

**Rapport from Frank Seerup's Study trip to the 43rd Nordic Dairy Congress 2013, Lofoten, Norway.**

I have had the amazing opportunity to visit the Nordic Dairy congress 2013, as I have received the scholarship from Mejeriteknisk Forum. I would like to start my rapport by thanking for this opportunity; it has been really inspiring and gave me a lot of inspiration for my daily work with the Nordic Dairy industries.



**Thon Hotel Lofoten, the place of the Congress.**

I was really excited to see what the Nordic Dairy Congress was about, since I had never participated before. There was a very interesting program for the Congress with many interesting lectures, and I was really looking forward for the different presentations.

**5<sup>th</sup> of June:**

The 5<sup>th</sup> of June I arrived to Lofoten by Plan, it had been quite a journey from Lund in Sweden... Changed plan two times, so it took some time... The first thing everyone on the small airplane did when they got out was to take photos, the scenery of Lofoten was just amazing in the evening sun.



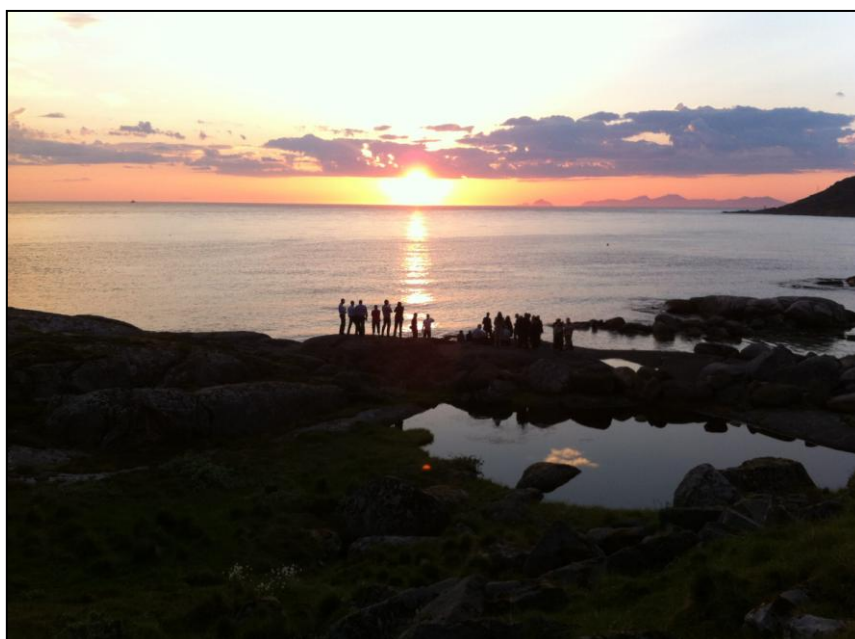
**The arrival at Lofoten, Svolvær Airport**

**6<sup>th</sup> of June:**

The 6<sup>th</sup> of June programme was for different social activities and a “Get together” in the evening... A lot of the last participants for the Congress also arrived this day.



Social event, I was out paddling Kajak (not a part of the scholarship from Mejeriteknisk Forum, but a fantastic experience anyway!)



Some of the participants, kept awake to enjoy the Midnight Sun

**7<sup>th</sup> of June:**

***Opening Lecture and welcome ceremony***

The 7<sup>th</sup> of June the Congress started by a opening lecture. The Mayor of Lofoten opened the Congress by welcoming everyone to Lofoten, and wished us all a good Congress. After the Mayors speech we were presented for the North Norwegian anthem.



**North Norwegian anthem**

All the Representatives for the different Nordic Countries welcomed to the congress. And one of the things that stood out was that everyone wanted to set competition aside for a few days, and then share the common interests for the industry.

***Nordic Dairy Technology Council Honorary Award***

After the welcome it was time for presenting the receiver of the Nordic Dairy Technology Council Honorary Award. This year the receiver was Børge K Mortensen from Denmark. Børge had used 20 years on different research for the Dairy industry at Hillerød Research Center. Børge started his career from the button, one of his first tasks with the dairy industry was to wash milk bottles. A lot has happened since that. He had been working with research at MD- and later Arla foods in both Stockholm and Århus in Denmark. He has also been working as a lecture within Butter Technology at different Universities in North Europe. And as Mr. Mortensen mentioned then “Research is only useful when it is used at the production facilities”. A statement that I think was really an essential part of the Congress, here the universities and the production facilities meet, and shared their knowledge.



**Børge K Mortensen (photo borrowed from <http://maelkeritidende.dk>)**

### ***Session 1 Future Challenges in the Nordic Dairy Industry***

#### Hanne Refsholt, President & CEO TINE SA, Norway:

Hanne informed a bit about consumer trends in Norway, since the 1970<sup>th</sup> the consumption of milk pr. Capital has been lowered 45%. But the consumption of yoghurt has increased and the same for butter. Since 2000 the Cheese consumption has increased by 19%.

The consumers are right now very much into the health aspect of food. And other points of interests for today's consumer are:

- Individuality ( Consumers are listening to blockers not experts)
- Performance (Strong is the new thin) YT-products from TINE are products specially developed for people who work out... Products with high protein content.
- Science ("life logging" by mobile app's)
- Trendy Origin (The Norwegian People are very much into locale produced Norwegian products)
- Naturalness ("Cook from Scratch")

#### Jais Valeur, Executive Vice President, Arla Foods amba, Denmark:

Jais talked about the Strategy of Arla Foods. And the future challenges for the industry. Jais mentioned that its "crunch-time for the dairy industry". As the quote for milk production in the EU, are removed the amount of milk in EU will increase. This will also be one of the factures for why Arla Foods will increase their production in Europe, even though Arla's marked is also increasing in Asia and Africa.

Trends in the marked:

- Increasing demands and new consumer trends.
- Increasing tough competition
- New rules for supplying retailers
- Retailers are getting stronger
- Private label production is raising in the Nordic Counties

Lars Moberger, Chairman Mejeriteknisk Forum, Sweden:

Mejeriteknisk Forum represents all the Dairies in Sweden. And Lars informed about the structure of the association. And a bit about the different trends in the Swedish Dairy market.

The current Dairy structure of Sweden is today:

- 53 production facilities
- 20 different companies

The Mejeriteknisk Forum is also working with a new Educational structure for the Swedish Dairy industry.

Matti Harju, Vice President Technology, Valio Ltd., Finland:

Matti Harju talked about the Strategy of Valio, one of the key remarks that I really noticed was his Mr. Harju's statement: "Valio will pay more to the farmers/owners for their milk".

The way Valio wants to fulfil this is by producing more branded high value products. Today the 15<sup>th</sup> biggest brand at Valio is responsible for 80% of Valio's turnover.

Valio will also produce demineralised whey powder and whey minerals for the Chinese Market, amongst others.

Valio are producing 150 new SKUs every year. Today Valio have 1000 SKUs. 22% of the turnover comes from SKUs which are <5 years old.

Russia has and is a good market for Valio, because Valio has the opportunity to sell their high value branded products in Russia, for a good price.

Palmi Vilhjámsón, Director Production, Mjólkursamsalan ehf, Iceland:

Palmi talked about the future channels for the Dairy Corporation in Iceland:

- Focus on optimisation and competitiveness.
- Energy cost
- Optimization of milk production

The benefits of large scale production in Iceland are almost reached, with the current configuration. In Iceland they will focus on protein added products. Products like Energy drinks and Skyer.

Panel debate:

After the presentation of each of the countries representatives, they all attended in a panel debate, where they discussed around the Nordic Dairy Industry and different Dairy related subjects. From my point of view this was one of the most interesting happenings during the Congress. It was really interesting to hear the different panel participant's contribution to the different discussion.



Panel debate (photo borrowed from <http://maelkeritidende.dk>)

Just some of the subjects there were discussed during this debate:

- Fresh milk: Have the industry been good enough to highlight the taste of fresh pasteurized milk?
- Pasteurized vs. UHT milk.
- Request for Organic milk.
- Private label production, why is this marked so big within dairy, when it's minor in the soft drink business?
- Filtration of milk.
- Cheese
- Ect.



## **Session 2 Product Quality**

Session 2 and 3 was held as parallel sessions. I had chosen Session 2 which had lectures concerning Product Quality. Session 3 focused on Nutrition and health.

There was Lectures with following headlines:

- Quality in the value chain from raw milk to customer – future challenges related to animal health and welfare, Speaker Professor Olav Østerås, Norway.
- Adding value to dairy products – through differentiation of milk, Professor Jacob Holm Nielsen, Denmark.
- Good environment performance is good business, Director Enviroment Erik Lindroth, Sweden.
- Dairy and the environment – not a matter of cost, Environmental Expert Anna-Karin Modin Edam, Swedish Dairy Association, Sweden
- The management of microbial quality and safety of dairy products, Food Safety Manager Anna-Maija Taimisto, Finland.

Some highlights from the different Lectures:

Regarding Product quality and animal welfare: Professor Østerås amongst others stated that Milk from cattle with Mastitis gave less cheese yield.

A trail made in Israel had shown that if producing milk from cattle with Mastitis you need to use 9 liters of milk/kg cheese instead of usually 7-8 Liters. This was due to changes in mineral and protein balance in the milk.

Adding value to dairy products through differentiation of milk, Then Mr. Holm Nielsen mentioned that there is no grater difference between the chemical components in Organic and non organic milk. Why it is difficult from a scientific perspective to state that there is a quality difference on the two products. He also mentioned that 85% of the CO-pollution concerning the production of milk, is at the dairy farmers, and research had shown that if cattle is feed with a higher content of fat then their CO-production is lowered.

Regarding the Environment Mr. Lindroth mentioned that Danes where more committed to taking care of the environment and the Norwegian in general are more skeptic. He also mentioned that the consumers of the western world use 3-4 x the resources of the earth every year.

Regarding the Dairy and the environment then Ms. Modin Edam informed us about that different rapports has shown that as we are getting more and more people on the earth then the whole world needs to change its consumption habits, in order to secure food for everyone. People needs to eat less protein from animals like meat and milk, and more proteins from other protein sources, like soya etc.

She also informed us that Arla Foods had worked with a Nutrient Density Index, in order to be able to compare the nutritional benefits between different products, like Orange Juice, Milk, Oat drinks, etc. And that the industry needs to work more on reducing the negative impacts of food production like lowering carbon footprint, Nutrient losses and Energy consumptions.

Ms. Maija Taimsto, mentioned that quality of dairy products in the Nordic countries generally are good. And that this amongst others was due to the implementation of HACCP.

**7<sup>th</sup> of June:**

***Session 4 Future products and possibilities***

There was Lectures with following headlines:

- The future of food: Global trends and the consequences for New Nordic Food, Senior Futurist Martin Kruse, Denmark.
- The role of dairy products in body weight regulation, and in the New Nordic Diet, Line Qvist Bendtsen, Denmark.
- Possibilities in the value chain and Nordic differentiation, Professor Harald Volden, Norway

I would here like to highlight Martin Kruses lecture concerning the New Nordic Diet. The other lectures were also interesting but this was really new, and a very interesting lecture.

It was much about trends in the world and how it could be put into relation with Dairy products and the Nordic Diet. He looked at trends like; Local trends and Global trends.

The New Nordic Diet is being promoted in USA and Greece amongst others. The New Nordic diet is influenced by people like Rene Redzepi and Claus Meyer, both chefs in Denmark. They are both working with local food.

Local food trends is: Think global act local; Slow food.

More Global long term trends are that that farmers are moving from more simple farms to high-tech industrial farming. People are moving from the countryside to the cities.

In 2050 the world will not have enough food for all, therefore the food prices will go up, the same will happen with the prices for dairy products. GMO-production will also rise in many countries.

The more the society is chancing towards high-tech, the more people will be longing for the more romantic society.

***Session 5 New product technology***

There was Lectures with following headlines:

- Optimized microfiltration as a tool in milk fractionation, Project manager Tom Hoffmann, Norway.
- New knowledge of heat treatment of milk by steam infusion and steam injection, Professor Marianne Hammershøj, Denmark.
- Microfiltrated milk fractions enable new kinds of products, Research Manager Olli Tossavainen, Finland.
- The use of microparticulated milk protein in dairy products, Richard Ipsen, Denmark

Here I would like to highlight the lecture held by Professor Mr. Ipsen from Denmark. He held a very interesting lecture about the use of microparticulated milk proteins.

Microparticulated whey protein is whey protein which have been first concentrated then heated and exposed to a high shear, and the spray dried. Some use it without spray drying it.

Mr. Ipsen talked about some test he had made where microparticulated whey protein where used in yoghurt. One of the things they found out was that if not all of the whey protein was microparticulated then they got a better creaminess and a better structure of the yoghurt. It seemed like the microparticulated protein was better to bond to other proteins if some of the non-microparticulated protein was present.

### ***Session 6 New product properties***

There was Lectures with following headlines:

- Added value-successful products, Senior Researcher Hanna Jatila, Finland
- Tasty and bio-functional berries and herbs, Product development Manager Søren Navne, Denmark
- Is there a future for bioactive fermented dairy products?, Professor Judith Narvhus, Norway

Here I would like to highlight some of Senior Researchers statements regarding value added products, and functional food.

First of all the customers have very individual demands. Some are into –health trends, other are more focused on quality or convenience of their food.

Functional food is not a homogenise group, there are many different aspects:

- Probiotic
- CLA- works against breast cancer
- Sitostanol
- Xylitol
- Calcium
- Added fibre
- Low salt
- High pressure food

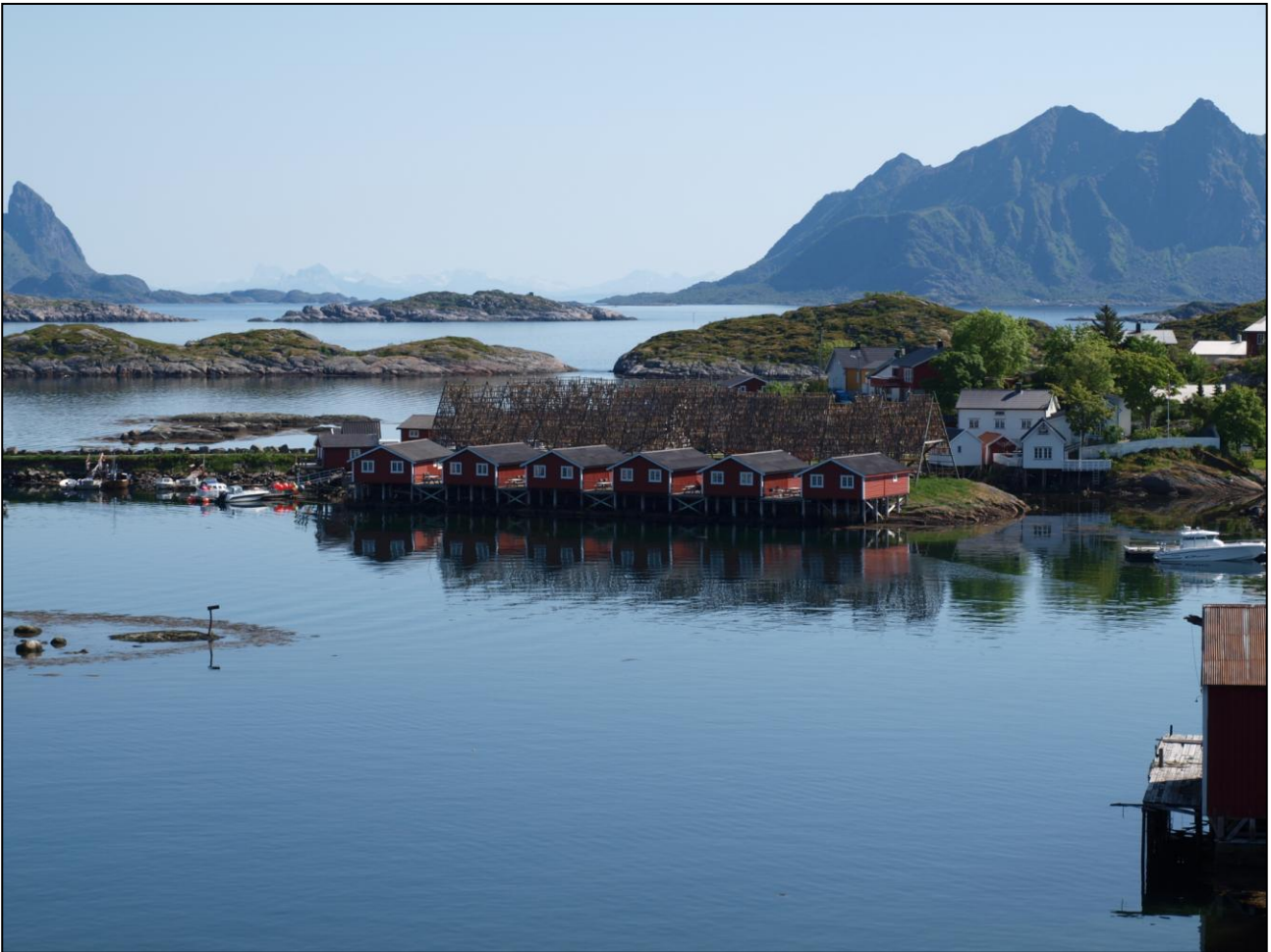
The consumers select the products, depending on what they believe are benedictional for them, and at the same time they are also concerned about the taste and pleasure of the product, if it don't taste good they will maybe not buy again.

Valio use "the Kano model" to analyse if the customer are pleased with their products.

***Round up:***

After a lot of interesting lectures during the time in Lofoten, it was time to travel home to Lund, and Skåne. From my days in Lofoten I received a lot of new information and input that I can use in my daily work with the Nordic Dairy Industry. I also got my horizon regarding the Dairy Industry broadened. I also meet a lot of interesting people from the industry, and in that way my network got wider. I will for sure like to attend in the futures Congresses.

I will end my rapport my once again thanking Mejeriteknisk Forum, for giving me this opportunity1



**I will always remember the beautiful surroundings of Lofoten.**

***Frank Seerup, Lund, Sweden.***