

Nordic functional food

- A healthy choice

A Nordic Innovation Centre synthesis report

March 2009





Foreword

In the Nordic countries, the food industry is of significant importance to the economies. Strong cultural traditions mixed with high quality have been its strength, resulting in good reputation. However, that is not enough in order to be competitive in the global food market. The industry has to carefully observe the rapid developments in the food sector, which makes new thinking and innovations essential.

Functional food has previously emerged as a mega trend in the food market; in fact it was one of the fastest growing food segments in 2005. At this time, the Nordic Innovation Centre started to look into how we could help the Nordic industry exploit the potential within the functional food area. Nordic food industry with its traditions and infrastructure together with high qualified research on the relationship between health and food makes an excellent point of departure for success.



Ivar H. Kristensen
Managing Director

What has been recognised from the very beginning of the programme is that there are challenges and controversies related to the entering of this market, such as documentation of health claims, communicating functionality and achieving consumer credibility. To overcome such challenges, participation and cooperation from commercial industry, research organisations, and authorities and associations, was considered necessary when launching the programme. It has often proved to be a challenge engaging the industry in such projects. However, in this case, the industry participation was higher than average. Good feedback from the participants has given positive input on how we can design future programmes in order to best serve the Nordic industry.

The results presented in this synthesis report show that we have succeeded in creating platforms together with all stakeholders to discuss issues related to health claims and the idea of Nordic consensus when implementing EU's directive and regulations. More than that, as a result this work, special areas of interest in the Nordic countries are now taken up by the European authorities.



Sigrídur Thormósdóttir
Senior Innovation Advisor

Harmonization of rules and regulations in the Nordic countries, good practise in use and communication of health claims is important in the development of the Nordic functional food market. Without a common framework, the industry will find it difficult to launch new and innovative products.

There is still a way to go, but it is our belief that these projects have given valuable input for further development and commercialisation of Nordic functional food.

This synthesis report presents a summary of the work carried out in six functional food projects financed by Nordic Innovation Centre in the period from 2006 to 2009.

We hope you will find the report valuable and interesting to read.

Ivar H. Kristensen

Sigrídur Thormósdóttir



Table of Contents

Foreword	2
Table of Contents	3
Facts about the functional food programme	4
The projects in short	5
How should functional foods be tested? (Human studies of foods – requirements and level of proof?)	6 - 7
Consumers are cautious towards unfamiliarity (ACCLAIM)	8 - 9
The battle against overweight and obesity (Weighty)	10 - 11
Traditional Nordic food in a new light (Grainity)	12 - 13
Mission: More seafood on the plate (MARIFUNC)	14 - 15
Marketing skills needed to accelerate growth (SME's commercializing healthy nutrition)	16 - 17
Project participants	18 - 21



Facts about the functional food programme

Healthy lifestyle

The increase of lifestyle related diseases has raised awareness of the important role food plays in one's health and wellbeing. The more knowledge there is about functional foods and their role in prevention of lifestyle related health problems, the more interest there is. As a result, the market growth of functional foods is exceeding the growth in the food sector in general.

Nordic cooperation

The six Nordic projects constituting the focus area have as a common goal to support the Nordic food industry in becoming more innovative and competitive in the Functional food market. These projects address central issues concerning the development and marketing of functional food such as:

- Establishing good practice in the use of health claims
- Communication with the consumers
- Harmonization of rules and regulations
- Functionality in traditional Nordic foods
- Enhancing entrepreneurship and innovation capabilities

The overall aim with the focus area is to make Nordic functional food competitive in the global market and a healthy choice

Programme periode: 2006-2009

The total budget for the programme is NOK 25 millions, of which NICes investment amount to NOK 12,5 Millions.

Participants in Nordic Functional Food

Total number of project participants directly involved in the projects is approx. 150. Direct industry participation amounts to 40 %. This does not include representatives from the industry participating in several seminars or meetings arranged by the projects. The geographic spread of participants demonstrates a good Nordic profile.

For further details on the projects and their results, please see the project reports which can be downloaded for free at www.nordicinnovation.net.

The projects in short



6

Human studies of foods - requirements and levels of proof?

The lack of consensus on the level of scientific support and documentation required for health claim is a bottleneck in the process of developing and marketing functional foods. The project "Human studies of foods - requirements and level of proof?" established a Nordic/Baltic consensus on requirements, techniques and methodologies for human studies on functional food and ingredients.



8

ACCLAIM - Consumer acceptance and trust: Recommendations for using health claims in marketing

Relatively little knowledge is available on consumer reaction to health-related claims for functional foods, even though this is a crucial factor for the industry and regulators to know. This project, "Consumer acceptance and trust: recommendation for using health-related claims in marketing", developed a common Nordic approach, based on consumer surveys of all Nordic countries, to the use of health claims in marketing functional food products.



10

WEIGHTY - Substantiation of weight regulation and satiety related health claims on foods

The prevention of obesity is one of the most important health claims made for functional food products. "Substantiation of weight regulation and satiety related health claims on foods" created a network of Nordic scientists and food industry working with satiety and weight regulation related issues. They developed suggestions for common practices in assessing evidence for such claims.



12

GRAINITY - Wholegrain rye and oat - the Nordic opportunity

Wholegrain, rye and oat products are traditionally important in the Nordic diet and as Nordic export items. Interest in such products is increasing globally. The aim of the project "Wholegrain rye and oat - the Nordic opportunity" is to encourage new product launches, building on the collective expertise so readily available in the Nordic countries.



14

MARIFUNC - Nordic Network for Marine Functional Food

Several seafood components have gained interest as potentially bioactive and health promoting ingredients. MARIFUNC set up a network of experts and created an overview of the role fish and seafood derived components play in relation to health, the quality of the functional seafood components, the processing of functional seafood components and the consumer's attitude to (marine) functional foods.



16

SMEs commercializing healthy nutrition

With emphasis on innovation acceleration, strategies to enter market, and best practices, the project "SMEs commercializing healthy nutrition" focused on Nordic SMEs and their efforts to bring healthy nutrition to market. Through e.g. a survey and in-depth interviews, the project generated information about their commercialisation strategies, marketing and branding capabilities, as well as major drivers and hurdles on the market.



How should functional foods be tested?

Øresund Food Network headed the project Human testing of foods – requirements and level of proof. This project highlighted two important bottlenecks in the development of functional foods.



Two bottlenecks

The first bottleneck is the scientific documentation of effects when testing the functional foods. That is, what evidence is necessary for scientifically assessed and documented health claims? To address this question, the project looked at the role of intervention studies, animal studies, biomarkers and epidemiology in relation to health claims on food. "Health claims are aimed to make it easier for the consumer

to make a healthy choice and the health claim legislation is ensuring that the claims on the foods are true and scientifically proven. It is here the tests on humans are important", Maria Olofsdotter from Øresund Food Network says.

The second bottleneck is related to the actual agreement on which claims and which wordings should be accepted. There are almost as many views on this matter as

there are Member States in the EU. Therefore the project worked on maximizing the Nordic and Baltic influence in the debate. It set up a dialogue forum where almost 60 project participants and many other stakeholders debated and discussed their views. Project leader Maria Olofsdotter says in her final report that: "It is still of uttermost importance to foster and encourage a cluster of competence dealing with issues related to the new EU

legislation on health claims in the Northern countries. Such competences should be representing all stakeholders, academia, industry and the authorities”.

Company considerations

Many companies are planning to use health claims in future and are therefore thinking about conducting clinical studies and gathering evidence for potential health claims. We asked Johan Olsson at KPL Good Food Practice what issues are important to

consider before getting started?

He describes his company's approach: "It is important to start the discussion depending on how much information the company have and its possibility to finance developing of the

project". Obviously there are differences between small and large companies in terms of resources and funding. Olsson agrees that when a small company is planning its first clinical trial, the first study needs to be as small and cheap as possible.

He gives an illustration of cholesterol. A health claim can be built either on a text "lower LDL cholesterol" or "reduce the risk for cardiovascular diseases" and a well defined group of consumers who will benefit from the product. "To prove that a food product reduces LDL is much easier and cheaper compared to showing that it "reduces the risk for cardiovascular diseases", he explains." A step-by-step thinking is necessary to save money and reduce the risk in the project".

Influence on future claims

The final recommendations from the project will be presented in a reviewed scientific article later this year. Olofsdotter describes the process of reaching the recommendations. "The processes in the Nordic countries have been very different from each other. However, the dialogue in the project has given all the participants the possibility to discuss and air the different views". According to Olofsdotter one of the clear outcomes of the discussions

was to point out to EFSA (the European Food Safety Authority) and the European Commission that it is of utmost importance that the future claims on foods should be relevant to the consumer in the concentrations of intake.

"Today there is consensus among the scientific experts that diseases such as cardiovascular, cancer, diabetes can be diet related. WHO has stated that one third of all cancers may be caused by unbalanced diet. It is therefore of importance to understand the correlation between food and health. "

Johan Olsson

"Through this project, the Nordic countries managed to come through with this point, resulting in a relevance criteria being included in the text", she emphasises. One of the main objectives of this project has been that special areas of interest in the Nordic countries are taken up by the European authorities.

OUTPUTS OF THE PROJECT

- 8 workshops and 10 dialogue meetings.
- 3 scientific papers dealing with the methodology of scientific validation of health claims, one on animal testing, one on biomarkers, and finally, one on intervention studies especially focused on heart health.
- List of claims dealing with heart health, antioxidants, pro- and prebiotics to be validated by the thematic working groups.

PROJECT PROFILE

It is important to foster and encourage a cluster of competence dealing with issues related to the new EU legislation on health claims in the Northern countries.

This project set up a Dialogue Forum with competences representing academia, industry and the authorities.

It worked on the issue of what level of evidence is necessary for scientifically assessed and documented health claims from a Northern perspective.

Project name: Human studies of foods – requirements and level of proof?

Project leader: Maria Olofsdotter, Øresund Food Network, Denmark, mo@oeresundfood.org



Consumers are cautious towards unfamiliarity

In true life functional food is defined by what can be said about it. As we know, new EU regulation is setting a framework for how companies can present their health enhancing products – but what does the consumer really think about such wording and claims?



The project ACCLAIM studied more than 4600 Nordic consumers. The researchers looked at consumer attitudes and how their choices were influenced by claims. The first impression is that today's consumer isn't too concerned about what is stated on pack. The study found that for the average consumer (if we can claim that there is

one) health claims play only a minor role in choices when e.g. the price of the product is very important. It also found that claims can even give the consumer a perception of unnaturalness. Probiotic pork or peptide water would probably be refused room in the shopping cart as naturalness is one of the strongest prevailing consumer trends in food and health.

Realistic consumers

ACCLAIM also found that consumers are able to understand the promised benefit of risk reduction claims. In other words, if you have a dairy product and you claim that it will reduce the risk of osteoporosis it will probably receive positive nodding from the consumers, because they are quite familiar with the connection of dairy, calcium and osteoporosis due to repetition, education and natural connection. Consumers also seem to be quite grounded and don't believe in overindulgence: 85% of the respondents did not believe that eating more of the product than recommended would give extra benefit.

If a manufacturer chooses to use health claims, what can he do to improve his chances of being successful? Familiarity is a key element according to project coordinator

Professor Liisa Lähteenmäki and her colleagues. Marketers of functional foods should make a note that familiarity can relate to familiar ingredient, promised effect and

“Unfamiliar claims and product-ingredient combinations need to be made more familiar somehow to decrease the consumer suspicion towards new things they do not know or have no previous knowledge on.”

Liisa Lähteenmäki

fiber or heart-friendly rapeseed oil have a better chance as consumers can relate to them. Merete Myrup Christensen, Head of Corporate Nutrition at Arla Foods amba, adds that it is essential for manufacturers to understand the market and the consumers before using health claims on their products.

Short and simple

ACCLAIM's recommendation to manufacturers is to keep the language of the health claims short and simple, but provide more detailed information for those who wish it e.g. through websites or leaflets. It is important that consumers in general are provided adequate education and training in healthy eating so that they can understand whether the promised benefits are relevant to them. Media, retail, health-promoting organizations and our formal education systems are important players in providing information on healthy eating.

Myrup is pleased with the project and describes it as an important network that provided interesting discussions with researchers, industry and authorities. “It has given us important inputs to our internal discussions about health claims”. To her mind an ideal scenario for health

previous use of health claims in the product. It promotes confidence in the consumers mind. In other words, if probiotic pork isn't likely to be successful, bread rich in

claims is that there is close cooperation between research, industry, authorities and consumer groups, so that food products with a documented health effect can play a role in future disease prevention/reduction (together with a range of other initiatives), and so that consumers trust, understand and are not misinformed by approved health claims.

OUTPUTS OF THE PROJECT

- A literature review on pre-EU legislation practices on health claims in Nordic and Baltic countries.
- A consumer survey on how consumers perceive health claims with different wordings and how claims affect choice decisions with 4612 respondent in Nordic countries.
- Five national and one Nordic workshop developing a shared viewpoint on what should be taken into account when health claims are used in marketing.

PROJECT PROFILE

The objective of this project was to develop a shared Nordic view among stakeholders on how health claims should be used in marketing with the emphasis on consumer understanding and how the new EU-legislation (Regulation (1924/2006) on health claims will be interpreted.

Project name: Consumer acceptance and trust: Nordic recommendations for using health claims in marketing

Acronym: ACCLAIM

Project leader: Liisa Lähteenmäki, VTT Technical Research Centre of Finland, LIISAL@asb.dk



The battle against overweight and obesity

The increase of lifestyle related diseases has raised awareness of the important role food plays in consumers' health and wellbeing. The Weighty project headed by VTT Technical Research Centre of Finland, took a profound look at the dramatic increase in overweight and obesity in all Western countries. Because they are thought to be important risk factors for many chronic diseases, the project argued that identification and communication of food properties that may be helpful in their prevention and management is very important.



The project initiated a common Nordic platform where scientist and industry representatives could address the problems of increased weight among consumers and think about potential solutions. One important output of the project is a literature overview (published in the final project report) called "Satiety, weight management and food." This overview has summarized all the latest research related to regulating food intake, satiety measurement and food properties that play a role in satiety and weight management. It provides a useful guide for any product developer working with new solutions in this area.

Satiety is important

Working through satiety could be one effective way to contribute to weight control. The top list of researched food compounds that have an effect on satiety is populated by different fibers and proteins. Their role in weight control is well researched. However, there are tremendous differences between e.g. different forms of fiber. Soluble and viscous fibers (like betaglucan from oats) and non-soluble fibers (e.g. wheat bran) have strong proof of good satiety properties, whereas the area of soluble non-viscous fibers like e.g. polydextrose is still quite unknown and should be researched further. Viscosity is an important factor – but it alone doesn't seem to spell out the whole story.

Also a diet rich in protein has been proven in many studies to have an effect on weight management. Proteins are also of interest for one of the industry participants in the project, meat processor Atria from Finland. Product development

manager Leila Vikberg says their interest is mainly in meat proteins, their impact on satiety and how they could be used in the development of new products. She sees that the prime test for manufactures trying to tackle the problem of overweight is to succeed in commercializing

The prime test for manufactures is to successfully commercialize products that the consumers accept and are ready to use in their daily diet.

products that the consumers accept and are ready to use in their daily diet. Senior Scientist from dairy company Valio, Taru Pilvi, agrees. "One of the biggest challenges is to make the weight-control or light products appealing to the customer". She describes the dilemma further: "Those who want or need to control their weight are more interested in unhealthy foods and don't see healthy foods as something that they WANT to eat, but more as something that they SHOULD eat".

Tasty products

Vikberg at Atria and Pilvi at Valio have similar solutions in mind when asked how manufacturers like they can address the problem of overweight. Vikberg says: "Through research we can broaden our product range and use approved health claims in our marketing to help consumers in their food choices". Pilvi also emphasizes the importance of the good taste of the product. "We have already healthy non-fat products on the market and one of the most important things it to make them taste good". She adds, "when people try to lose or control their weight they are not willing to eat foods that are not tasty, especially when they have to limit their intake of food during dieting anyway".

For both Atria and Valio the project has given some food for thought. Vikberg says it is important to net-

work with research institutes and universities, as well as other food companies. Pilvi doesn't maybe see a direct benefit for her own work but concludes that "the most important thing in this type of projects is to join forces and try to achieve general guidelines or ideas how the field of functional foods for weight management should be developed and managed in the future".

OUTPUTS OF THE PROJECT

- The scientists wrote a literature review of the current knowledge on food properties affecting satiety and/or weight management.
- The scientific evidence behind two-step claims may allow easier substantiation of the claim compared to product-specific claims; e.g. "High in fibre. Fibre may increase satiety" compared to "This product increases satiety".

PROJECT PROFILE

The project aimed at building a Nordic consensus on biomarkers, methodology, procedures and other factors relating to these issues.

Weighty created a network of Nordic scientists and food industry working with satiety and weight regulation related issues, with the aim of adopting common practices in assessing evidence for such claims.

Project name: Substantiation of weight regulation and satiety related health claims on foods

Short name: WEIGHTY

Project leader: Marika Lyly, VTT Technical Research Centre of Finland, marika.lyly@vtt.fi



Traditional Nordic food in a new light

Coordinated by VTT Technical Research Centre of Finland, GRAINITY works with wholegrain cereals, rye and oats as a Nordic opportunity in functional foods. Rye and oats are loaded with fiber and other healthy promoting substances. They are also traditionally important in the Nordic diet and as Nordic export items.



The GRAINITY project is still ongoing and will not end until September 2009, but has already arranged inspirational workshops for scientists and industry representatives where potential uses of oat

and rye as functional foods have been brought to new heights. One of the aims of the project

has been to extend the Nordic collaboration in functional cereal foods to the Baltic countries. Actions like these are encouraged by the Nordic Innovation Centre who sees great importance in collaborating over the borders. For small countries such as the Nordic and Baltic countries collaboration and the pooling of efforts and resources makes sense and can help to attain a competitive edge and have a greater impact on the larger markets. GRAINITY has organized workshops in both Riga and Vilnius. Last GRAINITY workshop will be organized in connection to Whole Grain Global Summit in UK, 24-27 March 2009.

Many market trends to connect to

This project wants to encourage new product launches building on the collective expertise readily available in the Nordic countries. Research Director at Fazer Bakeries, Risto Viskari sees a lot of future potential in rye and oats: "Rye and oats have already a high status as naturally healthy ingredients. This growing awareness among consumers gives a good basis for widening the product portfolio keeping in mind the key factors like appealing taste and convenience". He also calls attention to growing issues like environmental responsibility and interest in refreshing use of traditional foods and ingredients as favorable development for these grains. Viskari, who is representing one of the six participating com-

panies, picks out the understanding of consumers as one of the biggest challenges for the Nordic bread and bakery industry. To achieve commercial triumph it is important

"Rye and oats have already a high status as naturally healthy ingredients".

Risto Viskari

to understand the more and more diversified consumer behavior and needs. His recipe for success is: "Find the right focus and realize it efficiently both in supply chain and by brand power.

Many benefits of participation

Fazer Bakeries have an impressive 15 year long experience from cooperation in wholegrain networks of which this project is one in line, as well as Nordic academia industry interaction." The GRAINITY project gave us resources to further benefit our network and to concretely realize our ideas and targets", Viskari adds. He lists an impressive list of useful tools his company has access to through this project:

- Information of research results, marketing campaigns, legislation;
- Dissemination of information about the benefits of wholegrain in trade journals;
- Seminars located in Baltic countries, which advanced co-operation with Baltic bakery units and as new EU-members their knowledge e.g. about EU-regulations; and
- New web-pages for both oats and rye which are very useful sources of information for company use, he says.

Once finished, the expected outcome of the GRAINITY project is that the Nordic cereal industry will be a leading actor in the increasing healthy cereal foods market and that there will be increased quality of innovation.

OUTPUTS OF THE PROJECT

- A collection of data on rye and oats on two web-sites published by the project:

www.ryeandhealth.org

and www.oatsandhealth.org.

- Workshops in the Baltic States on health claims related to cereal products and on the role of cereal products in dietary guidelines. Material presented in these meetings is available at grainity.vtt.fi.

- The final workshop will be arranged in March 2009 and will disseminate project results internationally.

PROJECT PROFILE

The overall objective of the GRAINITY project is to provide a scientific discussion forum to assist in development of functional whole grain, rye and oat food products.

Furthermore, the project aims to:

- Provide shared Nordic views to substantiate nutritional and health claims of grain foods,
- Identify joint R&D needs for bringing new types of rye, oat and other whole grain products to consumers,
- Extend the Nordic collaboration in functional cereal foods to the Baltic countries.

Project name: Wholegrain rye and oat - Nordic opportunities

Acronym: Grainity

Project leader: Pekka Lehtinen, VTT Technical Research Centre of Finland, Pekka.Lehtinen@vtt.fi



Mission: More seafood on the plate

Although the beneficial effects of seafood have been well known since the 1950's, the spotlight has been on omega-3 (long chain n-3 polyunsaturated fatty acids) as the only seafood component with documented health effects. The MARIFUNC project aimed to broaden the view and show the all-round benefits of seafood.



Run by Dr. Joop Luten, the European Business Developer at Nofima Marine in Norway, this project has placed at its heart the unveiling the full story of seafood and health. It has coordinated expertise from many fields, such as seafood technology, consumer science, medicine and nutrition. A team of 25 Nordic experts with a scientific or industrial background has collaborated to explore the potential use of fish, nutrients and other bioactive substances

isolated from fish, as ingredients in functional foods.

Fresh from the press

In the course of 2.5 years the team has met at many workshops and conferences. MARIFUNC has also seen the importance of actively communicating its results to a wider audience and hosts an informative website www.marifunc.org open for anyone with an interest in the subject. The highlight of the project is a book

published by Wageningen Academic Publishers, called Marine functional food. Fresh from the press this book provides an overview of the latest research on seafood and fish. Dr. Tarja Aro, responsible for research and development at the Felix Abba factory in Turku, Finland, says it is also a useful tool for her work. "This book provides an informative update of what is going on in the field", Aro says.

The book Marine functional food

contains the message that regular seafood consumption is associated with beneficial health effects. It reviews the research on seafood and health, the use and quality aspects of marine lipids and seafood proteins as ingredients in functional foods and consumer acceptance of functional

It might be worth thinking of marketing marine functional foods on the basis of other factors than health.

food. The book covers novel merging areas where seafood may prevent disease and improve health. Areas such as cognitive development, mental health, cancer, allergy and oxidative stress are highlighted. Instances where nutrients in seafood may have health protective effects for example proteins, peptides, amino acids, selenium, chitosan, glucosamine and chondroitin sulphate are also discussed. "These book chapters are the scientific outcome of the project", Luten confirms.

The challenges of networking

Whereas many company representatives have highlighted the benefits of taking part in academia-industry networks and collaborations, Aro also touches upon some of the challenges. "In our case we were initially part of another project that didn't receive funding and as a consequence we were integrated into this broader project", she recalls. "As we originally were interested in only one specific topic, we have maybe not quite got the results we were hoping for". "Then again, our own input has also been smaller", she adds. She emphasizes that her own business unit is new to this kind of collaboration and that she didn't quite know what to expect. "In future we will know how to act", she says, adding important issues like communications, agenda setting, and a clear understanding of deliverables to her checklist for

issues to address when setting up new collaborative projects. "How to work with competitors is also something of a challenge", she adds.

Joop Luten emphasizes the longer term view of MARIFUNC. He has skillfully linked this project to other initiatives and has also produced spin off projects to take the work further.

The seafood and health book chapter has been the basis for a successful brochure in Norway called 'Hav og Helse'. This brochure was developed by Nofima Marine and the Norwegian Seafood Association. The Fishery and Aquaculture Industry Research Fund and the Norwegian Seafood Export Council distributed 17.000 brochures to over 700 kindergartens in Norway.

Furthermore, the development of new processes resulting in seafood products with a lower salt content, a priority for the industrial partners in MARIFUNC, may be followed up via a European project.

Consumer's attitudes to marine functional foods

MARIFUNC also worked together with some of the other functional foods projects within NICE, building useful bridges between them: This is in line with NICE's fundamental idea in setting up the programs – together the projects are stronger. Complementary to the ACCLAIM project a review of consumer acceptance of (marine) functional food was conducted. This review demonstrated that in all circumstances functional food should have excellent sensory properties – few consumers are willing to compromise taste for healthiness. It seems, however, that there are segments of consumers who are more positive towards (marine) functional foods, which may be based on demographics, relevance, lifestyle etc. It is

important to find the right segment for a specific functional food product, and create targeted messages towards the group. It might be worth thinking of marketing marine functional foods on the basis of factors other than health, especially when communicating with young people for whom future health is not a very relevant issue.

OUTPUTS OF THE PROJECT

- The main activity in MARIFUNC was to create an overview of the role fish and seafood derived components play in relation to health, the quality of the functional seafood components, the processing of functional seafood components and the consumer's attitude to (marine) functional foods.

- MARIFUNC produced a book called Marine Functional Food, which has been recently published by Wageningen Academic Publishers. The book was the basis for a popular brochure about seafood and health in Norway.

PROJECT PROFILE

MARIFUNC focused on the use of fish, nutrients and other bioactive substances isolated from fish, as ingredients in functional foods.

The project group has created a proactive platform that share strategic intent and common goals in an integrated approach including health claims, consumer acceptance and innovative, consumer-driven, marine functional food development.

Project name: Nordic Network for Marine Functional Food ACRONYM: MARIFUNC

Project leader: Dr. Joop Luten, Nofima Marine, Norway, joop.luten@nofima.no



Marketing skills needed to accelerate growth

The sixth project was different in nature. As the others were run by large research institutes, this one was headed by a small company –and also focused on the reality of small companies. For one year it worked with the commercialization challenges small and medium sized companies (SMEs) face in the area of nutrition and health.



Many of the most successful products and concepts in the healthy nutrition business worldwide have first been brought to market by fairly small companies. As little was known about Nordic SMEs, the project set out on a conquest to find out more. Project leader Patricia Wiklund describes the activities: "During the project, we were in touch with some 100 SMEs all over the Nordic countries, representing food processing, technology, R&D, dietary supplement and service companies". One of the outcomes of all those meeting and communications was the realization that there is no distinct profile of a Nordic SME working with healthy nutrition. "The companies vary in size, form, earning logics, background, age, nature and goals. The diversity is striking", Wiklund adds.

Do SMEs have a future?

A question rose during the project: Are these SMEs a dying breed? During the past years, we have e.g. seen the acquisitions of a number of well-established medium-sized companies that have been successful within their niche markets. A natural progress it is indeed - large companies are always eager to buy successfully proven business concepts and integrate them into their own processes. Wiklund agrees, but adds: "What strikes us as worrying is however the successors. Where are they? Where are the approx. 50-70 employees growth-oriented SMEs determined to make a success of their endeavors in healthy nutrition?" When applying a stricter definition of SMEs, which

says a SME is considered autonomous only if less than 25% of the capital or voting rights are held by another enterprise – our ranks grow even thinner, also among the smaller companies.

A common problem in smaller companies internationally is that the commercialization and marketing competence tends to be quite low. The Nordic SMEs had similar weaknesses. Many lacked an informed

understanding of the market and had for the most part little knowledge of consumer behavior related to health, and the role of

marketing and branding in creating value for the firm, Wiklund lists. "Nordic SMEs also keep up a high rate of product development despite their small size and limited resources. To a certain extent, we found that this approach is exhausting for them".

Wanted: Better management

What are then the ways to tackle the challenges? Wiklund says particularly small businesses need to learn more about the management of the commercialization process and what it entails. "A main conclusion from this project is that many SMEs struggle to manage it professionally and keep their commercialization activities in balance. As a result, many experience a constant lack of resources and time, hindering them from meeting their targets". The project also recommended that the SMEs themselves should bring in brand developers and marketing experts with knowledge about health marketing into their organizations, and allow them

to make a change. At the same time, it was suggested that support measures should start focusing much more on means to elevate the marketing and commercialization capabilities and implementation activities in the SMEs. "They need to be well directed, hands-on and valuable to the SMEs. Due to their goal-oriented and entrepreneurial approach, many small business managers need assurance of clear and concrete beneficial and commercial outcomes as a result of participation", Wiklund concludes. Nordic SMEs believe in their possibilities to be successful. They have an international reputation of being innovative within healthy nutrition – to keep this up the market just needs further success stories.

OUTPUTS OF THE PROJECT

- An overview of Nordic SMEs, their whereabouts and activities.
- A communication platform for the Nordic SMEs.
- Recommendations for stakeholders who are working with SMEs and trying to support them in their innovation and commercialisation activities.

PROJECT PROFILE

With emphasis on innovation acceleration, market entry strategies, and best practices, this project focused on Nordic SMEs and their efforts to bring healthy nutrition to market.

Project name: Nordic SMEs commercializing healthy nutrition.
Project leader: Patricia Wiklund, Invenire Market Intelligence Oy, Finland, patricia.wiklund@invenire.fi

Project participants



Human studies of foods - requirements and levels of proof?

Denmark

Maria Olofsdotter, Øresund Food Network (*Project coordinator*)
Stephen Wessels, DHI group
Hanne Frøkjær, DTU-Biocentrum/ KU-Life
Knud Erik Bach Knudsen, Århus Universitet
Torben Jørgensen, Glostrup Hospital
Egon Bech Hansen, Danisco
Benedicte Flambard, Chr. Hansen A/S
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Susanne Bryngelsen, Swedish Nutrition Foundation
Joseph Raftar, Karolinska Institutet
Margareta Nyman, Lund Universitet
Lotta Törner, Skånes livsmedelsakademi
Anders Högberg, Procordia
Ulla Svensson, Arlafoods
Gunilla Önning, Probi
Viola Adamsson, Lantmännen
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Louise Ungerth, Konsumentföreningen Stockholm
Maria Johansson, Functional food science Center

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Arne Astrup, KU life
Stine Marie Ulven, Akershus University College
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Steinar Høie, Næringsmiddelbedriftenes landsforening
Marit Aursand, Sintef
Bente Kirkhus, Mills
Sven Moesgaard, Pharma Nord

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Seppo Salminen, University of Turku
Kaisa Vahlia, Finnish Food Safety Authorities
Essi Sarkkinen, Oy Foodfiles Ltd
Hannu Mykkanen, University of Kuopio

Island

Sigurdur Hansson, Environment and food agency of Island

Estonia

Ursula Siim, Estonian food authority

Latvia

Malda Maija Toma, University of Latvia



ACCLAIM - Consumer acceptance and trust: Recommendations for using health claims in marketing

Finland

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Mari Niva, National Consumer Research Centre
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Marja Hakala, Fazer Bakeries Oy
Anders Grönqvist, Sinebrychoff Oy
Tarja Kujala, Vaasan & Vaasan Oy
Leena Thorström, Vaasan & Vaasan Oy
Kaarina Taimisto, Valio Oy

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Susanne Støier, Danish Meat Research Institute
Per Eidnes Sørensen, Danish Meat Research Institute

Sweden

Annika Åström, SIK - The Swedish Institute for Food and Biotechnology
Åke Bruce, The Swedish National Food Administration
Henrik Jørgen Andersen, Arla Foods amba
Merete Myrup Christensen, Arla Foods amba

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Irena Brustad, MöllerCollett AS
Jens Strøm, Bama Gruppen AS
Kari Wulf, Norgesmøllene AS
Kirsti Wettre Brønner, TINE BA
Pernilla Siberg Nakken, TINE BA

Iceland

Emilia Martinsdóttir, Matis (former Icelandic Fisheries Laboratories)
Einar Matthíasson, MS Iceland Dairies



WEIGHTY - Substantiation of weight regulation and satiety related health claims on foods

Finland

Dr. Marika Lyly, VTT Technical Research Centre of Finland (*Project coordinator*)
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Taru Pilvi, Valio Ltd
Leila Vikberg, Atria Finland Ltd.
Sanna-Maria Hongisto, Fazer Bakeries Ltd.

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Maria Johansson, Functional Food Science Centre, Lund University

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Björn Gunnarsson, MS Iceland Dairies

Denmark

Grete Andersen, Danish Meat Association
Dr. Anette Due, Faculty of Life Sciences, University of Copenhagen



GRAINITY - Wholegrain rye and oat - the Nordic opportunity

Finland

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(Project co-ordinator)

Prof. Kaisa Poutanen, VTT Technical Research Centre of Finland
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Herman Adlercreutz, Institute for preventive Medicine, Nutrition and Cancer, University of Helsinki

Risto Viskari, Fazer Bakeries (Finland, Sweden, Estonia, Lithuania, Latvia)

Tarja Kujala, Vaasan&Vaasan Group (Finland, Sweden, Estonia, Lithuania, Latvia)

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Per Åman, Department of Food Science, SLU, Uppsala

Kristin Österberg, Wasabröd

Ingmar Bjoresson, Lantmännen Food (Sweden, Denmark and Norway)



MARIFUNC - Nordic Network for Marine Functional Food

Norway

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(project coordinator)

Even Stenberg, Nofima Marine

Pirjo Honkanen, Nofima Marine

Marie Cooper, Nofima Marine

Asbjørn Gildberg, Nofima Marine

Marianne Jensen, Nofima Marine

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Ivar Storrø, SINTEF Fisheries and Aquaculture

Eva Falch, SINTEF Fisheries and Aquaculture

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Sigurður Hauksson, Iceprotein ehf

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Helen Lindqvist, Chalmers University of Technology

Ann-Sofie Sandberg, Chalmers University of Technology

Maria Åberg, Abba Seafood AB

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SMEs commercializing healthy nutrition

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A large, light-colored decorative graphic on a dark background. It features a stylized flower with multiple circular petals at the top, a large leaf with a grid-like pattern in the middle, and another flower at the bottom left. The lines are thin and elegant, creating a sophisticated, organic feel.

Nordic Innovation Centre initiates and finances activities that enhance innovation. We cooperate primarily with small and medium sized companies in the Nordic region. We aim at developing a smoothly functioning Nordic region without national barriers. Nordic Innovation Centre is an institution under the Nordic Council of ministers. The centre is located in Oslo, but has projects in all the Nordic countries.

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