjarteyjarsandur, farmers work in the spirit of the ecological and sustainable way of life. They show nature full respect and try to minimize the impacts on the surrounding environment. Farmers inform their guests and customers about different values of the area they live in.

The meat is salted and dried for a few hours. In the meanwhile, blueberry syrup is prepared and it is made of handpicked, Icelandic blueberries. The meat is marinated in the syrup before going to the smokehouse. After few hours of marinating, the meat is smoked for about 2-3 days, depending on weather conditions. The smoke is produced with the old traditional smoking method in Iceland, using manure and birch trees. After this process, the meat is ready to enjoy. It has a rich smoked taste which harmonies very well with the sweet outer cover of the blueberry syrup. It's a treat on its own, or as a tasteful and nice looking starter, decorated with fresh fruits, salad and edible flowers! The product is sold directly to consumers from the farm.

The farm is located in Hvalfjörður, a beautiful and mountainous fjord north of Reykjavík. The farm is recognised by many Icelanders and is also located near one of Iceland's natural gems, Glymur waterfall – the highest waterfall in Iceland. Guðmundur and Arnheiður, farmers at Bjarteyjarsandur farm run a family friendly sheep farm, producing lamb meat and wool from the Icelandic sheep. The farm has been in Guðmundur's family since 1887. Since 2012 meat processing unit has been operated at the farm and the meat sold directly to consumers.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Bjarteyjarsandur.

Contact information

www.bjarteyjarsandur.is

Name of project/product

Strandaber

Producer

Strandaber

Advisor

Matís

**Description of project**

The Strandaber line of wild berry products originates from Strandasýsla county in North-West Iceland. The berries are either cold-pressed or pressed after heating to produce bilberry juice (BLÁMI). The remainder (MASSI) is used for production of other foods (e.g. boosts) or sweetened and dried for snacks. The fresh products are preserved by freezing. No preservatives and artificial sweeteners and colours are used.

Strandasýsla county is known for its wild berries. The county is sparsely populated and only a small fraction of the berries is picked and used for food. The Strandaber products are made from berries which are hand-picked in the wild so the vegetation is not spoiled. The land should be a sustainable resource of wild berries. The wild berries of Iceland have a strong health image and people have used them for centuries. Now, antioxidants (polyphenols) and antioxidant activity in Icelandic bilberries have been measured. Both the polyphenols and the activity were higher than in imported blueberries. The wholesomeness is the driving force for marketing of Strandaber berry products. They will be marketed in health markets and sold as local products to tourists.

Signý Ólafsdóttir is the initiator of Strandaber products. She grew up at the farm Sandnes in Strandasýsla county where bilberries can be picked in wide open spaces. The berries were used for traditional sweetened juice and jam which were used through the wintermonths. After working in the fish industry and the banking sector, Signý decided to develop the traditional berry products for the health conscious people.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Strandaber.

Contact information

Signý Ólafsdóttir, benpet@simnet.is

Name of project/product

Dry Oyster mushrooms

Producer

Sælkerasveppir ehf. Hafnarfirði

Advisor

Matís

**Description of project**

The project has developed a successful procedure to dry oyster mushrooms for the retail market. The fresh oyster mushrooms are surplus from a mushroom production and have until now been discarded. Drying conditions, temporary storage of fresh produce and acceptance criteria for the final product were defined.

Essentially the production of dried oyster mushrooms utilises low value by-product such as barley straw to produce fresh oyster mushrooms and ultimately dried mushrooms. Furthermore the project has helped reduce, if not eliminated waste of fresh product.

The product adds to the otherwise poor variety of domestically produced dried mushrooms. The launch of this product secures the foundation for employment of more workers and further opens the possibility of more spin-off products within the production of exotic mushrooms.

A pilot production for the fresh produce and the dried oyster mushrooms has been established just outside of the capital. If the production proves commercially viable the production is likely to be relocated to the rural agricultural parts of Iceland, albeit within relatively short distance from the main markets.

Presentation at the conference

Poster, prototype on display. Presented by Sælkerasveppir.

Contact information

Tel + 354 564 6100

Name of project/product

Icelandic Charr from Swedish wood

Producer

Náttúra fiskirækt ehf.

Advisor

Matís

**Description of project**

Single cell protein consist of fast growing microorganisms. It can be produced from residual process streams from the biorefinery industry. A potential new co-product for the biorefinery industry. Rapid protein production (from kg to tons in 24h).

Environmental benefits! No fish depletion, no deforestation of rain forests, less transports. The residual streams from the cellulose bio-refinery are spent sulfite liquor (SSL), SSL-permeate, SSL-ethanol stillage, fiber sludge, hemicellulose hydrolysate.

The demand for fish is estimated to increase with 300% within 40 years. Fish production through aquaculture is projected to double within the next decades and so is the demand for protein for feed.

Fishmeal available for aquaculture is now falling short of demand. This shortage must be met by alternative and sustainable protein sources.

Náttúra fiskirækt ehf. has a land-based closed system. The Arctic Charr is reared in a blend of the pure freshwater and lava filtered seawater from our own boreholes providing optimal conditions for health and growth. All our energy needs are met with renewable energy resources.

Presentation at the conference

Poster, prototype for tasting (part of the conference lunch). Presented by Matís.

Contact information

clas.engstrom@processum.se; bjorn.alriksson@processum.se

Name of project/product

Beef Pastarami

Producer

Mýranaut

Advisor

Matís

**Description of project**

The Pastrami is made of fat marbling beef brisket, marinated in brine with some Icelandic herbs as thyme, birch and angelica, for 5 days. Then the muscle is seasoned with variety of spices. At last the product is full cooked. This product fits best as toppings on bread, thin sliced with mustard and pickled cucumber.

The cattle on the farm are free range and mainly grass fed, but in wintertime they also get some barley with hay from the summer before. The fields are partially fertilized with manure from the cows. The pastrami is first in a range of new product line that aims to higher value creation of their meat and creating year round jobs for the family.

The cattle farm “Leirulækur” in West Iceland sells its products under the brand “Mýranaut”, directly to consumer. The farmers, Sigurbjörn and Guðrún, run a family farm with 90 free range cows, that get additional feed during winter when snow covers the ground. The breed is mixed of Aberdeen Angus, Galloway and Limousine, and also Icelandic cows. The calf will be with the cows the first 9 months.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Matís.

Contact information

www.myranaut.is

Name of project/product

Marina Mayo

Producer

Marinox

Advisor

Matís

**Description of project**

Mayonnaise is one of the most popular condiments in the world. Known for its rich and creamy texture, it is often flavoured with all sorts of spices and sauces, used as dip, or simply used on its own to give a sandwich that finishing touch. Though it is calorie rich, its simple ingredients are not unhealthy. However, there is room for improvement when it comes to the nutritional value of mayonnaise, which is where Marinox, the producer, comes in.

Marinox new product, Marina Mayo, is mayonnaise enriched with Omega 3 fish oil, algae extract and fish protein hydrolysate. The numerous beneficial qualities of Omega 3 fatty acids are renowned, but the general public may not be familiar with the many benefits of consuming algae extract. Analytical in vitro research confirms Marinox™ algae extract: Has very high levels of bioactive substances; Has outstanding antioxidant activity; Has high anti-inflammation activity; Has anti-diabetic activity; Kills cancer cells.

Additionally, numerous researchers have shown that peptides processed from fish proteins have many health benefits. Including, but not limited to, reduction of blood pressure and stabilizing postprandial blood glucose responses. Incorporating these healthy ingredients into mayonnaise - which can then be used to create different types of flavoured sauces, e.g. curry sauce and wasabi sauce - allows consumers to easily add important fatty acids to their diet, and benefit from the healthy effects of algae extract.

Marinox was founded in 2011 and is based in Reykjavik, the capital of Iceland. At Marinox we build on years of extensive research on bioactives in marine macro algae. Our vision is to create value from underutilized natural resources, to apply scientific and technical excellence to developing marine algae bioactives and new applications for them – in a socially and environmentally responsible way for the benefit of current and future generations.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Marinox.

Contact information

marinox@marinox.is

Name of project/product

Kalli Sveins fish processing

Producer

Fiskverkun Kalla Sveins

Advisor

Matís

**Description of project**

Fiskverkun Kalla Sveins is SME in Borgarfjörður eystra, community of 134 inhabitants on the east coast of Iceland. The company is named after its owner Karls Sveinsson – Fish Processing of Kalli Sveinn's and was founded in 1986. Karl has operated small boat since 1977 and currently operates two boats along with the fish processing.

During the high season 20 people work in the fish processing, during winter the staff is between 12 and 14. The fish processing is the biggest company in the village. It takes active part in the local food in east Iceland initiative. Since 2009 the business has evolved as the owner took over the local café, Álfacafé, or Elves Café, that is located in the next building to the fish processing. With the tourism connection Fiskverkun Kalla Sveins have put more emphasis on product development, looking for opportunities in secondary food processing in addition to the primary fish processing previously predominant in the business operations. Since the embark of fish and tourism connection the tourist season has added six more active weeks of tourism in Borgarfjörður eystra.

The products that Fiskverkun Kalla Sveins has been working on are new to their product line, offered to their clients, which are most restaurants and hotels in eastern and northern part of Iceland. The product is a food ingredient based on cod caught by small boats, vital for the local community, and salted in the small village. The product was created to strengthen even further the connection between fisheries and tourism. The ongoing work is on definition and stabilization of shelf life of the product without additives that serves partly as a food souvenir like Brandade Pancake, Brandade Sticks and Brandade Balls by development with fusion kitchen approach to a traditional dish.

Presentation at the conference

Poster. Presented by Matís.

Contact information

fks@simnet.is

Name of project/product

Pearl barley

Producer

Móðir Jörð

Advisor

Matís

**Description of project**

Móðir Jörð introduces Pearl barley as a “cool grain for fine cooking”. Pearl barley is a new product in our existing barley line. The product line will include the plain pearl barley and two types of barleyotto which will include the vegetables and spices necessary to cook a quick but healthy meal in a simple way with Icelandic flavours.

Barley is one of the oldest cultivated cereal in Europe and well known for its nutritional qualities such as high fiber content. Móðir Jörð has promoted barley as a healthy food product, for more than 20 years and various products have been developed based on the concept of wholegrain.

Iceland is the most northern country in the world where people cultivate grain which explains the “coolness” of the product. We build on this in the marketing of the product and use packaging as an opportunity to educate the consumer about things we care about, such as its place of origin (Vallanes) and how we grow and produce our food in respect of the environment (organic).

Móðir Jörð products originate from the organic farm Vallanes in East Iceland. The brand is recognised for organic Icelandic products based on barley and vegetables grown in Iceland. Móðir Jörð is striving to promote healthy lifestyles and organic farming and food production in Iceland and beyond.

Presentation at the conference

Poster, prototype for display and tasting (part of the conference lunch). Presented by Matís.

Contact information

www.vallanes.is

Name of project/product

Country snack

Producer

Garður

Advisor

Matís

**Description of project**

„The Country Snack“ as we call it, is a beef jerky marinated and dried, ready to eat as a snack or when in need of an energy boost. In the project the marination and the drying was optimized.

The cattle on the farm Garður are mainly grass fed but twice a week they have all they can eat access to the barley mask that comes from the brewery close to us. No antibiotics or hormones are used in raising our cattle. With this product we look to creating higher value for our meat and adding another product to what we have to offer. The product will be sold directly to consumers, both to our coffeehouse visitors and also online. The farm is located close to the largest populated town in North Iceland, Akureyri. Our coffeehouse at the farm, is a new attraction in this area with ten thousand visitors last year. These two things, selling the meet straight from the farm and the coffeehouse, work very well together and we have had growing numbers of foreign people visiting us calling for a souvenir from the farm.

Garður farm is run by two brothers, Aðalsteinn and Garðar and their families. Aðalstein's three sons all work on the farm and the oldest son Einar is the owner of the coffeehouse and the meat processing unit that has been operating at the farm since 2011. The farm produces milk from 110 milking cows and these cows provide us with about 70 bulls every year that are raised for meat production. All of our livestock are from the Icelandic breed.

Presentation at the conference

Poster, prototype for display and tasting. Presented by Matís.

Contact information

www.nautakjot.is

Name of project/product

Atlantic rock crab

Producer

Arctic Seafood Ltd.

Advisor

Matís

**Description of project**

The product is crab meat, cooked and frozen. The product is used for crab salad, crab cakes or burgers. In the project, method was set up for processing of meat from shoulders and legs of Atlantic rock crab. Next step is to produce finger food by cutting the crab claws, “cocktail claws”.

Despite being common on the west coast of Iceland, exploitation of crabs has been limited. In order to make it economically feasible, maximum utilisation of the catch is needed. The project contributes to better use of this bioresource as well as enhancing the knowledge on crab processing which has been limited in Iceland.

The product is sold to restaurants as well as used at Arctic Seafood new sales stand at Reykjavik harbour, Walk the Plank. The product has got excellent reception from chefs and consumers. Currently, there is no similar product available on the market from Icelandic crabs.

Arctic Seafood Ltd. in cooperation with Whole Seafood deals in fresh and value added seafood products. Arctic Seafood aims at sustainable utilisation of new and unexploited natural resources by producing sustainable quality products that fulfil market demands. Products include Atlantic mackerel, rock crab, mussels, clams and byproducts from traditional Icelandic ground fish such as cod and haddock.

Presentation at the conference

Poster, prototype for display. Presented by Matís.

Contact information

www.arc.is

Name of project/product

BE juicy

Producer

BE

Advisor

Matís

**Description of project**

BE juicy is a juice powder made from green apples, kale and fresh mint. It is completely organic and without all additives. Blended in water it gives you a fresh, nutritional drink in few seconds. It can also be added to other drinks or sprinkled over yogurt and desserts

One of the main priorities in the development of this product was the ecological benefit. BE Juicy is a locally grown/produced eco-friendly product. We are minimizing waste by using discoloured and bruised vegetables and fruits and adding value to the production for vegetable and fruit farmers.

All the juice products that prevail on the market have short shelf-life and have to be consumed within few days. BE Juicy is sold as powder to be applied to water at the chosen time of consumption. It is a fast, good nutrition that suits the modern life very well.

Sólheimar í Grímsnesi is the key collaborator in this project. They are an eco-village producing organic vegetables and fruits and many other products. They will harvest the raw materials and maybe take over the production in the future. Now the powder is produced at Matís.

Presentation at the conference

Poster, prototype for display and tasting. Presented by BE.

Contact information

bre15@hi.is

Name of project/product

Silver Smelt

Producer

Gutti Winther

Advisor

iNOVA

**Description of project**

Silver Smelt is very inexpensive in the Faroe Islands. Today it is mostly minced and exported at low price. This project aims to develop prepared products of this versatile resource. Adding a specific Faroese flavor, the silver smelt has been crusted with dried fish and garnished with an angelica mayonnaise.

Not much is known about culinary properties of Silver Smelt, and thus most of this project has centered on determining these. The durability of the product will be tested in cooperation with the Food and Veterinary Agency of the Faroe Islands.

The Faroese economy heavily depends upon the export of fish, and we would like to optimize the products in an innovative manner. We focus on promoting a cheap and relatively unknown fish species to ease the pressure on the more expensive and threatened fish stocks.

The New Nordic Cuisine movement has highlighted the fantastic natural resources of the Faroe Islands. We would like to make them more accessible and marketable and promote the specific Faroese flavor. The home market is a good test-market, but we aim for an international market.

The producer, Gutti Winther, 34, is a chef, educated from The Paul in Denmark and a member of the New Nordic Cuisine Initiative. Gutti is also the owner and host of the Faroese culinary television program "Spískamarið". Faroese raw materials, flavor and knowledge combined on the Faroe Islands.

The project was initiated by a researcher, a primary producer and two chefs, a perfect constellation for innovation. The process has been incredibly enlightening, and we are excited to see where it leads us.

Presentation at the conference

Poster, prototype for display and tasting. Presented by iNOVA.

Contact information

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Name of project/product

Rhubarb juice

Producer

Johanna Maria Isaksen

Advisor

iNOVA

**Description of project**

The product is a rhubarb juice, made solely from locally grown rhubarb and organic cane sugar. The production process is focused on protecting the natural taste and good qualities of the rhubarb. The rhubarb juice is bottled and labeled with a description of the contents and the origin of the product.

This project is focused on creating educational opportunities for small-scale agricultural producers in cooperation with the Environmental Agency of the Faroe Islands. Furthermore the durability of the product will be tested in cooperation with the Food and Veterinary Agency of the Faroe Islands.

The producer is Johanna Maria Isaksen, 27, who lives in the village of Húsar. Her expertise builds on the participation of her mother and grandmothers cultivation of rhubarb products for many years. Jobs are scarce in the village of Húsar on the isolated island of Kalsoy, especially for women. Húsar provides a rich setting for producing herbs and vegetables, specifically rhubarb, which historically has been an important source of food. Johanna Maria sees an opportunity in producing a high-quality rhubarb juice from the local resources.

The intended market for the rhubarb juice is tourists, but the youth on the Faroe Islands have also discovered the qualities of the refreshing juice.

The sale of rhubarb juice and other products made from rhubarb is a substantial contribution to the local economy. The juice is produced in the local kitchen, which has been equipped and approved for that purpose. Sustainability and product development are an integral part of the production process.

Presentation at the conference

Poster, prototype for display and tasting. Presented by iNOVA.

Contact information

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Name of project/product

Fish Chips

Producer

Leif Sørensen

Advisor

iNOVA

**Description of project**

The fish chips are made from fermented fish held together by different grains. The fish chips thus gets a unique Faroese flavor, which derives from the Nordic fish and weather. The main focus of this project is to develop packaging for the fragile chips, which will be done in cooperation with the Technological Institute in Denmark.

The fermented fish is a high-quality and traditional product of the Faroe Islands, but it isn't exported in substantial quantities.

Leif Sørensen sees an opportunity to make this product marketable in an international setting. The goal is to produce 40.000 packages a year, which means that it is necessary to cater to the international market.

The producer is Leif Sørensen, a trained chef, who has been in charge of two restaurants on the Faroe Islands, Gourmet and KOKS. He also has a background in biology.

The production will be set up on the Faroe Islands.

Presentation at the conference

Poster, prototype for display and tasting. Presented by Leif Sørensen

Contact information

leifso@mail.fo

Name of project/product

Íslandus, Whey Popsicle

Producer

Kruss ehf.

Advisor

Matís

**Description of project**

Whey Popsicle is a modern twist of a traditional Icelandic recipe, based on cultural heritage and traditional cuisine. It contains wild hand picked berries and herbs from the Icelandic inlands, mixed with nutritious whey, a by-product of the Icelandic “skyr”. Íslandus is a healthy choice for children and adults.

The production of Íslandus focuses on sustainable use of Icelandic nature and prevents disposal of whey. Because whey is high in organic content, it can cause eutrophication in waters when discarded, causing major environmental problems. The production uses only renewable energy resources and local ingredients to reduce environmental impact.

Íslandus Whey Popsicle is a novel product that appeals to an expanding number of people interested in native food experience and healthy treats. It is a great food souvenir for foreign tourist visiting and experiencing the wonder of the Icelandic nature.

Kruss ehf. was launched in 2013 and produces Íslandus Góður and Íslandus Þyrstur health drinks. The company is located in Reykjavík and owned by three women, all sharing the passion for efficient and sustainable use of natural resources and unused by-products.

Presentation at the conference

Poster, prototype for display and tasting. Presented by Kruss.

Contact information

www.islanduskross.is; info@islanduskross.is

Name of project/product

Fjara, seaweed mayonnaise

Producer

Eat Purple

Advisor

Matís

**Description of project**

Fjara, seaweed mayonnaise is made from red seaweed, dulse. The binding power of alginates found in the seaweed renders eggs unnecessary and enables us to produce this remarkably aromatic mayonnaise. Combined with its exceptional nutritional value with regards to antioxidants and minerals, Fjara is a reduced fat mayonnaise with less than 46% fat.

Fjara contains dulse, red seaweed that has been consumed in Iceland from its settlement. The utilisation dwindled in last century, leaving this resource mostly unutilised. Limited development has been in processing and production of products containing dulse. Fjara shows an example on the potential this healthy, resource has.

Fjara targets people that are health conscious, environmentally concerned and those interested in trying novel foods. The Asian market is of great interest to us as we feel our product combines the best from the west and the east, mayonnaise and seaweed, for which there is a strong tradition of consumption in Asian countries.

Eat Purple was founded by two food science students, Christopher Melin and Páll Arnar Hauksson, whose collaboration resulted in a victory in the EcoTrophelia Iceland 2014 competition. Fjara is manufactured at Matís headquarters in Reykjavík.

Presentation at the conference

Poster, prototype for display and tasting. Presented by Eat Purple.

Contact information

p@p.is

Name of project/product

Jerky of Greenlandic meat

Producer

Panertut Narsaq, Jakob Knudsen & Jim Petersen

**Advisor**

Innovili and Matís

Description of project

Jerky made of Greenlandic mammals (reindeer, seal and whale). In the project recipe has been developed for a soft product, that can be kept at room temperature. Storage at room temperature is a demand from the stores in Greenland, as they have limited cool/freeze capacity.

The product is easier to transport from production to shops, and the customers can use it on trips in the nature. Better sustainable use of the wildlife (land and sea mammals) in Greenland. The project is helping to for wider use of the local wildlife and at the same time add value to the resource.

Increased use of own resources means less dependency of imported products. Better possibilities for hunters to keep an income and thereby keep knowledge of traditional foods. Role model for other small productions for example sheep holders to use more of the nature resources beside sheep.

The jerky product is only aimed at the home market. There is a long tradition in Greenland for dried products of both meat and fish. In recent years a lot of imported products are slowly pressing the traditional products out among the young. A spiced jerky could replace potato chips as a healthy alternative. The Jerky is produced in Narsaq in South Greenland. Products are produced in a small factory by local business men in their spare time.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Innovili.

Contact information

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Name of project/product

Artisan dairy products

Producer

Efstidalur

Advisor

Matís

**Description of project**

The products are skyr, skyr-whey, ice cream and fresh cheese produced with love and care from milk produced at Efstidalur II farm. In the project, product quality was optimised and packaging developed for retail sale.

At Efstidalur, emphasis is put on producing quality products from own raw material and cooperation with neighbouring farmers that supply local ingredients, such as strawberries, for their ice cream. Processing own milk into higher value products supports the farmers aim on running viable business, and creating full time job for all family members.

Consumers seek honest, back to basics food, including artisan production. The products are sold at the farm's restaurant and store. Supply of artisan dairy products in Iceland is limited, and non-existing in theregion where Efstidalur II is located, giving the farm unique position.

The owners of Efstidalur II are husband and wife Snæbjörn and Björg. The same family has lived on the farm since 1850. Our main occupation is cattle farming, tourism and horse breeding. In 2013 restaurant was opened at the farm and processing facility for dairy production set up.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Efstidalur.

Contact information

www.efstidalur.is and info@efstidalur.is

Name of project/product

BioBu Organic Skyr

Producer

BioBú

Advisor

Matís

**Description of project**

Aurora's aim is to combine old Icelandic traditional methods in dairy processing with a new ideology in food manufacturing that focuses on the simplicity of keeping all ingredients as close to their natural state as possible, as well as being locally grown and pure. The cows from the Neðri-Háls farm are exclusively grass fed.

Aurora Organic Skyr is a non fat dairy product that is similar to yogurt. It is flavoured with locally grown flower honey and wild blueberries. Added to the mix is kelp powder that has flavour enhancing effects as well as adding texture and nutrients.

The product was developed with the key factors biological diversity, purity, health and environment in mind. During the development the life cycle assessment (LCA) methodology served as a guideline to ensure success in implementing the ideology behind the product.

There is an incredibly wide selection of yogurts available on the European market today. Consumers make their decisions based on segments that include regular, active health, diet, plain, kids', budget and organic, only to name a few. Aurora Skyr could easily occupy a niche in this market and fall under the active health and diet categories as well as the organic one. Skyr has the nutritional benefits of being very low in fat and high in protein and the Aurora Skyr has been enhanced with active ingredients from the kelp.

BioBú is the first organic dairy company in Iceland (BioBú ehf.) establish 2002 and first product (three flavours of yogurt) was put on the market third of June 2003. Biobú specialises in producing organic milk products. The dairy is in Reykjavik, grown from 100m² to 650m² the year 2013.

Presentation at the conference

Poster, prototype on display and for tasting. Presented by Matís.

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