



Identifying future challenges of the organic and low input milk supply chain

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What is low input ?

(in Finnish: matalan panoskäytön)

Organic dairy farming is clearly defined through European legislation, the concept of low-input is not commonly defined.

Common definition for low-input dairy is based on low levels (quantity or cost as an approximation of quantity) of purchased feed, fertilizer, crop protection and high numbers of days at pasture.

See Hietala et al. Milk yield varies from 2 200 - 10 000 kg / cow / year

SOLID- Future Dairy Workshop

May 2014, Finland

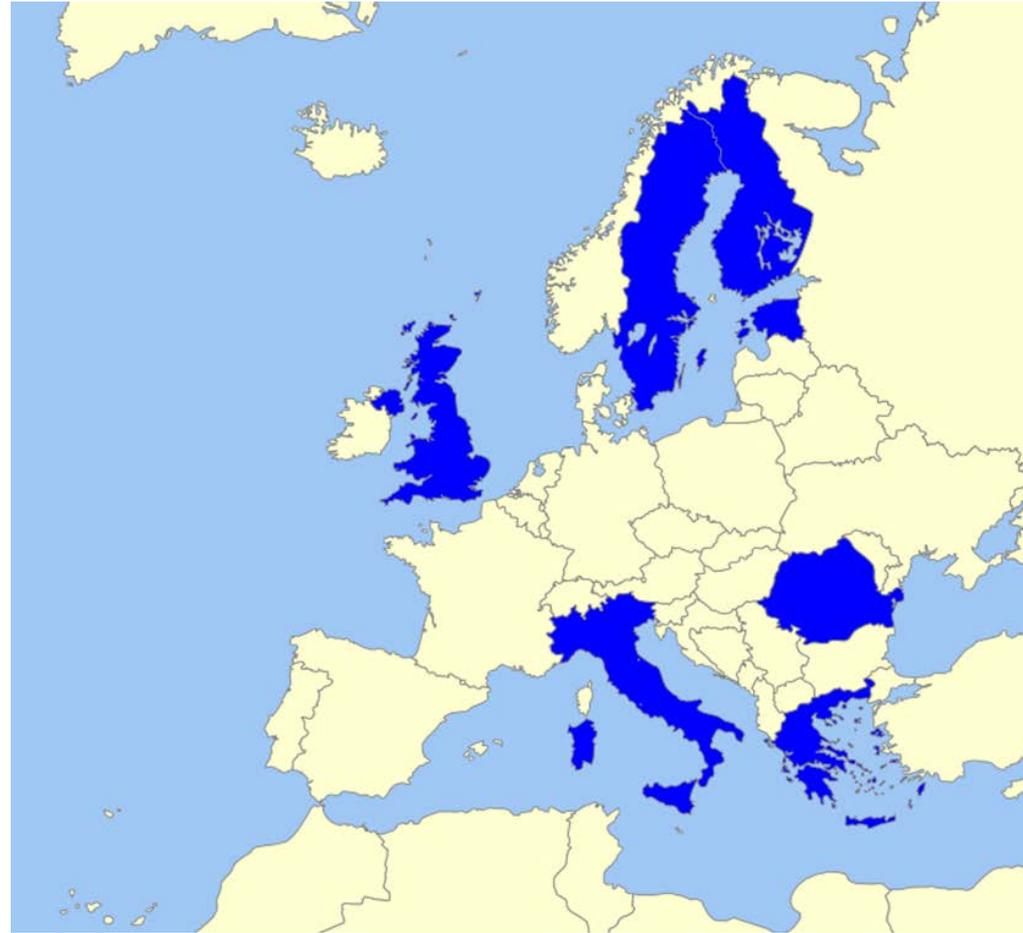
1,5 days workshop

Totally 11 participants

6 last-minute cancellation

3 groups

- Nordic (Sweden, Finland)
- Eastern Europe (Estonia, Romania)
- Western Europe (Italy, UK)



Aim and methodology

Aim:

Identify optimal Supply Chain Management strategies, adapting the organic and low-input production systems to geographical and cultural diversity and improve their competitiveness.

Methodology:

Participatory interaction in a Future Workshop

Outcome:

Proposal of optimal strategies for the adoption of the innovative production systems in organic and low-input dairy supply chains.



Future Workshop Methodology

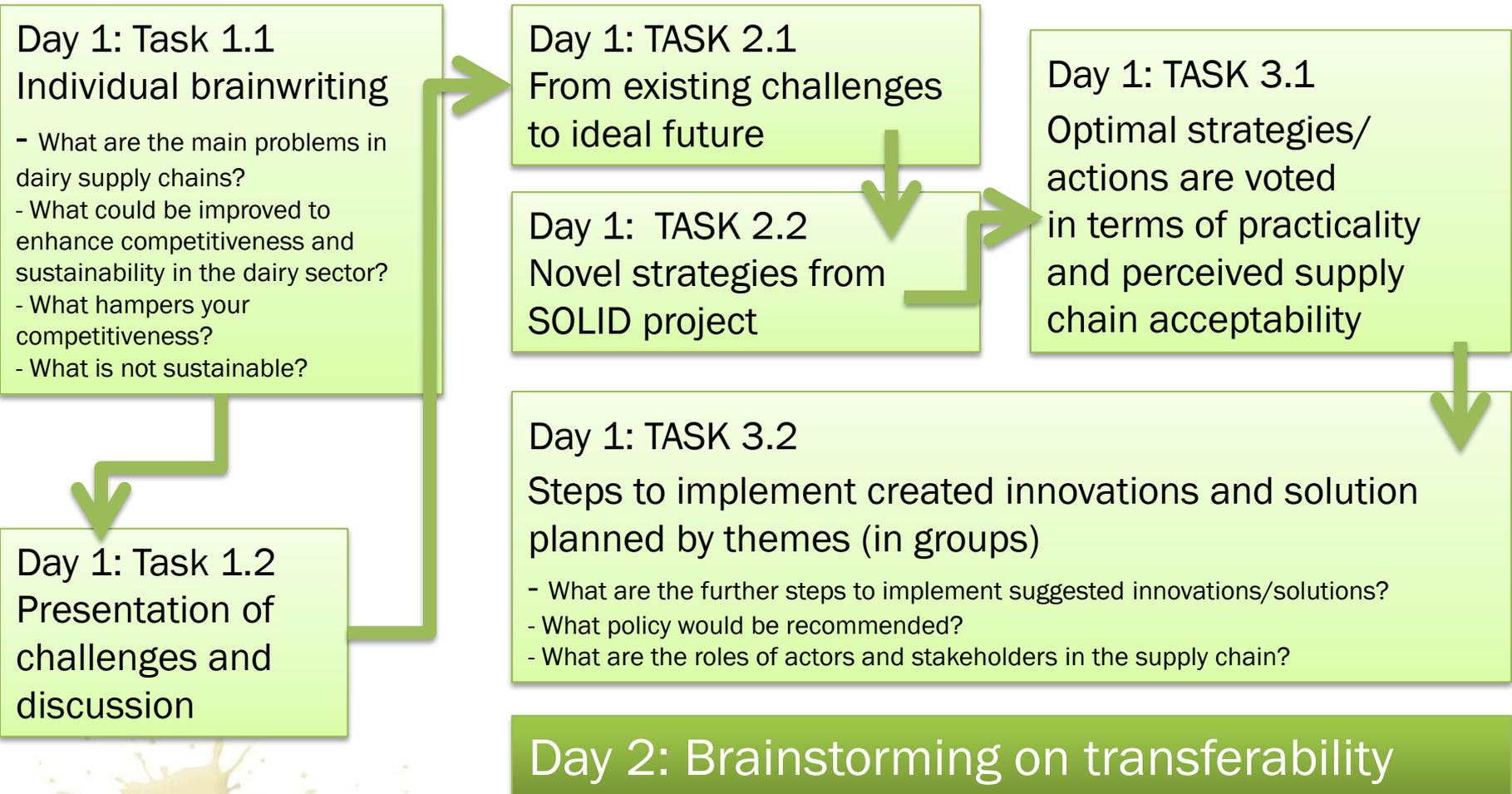
Critique

Visioning

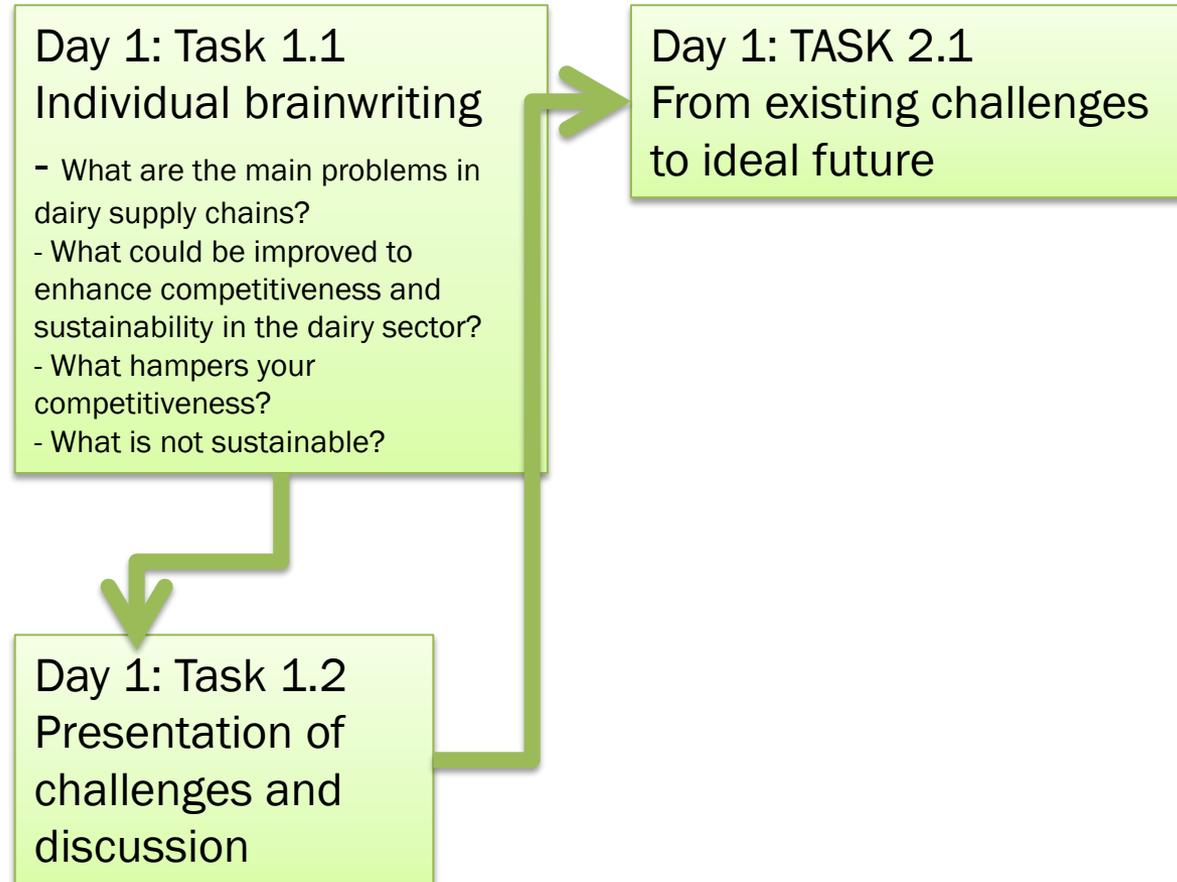
Operationalisation

Implementation

Workshop structure



Identifying challenges in tasks 1.1-2.1



B

Waste along supply chain

Waste along supply chain

Small amounts of different locations

Keeping the cold chain

Low consumption of organic

Low trust in organic logo/label

High price of organic product (low consumer)

Involve in activities and increasing awareness

Information about cost is shared by supermarkets

Tools to predict likely daily demand in shops

Information gathering and involving green routes

Increase efficiency of cold chain

Research of quality of organic feed

Personal producer hard to reach

Milk machines in shops to add raw milk

Consumers happy to drink whole milk
Whole milk can be used

Everything is hard/patched

Re-make from (organic product) milk, raw milk (cheese) (yoghurt)

Share economy (e.g. parking) organic

AVRAN (e.g. quality of organic feed)

to make raw milk not collected

chain is

buy out of organic product

High trust in organic

Consumers willing to pay fair price

EU Whole-grain Feed Price Instability

Selling (calves) is difficult low price

Use of new technology (sensors) too costly

Low price for farmers

Low price for farmers

EU Whole-grain Feed Price Instability

EU support for growing public crops

Use different breeds for some animals

Low price for farmers

Low price for farmers

Low price for farmers

EU Whole-grain Feed Price Instability

EU support for growing public crops

Use different breeds for some animals

Low price for farmers

Low price for farmers

Low price for farmers

Research on how to add value to

Knowledge leads to new products

Genetic diversity

Low price for farmers

Education Training in Farming

Organic Agriculture schemes

Farmer don't organic (don't have access to market)

Local production of feeds

High values are wanted

New technology can be used

High farm profitability

Farmer don't organic (don't have access to market)

Farmer don't organic (don't have access to market)

Results

Group A: Nordic

Farm

Profitability

High capital investment costs /
price of milk /
milk quota abolition

Lack of
homegrown
protein feed

Feeding strategy

Grass based /
use of by-product

Policy

Regional
production
differentiation

Crop and animal
husbandry moving to
different regions

Political
commitment

Long term commitments

Consumers Markets

Competition
with beverages

Coca-cola etc

Reputation of
ruminants

Green house gases /
feeding efficiency /
feeding strategy / breed

Lack of options

New product development
/ new varieties

Group B: Central & Eastern Europe

Farm

EU/home-grown feed (price and availability)

Selling male calves is difficult because of low price

Use of new technology too costly

Low farm profitability (prices for products and cost of production)

Consumers & Markets

Low trust in organic label

High end-price of organic products

Waste along the supply chain

Low price for farmers

Consumers want skimmed milk / "white water" (<2,5%)

Small amounts produced in different locations

Keeping the cold chain

Low demand / consumption on organic products

Group C: Western Europe

Farm

Farm profitability/
Reduce cost/ Milk
price/ Risk

Better grassland
utilisation/ Improving
feed efficiency/ Feed
self-sufficiency/
Reliable forage
production/ Improve
pasture

Application of
best practise /
Farm ease of
management

Health & welfare (feed,
udder, fertility) /
Mastitis (antibiotics
reduction (contamination),
antibiotics elimination,
welfare)

Milk quality
-Contamination
-Fatty acids

Protein sources
alternative to soya

Consumers Markets

Power of processors +
supermarkets / Involve
farm in process of
cooperation

Lack of local
distribution

Power of processors +
supermarkets / Involve
farm in process of
cooperation

Dairy product innovation /
Milk differentiation (e.g.
welfare, constituent) /
Voluntary certification

Organic production:
production/supply
balance

Level of challenges in the supply chain

Group	Farm level	Policy	Consumers Markets
Nordic	3	2	3
Eastern Europe	4	0	8
Western Europe	6	0	5



Conclusions

Two main overlapping themes over all geographical areas

- Farm profitability (six challenges)
- Home-grown (EU or country level) protein feed
(totally three challenges, one in each group)

One example of the innovations mentioned by workshop participants

As one solution to the farm profitability problem, two groups identified that transparency (e.g. by using specific transparency indicators or by explaining more about the production process to the consumers) could be part of the solution.

Thank you!

Acknowledgements

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and Low Input Dairying

