

Netwerkbijeenkomst Melkveehouderij in EU-perspectief 12 april 2018



Europees landbouwfonds voor plattelandsontwikkeling: Europa investeert in zijn platteland

Onderdelen POP3

POP3 bevat vijf onderdelen en meerdere maatregelen

1. Innovatie, inclusief verbetering verkaveling
2. Jonge landbouwers
3. Agrarisch Natuurbeheer
4. Landbouw en water
5. Leader



Maatregelen voor innovatie in de landbouw

- Maatregel 1: Kennisoverdracht en demonstratie (41 mln.)
- Maatregel 2: Investerings in Innovatie of modernisering (59 mln.)
- Maatregel 7: Samenwerken voor innovatie
- Maatregel 8: Samenwerking in het kader van EIP

Tussen maatregel 7 en 8 is geen verschil.

Alle projectgroepen heten Operational Groups

Totaal is voor Samenwerking voor innovatie/EIP
65 mln. euro gereserveerd



Projecten in uitvoering

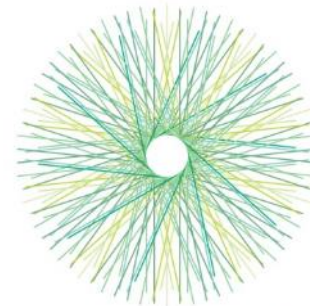
- Inmiddels 85 projecten/Operational Groups in uitvoering, enkele hiervan zijn afgerond
- Vrijwel alle provincies hebben 1 of meer openstellingen gedaan voor maatregel 7 en/of 8
- Er worden ruim 160 Operational Groups verwacht
- 70% van de projecten zijn gericht op de melkveehouderij, de akkerbouw/vollegrondsgroenten en nieuwe markten/nieuwe concepten.



Vorming van netwerken in Nederland en EU

- Gelijksortige projecten bij elkaar brengen
- Doel: vormen communities, inspiratie bieden, kennisuitwisseling, informeren over EU-faciliteiten
- Koppelen aan EU-faciliteiten en aan regulier onderzoek in NL
- Organiseren van Netwerkbijeenkomsten:
 - Melkveehouderij - 12 april
 - Akkerbouw - september
 - Nieuwe markten/nieuwe concepten - oktober

The European Innovation Partnership “Agricultural Productivity and Sustainability” or EIP-AGRI and the Service Point



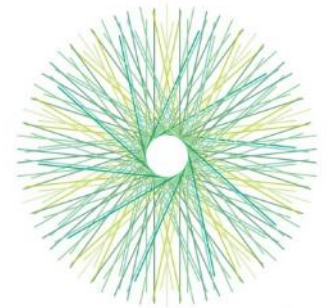
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AGRICULTURE & INNOVATION



NRN Netwerkbijeenkomst
Innovatie in de melkveehouderij in EU perspectief

Remco Schreuder, EIP-AGRI Service Point
Baarn, April 12 2018

EIP-AGRI in a nutshell



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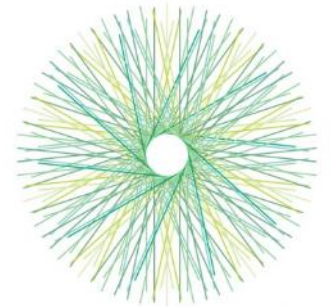
Aim: To foster a competitive and sustainable agriculture and forestry sector that "achieves more from less"

Approach: Closing the innovation gap between research and practice by:

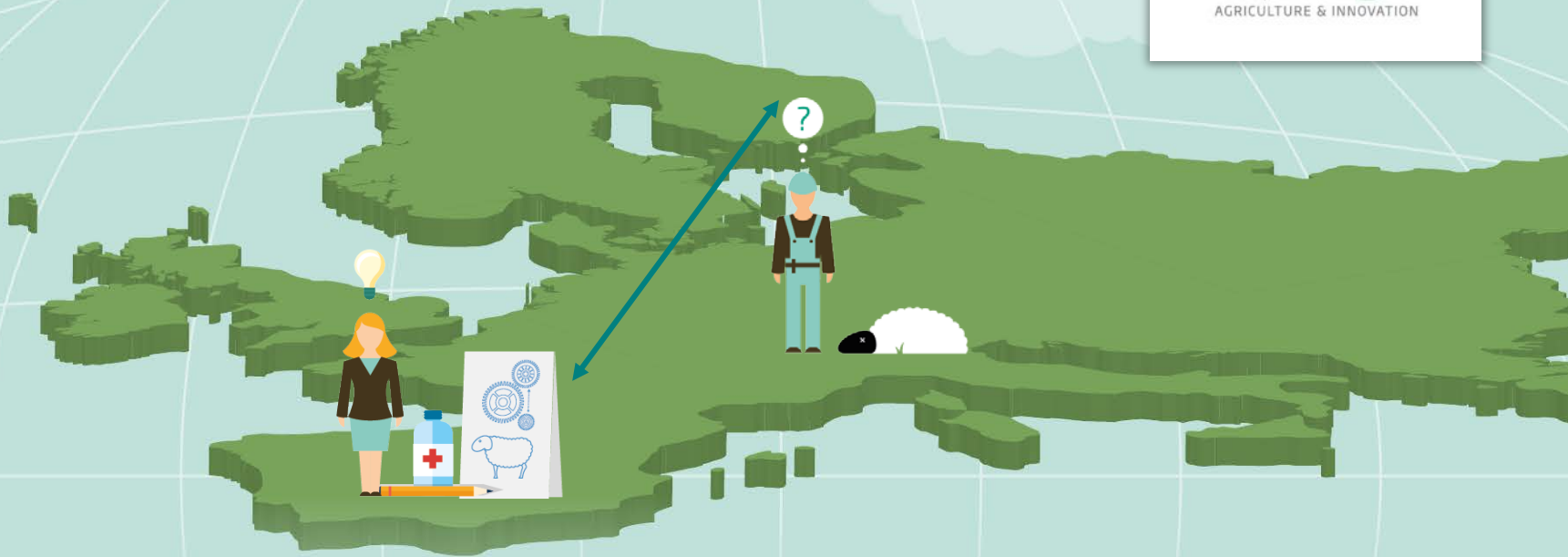
- using the interactive innovation model
- linking actors via the EIP Network

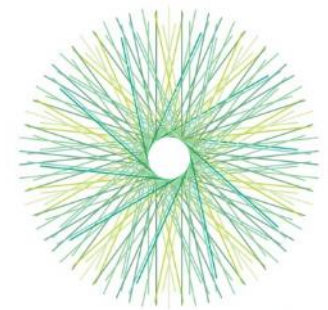


The goal



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A multidisciplinary team at your service

The EIP-AGRI Service Point team works closely with DG AGRI to link all actors in the EIP-AGRI network

funded by

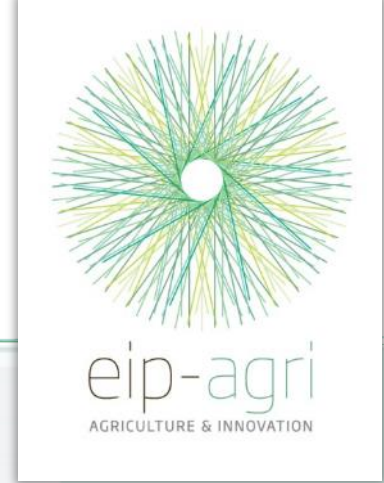


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Commission



EIP-AGRI Network

Sharing Knowledge – connecting people – tackling challenges



EIP-AGRI Service Point SHARING KNOWLEDGE - CONNECTING PEOPLE - TACKLING CHALLENGES SERVICES

HELPDESK

FOCUS GROUPS

WORKSHOPS & SEMINARS

Connecting farmers, researchers, advisors, businesses, environmental groups, consumer interest groups and other NGOs



Online & Printed Publications

Database

Funding opportunities
Research needs from practice
Experts
Case Studies
Finding partners



Newsletter

Press

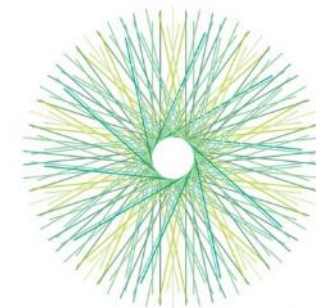
Social Media

Website

Events

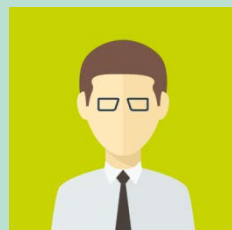


Bridging agriculture and research



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- Research needs
- Operational Groups



Farming
Forestry
Agribusiness
...

Knowledge and
partners



Research

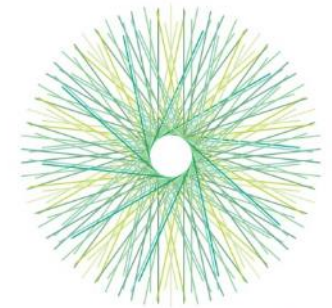
- Ideas to test
- multi-actor projects
- thematic networks

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The EIP-AGRI Network: connecting people & sharing knowledge to tackle challenges



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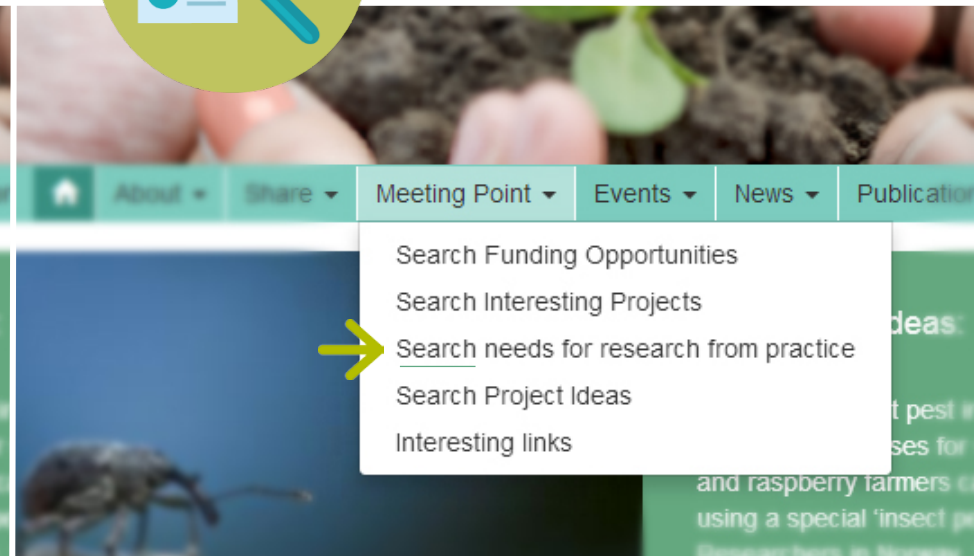
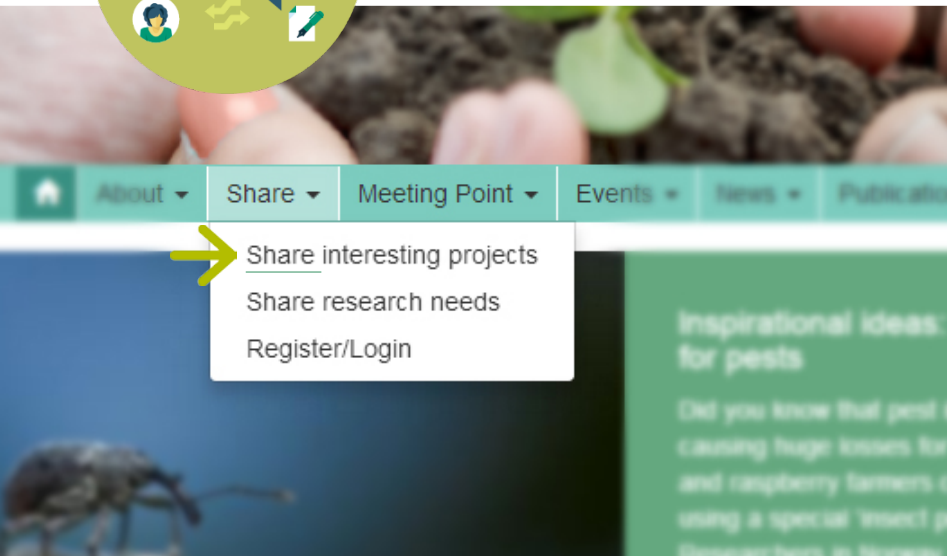
Website – Interactive functions



Share



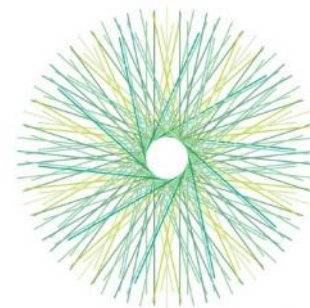
Search



www.eip-agri.eu



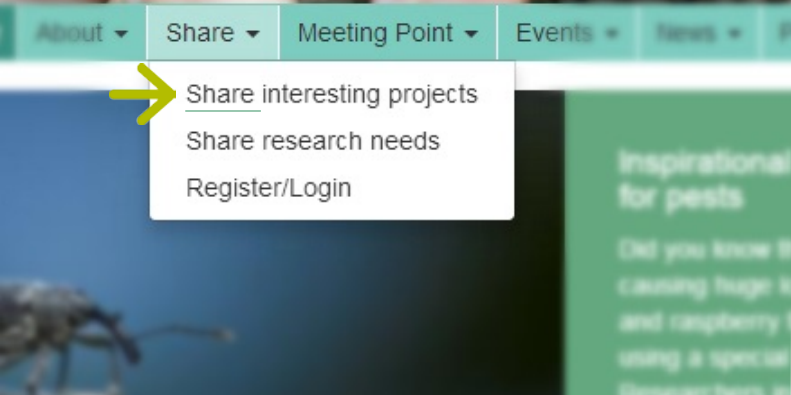
Get involved!



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Why share?



Register on the website and advertise your project results

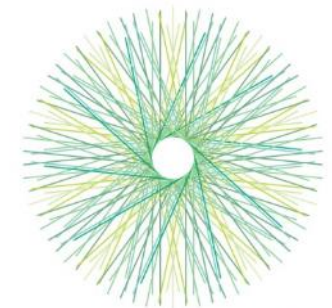
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EIP-AGRI Focus Groups



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Agroforestry: woody vegetation

Animal husbandry

Benchmarking farm performance

Carbon storage in arable farming

Circular horticulture

Dairy production systems

Diseases and pests in viticulture

Ecological Focus Areas

Fertiliser efficiency

Forest biomass

Forest practices & climate change

Frost damage

Genetic resources

Grazing for Carbon

High Nature Value

IPM for Brassica

Livestock emissions

Mixed farming systems

New entrants into farming

Nutrient recycling

Organic farming

Permanent grassland

Precision farming

Protein crops

Reducing food loss on the farm

Renewable energy on the farm

Short food supply chains

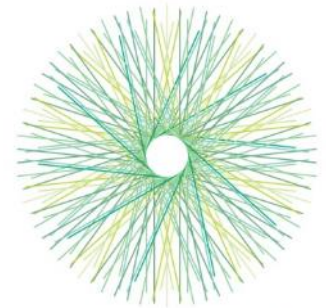
Soil organic matter

Soil-borne diseases

Water & agriculture



EIP-AGRI Focus Groups tackling agricultural challenges



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Call closed!!

- New feed for pigs and poultry
- Protecting fruit production from frost damage
- Reducing food loss on the farm (cereals, olives, fruit...)

Next call : June

You're welcome to suggest new topics

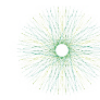


Operational Group



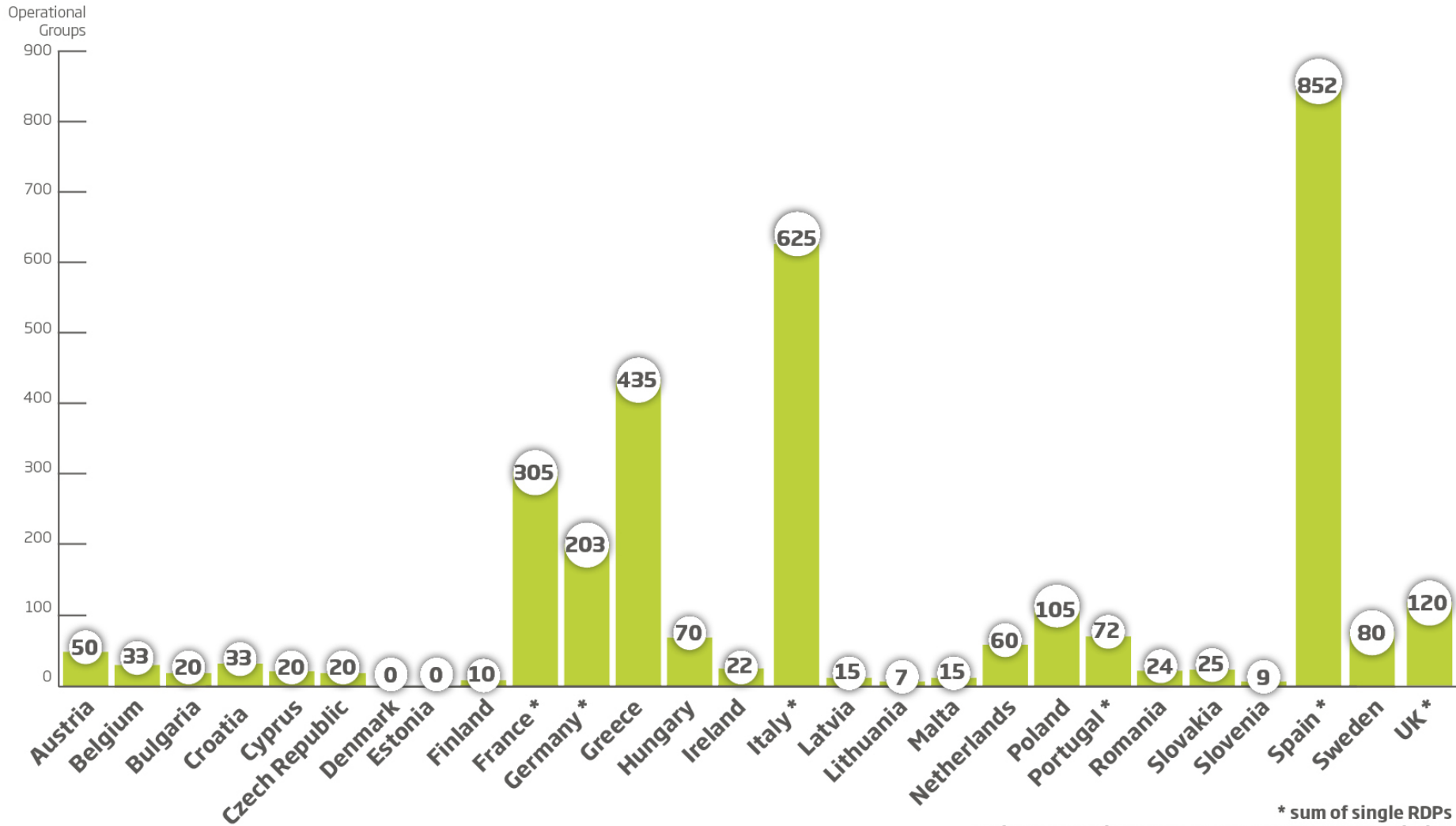
Rural Development Programmes (RDPs): Measure 16 Cooperation

Number of planned EIP Operational Groups in the 2014-2020 RDPs



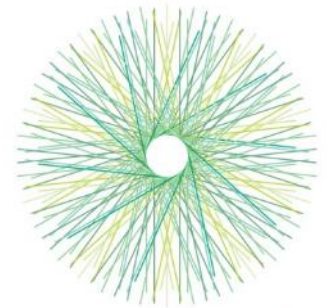
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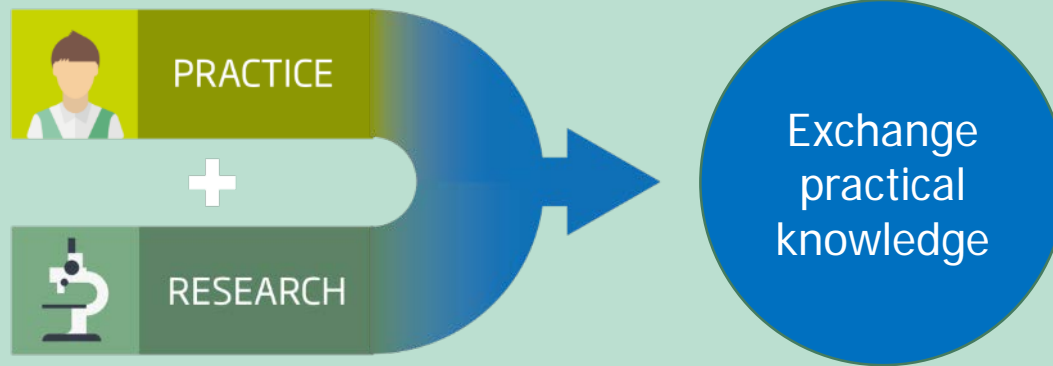


* sum of single RDPs
update September 2017 - source: European Commission

EIP-AGRI Focus Groups, tackling agricultural challenges

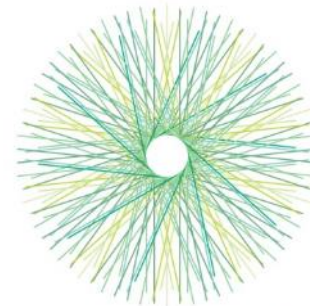


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- 20 participants, varied types of actors
- Short duration, focused
- 27 Focus Groups so far

Thank you for your attention!



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www.eip-agri.eu
Register today!



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EIP-Agri Focus Group - melkveehouderij

Netwerkbijeenkomst melkveehouderij in Europees perspectief

Agnes van den Pol-van Dasselaar, Baarn, 12 april 2018



AERES
HOGESCHOOL
DRONTEN



WAGENINGEN
UNIVERSITY & RESEARCH

Wat?

EIP-AGRI Focus Groups are temporary groups of selected experts focusing on a specific subject, sharing knowledge and experience

- Verspreid over Europa
- Verschillende achtergronden
- Praktijk en wetenschap



Hoe?

Sollicitatie / selectie

Startrapport

Twee bijeenkomsten in Europa

Uitwerking in mini-papers

- Key issues
- Research needs (from practice) and ideas for Operational Groups

Eindrapport

Communicatie



Focus op de melkveehouderij

Permanent Grassland (*member*)

Reducing livestock emissions (*Erwin Koenen – CRV*)

Robust and resilient dairy production systems (*Cynthia Verwer – Louis Bolk Instituut*)

Grazing for Carbon (*coordinating expert*)



Profitability of permanent grassland: *How to manage permanent grassland in a way that combines profitability, carbon sequestration and biodiversity?*

Key issues

- Grassland typology – biodiversity and productivity
- Grassland production/quality that matches animal needs
- Benchmarking
- Increasing functionality by diversifying sward plant composition
- Increasing resource efficiency
- Differentiating grass based products
- Evaluating the environmental impacts



Reducing Livestock Emissions

Resultaten

- Een technisch efficiënte melkproductie als belangrijkste win-win om emissies te reduceren
- Aandachtsgebieden voor optimalisatie: bedrijfsmanagement, veevoeding en fokkerij
- Veel technische opties te duur of te lastig (bijv. voederadditieven en stalaanpassingen)
- Selectie op genetische verschillen in CH₄-emissie lastig door gebrek aan waarnemingen aan individuele dieren
- Verschillende Europese modellen die emissies op bedrijfsniveau vergelijken
- Precies meten van emissies op stal- of dierniveau nog lastig en duur
- Veehouders passen nieuwe technieken niet snel toe door gebrek aan incentives



Robust and resilient dairy production systems (Robuuste en veerkrachtige melkveehouderijsystemen)

Richtingen:

- Ontwikkeling van een genetisch robuuste en veerkrachtige koe
- Bedrijfsmanagement strategieën
- Bevorderen van relaties tussen consumenten en producenten en het zoeken naar synergiën met economische factoren
- Identificeren of ontwikkelen van indicatoren om robuustheid en veerkracht van productiesystemen vast te stellen en te monitoren
- Verhogen van de kennis en vaardigheden van boeren en adviseurs gericht op een toekomstbestendige ontwikkeling



Grazing for Carbon



Priorities:

- the effects and trade-offs associated with approaches to sequester C in different grazing systems
- the role of plant mixtures and native species
- general guidelines for optimal grazing in different parts of Europe
- effective monitoring of soil C as a tool for soil quality evaluation
- incentives to promote the adoption of the best grazing systems

EIP-AGRI Focus Group: Bron van inspiratie!



Topsector Agri&Food Het Nederlandse melkveehouderijonderzoek

netwerkbijeenkomst melkveehouderij,
12 april 2018



Geert van der Peet
Wageningen Livestock Research

Geert.vanderpeet@wur.nl

inhoud

★ Veel agenda's:

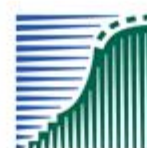
- Topsector Agri&Food
- Duurzame Zuivelketen
- Strategische Kennis en Innovatie agenda LNV
- ...?



★ Veel onderzoek melkveehouderij

★ Voor impact: afstemming optimaal?

- Agenda's
- Instrumenten



**landbouw, natuur en
voedselkwaliteit**

★ Belang van integraal programmeren:

- Bottum up en Top down



TKI AGRI & FOOD



Europees Landbouwfonds
voor Plattelandsontwikkeling:
Europa investeert in zijn platteland

Agenda Topsector Agri&Food

Van:

Agenda 2014 – 2017

11 thema's



Naar:

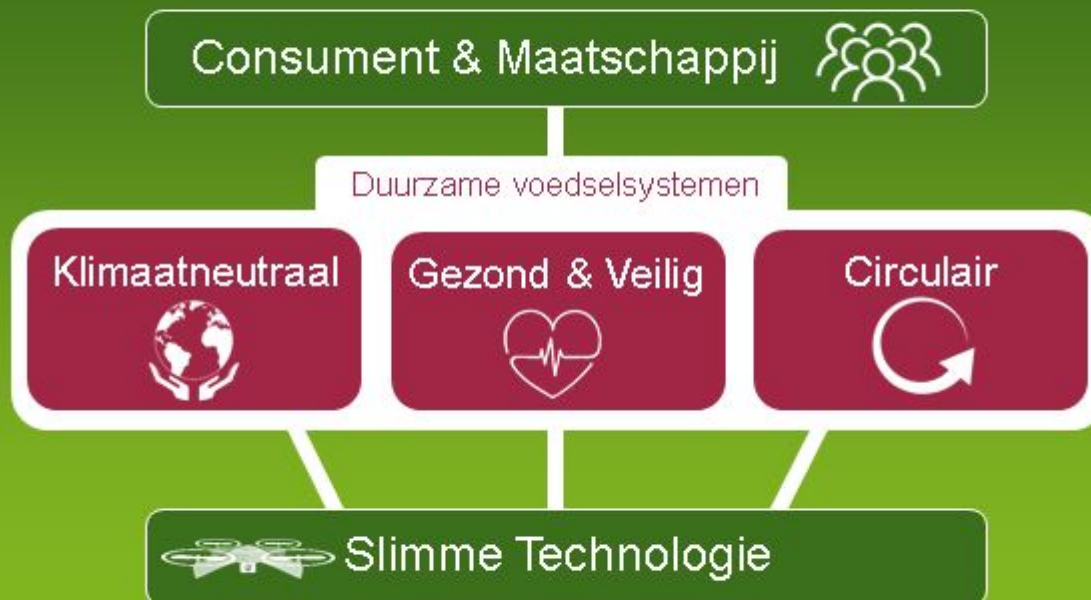
Agenda 2018 – 2021

5 focus thema's



Vijf kernthema's

Topsector
Agri &
Food



Focusthema klimaatneutraal

★ Klimaatneutrale productiesystemen

- Veehouderij: methaan en mest
- Landgebruik
- ...

★ Weerbare en robuuste dierlijke productiesystemen

- Diergezondheid en welzijn: draagkracht van het dier
- Systemen gericht op transparantie in de keten, sensoren, snelle metingen
- Uitbraak dierziektes

★ Weerbare en robuuste plantaardige productiesystemen

- Crossover met Tuinbouw en uitgangsmaterialen

★ Duurzaam waterbeheer

Agenda: duurzame Zuivelketen

Thema's

- ★ Klimaatneutraal ontwikkelen
- ★ Continue verbeteren dierenwelzijn
- ★ Behoud weidegang
- ★ Behoud biodiversiteit en milieu



Strategische agenda LNV



Veel onderzoek melkveehouderij

★ < 40% (?) topsectoren

- Waaronder specifiek zuivel:
Duurzame Zuivelketen **Zie poster DZK!**
- Maar ook projecten vanuit thema's:
1Health4Food, Feed4Foodure of Breed4Food



★ > 50% ZuivelNL

- Milieu
- Bemesting en opbrengstverbetering
- Weidegang
- Diergezondheid en welzijn
- Duurzame Zuivelketen 2.0
- Overig (zoals courage)



★ ...



Hoe impact realiseren?

★ Afstemmen agenda's

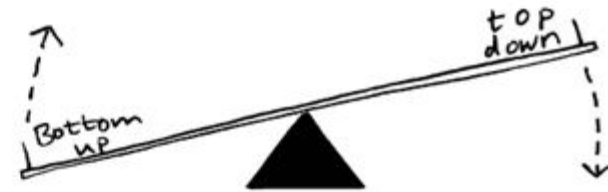
- Samenwerken in de gouden driehoek bedrijfsleven, overheid, onderzoek
- Innovatieagenda topsectoren, LNV en zo mogelijk provincie verbinden

★ Afstemmen instrumenten

- Instrumenten van overheden (EU, landelijk provincie), bedrijfsleven en onderzoek versterken elkaar



Afsluitend: integraal programmeren



- ★ Bottum-up en Top down
- ★ Van wetenschappelijk onderzoek tot en met valorisatie
- ★ Benutten van de instrumenten EU (operational groups), topsectoren, innovatieprogramma Dairy campus, POP3 en ...
- ★ Afstemmen en verbinden agenda's:
 - Kennis- en innovatieagenda (KIA topsector Agri&Food)
 - Strategisch Kennis- en innovatieprogramma (SKIP - LNV)
 - Agenda provincie met haar investeringsinstrumentarium

Bedankt voor uw aandacht



11 april 2018

11



Climate KIC voor agrifood sector

12 april, 2018 - Baarn

Credit Photo Saffron Blaze



Climate-KIC is supported by the EIT, a body of the European Union

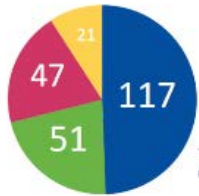
DATE

Climate KIC

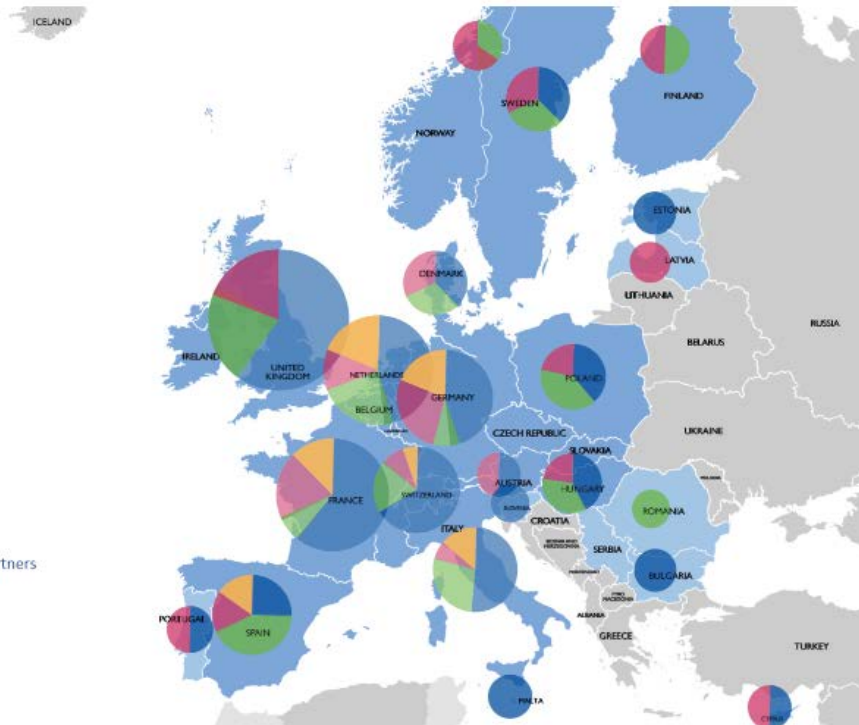
European Knowledge and Innovation Community -
om de transitie naar klimaatneutrale en klimaatbestendige
samenleving te versnellen



- Higher Education
- Business
- Research
- Cities, Regions & NGOs



Total pan-European distribution of our partners



Thema's

1. Stedelijke transitie
2. Duurzaam ruimtegebruik
waaronder **klimaatneutrale landbouw**
3. Duurzame productiesystemen
4. Financiering en beslissingsinstrumenten

3 programma's

- **Educatie programma**

- Klimaatleiders opleiden, vaardigheden ontwikkelen via opleidingen, masterclasses, online cursussen

- **Ondernemerschapsprogramma**

- Business idee ontwikkelen, pre-incubation, accelerator

- **Onderzoeks –en innovatieprogramma**

- Pathfinder, demonstrators, scaler, transition hub





Climate Smart Agriculture Booster

Helpt de agrifood sector om met klimaatverandering om te gaan

1. Verminderen van de uitstoot en bevorderen van koolstofopslag
2. Gemakkelijker omgaan met weersextremen
3. Behoud of zelfs verbeteren van productiviteit

CSA Booster heeft ontwikkeld:

- Open innovatie platform Agrisource
- Tool voor het verkennen van nieuwe praktijken – oplossingen en maatregelen
- MOOC's – online cursussen en presentaties
- Regionale Hubs, waaronder ook één in Nederland
 - Deze hubs bieden hulp aan bedrijven, boeren, beleidsmakers, onderzoekers, netwerkorganisaties, ...
- Project portfolio
 - Agritech voor bodembeheer, koolstofopslag, precisie en digitale landbouw, duurzaam water- en landgebruik
 - Agri-financiering en verzekering
 - Innovatie en technische ondersteuning, zoals keten-analyse, beleidsanalyse, business modelling





Convenant Schone en Zuinige Agrosectoren (2008 – 2020)

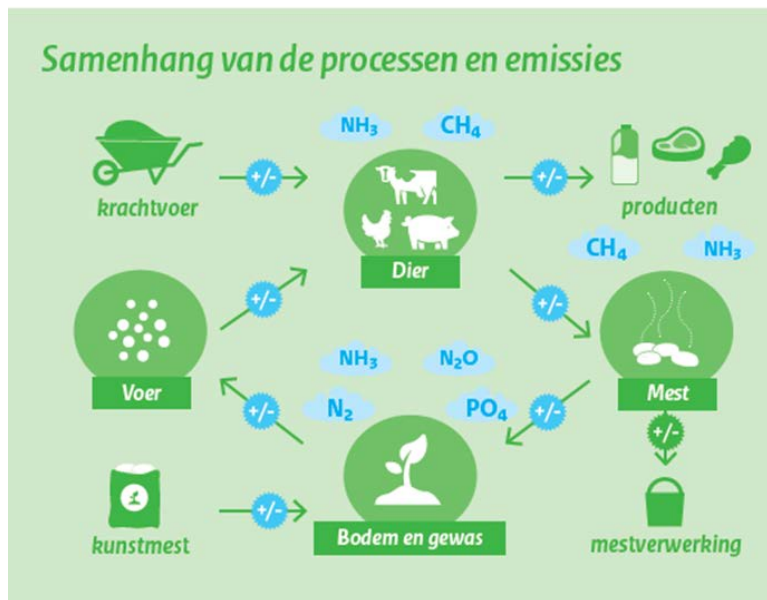
- ❖ *Energiebesparing:
2% per jaar*
- ❖ *Hernieuwbare energie*
- ❖ *Vermindering uitstoot broeikasgassen
CH₄ en N₂O: minus ca 30% tov
1990*



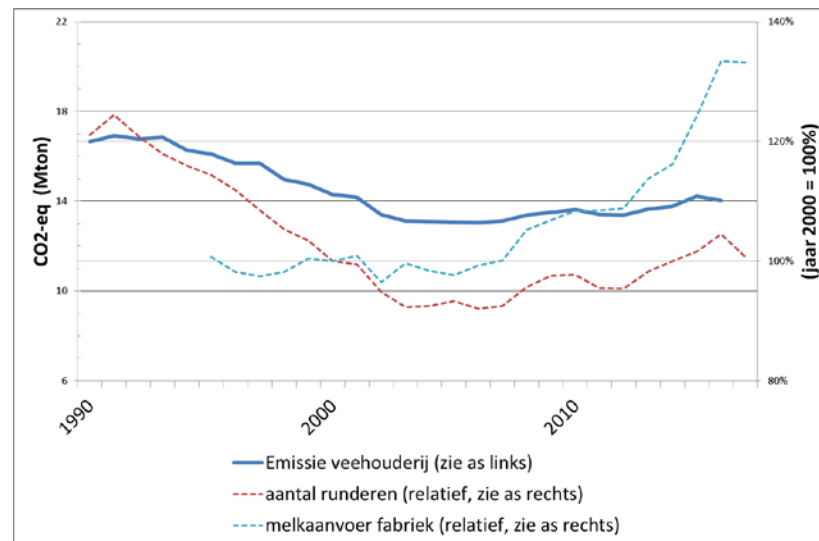
>> Duurzaam, Agrarisch, Innovatief
en Internationaal ondernemen



Integrale benadering



Inzicht in samenhang van trends



Voortgang van realisatie



Melkveebedrijven met
voorkoeler:
54% in 2015
66% in 2018

Overleg tussen praktijk en beleid

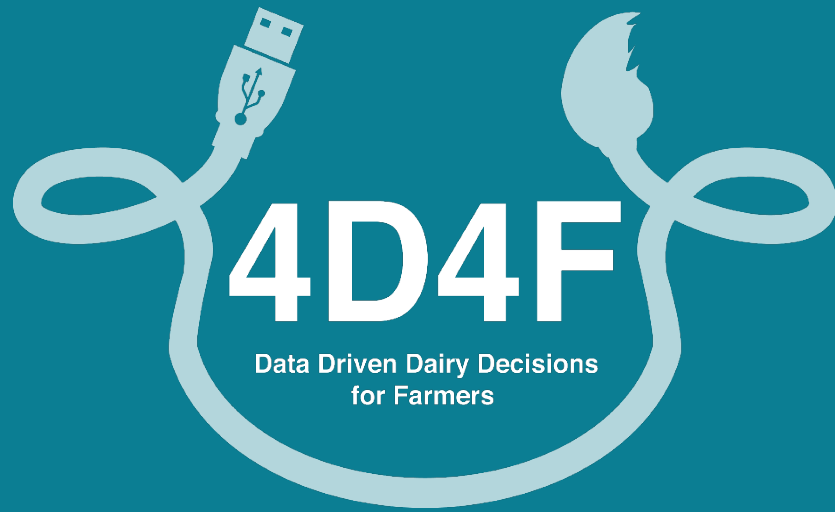




Bedankt voor jullie aandacht!

Verdere vragen, contacteer ons :

Ingrid.Coninx@wur.nl; Remco.Kranendonk@wur.nl

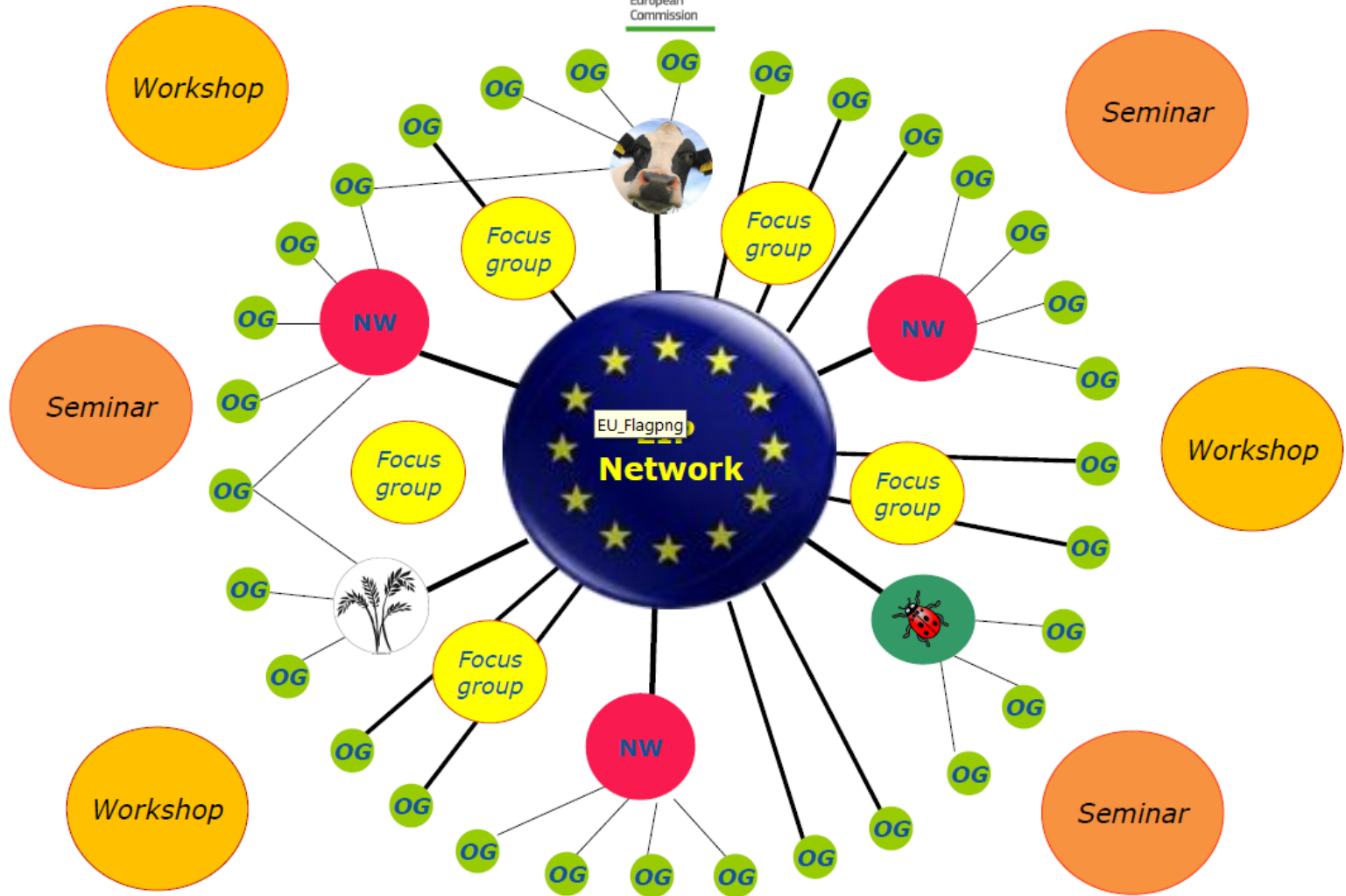


This project has received funding from the European Union's Horizon 2020 research and innovation programme (ISIB-2015-1 programme) under grant agreement N° 696367

Thematic Networks

12th April 2018

David Gardner



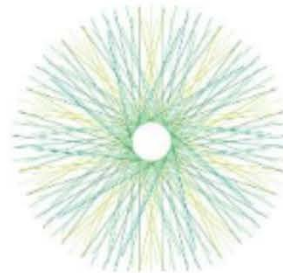


Funding for interactive innovation projects

Rural Development

(regional/national level)

- Funding for setting up of an **"Operational Group" (OG)** : farmers, advisors, agribusiness, researchers, NGOs, etc) planning an innovation project (Art 35)
- Project funding for the **Operational Group's project** (Art 35).
- Supporting innovation support services



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EIP networks
MS/regions

Horizon 2020

(European projects)

- **Research projects**, to provide the knowledge base for innovative actions
- **Interactive** innovation formats:
multi-actor projects and thematic networks genuinely involving farmers, advisors, enterprises, etc....
"all along the project"

Involvement of OGs is strongly recommended

EU added value : An EU wide EIP network, supported under Rural development policy Linking with H2020

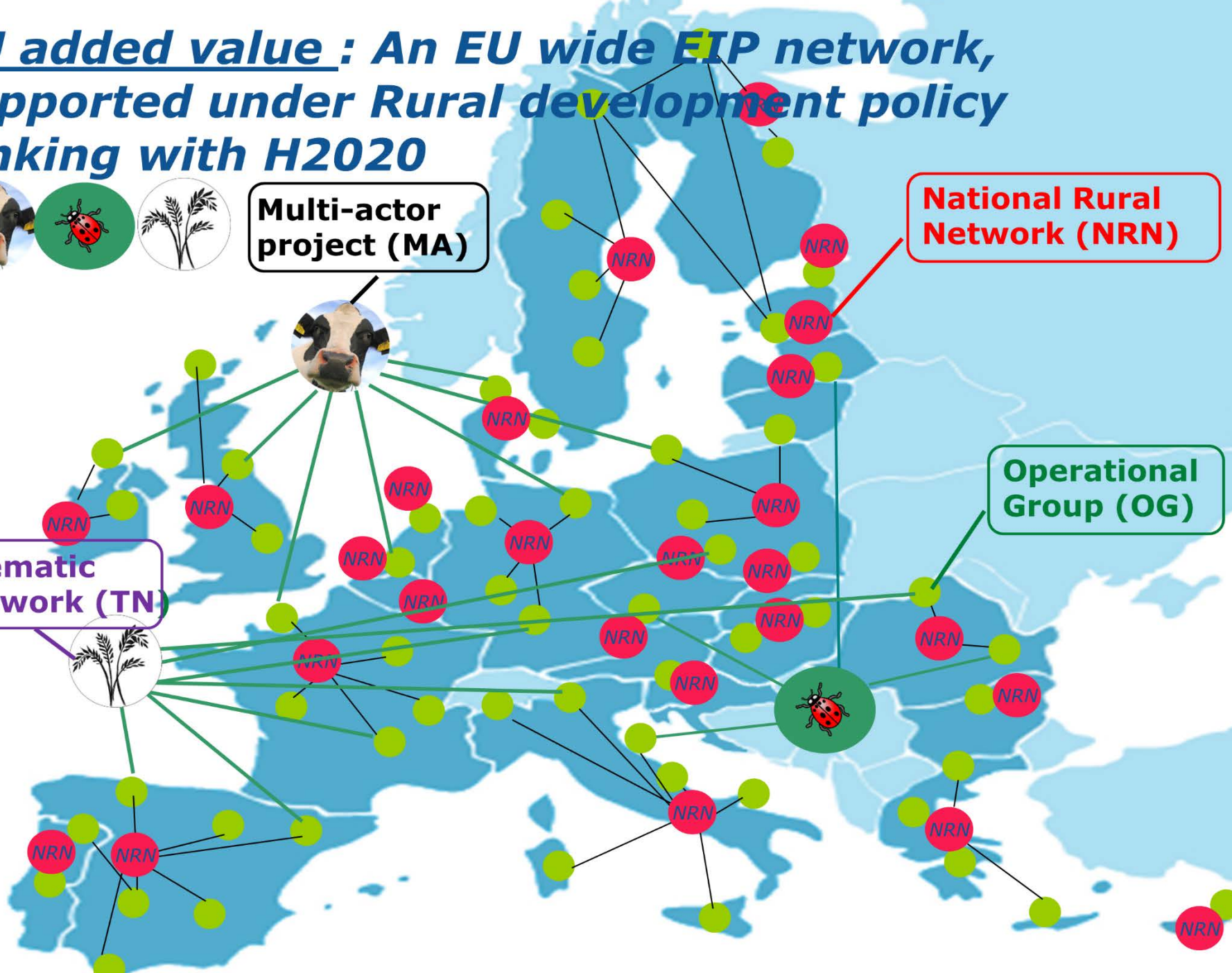


Multi-actor project (MA)

National Rural Network (NRN)

Operational Group (OG)

Thematic Network (TN)



H2020 Thematic networks : ***Compiling knowledge ready for practice***

- Multi-actor coordination action: Partners should **summarise, share and present existing scientific knowledge & best practices** that are not sufficiently known (and applied) by practitioners , **in an easy understandable concise way ready for practice**
- Themes to be chosen **bottom-up**, contributing to a more competitive sustainable agriculture and forestry
- Themes must **focus on the most urgent needs of agricultural or forestry production sectors**,
- Projects **involving those actors relevant for the chose theme** (e.g. researchers, farmers, advisors, enterprises, education, NGOs, administration, regulatory bodies, EIP project groups...)



23 H2020 bottom-up Thematic Networks so far (1)

calls 2014-2016 – **a complementary set of themes (sectors)**

RUR 10 - 2016	CERERE	Cereals: organic/low input cereal food systems for biodiversity and quality (production, processing, marketing)
RUR 10 - 2016	Eu PiG	Pig husbandry: health management, precision production, welfare and meat quality
RUR 10 - 2016	Inno4Grass	Productive grasslands: profitability and environmental services
RUR 10 - 2016	SheepNet	Improving sheep productivity
ISIB 2 - 2014	Winetwork	Wine diseases: Grapevine Trunk Disease and Flavescence dorée
ISIB 2 - 2014	OKNetArable	Organic agriculture - arable crops
ISIB 2 - 2014	Hennovation	Animal welfare hens
ISIB 2 - 2015	4D4F	Data and sensor driven decision making on dairy farms
ISIB 2 - 2015	EuroDairy	Practice-based innovations in dairy farming: resource efficiency, Biodiversity, Animal care, and Socio-economic resilience
ISIB 2 - 2015	EUFRUIT	Fruit: cultivar development, minimize residues, storage and fruit quality, sustainability of production systems



23 H2020 bottom-up Thematic Networks so far (2) a complementary set of themes (cross-cutting themes)

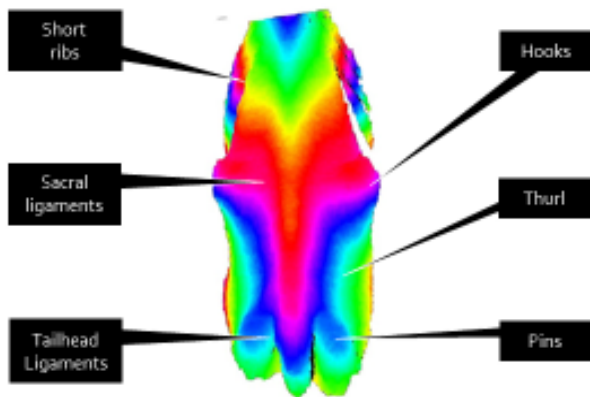
RUR 10 - 2016	SKIN	Stimulating innovation and good practices in short supply chains
RUR 10 - 2016	AFINET	Agroforestry: sylvoarable and sylvopastural systems' design, management and profitability
ISIB 2 - 2014	Agri-Spin	Innovation brokering methods
ISIB 2 - 2015	AGRIFORVALOR	Valorization of biomass side-streams from agriculture and forest
ISIB 2 - 2015	Smart-AKIS	Smart Farming Technology: Management Information Systems, Precision Agriculture and Agriculture automation and robotics
ISIB 2 - 2015	HNV-Link	Support HNV farmlands through knowledge and innovation
WATER 4B - 2015	FERTINNOWA	Optimize water and nutrient use efficiency: dbase on innovative technologies and practices for fertigation of horticultural crops

A short film explaining how a thematic network works:
<https://youtu.be/mVsW4--ex0M>

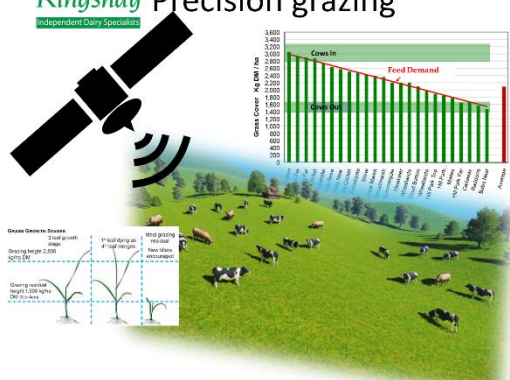


2017 H2020 bottom-up Thematic Networks (3) another complementary set of themes

ENABLING	Upscaling biomass production and pre-processing for bio-based value chains
INCREDible	Non Wood Forest Products: Cork, Resins and Edibles in the Mediterranean basin
NEWBIE	New Entrant netWork: Business models for Innovation, entrepreneurship and resilience
OK-Net EcoFeed	Organic Knowledge Network on Monogastric Animal Feed (pigs, broilers, hens)
PANACEA	Non-food Crops' penetration path
INNOSETA	Best management practices Spraying Equipment



Kingshay Precision grazing
Independent Dairy Specialists





Best Practice Guide on Reproduction and the use of technology to improve fertility

Fertility

2015 saw Dairy farming incomes reduced to below costs. While markets are starting to recover, for many, the long-term answer to making their dairy enterprise sustainable, is to increase yields and herd size at the same time as reducing labour costs. Reducing labour on family farms just leads to a longer working day. So what is the impact on fertility?

Higher yields create more nutritional challenges in early lactation and can lead to lower conception rates. It is also well established that higher yielding cows have shorter, and less intense heats that are harder to spot by traditional methods. Inconveniently these also mainly occur at night. The traditional way of detecting heat involves observations of at least 3 sessions of 20 minutes. This is often shortened when a farm has less than the ideal amount of labour, and is less likely to happen at the optimum time – at night.

Traditionally herd fertility has been measured by calving interval. However, this is a historical figure which does not give real time information about what is happening today. Therefore, the preferred indicator is Pregnancy Rate (PR) and is defined as the percentage of cows eligible to become pregnant that actually do become pregnant in a given period.

Eligible cows would consist of non-pregnant cows that have passed the farm's voluntary waiting period, and are not on the cull list. In this guide pregnancy rates will be quoted over a 21 day period.

PR is the product of Submission Rate (SR) and Conception Rate (CR)

Table 1: 2015 UK Herd/Friesian - Average KPIs

	Average	Top 25%	Top 5%
CR	32%	39%	50%
SR	33%	41%	59%
PR	11%	16%	22%

Source: NMR internet data

Table 2: Trends in KPI 2010-2015

Year of Study	Average 2010	Average 2014	Top 25% 2010	Top 25% 2014
CR	32%	32%	40%	39%
SR	33%	35%	37%	41%
PR	9%	11%	12%	15%
Calving Interval	424	410	400	366

Source: NMR internet data



HOW CAN I DETECT MASTITIS?

CHANGES IN BEHAVIOUR

PARAMETER

- ACTIVITY
- RUMINATION
- LYING TIMES

CHANGES IN MILK

PARAMETER

- ELECTRICAL CONDUCTIVITY
- SOMATIC CELL COUNT
- TEMPERATURE
- LACTATE DEHYDROGENASE
- LACTOSE
- PRODUCTION
- COLOR

AVERAGE COST OF CLINICAL CASE

300€

IDENTIFY THE SOURCE OF INFECTION!

Staphylococcus aureus
Streptococcus agalactiae
Escherichia coli
& many others

HOW DOES INFECTION OCCUR?

1. BACTERIA ENTER THROUGH THE TEAT OPENING...
2. WHITE BLOOD CELLS TO THE RESCUE!
3. AND CAUSE MASTITIS, AN INFLAMMATION OF THE UDDER TISSUE

MASTITIS SUBCLINICAL

MASTITIS CLINICAL



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Poster displays -

- 4D4F – Janine Roemen (ZLTO)
- Agrispin – Eelke Wielinga (~ZLTO)
- Eurodairy – Willem Koops (ZuivelNL)
- Smart-AKIS – Herman Krebbers
(Delphy)
- Inno4Grass – Agnes van den Pol
(WUR/Aeres Hogeschool)



CAP post 2020

CAP Strategic AKIS plans

(cross-fertilisation in SWG
SCAR-AKIS ongoing)

Knowledge
& innovation

Incentivising
creativity by
structuring
knowledge flows
between key
actors

advisors research rural networks