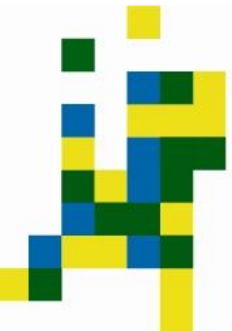




Ministry of Foreign Affairs of the
Netherlands



Plattelands
Ontwikkelings
Programma
Regiebureau



Innovation and agriculture: Dutch solutions for agri- challenges

Emar Gemmeke
Counsellor for Agriculture, Nature
and Food
Embassy of the Netherlands

Conference „Innovations in Bulgarian
Agriculture: First steps towards EIP-AGRI“
February 25, 2016, Plovdiv, Bulgaria

*Special thanks to: Annemiek Canjels
National NL Contactpoint EIP-Agri*



Content of the presentation

- Innovation themes in the Netherlands
- State of play EIP-Agri in the Netherlands
- Some examples of innovations



The challenges

- Food security, Climate change, Resource efficiency, Health
- Fair prices, negotiating power, control
- Entrepreneurship, creativity, curiosity, use of knowledge, courage, skills
- Reconnecting consumer and producer



Innovation

- An idea put into practice
- The implementation of a new or significantly improved product (good or service) or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations (OECD)



Eligible innovation themes NL

- Transition from cost reduction strategy towards added value strategy; new businessmodels, new market concepts
- Lower production risks, stronger position of farmers in the chain, reduced market failure
- Lower use of resources, lower emissions
- Climate mitigation, CO2 reduction
- Climate adaptation (focus on water issues)
- Animal welfare, animal health, reduced public health risks



“Hot” in the traditional groups

- More with less, better quality, higher yields
- Circular production systems
- High tech systems
- Emission reduction
- New production methods (soilless, LED f.i.)
- Crop protection, plant resistance
- Precision farming, sensing
- Organic farming



“Hot” among new stakeholders

- Biobased materials and substances
- Healthy diets and medicinal substances
- Short supply chains, business to consumer
- Local for local small scale and large scale
- E-sales and direct e-marketing
- Consumer, physicians, students, children, dietarians involvement
- Personalized foods, novel foods
- Urban farming, vertical farming, metropolitan agriculture



Crossovers

Tuinbouw & Uitgangsmaterialen heeft vele waardevolle cross-overs met andere topsectoren

Water

- Duurzaam en efficiënt gebruik van water (inductie, reuse en recycle)
- Verminderen van emissies naar grond- en oppervlaktewater
- Droogte en/of tolerantie
- Urban Indoor Farming

Life Sciences

- Gezondheid
 - gezonde voeding
 - productie geneesmiddelen
- Technologie
 - ondersteunende technologie
 - systeembiologie
 - synthetische biologie

- Gezonde voeding
 - betere smaak
 - minder vet
- Gezondheid bevorderend
 - tegen obesitas
 - anti-oxidanten

Agro-Food

- Gezonde voeding
- Duurzaamheid
- Biodiversiteit
- Fytosanitair beleid
- Bodembeheer
- Plantenziektes dwarsen

Chemie

Logistiek

- Infrastructuur
- Netwerkgereguleer op logistieke optimalisatie
 - ICT, track & trace, RFID
- Multi-modale netwerken
- Duurzaamheid van vervoer en conditionering

High Tech materialen & systemen

- Besturing, precisietechnieken, sortering en afzet
 - Robotisering, smart systems
- Geavanceerde test
 - LED, bio-nanotechnologie
- Logistiek
 - RF ID track & trace

Creatieve industrie

- Sector image
- Architectuur (ontwerp van groen in de publieke ruimte)
- Esthetische kas
- Product design

Tuinbouw & Uitgangsmaterialen

Energie

- Duurzame en decentrale energieproductie
 - flexibiliteit in energievoorziening door wind
 - decentrale lokale energiesystemen
 - CO₂ afvang/afspiratie
 - duurzame warmteproductie
 - duurzame elektriciteitsproductie

Bio-Based Economy

Stoffen voor andere sectoren door veredeling, faciliteren optimale fractiërering door veredeling, gebruik bio-based materialen



Structure

- NL RDP budget is 180 M euro/year (50/50 EU/national)
 - NL selected only 9 of the 28 measures.
- The regions (12 provinces) decide on priorities and budgets and execute the tenders
- Local area networks (39) (gebiedscollectieven) negotiate with the provinces about the priorities
- Water boards (23) cofinance and evaluate water measures
- One single paying agency: RVO.nl



EIP- Agri: selected measures in the Netherlands

- Ambition: 90 operational groups in the Netherlands
- Approx 45 M euro/year allocated to cooperation
 - › Cooperation Operational Groups EIP (art 35)
 - › Cooperation otherwise (art 35)
 - › Innovation or modernisation Investment (art 17)
 - › Knowledge transfer and demonstration (art 14)
 - › Guarantee market introduction (art 17)
- *Difficult to execute a combination of measures around an OG under the tender regime !*



Programming, calls, tenders

- 11 out of 12 Regional authorities will execute EIP – Agri
- Programming measure 16 (art. 35) EIP / cooperation about 3%
= 42 mln budget excl co-use of measures 01 (art.14) and 04 (art. 17)
- Draft of a shared Call for Proposals with regional accent in progress
- Draft of shared Advisory body for tenders
- First calls expected early 2016



Actual linking of practice to science

- Network building for the EIP - Knowledge & Innovation Community
- Underlining cross-over innovation opportunities
- Linking EU / national / regional challenges
- Participate in Focus Groups
- EAFRD: Rural Development Programme
- EFRD: Regional "Research & Innovation Strategy for Smart Specialization"



EAFRD – EIP Agri – Horizon 2020

- Horizon 2020 scoping papers – main R&D&I challenges
- Prepare for calls WP 2016/2017
- EIP- pilots in 2014 with Wageningen University Research Center
- Application for H2020 Multi – Actor Network
- But how to evolve from OG to MA and Thematic Networks ?



Example “Thematic Network”

- Dairyman (now Interreg B – NW Europe)
- 120 farmers in 10 regions have connected with scientists
- Developing and testing 18 innovative tools
- Collection of results and feedback
- Objective: CO₂ reduction





EIP-Agri: R&D and operational groups

- NL participates in EIP's focus groups
- H2020 Thematic network projects have been submitted
- H2020 multi-actor project proposals have been submitted
- National R&D policy: Topsector calls oblige public-private partnerships (with larger companies – *less farm level oriented* due to abolishment commodity (levy) boards?)



National EIP-AGRI Network

- National Support Unit of the Network Rural Development provides:
 - Inspired team with 2 EIP contacts
 - Lively website with strong linkage to the site and news EIP Servicepoint
 - Events, Newsletters, blogs, database
 - Support to regional authorities, innovation brokers and project initiators

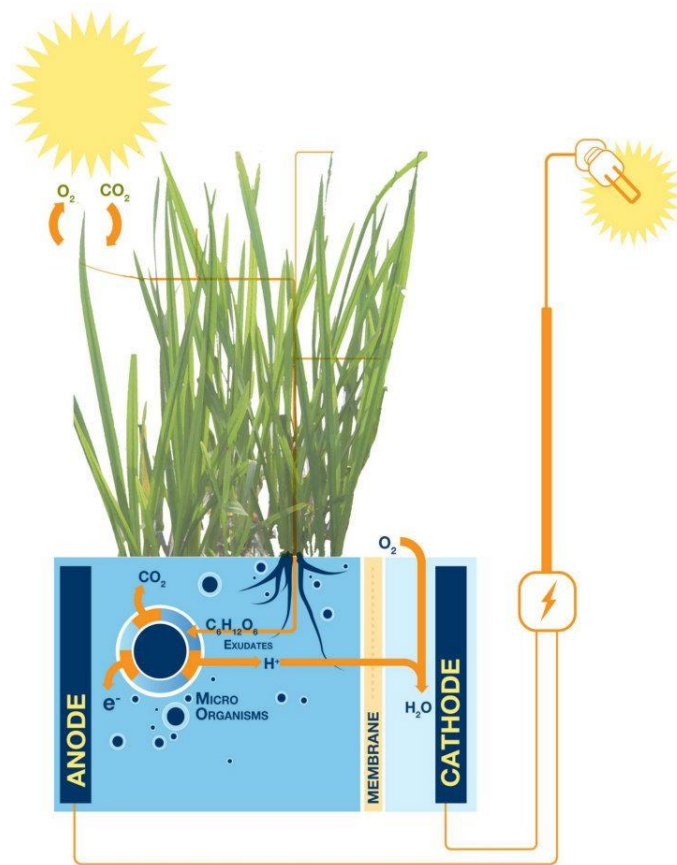


Innovation in dairy



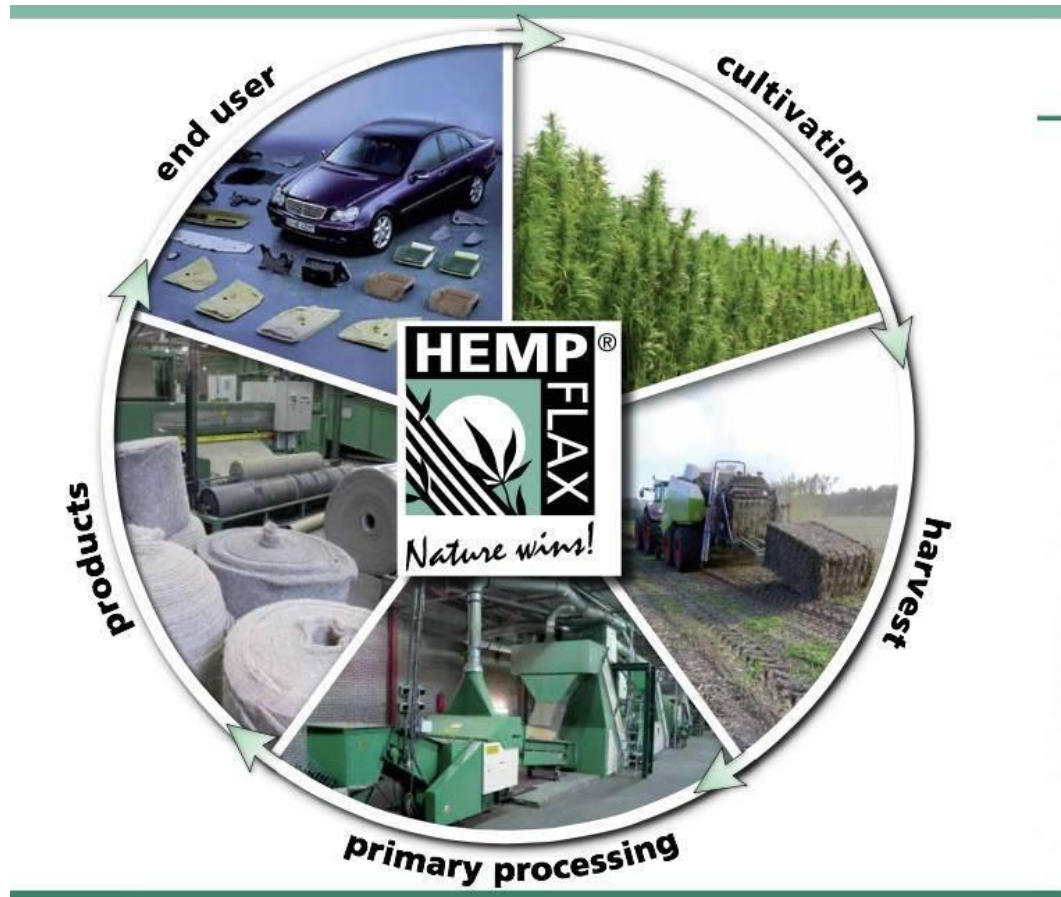


FP7 program: Plantpower





Reinventing old crops: Hemp





Zero emission spraying

