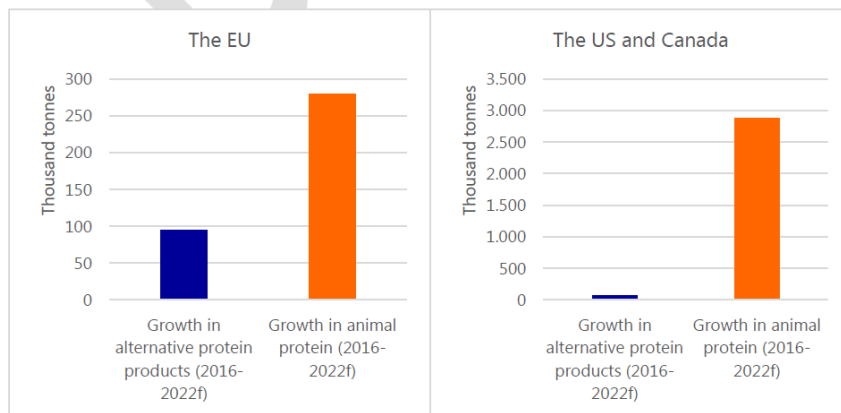




Ministry of Agriculture,
Nature and Food Quality

Figure 6: Alternative proteins represent a material share of total animal protein demand growth over the next 5 years



Source: European Commission; Rabobank, 2017

EU protein plan

Dutch perspective on
trends, developments
and ambition

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Trends and developments

- Circularity and resource efficiency,
- Data and technology: Robotics, smart farming, big data
- Sustainable alternatives
- Short food chains, convenient and local food

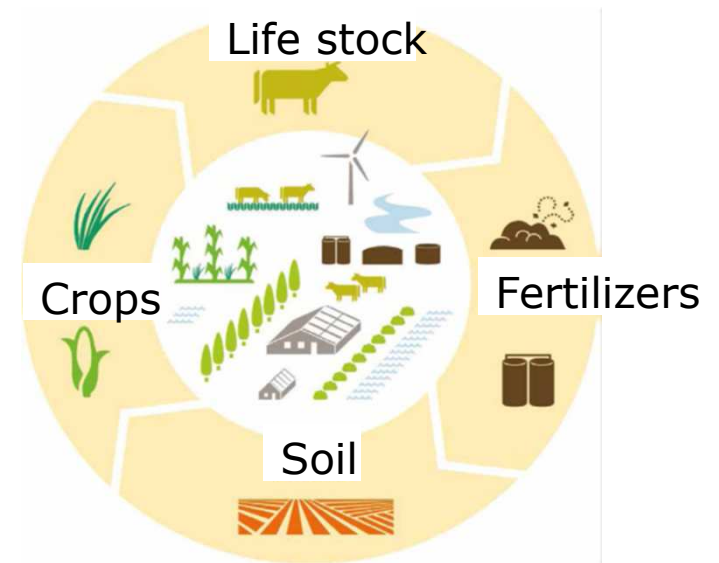




Circularity and resource efficiency

WUR Research: "By circular farming we can produce enough animal proteins for the entire Netherlands for food with a better ratio of plant-based to animal-based proteins."

- Circular agrofood system
- Cascading
- Waste reduction

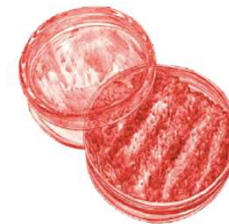




Data and technology: Robotics, smart farming,

- Precision Farming: dealing with variability - knowing when, where and how to seed, cultivate and harvest
- Robotics and drones – light weight mechanisation (soil health), mixed cropping, nature-inclusive options (e.g. protection of nests of meadow birds)
- Automated milking and controlled grazing
- Transparency in food chains : blockchain
- Development of meat analogues

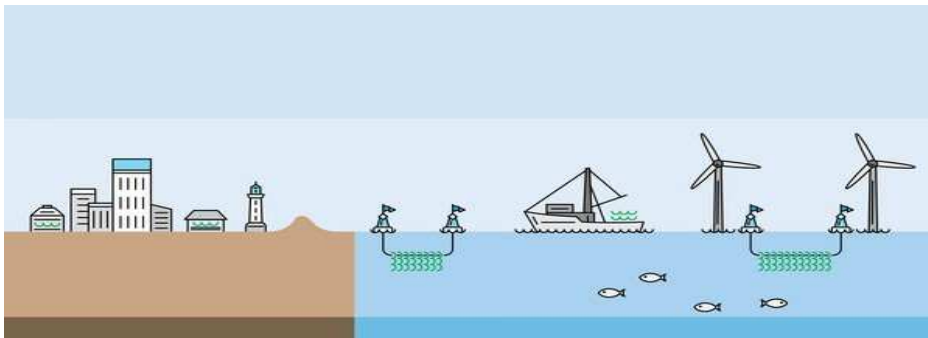
Conference 1th and 2th of November Wageningen





Sustainable alternatives

- Micro algae, seaweed, duckweed, insects, grass, beet leaves, potato
- Processing technology: fermentation of proteins, using fungus
- Rearranging the supply chain (Kipster)
- Food from nature





Trends

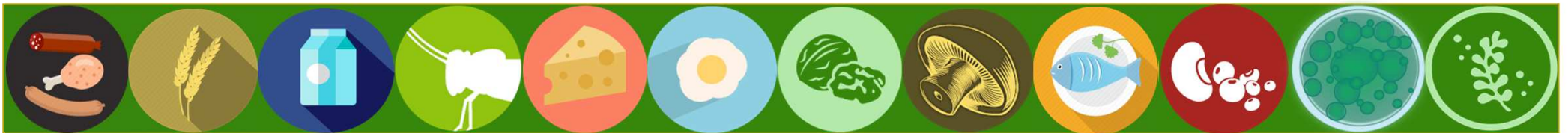
- Short food chains: locally cultivated - varieties of pulses and beans (kidney, lupin beans), nuts, mushrooms
- Convenient: foodboxes, prepared food, order online, direct sales
- Experiencing food: cityfarming, aquaponics, foodtrucks, Eataly
- Personalized food





Developments

- Vision on Agriculture, Nature and Food Quality,
- Transition Agenda Biomass and Food
- National Prevention Plan (VWS)
- Deals: Climate Deal, Innovation Deals and Region Deals
- Northsea2030- NOVI – National Vision on Environment and Infrastructure





Aims and ambitions

- Import less soya and utilize more waste streams (no more food waste)
- Efficient and closed food chains (2030)
- Focus on innovation of production methods
- True price and fair wages (primary sector: farmers, fishermen).
- A healthy balance between plant protein (60%) and animal protein (40%) in 2050.

2050: 60% 40%

