



VALIO'S TRANSFORMATION FROM DAIRY TO FOOD COMPANY - SUSTAINABILITY ALWAYS AT THE CORE



PLANT PROTEIN SEMINAR 18.11.2019
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TODAY'S TOPICS

- Shortly about Valio
- Valio's road to plant-based products
- Nutritional responsibility
- Challenges related to plant raw materials
- Accelerating the change
- Sustainability at the core
- What next?

THE most
innovative
DAIRY
IN THE WORLD - FROM
FINLAND

FINNISH DAIRY
FARMERS
FOUNDED VALIO
IN 1905
to export butter.



EXPORTS TO

60

COUNTRIES

FOR US —
*Milk is
Amazing*

DAIRY FARMERS ARE STILL VALIO'S OWNERS

We pay out our profits
through dairy cooperatives
to 5,100 Finnish farms.

3,200

EMPLOYEES IN
FINLAND

1,000

EMPLOYEES
AROUND THE
WORLD



VALIO AND ITS
FARMS EMPLOY

30,000

PEOPLE

INNOVATIVENESS
as
A DRIVING
FORCE

NOBEL PRIZE WINNING INNOVATIONS

The head of Valio's laboratories, A.I. Virtanen received the Nobel Prize in Chemistry in 1945. His legacy lives on at Valio. We use science to make food that improve everyday lives.



1.7
BN
TURNOVER

VALIO'S ROAD TO PLANT-BASED PRODUCTS -STRONG DAIRY KNOW-HOW

- Valio is a market leader in dairy products in Finland
- Long history and wide selection of products for different situations and consumer groups
 - Lactose free
 - High protein
 - Less sugar or salt
 - ...

In the picture just organic product range



VALIO'S ROAD TO PLANT-BASED PRODUCTS -TRADITIONAL PRODUCTS

- Valio has also a long history in some products without milk
 - Jams
 - Berry soups
 - Juices
 - Porridges for children
- Valio has own juice factory and jam factory



VALIO'S ROAD TO PLANT-BASED PRODUCTS -THE NEW WAVE

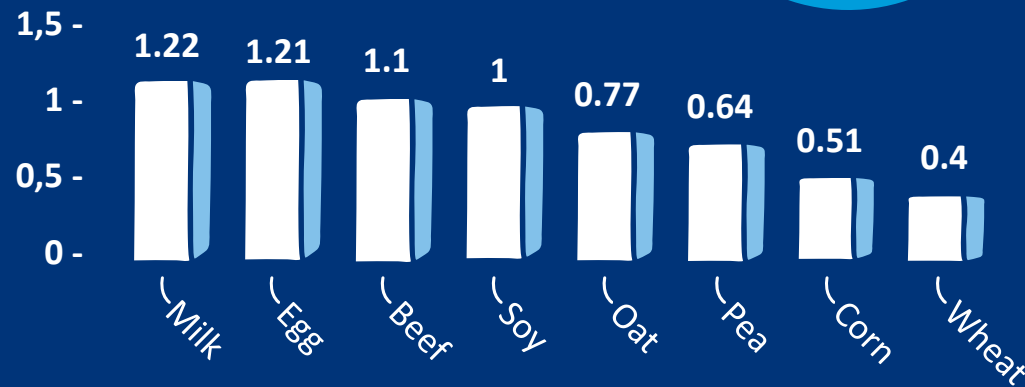
- Valio's first plant based dairy alternatives were launched in February 2018 with the brand Oddlygood®
- Spoonable yogurt type products
- Oat drink
- High protein spoonable products
- Veggie cheese-like products (slices and grated)
- Oat & coconut spoonable product
- Barista oat drink for coffee



February 2018

2019





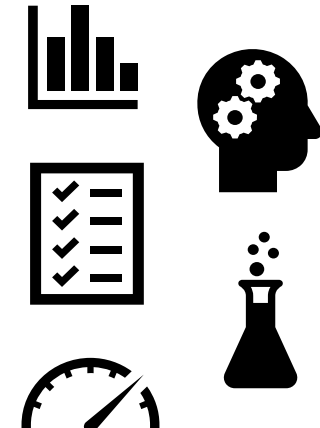
DIAAS-values (digestible indispensable amino acid score) for different proteins

NUTRITIONAL RESPONSIBILITY

- Not all the proteins are the same
 - Differences in amino acid profile and absorption
- We combine oats and pea to improve the amino acid profile
- Valio is doing research by ourselves and in cooperation for example about gut health, antinutrients and symptoms caused by pulses

CHALLENGES RELATED TO PLANT-BASED RAW MATERIALS

- Availability
- Quality
 - Microbiological quality
 - Composition
 - Properties, functionality
 - Nutritional value, contaminants, antinutrients
 - Flavour
- Analytics
- Know-how
- Legislation and regulation



?

TOGETHER
WE MAKE *life*
BETTER



ACCELERATING THE CHANGE BY COOPERATION WITH START-UPS

- Students from University of Helsinki developed a **faba bean** ice-cream “Härtelö”
- They started a company **Lipasu Oy**
- Collaboration between Valio and Lipasu allows faster growth



SUSTAINABILITY AT THE CORE- ACTIVITIES FROM FIELD TO CONSUMERS

TOWARDS
**CARBON-
NEUTRAL**
milk 2035

Energy

- *Improvement of energy efficiency and the use of renewable energy

Logistics

- *Development of low carbon logistics

Packages

- *Sustainable materials and packaging innovations

Waste

- *Minimization of waste through the whole chain

Emission mitigation technologies

- *Animal breeding and improved lifetime production, feeding innovations, barn technology

Land use

- *Higher productivity from mineral soils
- *Development of forage market
- *Mitigation of emissions from organic soils

Pro Manure Network

- *Processing of side streams of milk chain for energy and nutrients

Carbon sequestration

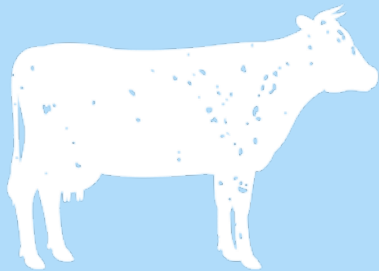
- *Grassland as carbon sink
- *Improvement of biodiversity
- *Restoration of peat land
- *Forestration

INNOVATIVENESS *as* A DRIVING FORCE



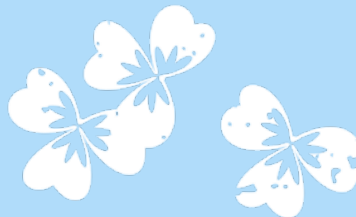
WHAT NEXT?

- Valio back to the roots and grass – a grass protein drink for you?
 - Already demonstrated as a feed to monogastric animals and pilot production running in Denmark – next to our table?
- How about a seaweed yogurt?
 - Valio collaborates with start-up whose vision is to create a business ecosystem based on Baltic Sea algae and seaweed in Finland.
- Bioreactors and single cell protein
 - Food without land or waste streams feeding the microbes



COMPANIES CAN SOLVE

GLOBAL CHALLENGES



FOR US, SUSTAINABILITY

MEANS CONCRETE ACTS,
FROM THE FARMS TO THE TABLE



