

# The food concepts of the future

Innovation and cluster cooperation as a  
condition  
for success in the food markets



**Rolf Bjerndell**

Senior Advisor to Oatly, Aventure AB and  
a number of other food related companies.

Former CEO of Skånemejerier, Probi, Oatly and vice-  
chairman of Skånes Livsmedelsakademi

# Creativity and innovation skills is essential for the future

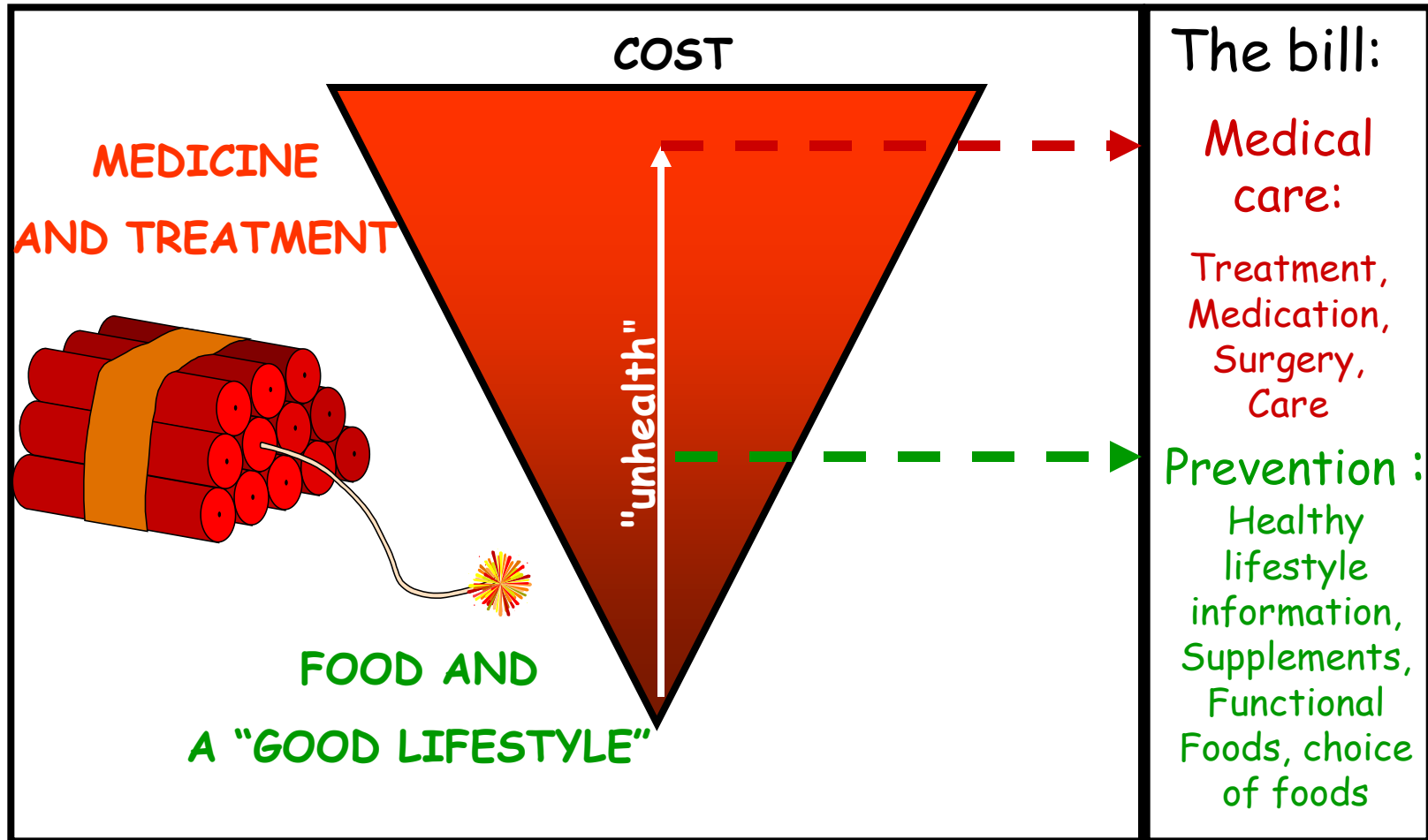
- As the consumer and her behaviour is more complex than ever before, thus, gut feeling, trend awareness, creativity and innovation capacity will be of great importance for most players in the food market.
- **New business concepts are usually risky** and might be tough to carry out in existing structures.
- Technical development explodes which of course also challenges existent players. **Scale of economy in a traditional sense is no longer self evident.**
- At the same time large resources are necessary in order to build brands and launch products on a larger scale, especially internationally.

# Food is "fashion" - Act accordingly!

- The globalisation has sharpened the competition on the market. Concept doesn't work anymore that been successful for years and years. **Producer push has been replaced by consumer pull.**
- **"The war" in the low price segments has its own logic.** Price is almost the only parameter that counts!
- Everyone else has to be very keen on **what's in the mind of the consumer** besides price!
- Packaging, presentation, credibility, exposure, context, health- and environment issues, all kind of certification of fairness, environment, origin etc. is significant.

# The impossible cost pyramid:

The increasing medical cost for lifestyle related diseases



# Driving forces

## Hope for a good life



Food linked to an attractive lifestyle  
Energy - strength - lust - looks



Food that meets good standard regarding environment, ethics etc.

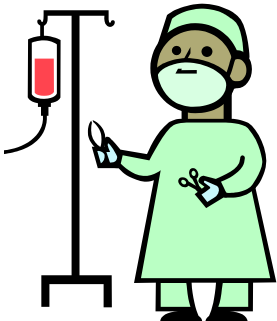
**The individual perspective**

**The societies perspective**

Food that "cures", relieves and prevents bad health (e.g. obesity, tiredness, sleep disorder)

Unhealthy food that causes "diseases of the welfare society"

## Fear for death and sickness



# Some scary numbers - what's worrying consumer globally?

- Accumulation of toxins in your body: 47%

Thus - concerned about highly processed foods:  
67% (37% 2003)

Want food containing only natural ingredients:  
51% (35 % 2003)

Want food containing organic ingredients: 41%  
(19% 2003)

# Free from.....

- BSE, dioxins, bird flue, trans fatty lipids, *GMO*, acryl amid, gluten allergy, lactose intolerance, antibiotic resistant bacteria, milk over sensitiveness, allergies connected to eggs, nuts. **And of course sugar, salt and fat!**
- Alerts about hazardous food and terrifying scientific reports is "the theme of the day"
- **Free from more and more important as a sales argument for a food product.** For example: an oat product stating that it doesn't contain wheat (!) increases sales with over 20 %!
- Traceability is important and will be even more important in the future!
- **Not to forget - the milk scandal in China etc.**

# "The products with the shortest ingredient list wins!"

- Natural and free from all kinds of "funny" stuff like preservatives and various kinds of "E-numbers"!
- Environment friendly "Organic" and with low CO2 discharges!
- Low water print!
- In Europe - No GMO!
- Great suspicion towards processed food and Novel Food!
- The further climate implications of food production and food distribution.

# Experience from building an innovative organisation based on health and functional foods



# Factors driving Functional Food

- A much more demanding (and suspicious) customer.
- Increasing transparency (Internet "You Tube" etc).
- Pandemic development of welfare deceases.
- Increasing costs of healthcare.
- Demand of elderly population.
- Continuous increase in life expectations.
- Technical advances in food industry.
- Changing regulatory environment.

# Success factors on the Functional Foods Market:

- To be an innovative Company with an innovative leadership!
- Experience/access to biotech- or other "High Tech" competence
- **Networks in the research society**
- Own regional distribution channels and contacts with retailers and consumers
- A vision for health and well-being
- Innovation as a strategy for differentiation
- **Willingness and ability to cooperate.**
- Curiosity

# Obstacles and challenges

- **Risk!** Testing new and disruptive ideas could be dangerous and a threat to you career!
- The “**Not invented here**” syndrome!
- **Lack of committed leadership** - thus insecure staff!
- Fear of “**killing ones babies**”!
- Rigid attitude to “**making mistake**” - **low tolerance!**
- Lack of endurance - “**quarter based economy**”
- **Weak network and a scepticism to cooperate with other organisations** - dislike of “**open innovations**”
- The size of the company

# An innovative organization with an innovative leadership !

- Ability to handle long development cycles
  - owners with a long term view
- Experience of working with a number of different stakeholders (willing to work with open innovations)
  - government, owners, politicians, retailers, consumer groups, etc..
- Ability to test new products rapidly on a small scale with low cost and low risk
  - Access to a small relevant test market with consumers that's relative early adopters.



# Experience/access to biotech- or other "High Tech" competence

- Different biotech platforms
- Food technology
  - microbiology
  - knowledge of probiotics
  - lipids
  - process competence

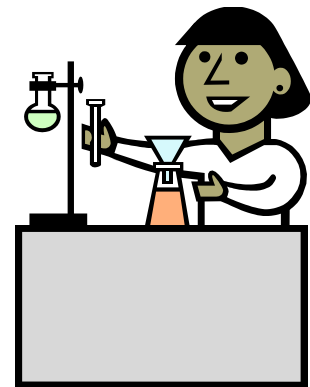
**But also more and more**

- other academics like anthropologies etc.
- Knowledge and competence of distribution (e.g. chilled distribution)

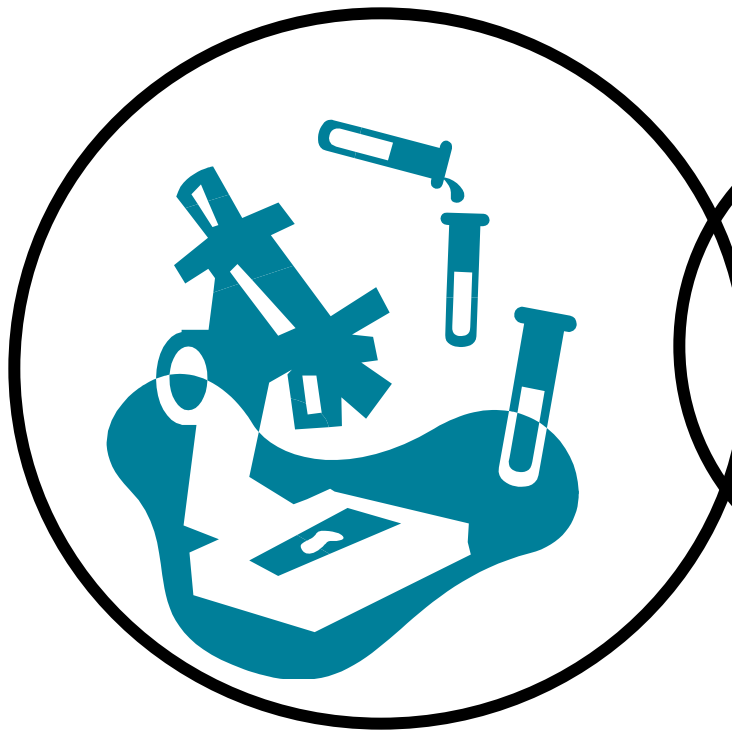


# Networks in and access to the scientific society

- Cooperate with highly respected and well known universities and research institutions
- Look for highly motivated partners with high technical standard to commercialize and to whom you can form joint ventures.
- Cooperate with relevant scientist-owned Companies.



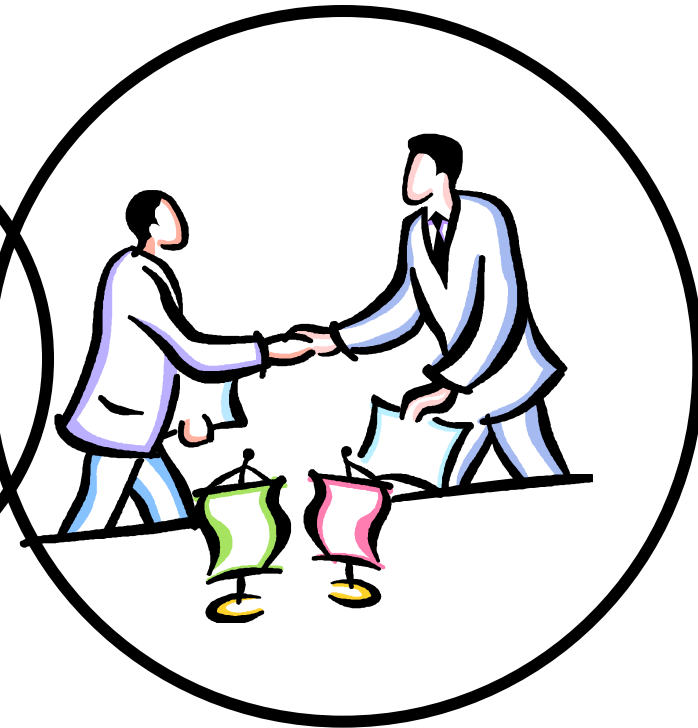
# Prerequisite for creating new interesting health products



Research

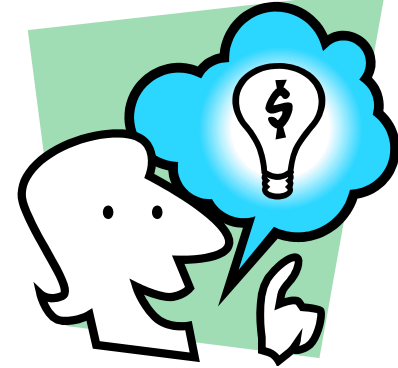


"Synapse"



Development

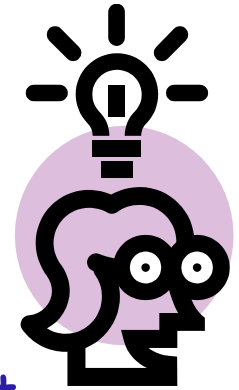
# Contact with both retailers and consumers



- “Early warning” of consumer interest in health and lifestyle. Be aware of trends and “market signals”
- Swedish market and Swedish consumer are **early adopter** of new trends. Try to find other early adoptive markets.
- Swedish women are well educated and health motivated. Find also other target groups!
- **Use the Internet - communities etc.**
- Sense emerging health trends
  - *Wayne Gretzky: “Winning is knowing where the puck is going next”*



# Curiosity and an ability to cooperate!



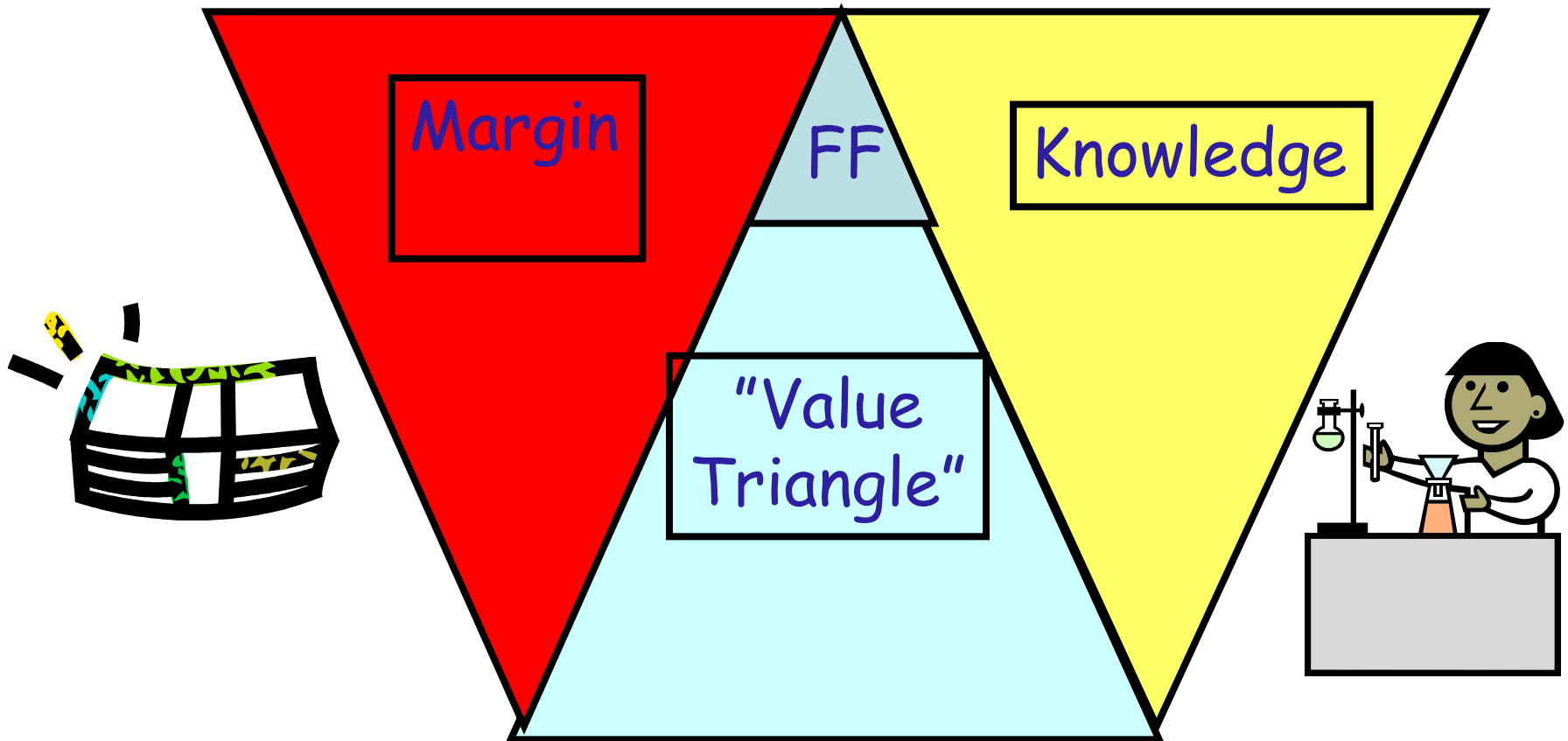
- No "not-invented-here" attitudes
  - Operate without a "in-house" R&D department.
  - Use your researchers as R&D coordinators
- Company's own "scouts" should constantly seek new interesting partners and research groups globally and domestic.
  - selected fields of interest:

- probiotics
- lipids
- antioxidants
- minerals

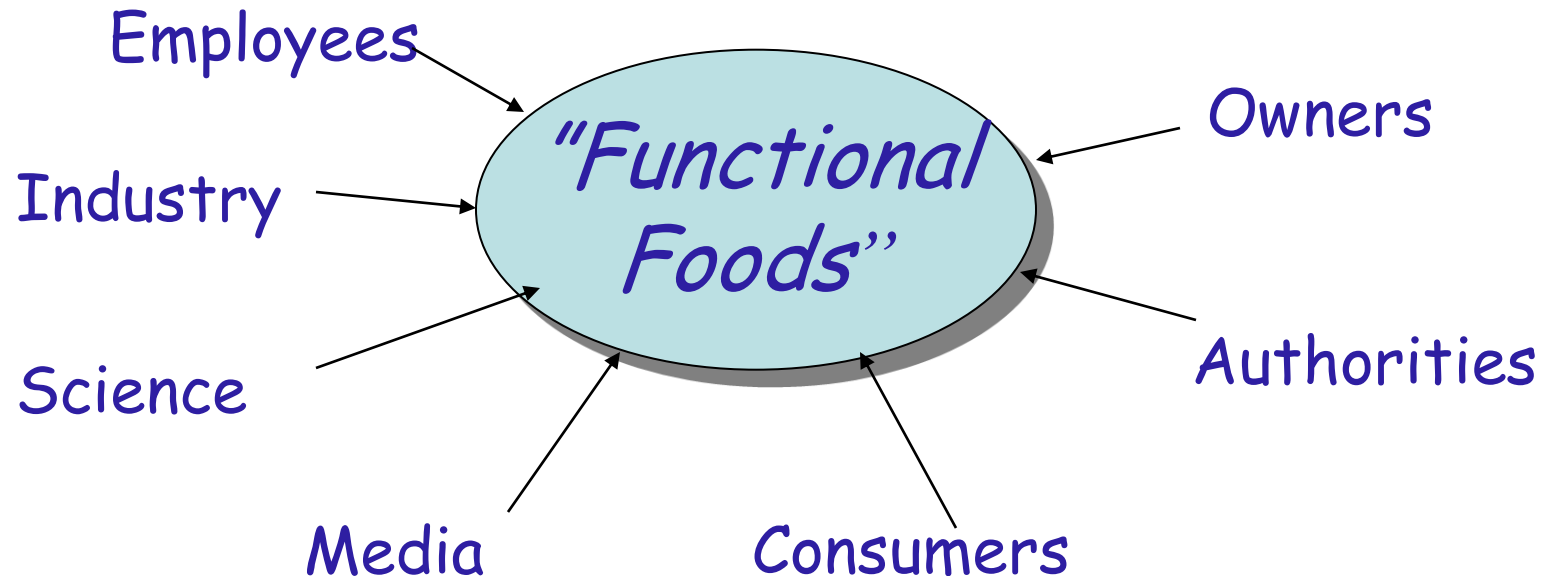


No "Yes but  
Rather  
Why not!?"

Functional Food demand more knowledge  
than ordinary food business  
but also provide a higher margin  
and growth



# Insight: issue marketing

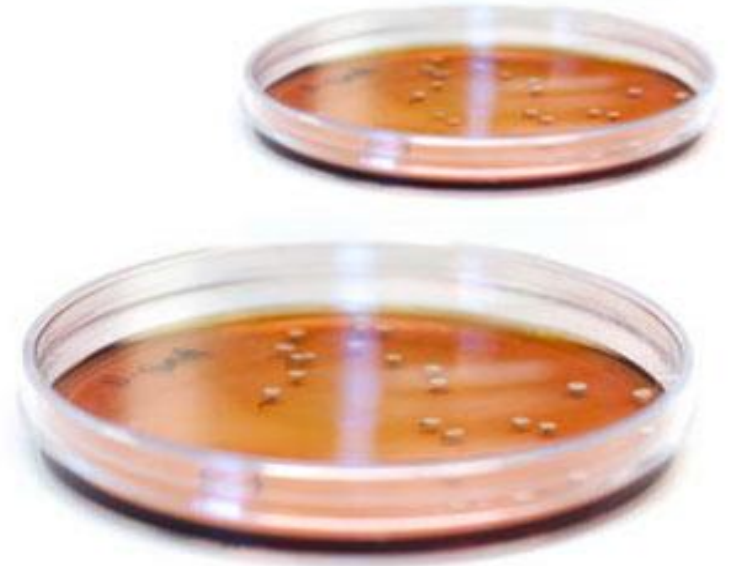


PR and open dialogue with society and consumer interests is necessary. Create, if possibly, an arena for the "issue".

# Important players in the South Swedish foodcluster

- Skånes Livsmedelsakademi
- Lunds Universitet
- SLU
- Ideon Agro Food
- FFSC och AFC
- Teknopol och Innovationsbron
- LUAB
- Mfl.

# Probiotics



Probi AB  
Biogaia  
Medipharm

# Skane Dairy

- Products
  - ProViva<sup>®</sup>
  - ProViva<sup>®</sup> Active
  - ProViva<sup>®</sup> Shot
  - Primaliv<sup>®</sup>



# Probi AB (publ.)



- **Products -15 patents**

- *Lactobacillus plantarum* 299v
- *Lactobacillus plantarum* 299
- *Lactobacillus rhamnosus* 271
- *Lactobacillus paracasei* 8700:2 and a number of other

- **Benefits**

- GI disorders
  - Reduce infections in severely ill patients
    - » Major abdominal surgery
    - » Pancreatitis
  - Irritable Bowel Syndrome (IBS)
  - Inflammatory Bowel Disease (IBD)
- Cardiovascular symptoms
- Stress and Recovery

- **Consumer products**

- Proviva®
- Proviva® Active
- Capsules

# Biogaia AB (publ.)

- Products - 68 patents
  - Reuteri® cultures: *Lactobacillus reuteri* - isolated from breast milk
  - LifeTop™ Straw - partnership with Tetra Pak
  - LifeCap™ Cap - partnership with TwoPac AB
  - Reuteri® tablet - available in eight countries
  - Reuteri® drops - for children
- Benefits
  - Allergies - infants and children
  - Oral health - children
  - IBS
  - *Helicobacter pylori* infections
  - Immune defense - children
- Consumer Products
  - Reuteri® cultures: Kraft cheese - Spain and Portugal, Stoneyfield Farms - yogurt-based fruit beverage - U.S., Natures Way - capsules - U.S., Liva/Procordia - Sweden, Hipp baby food - Germany
  - LifeTop™ Straw: Semper - Novartis company, Orchard Maid - yogurt beverage - U.K.

# Functional Food Ingredients

- **Swedish Oat Fiber AB (CreaNutrition)**
  - OatWell® - oat bran concentrate
  - Oat oil
  - Oat starch
- **Lipid Technologies Provider AB (DSM)**
  - Olibra® - lipid-based satiety enhancer
- **Triple Crown AB**
  - Prolocol - phytosterol
- **SW Seed, Svalof Weibull AB (BASF)**
  - Crop variety development, includes oats



# OATLY

## Healthy and tasty oat drinks



# Swedish Oat Fiber CreaNutrition

- Products
  - OatWell®
    - 6% BG OBC
    - 14% BG OBC
    - 16% BG OBC
    - 22% BG OBC
    - Flour (contains 68% starch)
    - Oil
- Benefits of OBC
  - Cholesterol reduction
  - Metered energy
  - Glucose management
- Consumer products
  - Primaliv®

The logo for CreaNutrition features the brand name in a bold, blue, sans-serif font. The word "Crea" is in a lighter blue, and "Nutrition" is in a darker blue. The text is enclosed within a thick, yellow, rounded horizontal bar that has a slight 3D effect.The OatWell logo consists of the brand name in a blue, sans-serif font. To the right of the text is a stylized yellow and brown oat grain. The entire logo is framed by a yellow, rounded horizontal bar.The SmartHeart logo features the brand name in a blue, sans-serif font. A small, dark grey heart icon is positioned to the right of the word "Heart". The logo is set against a yellow, rounded horizontal bar.The EnergyInBalance logo displays the brand name in a blue, sans-serif font. Above the word "Balance" is a graphic of a yellow dotted line forming a wave or pulse shape. The logo is contained within a yellow, rounded horizontal bar.The Vitality50Plus logo shows the brand name in a blue, sans-serif font. A yellow lightning bolt icon is placed to the right of the word "Plus". The logo is enclosed in a yellow, rounded horizontal bar.The Good4Shape logo features the brand name in a blue, sans-serif font. A yellow smiley face icon is positioned to the right of the word "Shape". The logo is set within a yellow, rounded horizontal bar.

# LTP: Lipid Technologies Provider AB (DSM)

- **Products**

- Olibra® (Now "fabulous®")
  - Characteristics

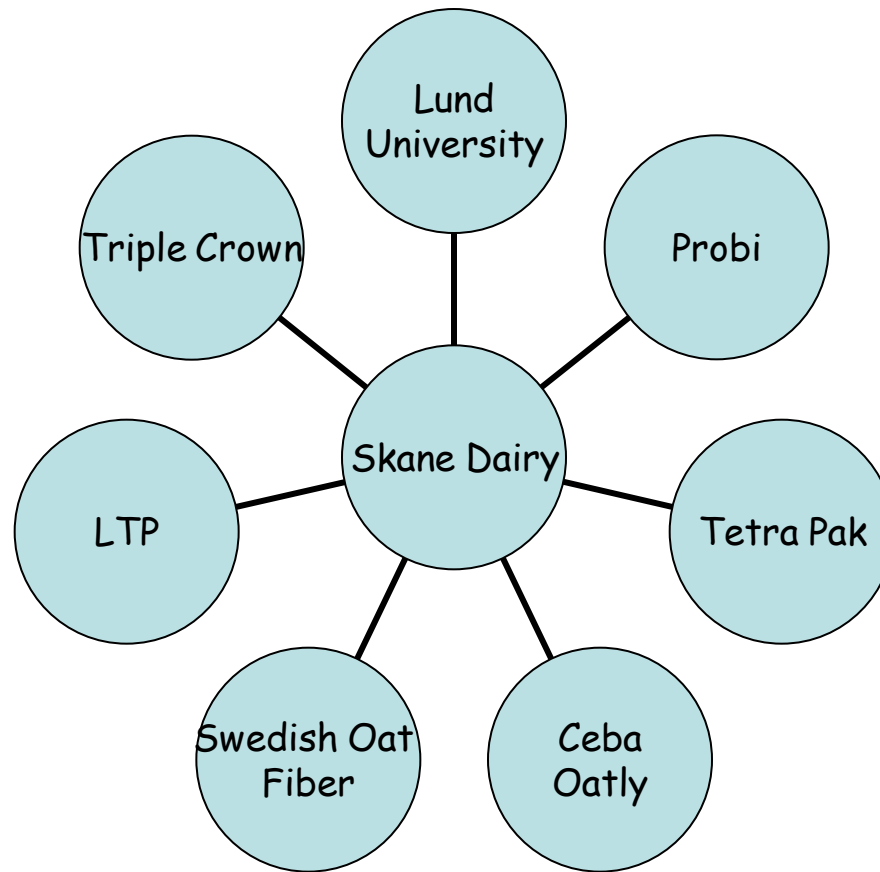
- **Emulsion containing vegetable oil and galactolipids**

- 95% fractionated palm oil
- 5% fractionated oat oil
  - Total fat content 40%

- **Benefits**

- Presence of unhydrolyzed fat in the distal ileum influences satiety
- Galactolipids form an emulsion with palm oil delaying hydrolysis in the ileum thereby promoting satiety
  - » Effect based upon three studies conducted at Northern Ireland Centre for Diet and Health
  - » Olibra® at 5g replacing the equivalent of milk fat in yogurt enhanced satiety and reduced energy intake by 25% following meals

# Skane Dairy: Key Cluster Component



# Lund University, Functional Food Science Centre and AFC

- **Description:**
  - Director: Prof. Inger Björck
  - Advisory Board: Science and Industry representatives
  - Multi-faculty center at Lund University
  - 70 senior scientists from 40 departments and five faculties
    - Faculty of Humanities
      - European Ethnology
    - Faculty of Medicine
      - Cardiology/Childhood Obesity/Gastroenterology and Nutrition
      - Medicine/Pediatrics/Orthopedics/Pharmacology
      - Surgery

# Lund University, Functional Food Science Centre and AFC

- Faculty of Social Sciences
  - Faculty of Science
    - Lund Institute of Technology
      - Applied Microbiology
      - Applied Nutrition and Food Chemistry
      - Biomedical Nutrition
      - Biotechnology
      - Glycemic Index Laboratory
      - Food Engineering
      - Food Hygiene
      - Food Technology

# Key Learnings

- The Functional Food Cluster is a major driver in providing innovation to the Swedish functional food and beverage market
- Swedish consumers are well educated early adopters of functional food and beverage products
- Lund University is well positioned as an academic leader in functional food and beverage development
- Southern Sweden leads Europe in development of probiotics and probiotic products
- Nutritional ingredients which are highly sensitive to food and beverage matrixes and/or process conditions can be creatively packaged or processed separately to preserve shelf life and functionality