European Innovation Partnership on Agricultural productivity & sustainability

Brussels 19 Nov. 2012

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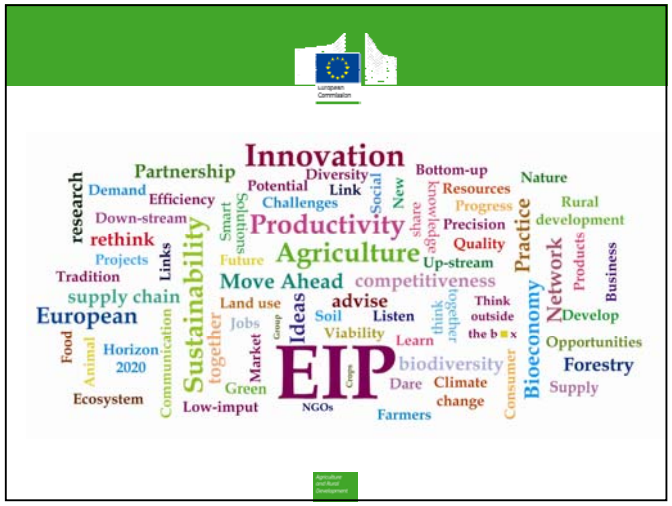
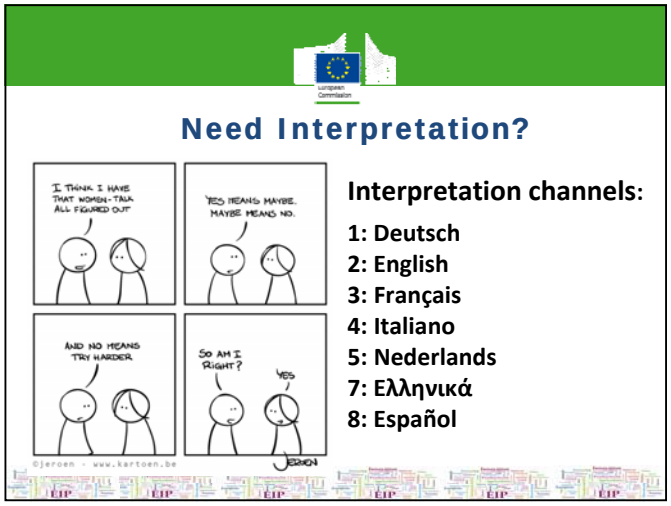
1 – Opening address by Georg Häusler





Need Interpretation?

Interpretation channels:

1: Deutsch
2: English
3: Français
4: Italiano
5: Nederlands
7: Ελληνικά
8: Español

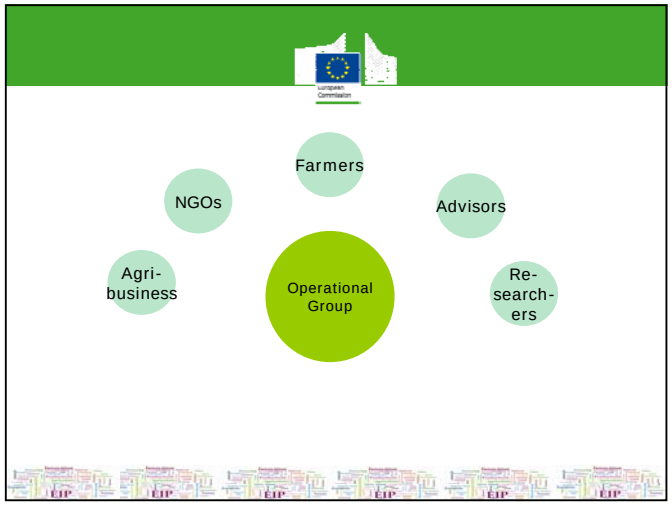
Maria Angeles Benitez Salas

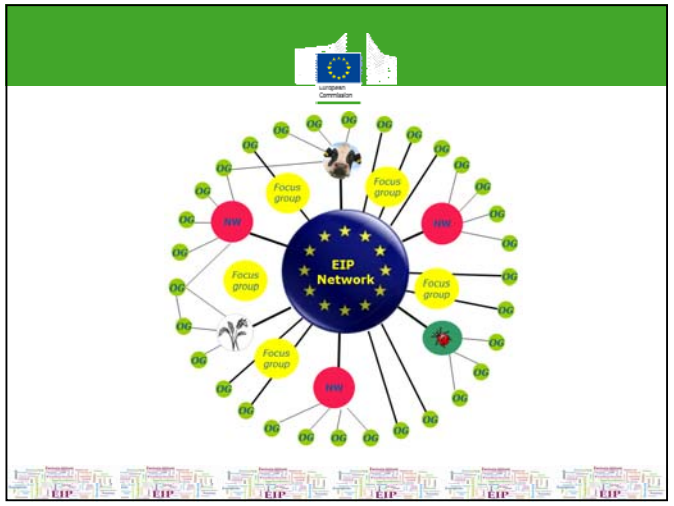
Director for Sustainability and Quality of Agriculture and Rural Development

DG AGRICULTURE AND RURAL DEVELOPMENT

Georg Häusler

Head of Cabinet
Commissioner Ciolos





09:30	Welcome by Maria Angeles Benitez Salas
09:40	Opening address by Georg Häusler, Head of Cabinet
09:50	Check In!
10:00	Presentation by Gerhard Zoubek, ADAMAH
	Presentation by Andrzej Szymanski, Baltic Deal
	Presentation by Iliara Pertot, PURE
10.45	Break
11:00	Presentation by Jacob van den Borne, Precision Agriculture
	Presentation by John Bailey, Dairyman
	Presentations by Ilse Geyskens, Innovation Brokers
12:00	Explanation of the World Café concept
12:20	Lunch and Poster Session
14:00	World Café session
16:30	Summing up, mind mapping, next steps
17:30	Check Out!

2 – Presentation by Gerhard Zoubek

ADAMAH BioHof

Das bin ich.

a success story of innovative direct marketing

ADAMAH BioHof

ADAMAH BioHof

10km outside Vienna, located in the Marchfeld region

philosophy

sustainable operation

- ECOLOGY - resource conservation
  (soil, biodiversity, climate)
- ECONOMY - added values through direct marketing, regional networks and cooperation, fair trade
- SOCIAL – integration of social disadvantaged people, direct customer contact

Organic Farm

90ha croping farm - 100% organic since 1997

- Root vegetables (carotts, seleriac, potatoes)
- Lettuce, leafy vegetables
- Cereals, specialised crops (raritys)

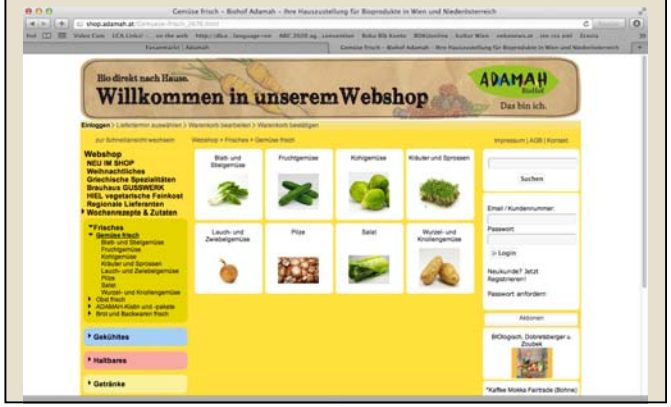
Direct Marketing

- ADAMAH BioBox
- BioMarket – Booths & BioFarmshop
- BioSchoolfruits & BioSchoolbuffets
- BioCatering & BioGastronomy

ADAMAH BioBox

- Home delivery of a wide range of organic products (greater area of Vienna)
- Ø 5.500 deliveries per week (over 20% growth pa.)
- Products from the own farm, regional partners and wholesale

BioBox - Webshop



BioBox - Logistics

Mon-Thur daily up to 1.500 BioBoxes comissioned with IT support.

Delivery with 17 cooled vans

BioFarmshop

BioFarmshop
(10km outside Vienna @ the farm)

BioMarket – Booths

14 BioMarket – Booths in the greater area of Vienna, local supply of fruits & veg, bread, gourmet food

BioSchoolfruits & BioSchoolbuffets

Schoolfruits – partially subsidised up to 50% by EU programms.

BioCatering & BioGastronomy

ADAMAH solar electricity

investment in cooperation with customers

- ADAMAH „solar token“ from € 100,- Ø 7% pa. return in food
- solar electricity investment from € 3.000,- 5% return in food

research & innovation

- continuous improvements in logistics
  - master thesis
  - Cooperation with logistics experts, software companies
- organic carott breeding
  - cooperation with research science (FiBl, BOKU-Vienna)
- partner for research projects
  - resilience of organic networks,
  - CO_2 emissions of organic produce distribution modells

3 – Presentation by Andrzej Szymanski

Baltic Deal Project

Putting best agricultural practises into work

mes

Ltd "Latvian Rural Advisory and Training Centre"

LITHUANIAN AGRICULTURAL ADVISORY SERVICE

CDR

FEDERATION OF SWEDISH FARMERS

MTK

KNOWLEDGE CENTRE FOR AGRICULTURE

Baltic Deal

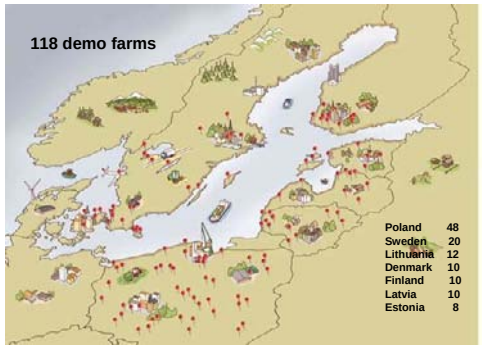
NEFCO

NIB

Baltic Sea Region Programme 2007-2013

Part-financed by the European Union (European Regional Development Fund)

Baltic Deal demo farm network



Baltic Deal

Baltic Sea Region Programme 2007-2013

Part-financed by the European Union (European Regional Development Fund)

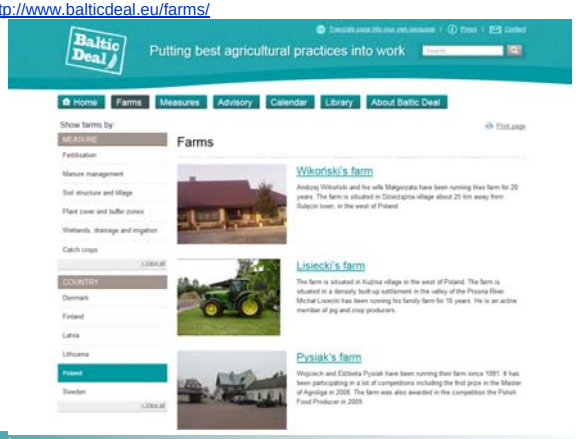
HOW CAN 48 POLISH FARMS REACH MORE THAN 3 100 ADVISORS AND ABOUT 1 600 000 FARMERS

Baltic Deal

Baltic Sea Region Programme 2007-2013

Part-financed by the European Union (European Regional Development Fund)

http://www.balticdeal.eu/farms/



Baltic Deal

Baltic Deal Polish Website

http://www.baltic.cdr.gov.pl/

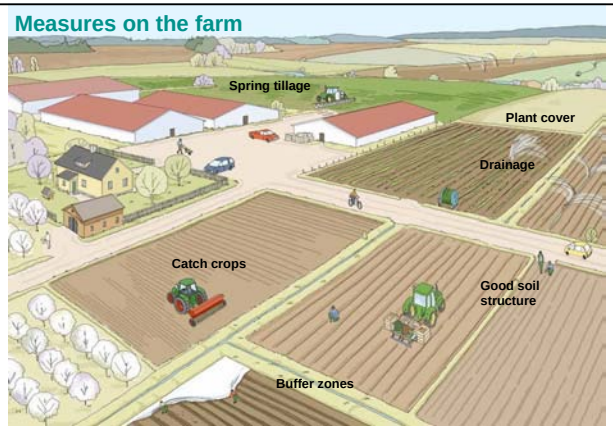
Polish farms and advisory services

Number of agricultural holdings **1 ,6 million**
(with the area of more than one hectare)

Number of farms with commercial production **400 thousand**

- **public advisory services about 3100 agricultural advisors**
- **private advisory about 230 agricultural advisors**

Measures on the farm



Programme delivery for farmers

- Man -to-man on the farm
- Man-to-man outside the farm (i.e.phone helpline, helpdesk for individual questions via website, consultation/"sitting days" of advisors in each region)
- Small group advice on the farm
- Vocational training and seminars
- Workshops/meetings outside the farm
- Internet based (3 types: general info, interactive tailored to specific farm types, tailored to specific individual questions from the farmer)
- Publications
- Others: competitions, agricultural shows, fairs, study tours conferences

Demo farm network in Poland

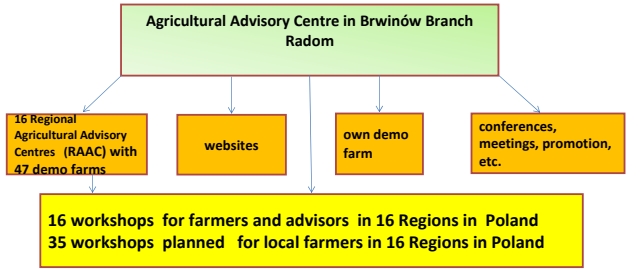
Polish Baltic Deal Demonstration Farms - Basic Data

Number of farms	48
Total area (UAA)	6 953,0 ha
Average size of a farm	144,8 ha
Smallest farm	7,5 ha
Biggest farm	1 703,0 ha
Average size of a farm without livestock	184,7 ha
Animal density	0,52 LU
Animal density in the animal farm	1,09 LU

Subjects of sixteen workshops for farmers and advisors all over Poland 2012

1. Impact of agriculture on water pollution in Poland
2. Nutrient balance calculation as an advisory tool
3. Rational fertilization as challenge for the future
4. Agricultural measures decreasing both nutrient run-off and water contamination on the base of the Baltic Deal project.

How can 48 Polish farm reach 3000 advisors and 1.600.000 farmers



Agricultural Advisory Centre in Radom and its promotion of demonstration farm network.

- Own demonstration farm in Chwałowice
- Conferences - international and national
- Meetings
- Workshops
- Website: http://www.balticdeal.cdr.gov.pl
- The mass media, brochures, leaflets

Total number of events - about 130 in 2011 and 2012
Total number of participants about 5000

Marian Rak - Baltic Sea Farmer of the Year Award 2011

Small pond on the Marian Rak's demonstration farm.

Baltic Deal Project.16 Regional Centres. Achievements to date.

- 53 trainings for 2093 farmers, 352 advisors and 102 other participants (teachers, politicians, local government representatives
- 7 fairs
- individual advisory - 609 farmers
- publications - 9 with an edition of 5000 copies

TO SEE MEANS TO KNOW WHAT IS WHAT


Baltic Deal
Thank you

4 – Presentation by Iliara Pertot

PROJECT PURE: BUILDING BRIDGES BETWEEN RESEARCH, TECHNOLOGY AND STAKEHOLDERS

Pertot Ilaria
Fondazione Edmumd Mach (FEM)
S. Michele all'Adige, Italy

FONDAZIONE EDMUND MACH

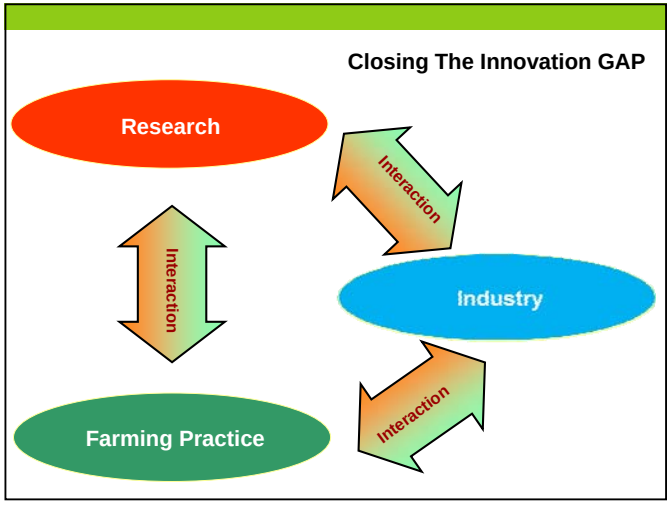
pure

PESTICIDE USE-AND-RISK REDUCTION IN EUROPEAN FARMING SYSTEMS WITH INTEGRATED PEST MANAGEMENT

Funded under the Seventh framework programme
Food, Agriculture and Fisheries, Biotechnology

Aim and objectives of PURE

- To provide **practical IPM solutions to reduce dependence on pesticides**
- and practical toolbox **for their implementation**
- To contribute in the reduction **of the risks to human health and the environment**
- To facilitate **the implementation of the legislation on pesticides** while ensuring continued food production of sufficient quality
- 14 research institutes, 2 extension organization, 6 industries/SMEs in Europe



Some reason for gaps…

- Lack of **interaction opportunities** between agriculture and research
- **Evaluation criteria** for scientist career
- Research: low awareness of farmers' **practical problems**
- **Perception of problems by growers** (search for ready-to-use technologies, low interest in long term solutions)
- **Fragmentation of the agricultural** sector
- **Fragmentation of industries** in the agri-business (SMEs)
- Often **small and unpredictable** market
- **IP issue** (publication vs. protection)
- **Short term research projects** (3-4 years)
- Lack of **resources for the outreach**

Innovation process

- **Problem study** (research – farmers/advisors)
- **Solution identification** (fundamental and applied research - industrial research – farmers/advisors)
- **Feasibility** (research - farmers/advisors - industry)
- **Development** (research – industry - farmers/advisors)
- **Evaluation** (research – farmers/advisors)
- **Adjustment** (research – industry)
- …
- **Evaluation** (research – farmers/advisors)
- **Implementation in practice** (farmers/advisors)

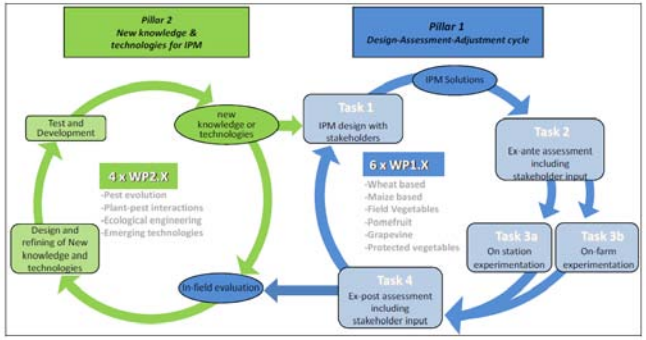
PURE

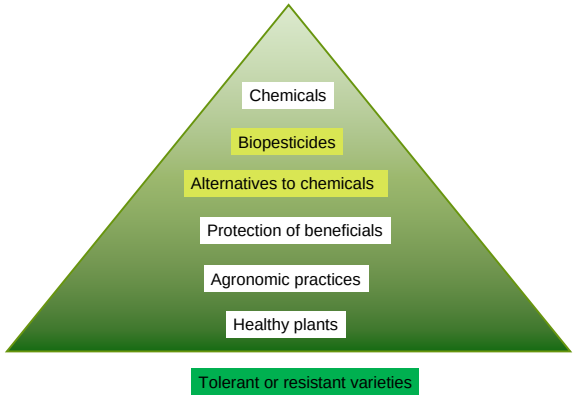
- **System approach in IPM**
- Focused in closing gaps with research, agriculture and industries
- 6 main cropping systems in Europe
- **New concept** to involve growers/advisors and industry
- Evaluate the risks and assess the balance between costs and benefits of the different IPM methods **with interactive process**
- A **design-assessment-adjustment cycle** to ensure continuous validation and improvement of the IPM solutions

How to integrate pre-existing and newly generated knowledge and tools

1. **IPM** solutions are **designed** by interacting with relevant stakeholders
2. **Ex-ante assessment** of the IPM solutions and current practices using the tool DEXiPM
3. **Selected** IPM solutions are validated in various geographical regions in Europe
   - **On-station** experiments are used **to test technical aspects** of the IPM solutions
   - **On-farm** experiments also consider the practical aspects and potential obstacles to the implementation of innovative IPM solutions, the co-innovation process of IPM development and cost-benefit to the end-user
4. **Ex-post assessment** of the environmental and economic/social sustainability of the IPM solutions also using DEXiPM and/or other available assessment tools
5. Following the ex-post assessment, **a new design-assessment-adjustment cycle** is initiated incorporating the information from the previous cycle as well as new knowledge and tools

Design-assessment-adjustment cycle and its connection with the progress loop





Involvement of stakeholders

Identification of the problems, priorities, possible solutions

- Questionnaire (structured vs. unstructured, first glimpse, expensive)
- Focus group with growers and/or advisors (focused, need for a trained leader)
- Technical conferences (general overview of the problem, feedback from farmers)
- Specific meetings with advisors (focused and specific, the point of view of the farmer is missing)
- Co-innovation exercises (interactive, difficult to involve farmers)

Involvement of stakeholders

Identification of solutions

- Simple - available
- Complex – available
- Simple – to be developed (research with/without industries)
- Complex – to be developed (research with/without industries)

Example of complex solution to be developed with industries: Vibrational mating disruption

- Several insects communicate by odors (pheromones)
- Pheromone mating disruption: commercially available
- **Others by vibrations: *Scaphoideus titanus* leafhopper**

Collaboration between Research and Industry

Vibrations let male and female communicate on the plant

- The spectral (Hz, db) and temporal features of the signal allow identification and location
- Signals travel through the substrate and the power vanishes along the distance
- Alteration or masking of the signals is the key to prevent the mating

Mazzoni et al., 2009. Bull. Entomol. Res. 99: 401-413

Mating Disruption by Vibrational Signals: challenges

By shaking the grapevine supporting wires we transmit to the plant specific disruptive signals

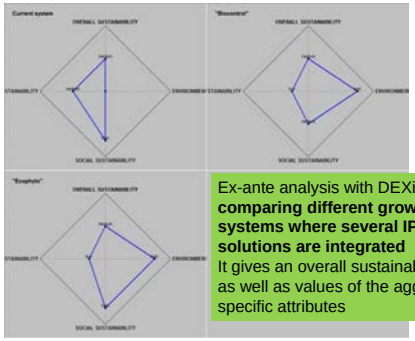
• Development of the electronic transducer for field application

Energy cost
Efficacy (% disruptions)
Economical sustainability

• Set-up of a field protocol

Nr of vibrators
Efficacy along the distance
Optimization of the performance

Ex-ante analysis: example with DEXiPM



Ex-ante analysis with DEXiPM allows **comparing different growing systems where several IPM solutions are integrated**
It gives an overall sustainability index as well as values of the aggregation of specific attributes

Involvement of stakeholders

Evaluation and **farm open days**

- Presentation of results
- Discussion with farmers
- Feedback on problems encountered and possible solutions

Future IPM in Europe

19-21 March 2013 | PalaCongressi - Riva del Garda - Italy

The largest international conference on "Pesticide Use and Risk Reduction for future IPM in Europe" in the view of the adoption of the Directive 2009/128/EC

- A unique opportunity to share regulatory, scientific, and technological information
- The main objective is **to promote knowledge exchange** among scientists, companies, farmers, advisors, policy makers and supply chain stakeholders, and **present approaches, tools and techniques to meet the future needs of European crop protection**

Thank you for attention!

Future IPM in Europe

19-21 March 2013 | PalaCongressi - Riva del Garda - Italy

More info at
www.futureipm.eu

5 – Presentation by Jacob van den Borne

Van den Borne Aardappelen

Sector:	Arable farming
Location :	Reusel, Noord-Brabant
Crops:	Potatoes, sugar beet, maize
Personnel:	3 co-workers
Soil type:	Sand low organic matter content Drought sensitive, 50% irrigation
fields:	140 fields: average size 3 ha Average 6 corner points per field Average 13% overlap in cultivations
Precision agriculture:	since 2007

Van den Borne Aardappelen

Van den Borne Aardappelen

How do I get my knowledge?

Organize direct contact with the developers

(machine builders, ICT, advisors, Universities)

Building an extensive network, by

- Supporting them with real life and real time precision farming data.
- Suggesting contacts with other key experts in the developing chains (machines, ICT, cropping systems)

ZLTO & Boerenbond help, Projects may help

Van den Borne Aardappelen

Precision farming

- Field mapping (GPS) 150 ha each year
- Soil mapping (samples and scans) 150 ha each year
- Calculating and optimizing position tramlines cultivation
- Shadow calculations and adoption of crop density
- Sensing techniques
  - Precision application crop protection and fertilisation
  - GPS and soilsensor irrigation
- Harvesting with yield mapping 450 ha each year
- Integration of all data

Van den Borne Aardappelen

Partners- Projects- Coalitions:
Making Sense

Partnership for developing decision support systems on soil fertility and crop fertilization, based on;

- Physical, chemical, biological processes
- Soil & Crop sensor data
- Wheater data
- Soil & Crop models

300k , No sponsoring

Van den Borne Aardappelen

Partners – projects - coalitions
Farmersandclimate.nl

- Strategies reducing carbon footprint
  - Network approach motor for focussed R&D
  - Precision farming reduces footprint
- Cooperative effort 2010-2013
  - 16 farmers (conventional and organic) in arable farming, poultry and pig husbandry
  - Communication trough farmers organizations
- Network approach motor for focussed R&D
  - 300k Min.Agri

Van den Borne Aardappelen

Partners – projects - coalitions
PPL – Program Precision Agriculture

- the application of pesticides and fertilizers,
- Phytophthora DSS based on sensor data,
- sensor development,
- precision planning potato cycle (all related operations)
- 38 partners

6M agri&business, 6M Ministery Agriculture

Van den Borne Aardappelen

Current Projects

	Goal	Bring	Collect	input	Subs	Total
Making Sense	better decisions on soil&crop fertility	data & cycle analysis	soil anal, large calculations	20k	none	300k
Programme Precision Agri	intro man.tools	new technique	test new technique	300k	none (300)	2*6M
Farmers & Climate	network	massive data	CO2 calculations			300k
Clean Economic Precise	fertilizer app	dissemina-tion	experience colleagues	25k	10k	250k
Agri Innovation Bureau	Precision Irrigation	invest & applicate	contri very new tech	26k	6k	32k
Clean Maas	Clean surface water	invest biofiltre	knowledge to make	10k	5k	1m
Unifarm	More use of GNSS	usecases, perspective	contacts, GNSS			680k
IPC Precision Agri	crop man. Dairy farmers	invest soil sensor	research on NIR	40k	25k	1m
Vito SME project (EFRO)	apps for SME	practical usecase	data analysis & GEOpresent.	20k	40k	60k
in 3 years				440k	66k	

Van den Borne Aardappelen

Suggestions for innovation

- Direct contacts between key users & experts
- Build networks for Open Data and – apps.
- Exchange Farmers knowledge & data for research&development
- Public investment for key developers, with Intelligent steering by entrepreneurs (miles system)
- Coalitions business partners & stakeholders

Van den Borne Aardappelen

Thank you for the attention!

Questions?

WWW.VANDENBORNEAARDAPPELEN.COM

Van den Borne Aardappelen

6- Presentation by John Bailey

afbi Agri-Food and Biosciences Institute

DAIRYMAN

UK Regional Coordinator: Dr John Bailey

Improving Regional Prosperity through better Resource Utilization on Dairy Farms and Stakeholder Cooperation

Investing in Opportunities

nwe

INTERREG IVB

www.interregdairyman.eu

BACKGROUND TO DAIRYMAN

DAIRYMAN

- Climatic conditions in North West (NW) Europe are good for dairy production, and extensive markets are close at hand
- Nutrient and GHG emissions, however, tend to be high, owing to suboptimal efficiencies in the use of fertilisers, feed and energy
- These inefficiencies are hindering the delivery of key environmental services, e.g. clean water, and threatening the ecological and economic sustainability of dairy farming

Investing in Opportunities

nwe

www.interregdairyman.eu

PRESENTATION OUTLINE

DAIRYMAN

- Background to DAIRYMAN
- Project Overview
- Questions being Addressed in DAIRYMAN
- DAIRYMAN Stakeholders
- DAIRYMAN Networks and Linkages
- An Assessment of the Effectiveness of DAIRYMAN Linkages

Investing in Opportunities

nwe

www.interregdairyman.eu

PROJECT OVERVIEW

DAIRYMAN

- DAIRYMAN is an INTERREG project aimed at enhancing both the competitiveness and the ecological performance of dairy farming in NW Europe
- Its ultimate goal is to strengthen rural communities and regional economies

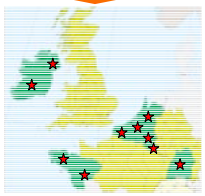
Investing in Opportunities

nwe

www.interregdairyman.eu

PROJECT OVERVIEW

- DAIRYMAN involves 14 Partner Organizations
- From 10 countries or regions in NWE



Netherlands
1. Wageningen UR/ Wageningen University
2. Wageningen UR/Plant Research International
3. Wageningen UR/Livestock Research

Ireland
4. Teagasc

UK
5. Agri-Food and Biosciences Institute (AFBI); *Sub-Partner: College of Agriculture, Food and Rural Enterprise (CAFRE).*

France
6. Institut de l'Elevage
7. Chambre Régionale d'Agric' de Bretagne
8. Chambre Régionale d'Agric' des Pays de la Loire
9. Chambre Régionale d'Agric' du Nord Pas-de-Calais

Belgium
10. Instituut voor Landbouw- en Visserijonderzoek
11. Provincie Antwerpen (Hooibeekhoeve)
12. Centre Wallon de Recherches agronomiques

Germany
13. Landwirtschaftliches Zentrum für Rinderhaltung, Grünlandwirtschaft, Milchwirtschaft, Wild und Fischerei Baden-Württemberg" (LAZBW)

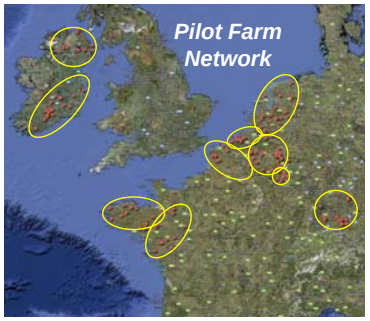
Luxembourg
14. Lycée Technique Agricole

www.interregdairyman.eu

DAIRYMAN STAKEHOLDERS

Internal Stakeholders

- *Pilot dairy farmers (130)*
- *Advisors (50+)*
- *Researchers (50+)*
- *Students (100+)*



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QUESTIONS BEING ADDRESSED

- How the ecological, economic and social performances of dairy sectors differ between regions, and how they might be improved via stakeholder cooperation? → Work Package 1
- How dairy farm performances and on-farm management practices differ between regions, and how networking and use of innovative tools might lead to improvements? → Work Package 2
- What are the most effective mechanisms for knowledge exchange between dairy industry stakeholders, e.g. researchers, farmers, advisors, and policy makers → Work Package 3

Eleven Actions

www.interregdairyman.eu

DAIRYMAN STAKEHOLDERS

Internal Stakeholders

- *Pilot dairy farmers (130)*
- *Advisors (50+)*
- *Researchers (50+)*
- *Students (100+)*

External Stakeholders

- Local dairy farmers
- Researchers
- Environmentalists
- Teachers
- Dairy Processors
- Policy Makers
- Politicians

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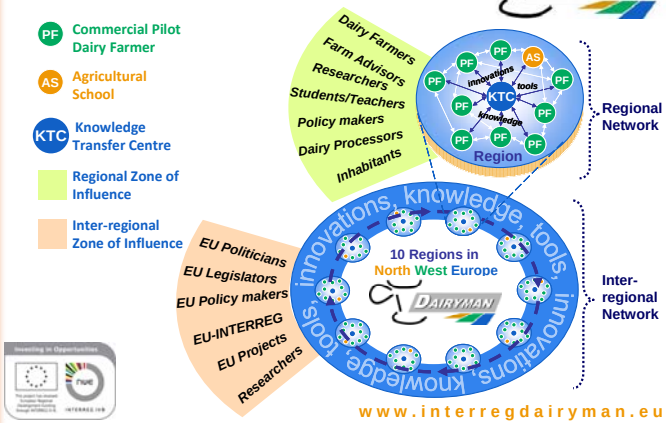
DAIRYMAN NETWORKS & LINKAGES



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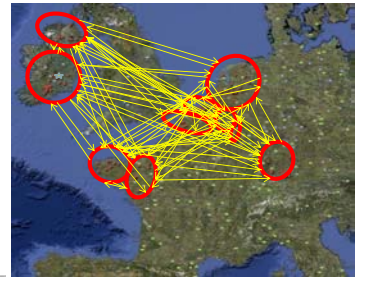
ASSESSMENT OF LINKAGES ETC

- Pilot Farmer – Advisor – Researcher linkages, at regional and inter-regional levels, have been *HIGHLY EFFECTIVE* in DAIRYMAN
- Researcher linkages across KTC's and Researcher – Student linkages at regional and interregional levels, have also been *PRODUCTIVE*



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- Pilot Farmer – Advisor – Local Farmer linkages are *PROGRESSING* as results become available for dissemination at open days and local fairs etc

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- Pilot Farmer – Advisor – Local Farmer linkages are ***PROGRESSING*** as results become available for dissemination at open days and local fairs etc
- Reseacher - Dairy Processor - Policy Maker linkages ***BEGINNING TO DEVELOP*** as the project matures and outputs become available for discussion and debate



www.interregdairyman.eu

UK Regional Coordinator: Dr John Bailey

www.interregdairyman.eu

7 – Presentation by Ilse Geysens

How innovation brokers stimulate innovation and demand driven research

An example on reducing emissions from livestock

Ilse Geyskens
Innovation Support Center for agriculture
19/11/2012

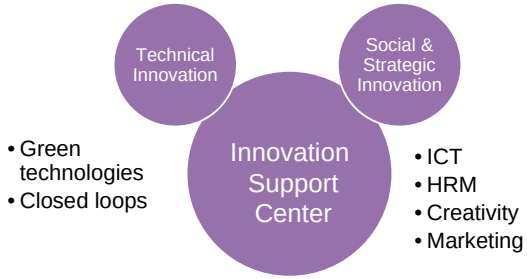
Innovatiesteunpunt
de toekomst begint vandaag

Innovation broker

- "an organization or body that **acts as an agent or broker in any aspect of the innovation process** between two or more parties. Such intermediary activities include: helping to provide information about potential collaborators; **brokering a transaction** between two or more parties; acting as a **mediator, or go-between** bodies or organizations that are already collaborating; and helping find advice, funding and support for the innovation outcomes of such collaborations."

(Source: Howells, 2006)

Innovation Support Center



Ammonia policy EU & Flanders NEC implementation

- National Emission Ceilings Directive (NEC, 2001)
- Flemish legislation
  - Emission manure spreading ↓
  - Emission animal houses (pigs & poultry) ↓
    - Limitative list of allowed systems (Decree 19 March 2004)
    - Dynamic list ➔ innovative techniques

5

Innovatiesteunpunt

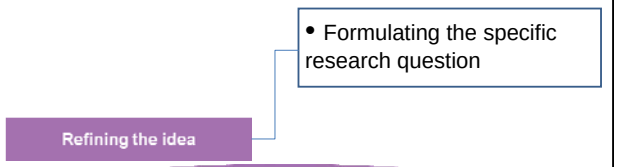
Origin of the innovative idea: an attentive farmer in a rented stable

- Use of bacteria in the manure pit
  - → Increased fluidity of manure
  - → Less crust development
  - → More homogeneous manure
  - → Ammonia retained in manure; N/P ratio ↑
  - → Less ammonia emission

6

Innovatiesteunpunt

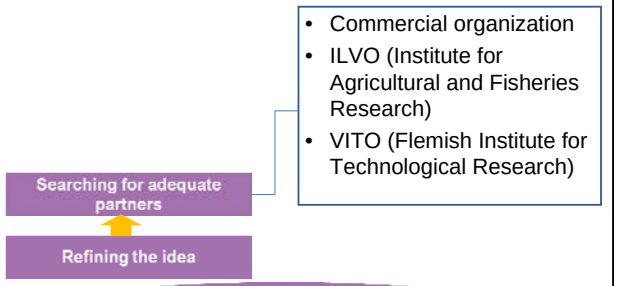
Innovation broker process



7

Innovatiesteunpunt

Innovation broker process



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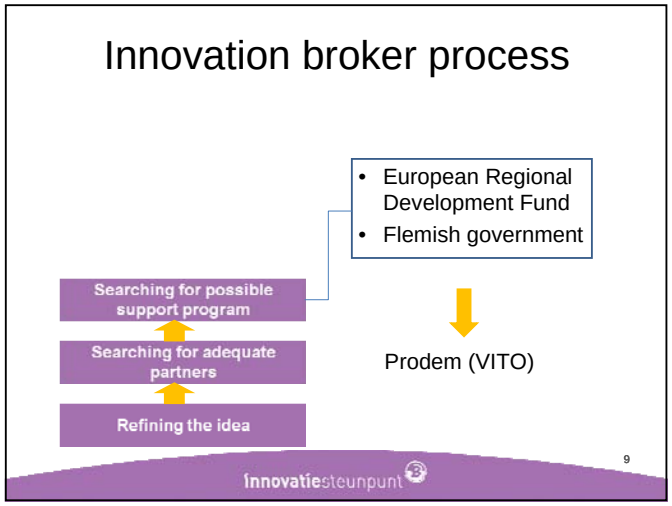
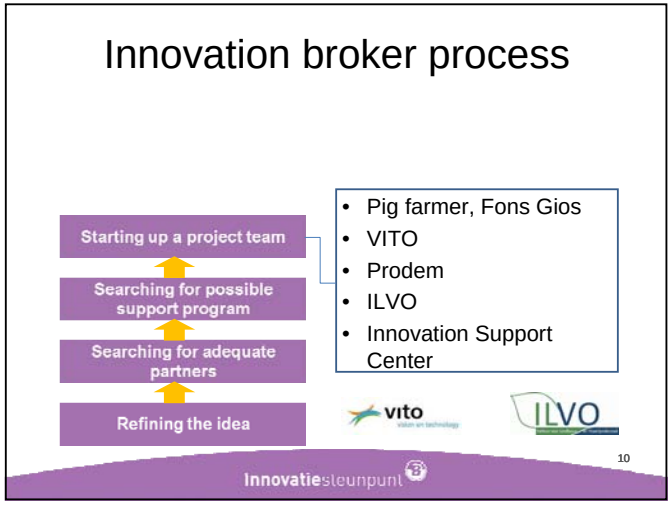
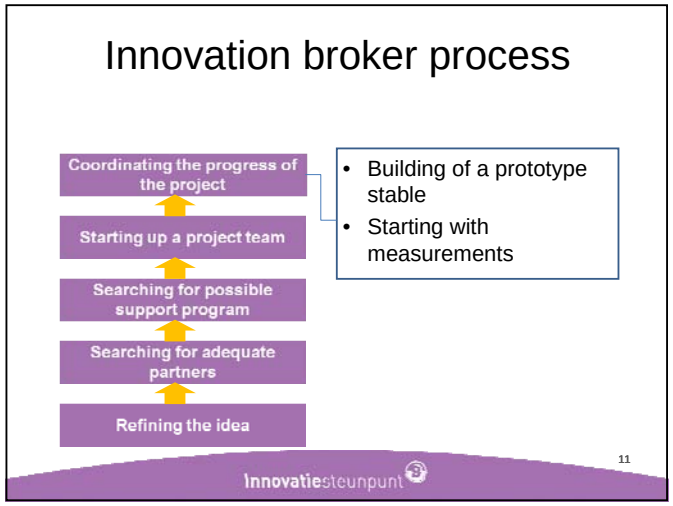
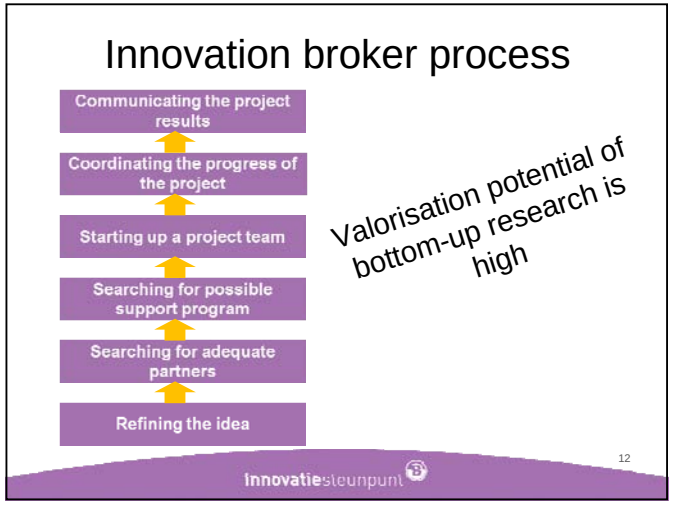
Innovatiesteunpunt


Innovation broker process
Searching for possible support program
Searching for adequate partners
Refining the idea
• European Regional Development Fund
• Flemish government
Prodem (VITO)
9
Innovatiesteunpunt


Innovation broker process
Starting up a project team
Searching for possible support program
Searching for adequate partners
Refining the idea
• Pig farmer, Fons Gios
• VITO
• Prodem
• ILVO
• Innovation Support Center
vito
ILVO
10
Innovatiesteunpunt


Innovation broker process
Coordinating the progress of the project
Starting up a project team
Searching for possible support program
Searching for adequate partners
Refining the idea
• Building of a prototype stable
• Starting with measurements
11
Innovatiesteunpunt


Innovation broker process
Communicating the project results
Coordinating the progress of the project
Starting up a project team
Searching for possible support program
Searching for adequate partners
Refining the idea
Valorisation potential of bottom-up research is high
12
Innovatiesteunpunt

A new system for reducing GHG emissions at farm level ?

- First measurements look very promising
- A cheap and easy to apply system for reducing GHG emissions at farm level

More of this!

- Information Day on innovative horticulture with training session on sensor technology in tomato

  ➢ Start of a small research project between Amaryllis grower and research institute (UGhent)

  ➢ Application for a multi-actor research project to further optimise this technology for several horticulture crops

More of this with….

- Leader, Interreg, LIFE+, IEE
- National SME & research funds (IWT)
- Regional Innovation funds
- Our own Innovation prize

Innovation brokers ….

- **Facilitate a multi-actor approach and real bottom-up participatory process**
- Attract and activate potential innovative farmers for first try out of ideas
- Help farmers to access research funds
- Stimulate demand driven research with high valorisation potential

Innovation brokers ….

- Have the capacity for suggesting simpler, cheaper and easy to apply solutions
- Create the opportunity for researchers and farmers to meet and discuss

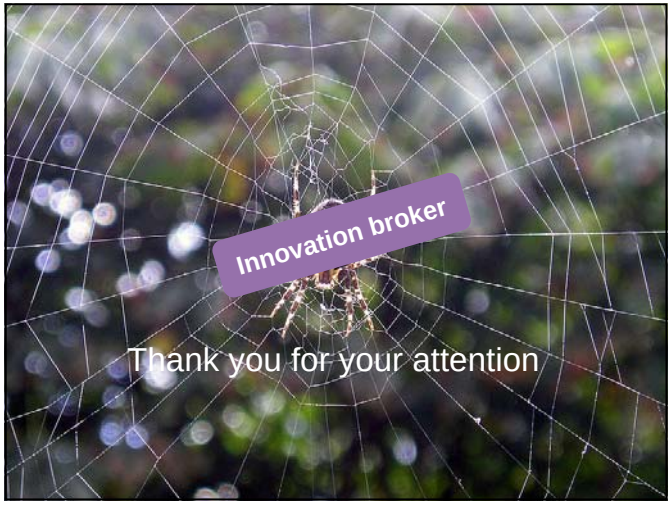
IF…

well connected with agriculture

& having the appropriate skills

17

innovatiesteunpunt




Innovation
Partnership
Diversity
Bottom-up
Nature
research
Demand
Efficiency
Potential
Link
Social
New
Resources
Rural
development
Challenges
Progress
Down-stream
Smart
Solutions
Productivity
share
knowledge
Precision
Practice
rethink
Quality
Products
Business
Projects
Links
Sustainability
Future
Agriculture
Up-stream
Network
Tradition
Move Ahead
competitiveness
supply chain
Land use
advise
Think
outside
the box
Develop
European
Ideas
Group
Soil
Listen
think
together
Jobs
Viability
Learn
Opportunities
Food
Animal
Horizon
2020
Communication
together
Market
EIP
Crops
biodiversity
Forestry
Bioeconomy
Consumer
Green
Dare
Climate
change
Supply
Ecosystem
Low-imput
NGOs
Farmers

8 – Sum up


Innovation
Partnership
Diversity
Bottom-up
Nature
research
Demand
Efficiency
Potential
Link
Social
New
Resources
Challenges
Progress
Rural
development
Down-stream
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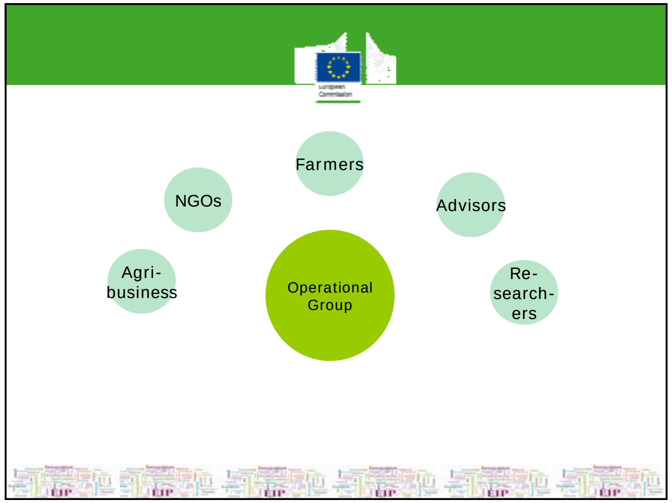
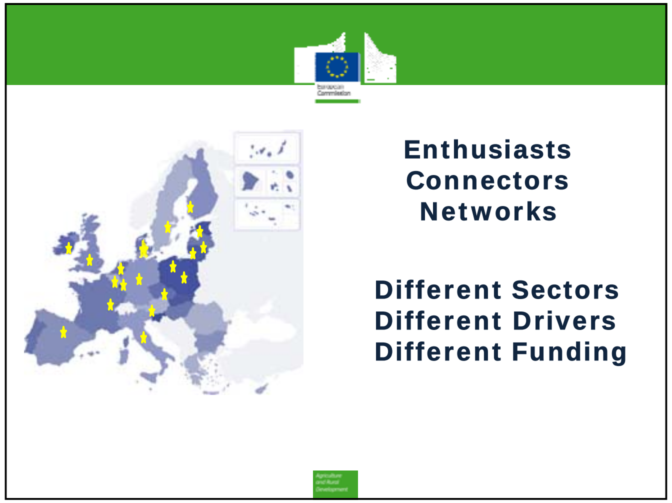
NGOs
Farmers


Farmers
NGOs
Advisors
Agri-
business
Operational
Group
Re-
search-
ers


Enthusiasts
Connectors
Networks
Different Sectors
Different Drivers
Different Funding


ONE
WAY

Posters

Pollinator / Syngenta
Rise foundation
TP Organics Tech Platform
Wagenigen
COAG / Short Supply Chain
Chambres d'Agriculture
Videnscenter for Landbrug
Solinsa
Baltic Deal
Adept Transilvania
Incrops
Dairyman
Fertilizer Europe
INEA
Niedersachsen

WORLD CAFE

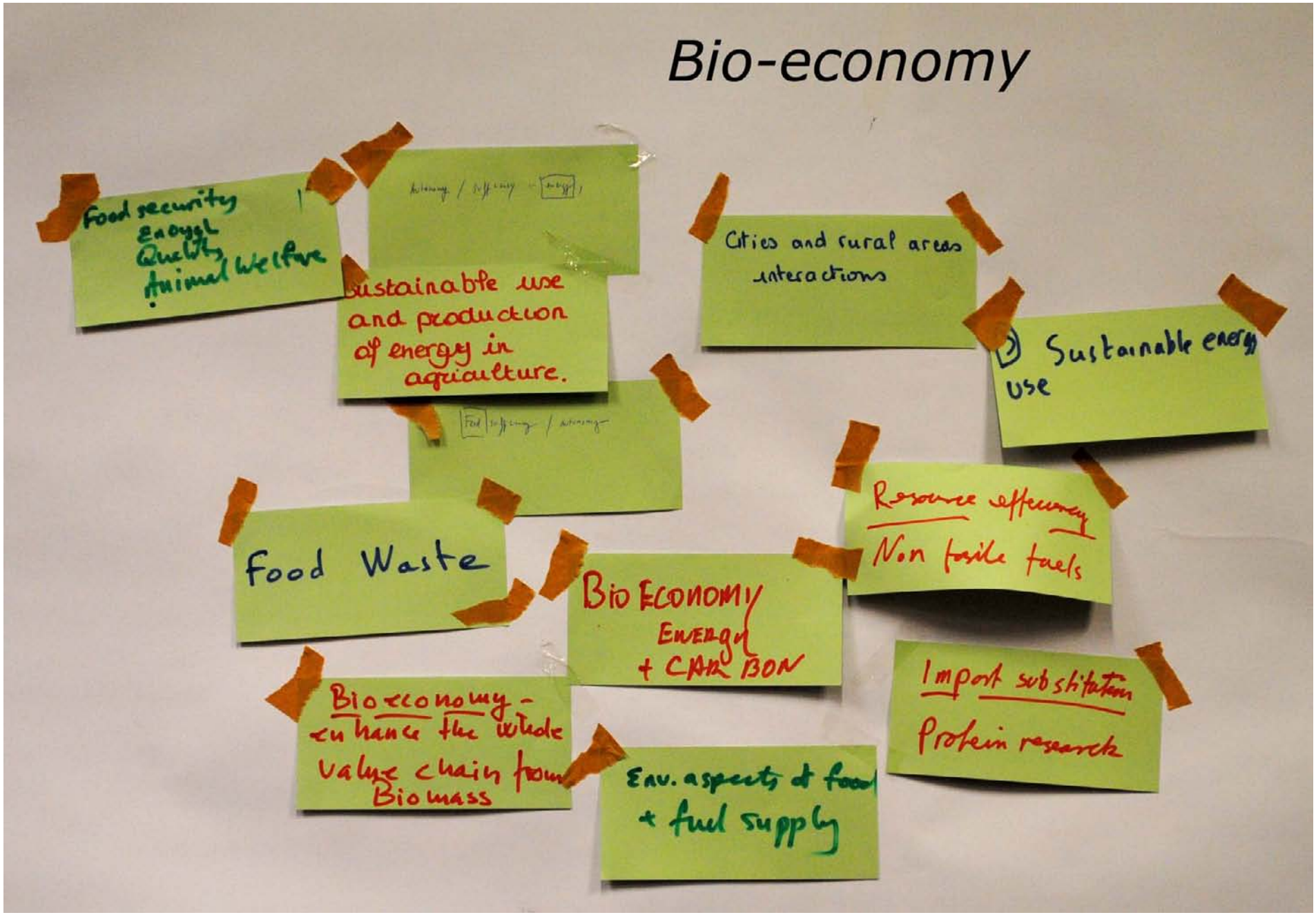
Which areas should be given priority in the EIP?

20 minutes debate

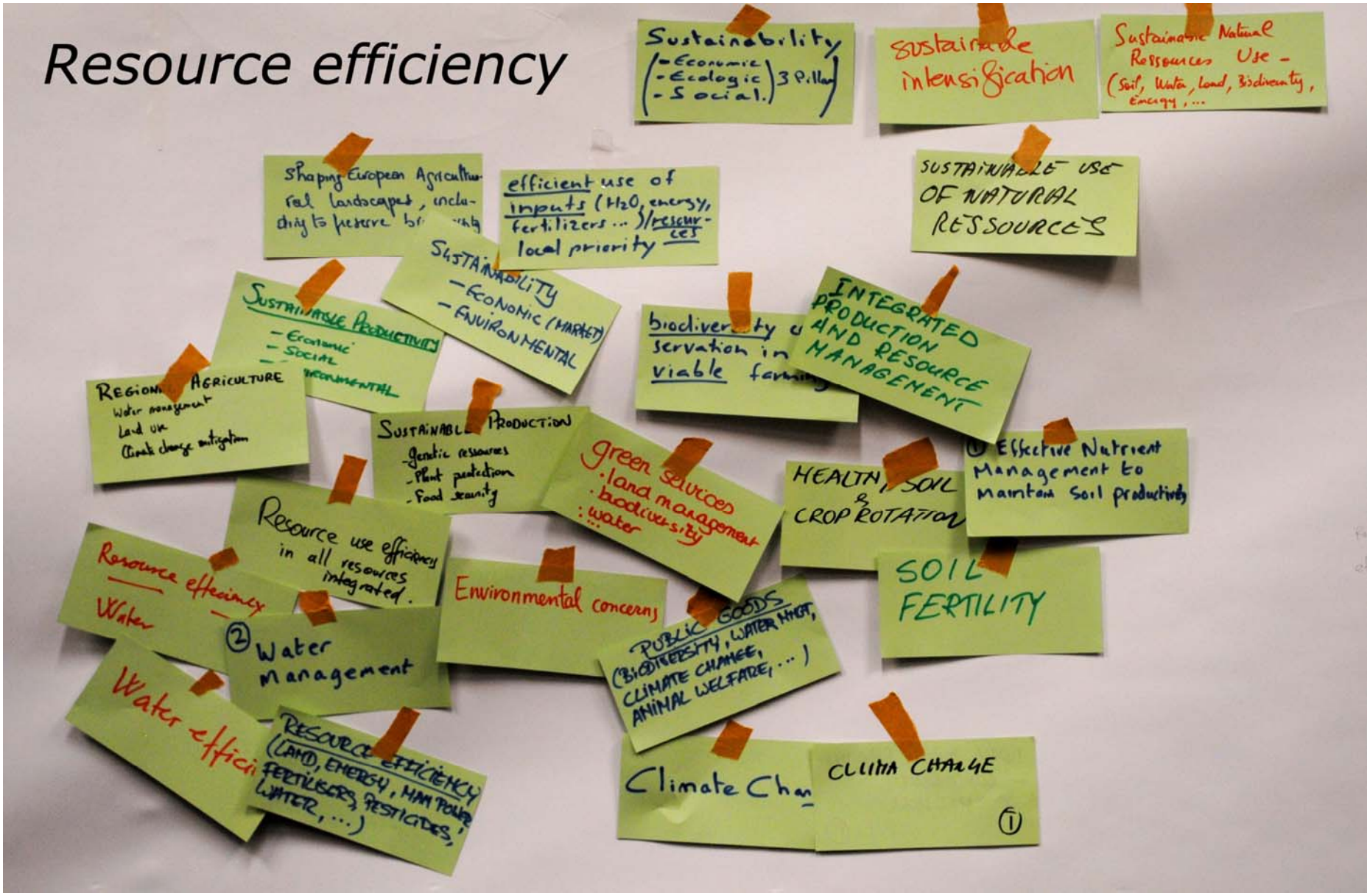
Table host to write a different issue on each of the three GREEN cards

20 minutes feedback

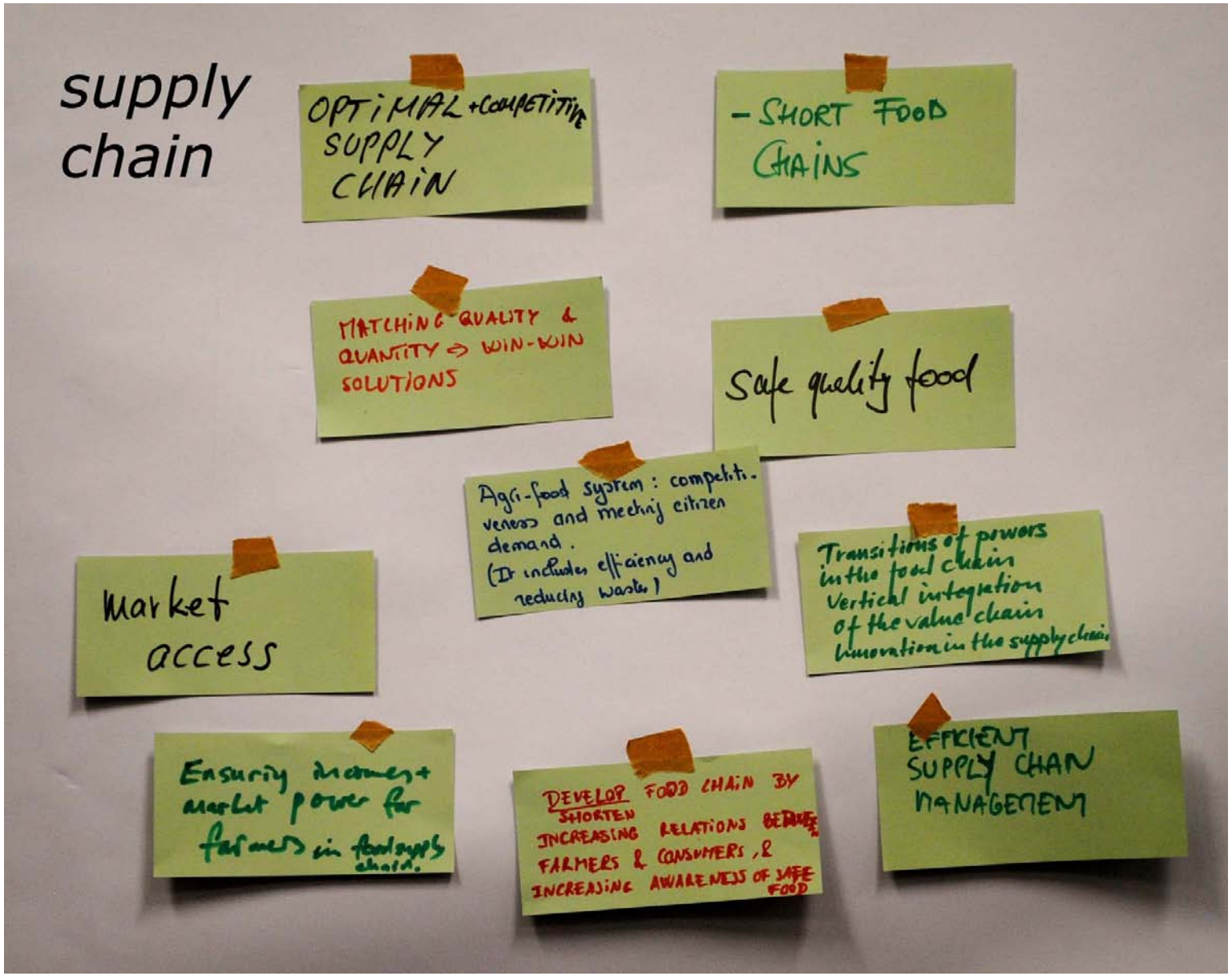
Hostesses will collect cards, moderators will cluster issues


Bio-economy
Food security
Enough
Quality
Animal welfare
Sustainable use and production of energy in aquaculture.
Cities and rural areas interactions
Sustainable energy use
Food Waste
Resource efficiency
Non fossile fuels
Bio ECONOMY
ENERGY
+ CARBON
Import substitution
Protein research
Bioeconomy - enhance the whole value chain from Biomass
Env. aspects of food + fuel supply


Productivity
Driving economy growth through agriculture
FEEDING GROWING POPULATION
food security
-> more with less
-- ecofunctional intensification
Productive GRASS And Crops
↑ economic viability
Agricultural Technologies
Genetics / IPM / Precision
Soil health /ICT
Competitiveness
Organisation
PRECISION FARMING
GENETICS
Animal
Plant
Micro's
Smart Specialization
Pursuing a development path on combined Sustainability of high value production
SUSTAINABLE USE OF INPUT FACTORS (E.G. ENERGY) WHILE SAVING ENVIRONMENT
SOLVING ENVIRONMENTAL PROBLEMS WITHIN COMPETITIV. PERSPECTIVE
increasing ecofunctional
ecological intensification
INTEGRATED SYSTEMS
farming, mixed farming
agroforestry, working together
RESOURCE EFFICIENT
-RECYCLING
-LESS INPUT (CHEMICALS, ENERGY)
Pursuing a development path based on combined sustainability and cost efficiency
efficiency & low input/low output farming systems


Resource efficiency
Sustainability
(-Economic
-Ecologic
-Social.) 3 Pillar
sustainable intensification
Sustainable Natural Ressources Use -
(Soil, Water, Land, Biodiversity, Energy, ...
Shaping European Agricultural landscapes, including to preserve
efficient use of inputs (H2O, energy, fertilizers ...)/resources
local priority
SUSTAINABLE USE OF NATURAL RESSOURCES
SUSTAINABILITY
- ECONOMIC (MARKET)
- ENVIRONMENTAL
SUSTAINABLE PRODUCTIVITY
- Economic
- Social
INTEGRATED PRODUCTION AND RESOURCE MANAGEMENT
REGIONAL AGRICULTURE
Water management
Land use
Climate change mitigation
SUSTAINABLE PRODUCTION
- Genetic resources
- Plant protection
- Food security
green services
. land management
. biodiversity
. water
HEALTHY SOIL & CROP ROTATION
① Effective Nutrient Management to maintain Soil productivity
Resource use efficiency in all resources integrated.
Resource efficiency
Water
② Water management
Environmental concerns
PUBLIC GOODS (BIODIVERSITY, WATER MGT, CLIMATE CHANGE, ANIMAL WELFARE, ...)
SOIL FERTILITY
Water effici
RESOURCE EFFICIENCY (LAND, ENERGY, MAN POWER, FERTILISERS, PESTICIDES, WATER, ...)
Climate Cha
CLIMA CHANGE
①


social innovation
- SMALL SCALE FARMING → EMPLOYMENT
Setting criteria for farmer involvement
SOFFICIENCY (FARMER'S WELFARE, ENVIRONMENTAL IMPACT, SUSTAINABLE CONSUMPTION)
Social impliations
Participatory processes Demand-driven with respect to farmers
INSTITUTIONAL INNOVATION Social process of innovation
SOCIAL INNOVATION AND ENTREPRENEURSHIP
BOTTOM UP THEMES RESPOND TO LOCAL REQUIREMENTS
SOCIAL INNOVATION/ CHANGE The role of the consumer in the EIP? + Farmer behaviour
GROWTH & JOBS IN AGRICULTURE
BUILDING NETWORKS/ COMMUNITIES
IMPLEMENTATION AND DISSEMINATION OF NEW KNOWLEDGE
- EDUCATION ON SUSTAINABLE PRODUCTION & CONSUMPTION
APPLICATION of research results IN PRACTICE
adapting to change
BOTTOM-UP RESEARCH PRIORITISATION
KNOWledge transfer of existing practices + NEW PRACTICES (KNOWLEDGE creation)
science based regulatory framework.


supply chain
OPTIMAL + COMPETITIVE SUPPLY CHAIN
- SHORT FOOD CHAINS
MATCHING QUALITY & QUANTITY ⇒ WIN-WIN SOLUTIONS
Safe quality food
Agri-food system : competitiveness and meeting citizen demand. (It includes efficiency and reducing waste)
Market access
Transitions of powers in the food chain
Vertical integration of the value chain
Innovation in the supply chain
Ensuring incomes + market power for farmers in food supply chain.
DEVELOP SHORTEN FOOD CHAIN BY INCREASING RELATIONS BETWEEN FARMERS & CONSUMERS, & INCREASING AWARENESS OF SAFE FOOD
EFFICIENT SUPPLY CHAIN MANAGEMENT

What can we do as innovation actors to accelerate innovation?

20 minutes debate

Table host to write a different issue on each of the three BLUE cards

20 minutes feedback

Assistants will collect cards
Narrow down to three key learnings

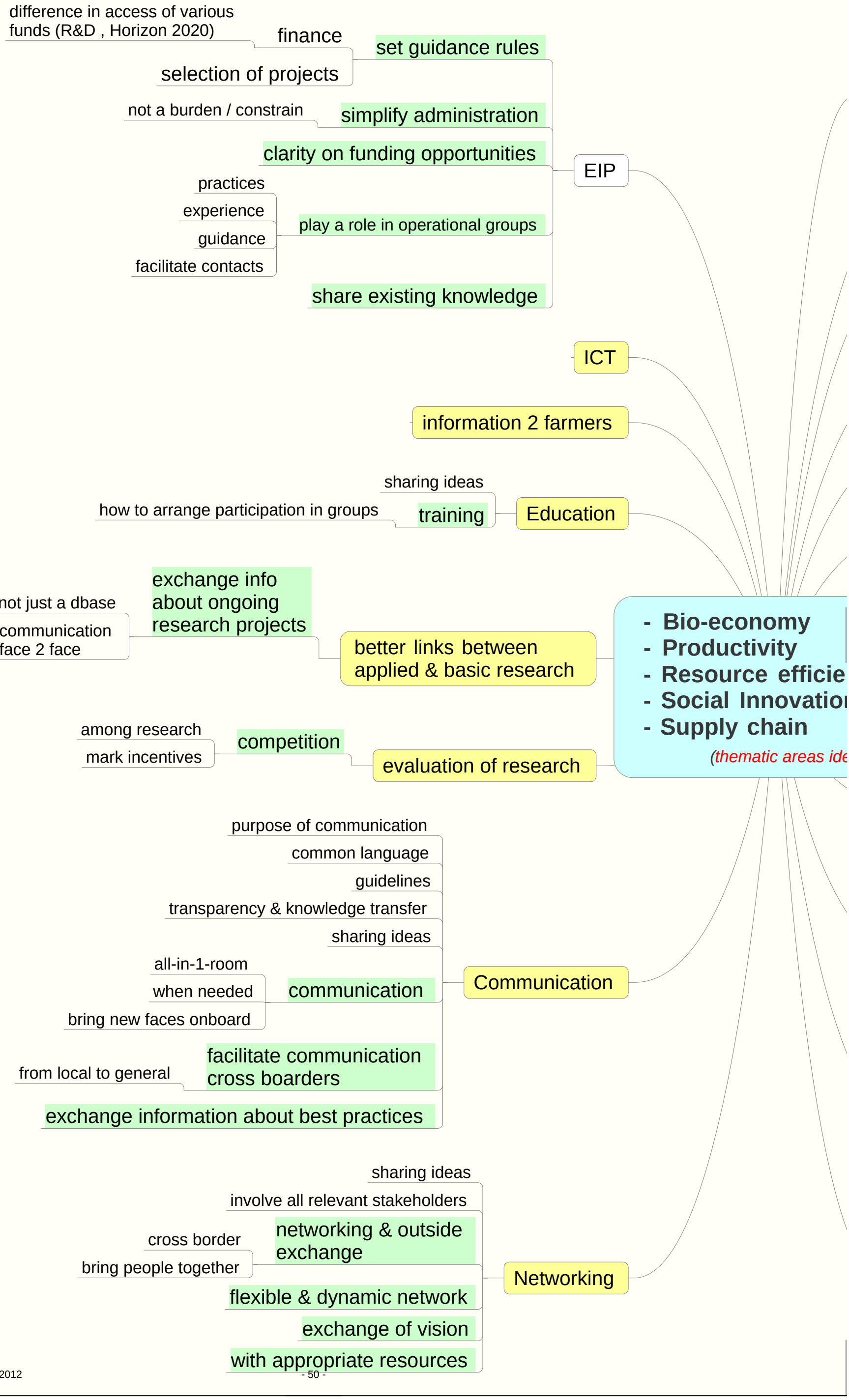
What support do we need from the EU/EIP network?

20 minutes debate

Table host to write a different issue on each of the three PINK cards

15 minutes feedback

Assistants will collect cards
Narrow down to three key learnings


EIP
difference in access of various funds (R&D , Horizon 2020)
finance
selection of projects
set guidance rules
not a burden / constrain
simplify administration
clarity on funding opportunities
practices
experience
guidance
facilitate contacts
play a role in operational groups
share existing knowledge
ICT
information 2 farmers
sharing ideas
how to arrange participation in groups
training
Education
not just a dbase
communication face 2 face
exchange info about ongoing research projects
better links between applied & basic research
among research
mark incentives
competition
evaluation of research
- Bio-economy
- Productivity
- Resource efficie
- Social Innovatio
- Supply chain
(thematic areas ide
purpose of communication
common language
guidelines
transparency & knowledge transfer
sharing ideas
all-in-1-room
when needed
bring new faces onboard
communication
Communication
from local to general
facilitate communication cross boarders
exchange information about best practices
sharing ideas
involve all relevant stakeholders
cross border
bring people together
networking & outside exchange
flexible & dynamic network
exchange of vision
with appropriate resources
Networking

Q2. What can we as innovation actors do to speed up innovation?

Q3. What support is needed from EU/EIP network to advance innovation?

- share passion
- good understanding of the broader context
  - resources in research
  - stakeholders
- more cross discipline approach
- identify better what are the problems
  - define clear objectives & set targets
    - top-down definition
- improve knowledge exchange
  - change way as it takes place
- participatory approaches
  - open process
  - assess problems& opportunities
- consider trade offs
  - production vs, use natural resources
- enabling conditions & seed money
- marketing organisation
  - improve
  - cooperatives
  - cross cutting groups
  - marketing organisation
    - fork to farm
    - across the whole chain
    - face to face to face
- MONEY
  - Funding
  - funding & capacity building
    - incentive / pushing farmers
- regulatory framework
  - involve regulatory body in this
  - smarter regulations
  - simplification of regulations working across funds
  - regulatory environment
    - set sentence right
    - targeting society needs
  - flexible regulation
    - based on wide consultations
- broader consultations

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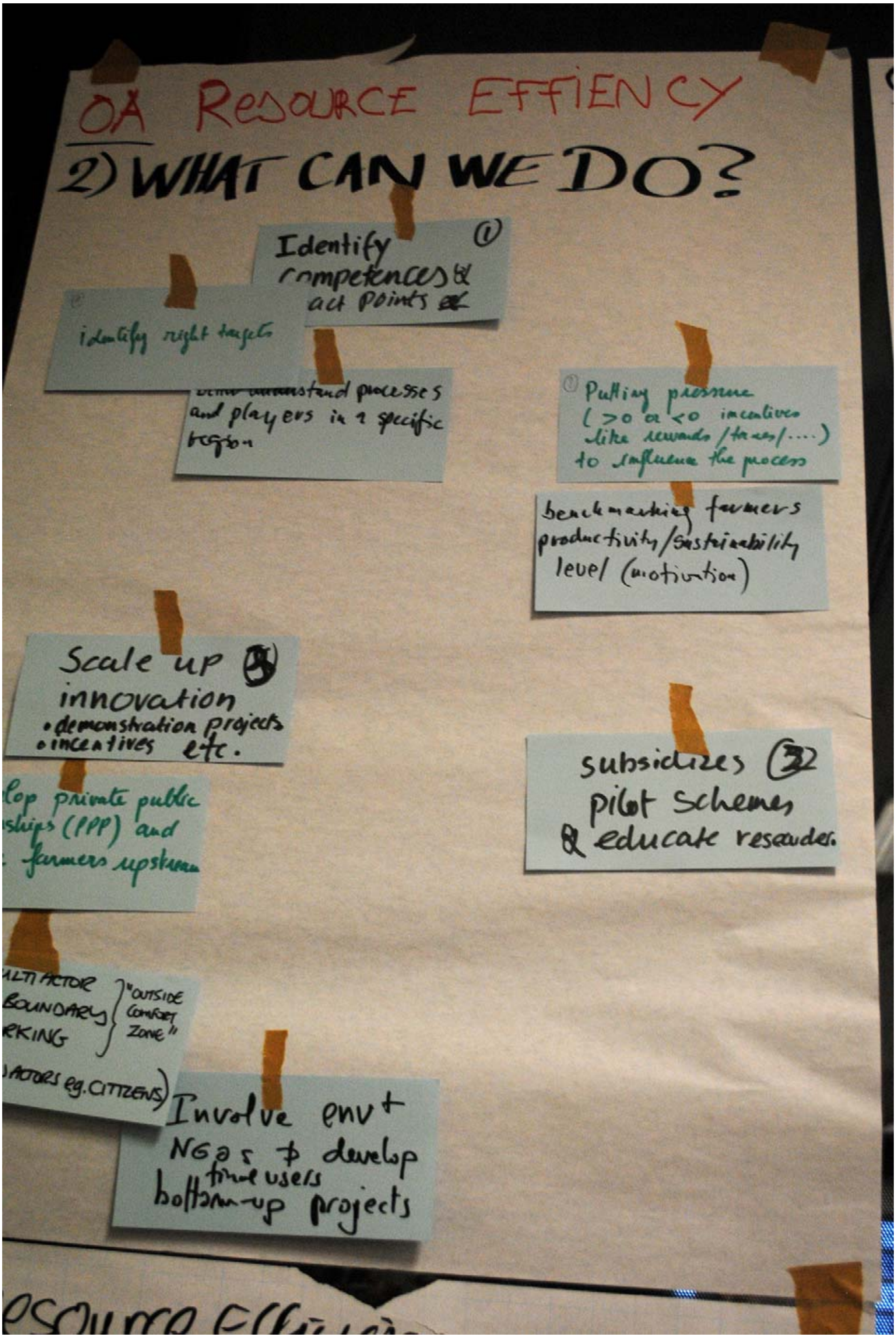
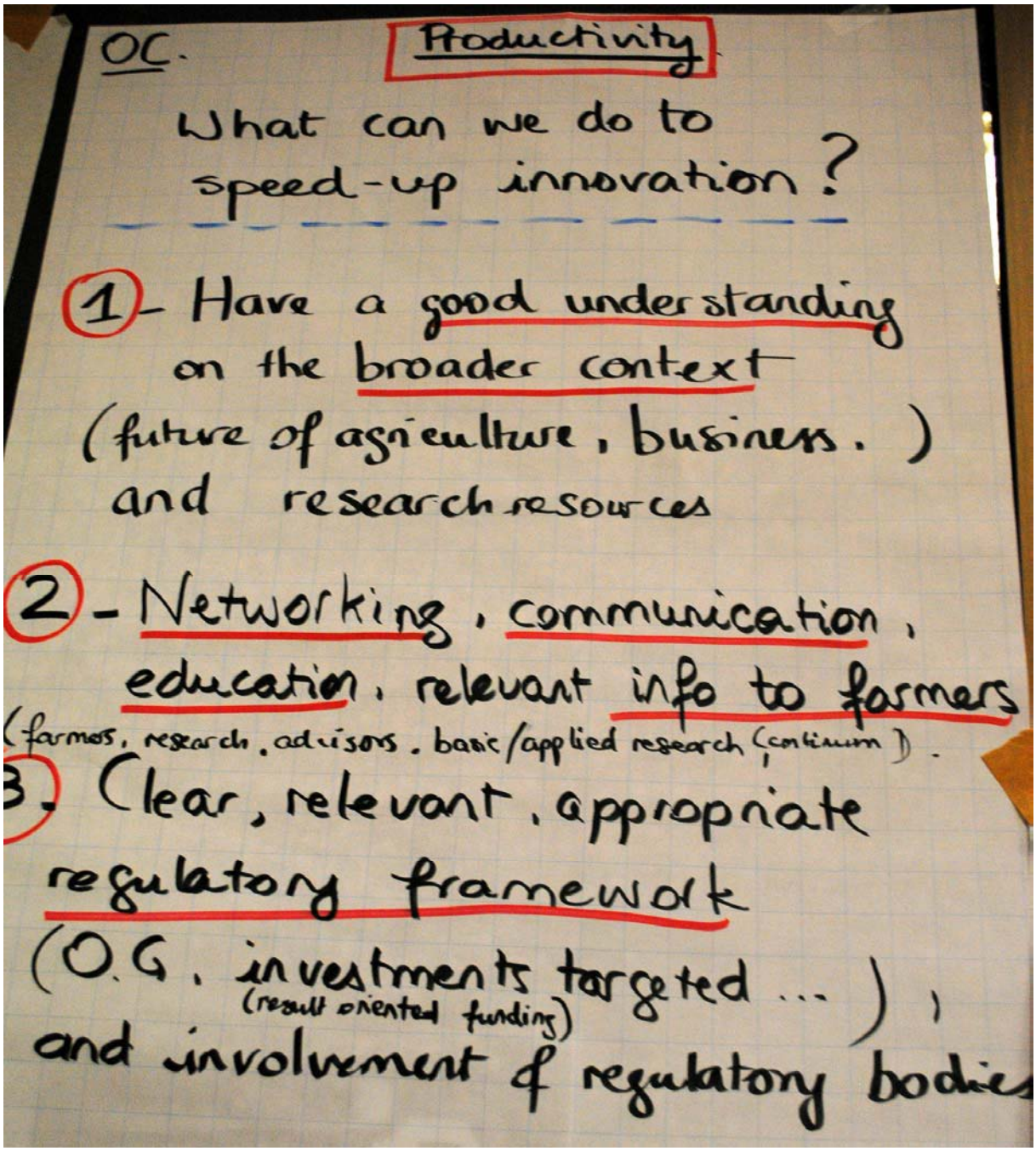
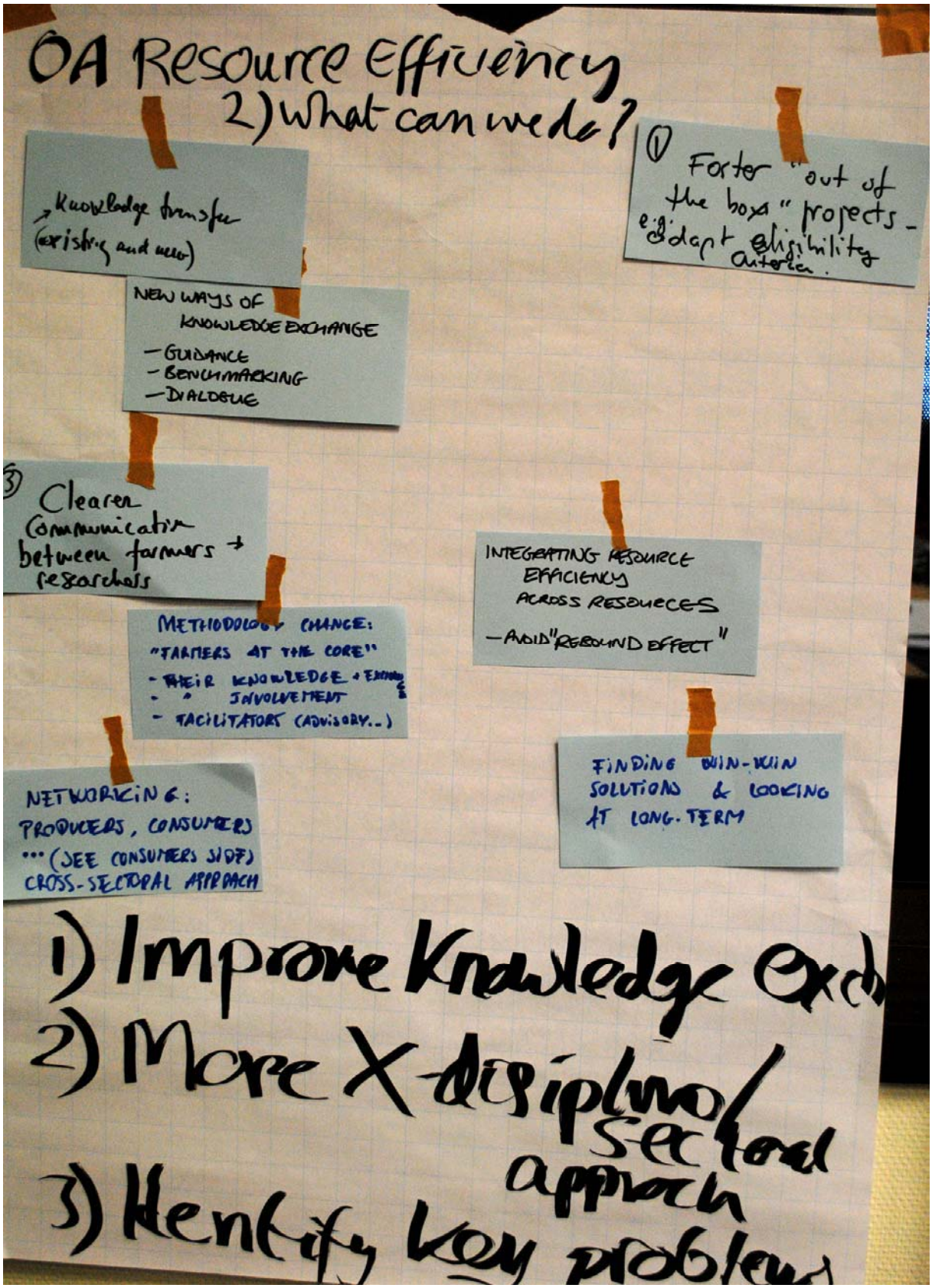
Comments/questions

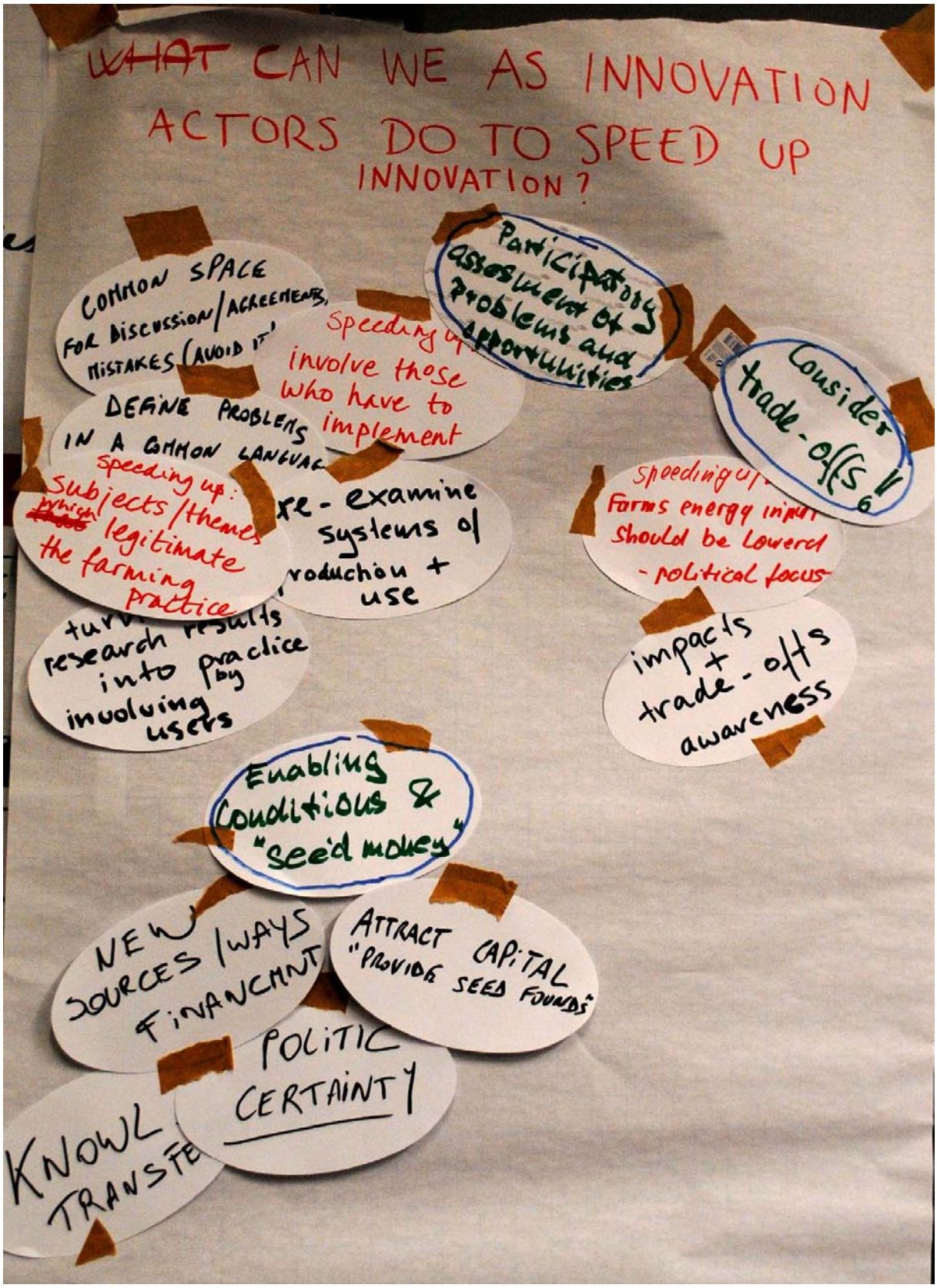
- most popular ideas were highlighted
- no need to over regulate innovation
  - we introduced it because people do not understand
- EU mission is crucial
  - we should create ways to welcome all possibilities
  - no need to confuse management & innovation
  - risk management can be fed by innovation
- any radical innovative idea may be killed by processes
  - innovation calls for simplicity NOT to set priorities
    - interest of the majority
  - flexibility
    - new idea
- what will happen with our results?
- risk management
  - to protect farmers from natural risks
  - if done well = full protection
  - how will it affect innovation?
- we spoke about many topics
  - how to connect with EIP
  - need to better distinguish
    - national level
    - EU levels
  - need to spell out clearer the implementation @ national level

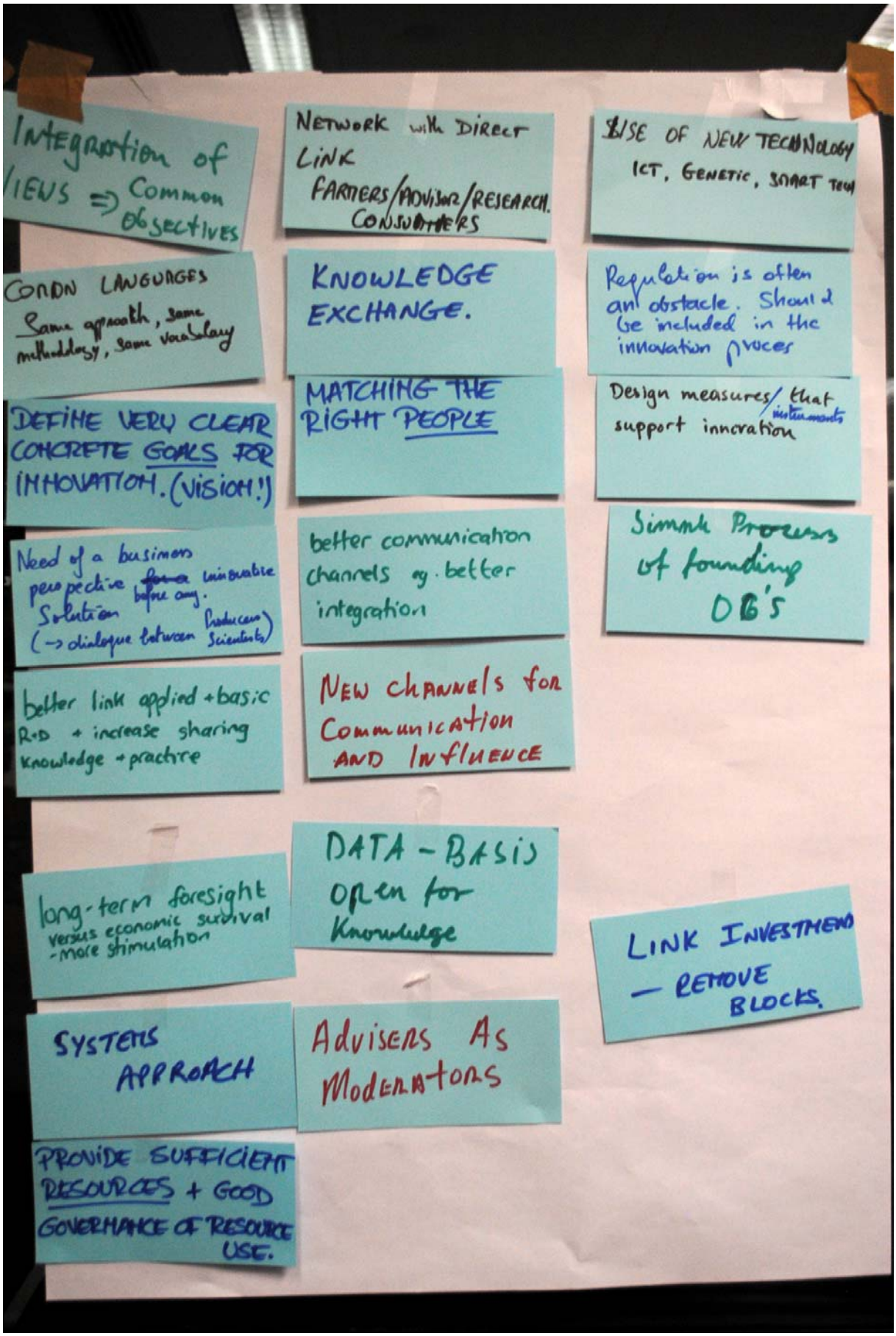

OA RESOURCE EFFIENCY
2) WHAT CAN WE DO?
Identify competences & act points
identify right targets
understand processes and players in a specific region
Pulling pressure (>0 or <0 incentives like rewards / taxes / ....) to influence the process
benchmarking farmers productivity/sustainability level (motivation)
Scale up innovation
• demonstration projects
• incentives etc.
subsidizes pilot schemes & educate researcher
private public (PPP) and farmers upstream
BOUNDARY
"OUTSIDE COMFORT ZONE"
ACTORS eg. CITIZENS)
Involve env't NGOs & develop bottom-up projects
final users


OC. Productivity
What can we do to speed-up innovation?
1- Have a good understanding on the broader context (future of agriculture, business.) and research resources
2- Networking, communication, education, relevant info to farmers (farmers, research, advisors, basic/applied research (continuum)).
3. Clear, relevant, appropriate regulatory framework (O.G. investments targeted ... (result oriented funding)), and involvement of regulatory bodies

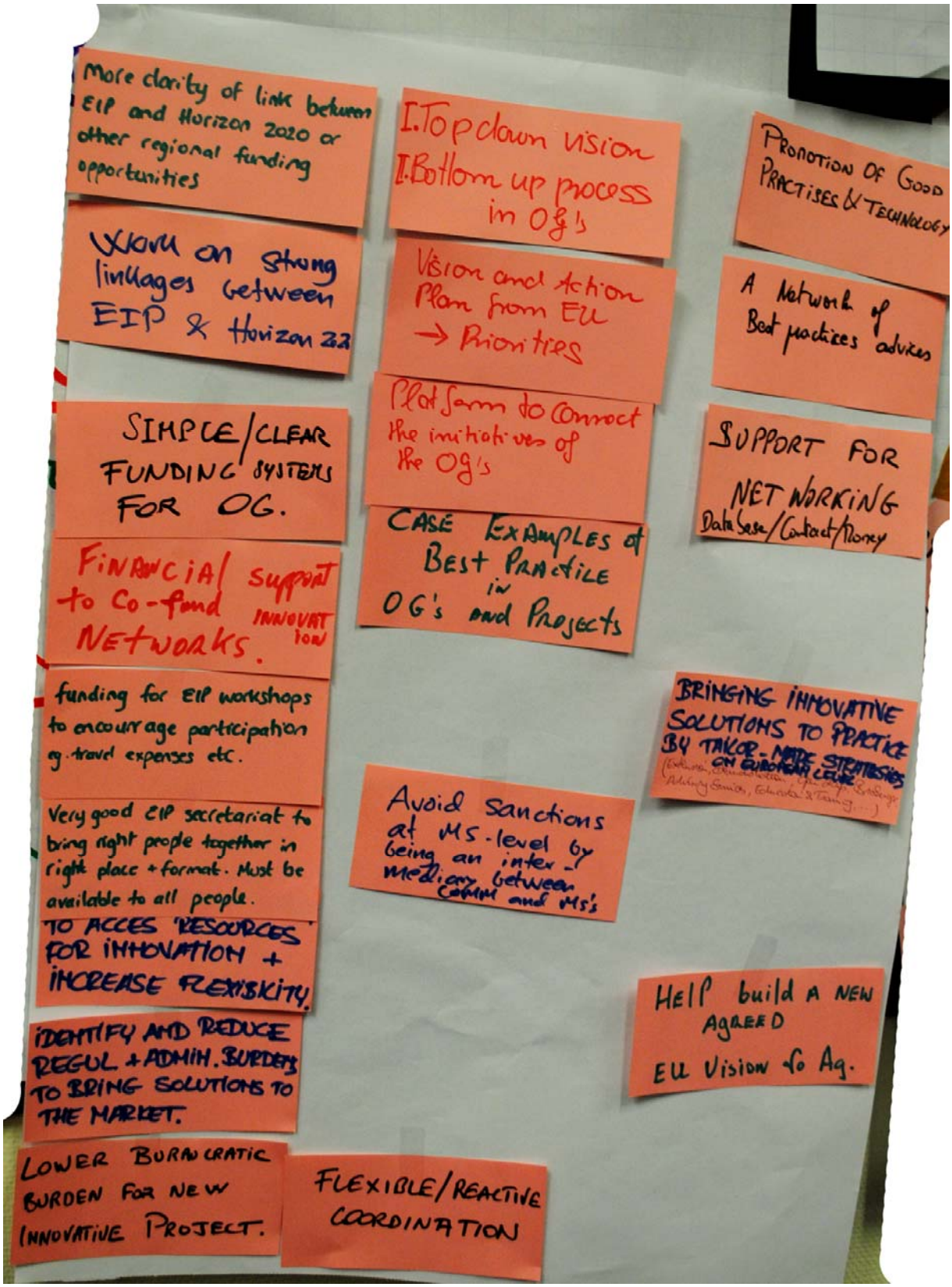

OA Resource Efficiency
2) What can we do?
→ Knowledge transfer (existing and new)
① Foster "out of the box" projects - e.g. adapt eligibility criteria.
NEW WAYS OF KNOWLEDGE EXCHANGE
- GUIDANCE
- BENCHMARKING
- DIALOGUE
3) Clearer Communication between farmers + researchers
METHODOLOGY CHANGE: "FARMERS AT THE CORE"
- THEIR KNOWLEDGE + EXPERIENCE
- " INVOLVEMENT
- FACILITATORS (ADVISORY..)
INTEGRATING RESOURCE EFFICIENCY ACROSS RESOURCES
- AVOID "REBOUND EFFECT"
NETWORKING: PRODUCERS, CONSUMERS ... (SEE CONSUMERS SIDE)
CROSS-SECTORAL APPROACH
FINDING WIN-WIN SOLUTIONS & LOOKING AT LONG-TERM
1) Improve Knowledge exch
2) More X-disciplinary/ sectoral approach
3) Identify key problems

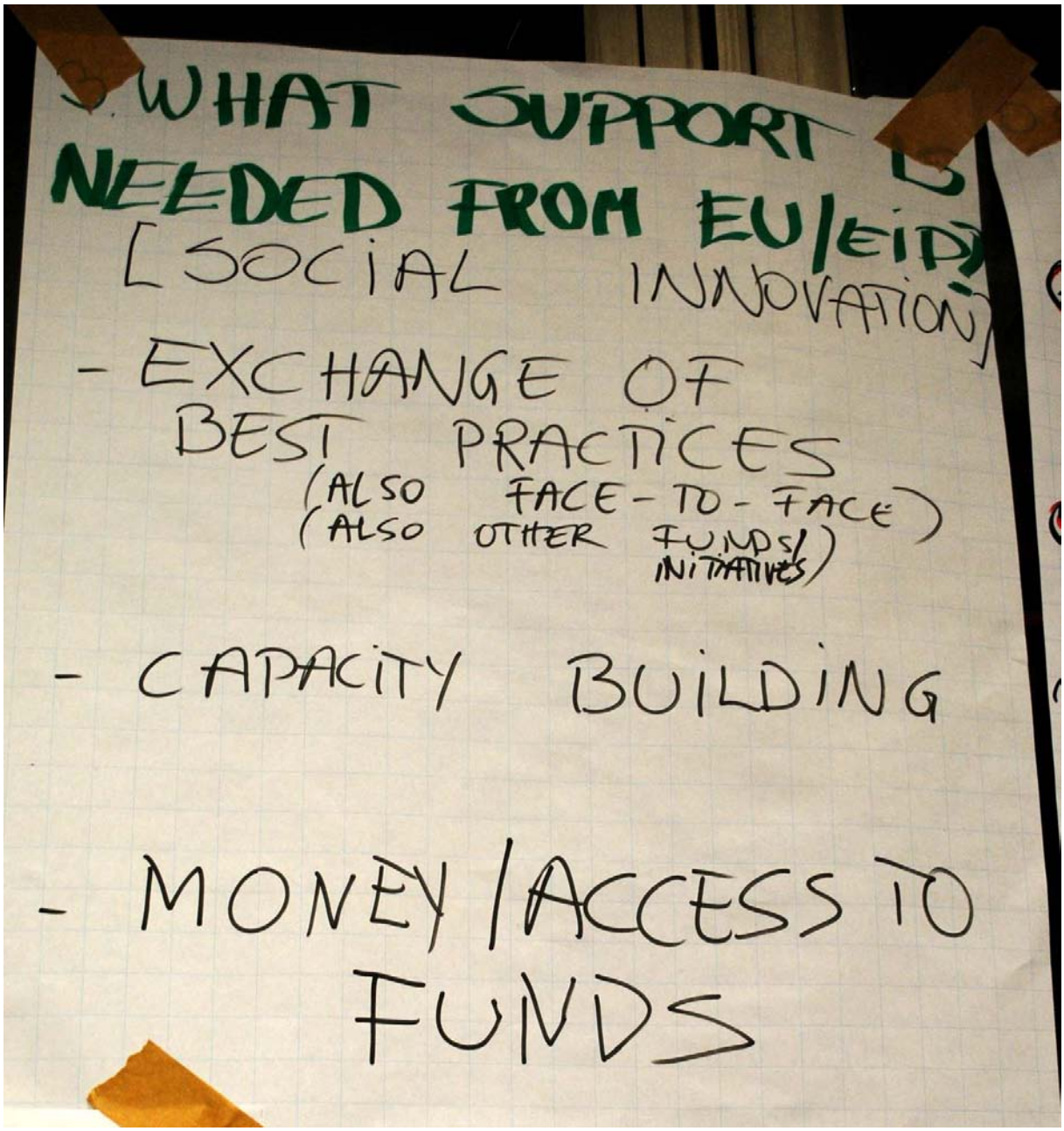

2. WHAT CAN WE DO AS INNOVATION ACTORS TO ACCELERATE INNOVATION? [SOCIAL INNOVATION]
- COMMUNICATION
- PARTICIPATORY APPROACH/ OPEN INNOVATION
- NETWORKING

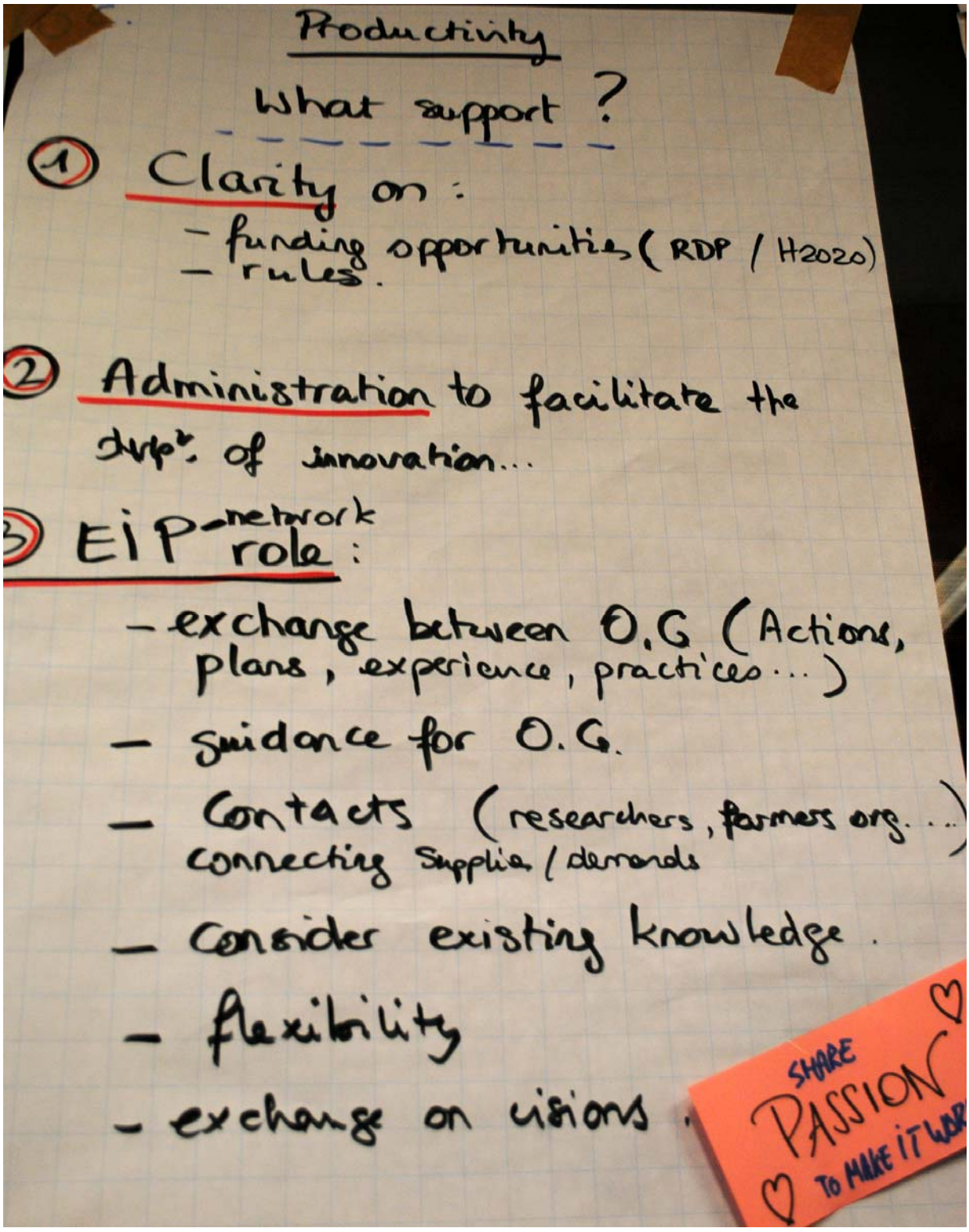

WHAT CAN WE AS INNOVATION ACTORS DO TO SPEED UP INNOVATION?
COMMON SPACE FOR DISCUSSION/AGREEMENTS, MISTAKES (AVOID IT)
Participatory assessment of problems and opportunities
Consider trade-offs
Speeding up: involve those who have to implement
DEFINE PROBLEMS IN A COMMON LANGUAG
Speeding up: Subjects/themes legitimate the farming practice
re-examine systems of roduction + use
Speeding up: Farms energy input Should be lowered - political focus
research results into practice by involving users
impacts + trade-offs awareness
Enabling Conditions & "seed money"
NEW SOURCES/WAYS FINANCMNT
ATTRACT CAPITAL "PROVIDE SEED FOUNDS"
POLITIC CERTAINTY
KNOWL TRANSFE


Integration of views ⇒ Common objectives
Network with Direct Link Farmers/Advisor/Research. Consumers
Use of new technology ICT, Genetic, smart tech
Comon languages Same approach, same methodology, same vocabulary
Knowledge exchange.
Regulation is often an obstacle. Should be included in the innovation proces
Define very clear concrete goals for innovation. (vision!)
Matching the right people
Design measures/ that instruments support innovation
Need of a business perspective innovative before any. Solution (→ dialogue between Producers Scientists)
better communication channels eg. better integration
Simple Process of founding OG's
better link applied + basic R+D + increase sharing knowledge + practice
New channels for Communication and Influence
long-term foresight versus economic survival - more stimulation
DATA - BASIS open for Knowledge
Link Investment — remove blocks.
Systems approach
Advisers As Moderators
Provide sufficient resources + good governance of resource use.

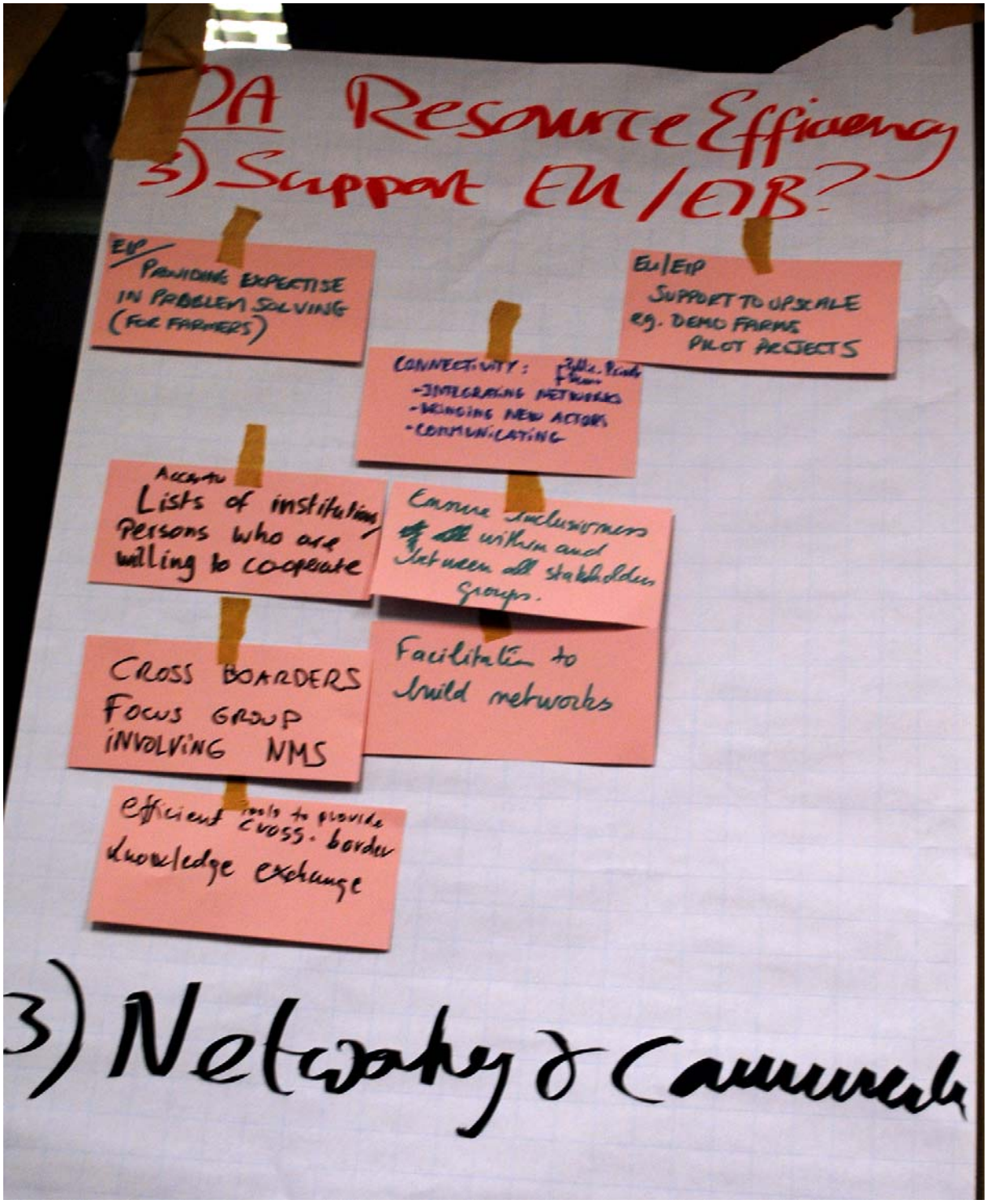

1. BETTER COMMUNICATI
+NETWORKING
- PURPOSE
- LANGUAGE
- TRANSPARENCY / KT
- GROUND RULES
WHAT?
2. MARKET ORGANISATION
- PEOPLE (COOPS, MULTI GRU
- TECHNOLOGY (ICT)
3. SMARTER REGULATION
- CONSULTATION (broad)
- RESEARCH EVALUATION

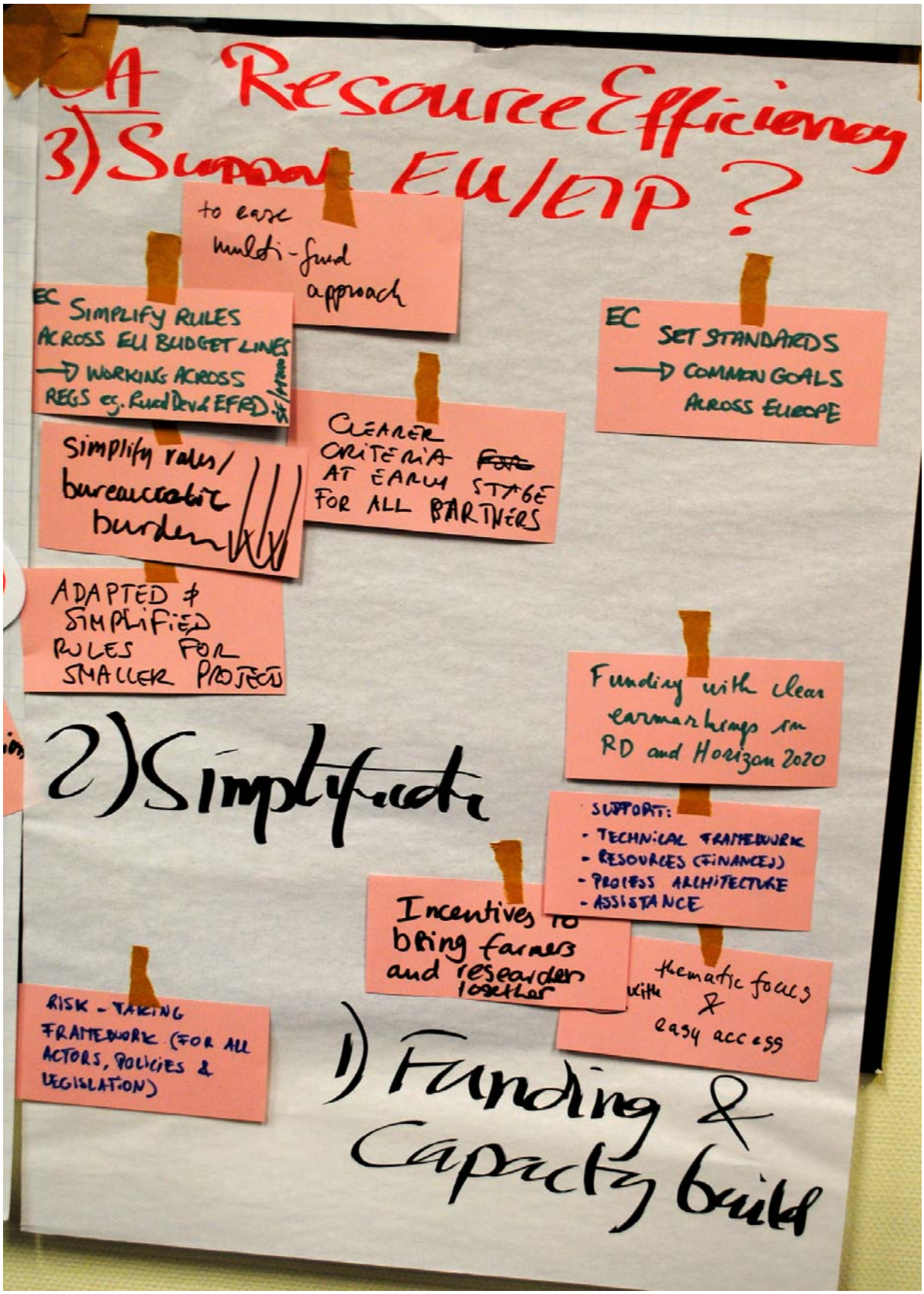

More clarity of link between EIP and Horizon 2020 or other regional funding opportunities
I. Top down vision
II. Bottom up process in OG's
Promotion of Good Practises & Technology
Work on strong linkages between EIP & Horizon 22
Vision and Action Plan from EU → Priorities
A Network of Best practices advices
Platforms to connect the initiatives of the OG's
SIMPLE/CLEAR FUNDING SYSTEMS FOR OG.
SUPPORT FOR NET WORKING Data base/Contact/Money
CASE EXAMPLES of BEST PRACTILE in OG's and Projects
FINANCIAL support to Co-fund INNOVATION NETWORKS.
funding for EIP workshops to encourage participation eg. travel expenses etc.
BRINGING INNOVATIVE SOLUTIONS TO PRACTICE BY TAKOR-MADE STRATEGIES ON EUROPEAN LEVEL
Very good EIP secretariat to bring right people together in right place + format. Must be available to all people.
Avoid Sanctions at MS-level by being an inter-mediary between COM and MS's
TO ACCES RESOURCES FOR INNOVATION + INCREASE FLEXIBILITY.
HELP build A NEW AGREED EU Vision fo Ag.
IDENTIFY AND REDUCE REGUL + ADMIN. BURDENS TO BRING SOLUTIONS TO THE MARKET.
LOWER BURAUCRATIC BURDEN FOR NEW INNOVATIVE PROJECT.
FLEXIBLE/REACTIVE COORDINATION


WHAT SUPPORT IS NEEDED FROM EU/EIP?
[SOCIAL INNOVATION]
- EXCHANGE OF BEST PRACTICES
(ALSO FACE-TO-FACE)
(ALSO OTHER FUNDS/INITIATIVES)
- CAPACITY BUILDING
- MONEY/ACCESS TO FUNDS


Productivity
What support ?
1 Clarity on :
- funding opportunities (RDP / H2020)
- rules.
2 Administration to facilitate the dvpt of innovation...
3 EIP-network role :
- exchange between O.G (Actions, plans, experience, practices...)
- guidance for O.G.
- Contacts (researchers, farmers org. ...) connecting Supplies / demands
- Consider existing knowledge.
- flexibility
- exchange on visions.
SHARE
PASSION
TO MAKE IT WOR


WHAT SUPPORT IS NEEDED FROM THE E.U/E.I.P NETWORK TO ADVANCE INNOVATION?
Define clear objectives and set clear targets
Clear criteria
help market development for innovations that help meet societal needs
or: EU - sit back
or: EU please clear outcome expectations
HELP TO IDENTIFY REAL NEEDS
Set the incentives right!
World wide competition
e.g. protein plants
IDENTIFICATION OF PROCESS CALLING 4 INNOVATION
Overcome legislative obstacles
e.g. waste legislation versus use
Networking & on-site ex-change
HOW TO INDUCE INTEREST FROM FARMERS AND RESEARCH
Create a place to exchange knowledge, let farmers visit demo-sites + colleagues
EC should encourage MS to use the EIP
Integrated approach
- stimulate cross sectoral cooperation/management
- Bundle "classic" farms
mobility, hubs + spokes
skilled interpreter
relieve services
help farmers "go out there" + start up ideas


DA Resource Efficiency
3) Support EU/EIP?
EIP
PROVIDING EXPERTISE IN PROBLEM SOLVING (FOR FARMERS)
EU/EIP
SUPPORT TO UPSCALE eg. DEMO FARMS PILOT PROJECTS
CONNECTIVITY:
-INTEGRATING NETWORKS
-BRINGING NEW ACTORS
-COMMUNICATING
Lists of institutions/ persons who are willing to cooperate
Ensure inclusiveness of all within and between all stakholder groups.
CROSS BOARDERS FOCUS GROUP INVOLVING NMS
Facilitation to build networks
efficient tools to provide cross. border knowledge exchange
3) Networks & Communi


A Resource Efficiency
3) Support EU/EIP ?
to ease multi-fund approach
EC SIMPLIFY RULES ACROSS EU BUDGET LINES → WORKING ACROSS REGS eg. Rural Devt EFRD
EC SET STANDARDS → COMMON GOALS ACROSS EUROPE
Simplify rules/ bureaucratic burden
CLEARER CRITERIA FOR AT EARLY STAGE FOR ALL PARTNERS
ADAPTED & SIMPLIFIED RULES FOR SMALLER PROJECTS
Funding with clear earmarkings on RD and Horizon 2020
2) Simplification
SUPPORT:
- TECHNICAL FRAMEWORK
- RESOURCES (FINANCES)
- PROCESS ARCHITECTURE
- ASSISTANCE
Incentives to bring farmers and researchers together
thematic focus with & easy access
RISK - TAKING FRAMEWORK (FOR ALL ACTORS, POLICIES & LEGISLATION)
1) Funding & Capacity build


Innovation
Partnership
Diversity
Bottom-up
Nature
research
Demand
Efficiency
Potential
Link
Social
New
knowledge
Resources
Rural
development
Smart
Solutions
Challenges
Progress
Down-stream
Productivity
share
Precision
Practice
rethink
Quality
Products
Business
Links
Projects
Future
Agriculture
Up-stream
Network
Tradition
Sustainability
Move Ahead
competitiveness
supply chain
Land use
Ideas
advise
together
Think
outside
the b x
Bioeconomy
European
Jobs
Group
Soil
Listen
think
Develop
Food
Animal
Horizon
2020
Communication
together
Viability
Learn
Opportunities
Market
EIP
biodiversity
Forestry
Crops
Dare
Climate
change
Consumer
Supply
Green
Ecosystem
Low-imput
NGOs
Farmers

Posters

ARCo

COAG

Agricultura de Responsabilidad Compartida

Farmer's Network for Short Food Supply Chains of Agricultural Products in Spain

WHAT'S ARCo?

- An innovative strategy between farmers and consumers based in mutual confidence.
- Promotes direct and stable relations trough short food suply chains.
- Promotes crop models based in economic, social and environmental sustainsability.

HOW IT WORKS

Stable markets
Prices based in production costs

FARMERS ⟷ ARCo ⟷ CONSUMERS

Quality and food safety in guaranteed
High value products(local, sustainalble and artisan)
Fair prices

FIND YOUR FARMER

- Section where farmers and their agricultural products are presented.
- Also includes a farming system description and personal data.

www.arcocoag.org

FARMER'S MARKETS

- We organize weekly several farmer's markets located in different locations in Spain. We call them "Transparent Markets".

FARMERS AND FARM'S HISTORIES AND VISITS

- We organize visits for consumers in order to know the farmers and their farming systems and products.

TRADITIONAL FOOD RECIPES WRITEN BY FARMERS

- We allow farmers to send us their own recipes based in local products and traditional ingredients and methods.

INTERNATIONAL EXPERIENCES

- TEIKEI (Japón) - Community Supported Agriculture-CSA (USA, United Kingdom) - Associations pourlemaintiend'uneagriculture paysanne (France) - Ecovida (Brasil) - Mercati della Terra (Italia) ... and many more.

AGROTURISM AND TRADITIONAL CRAFTS

- Support and promotion of agroturism and traditional crafts business developed by farmers integrated in ARCo.

SEASONAL PRODUCTS CALENDARY

- A seasonal products calendar is published in our website in order to inform consumers about seasons in each region.

SUPPLY DELIVERY OF AGRICULTURAL PRODUCTS DIRECTLY TO CONSUMERS

- We have built a logistic system that supplies baskets directly at home.

FARMER'S SHOPS

- Some farmer's shops are being opened in order to sale agricultural products directly from farmers to consumers.

FEMALE FARMERS PRODUCTS

- We offer the posibility of finding specific agricultural products produced by female farmers.

Innovation, ITs, farmers, consumers and behaviour changes

ARCo_COAG | www.facebook.com/arco.coag | chil.org/mercados/group/arco | COAG | www.arcocoag.org


Together we can save the Baltic Sea
Cost-efficient measures
Advice
Knowledge exchange
Research
Innovation
Investments
Business opportunities
Joint policies
Meaningful governance
BALTIC MANURE
BALTIC COMPASS
Baltic Deal
Baltic Sea Region
EUSBSR
EU STRATEGY FOR THE BALTIC SEA REGION

Valorization of virgin stoned olive pomace for animal feeding in Umbria

Simona Cristiano: cristiano@inea.it - INEA – National Institute of Agricultural Economics – www.inea.it

Project BACKGROUND

The **supply chains of olive-oil** and **cattle** in Umbria represent ones of the most important and traditional agricultural activities. **Olive-oil**: 4,2% of the regional agricultural product value; 30.387 Ha, 7,5 Mln of plants, with high landscape value, 27 miles producers. **Cattle farming:** 40% of the regional gross marketable production, 2.687 farmers, 60.127 heads. Both the supply chains are characterized by PDOs (extra virgin oil and Chianina), small holdings, low investments on physical assets, traditional processing methods and decreasing competitiveness.

MEASURE 124 in RDP of Umbria

Objective: linking the agri-business and applied research in agriculture, in view of enhancing its competitiveness, improving quality standards, environmental performance and safety at work. The Partnership must involve, at least:

- 1 agri-business operator
- 3A–Umbria Agro-food Technology Park (3A-PTA).

3A – UMBRIA AGRO-FOOD TECHNOLOGY PARK

Locally well-known PP body (1989). Different **areas** of **expertise** Certification; Agro-Food Innovation & Research, Training an International projects, among others. Adequate **structures** and goo **networks**: 70 human resources; 4 joint companies (biotech, analysis Phytochemical Products); 4.800 square metres (1.000 b greenhouses).**On-line Services**: Technology Transfer Data Bank, Agro meteological Network, Organic farming regional web site.

NEEDS Assessment

The olive oil productions have **low average yield** (18%) and **costly waste management** of residues (pomace and stones).

Project OBJECTIVES

Reducing the residues of olive production and **Valorising** the olive-oil stoned pomace, through: **(1)** introducing the virgin stoned olive pomace to new markets, **(2)** meliorating commercial value of milk and beef, **(3)** recycling the olives' stones for bio-energy production.

Previous RESEARCH Results

(1) olive pomace can be used for meliorating the nutritional quality of animal feed; (2) increasing the levels of monounsaturated fatty acids and oxidants in the beef and the milk; (3) the olives stones, for their high calorific power, can be used for bio-energy production.

THE PROJECT & PARTNERSHIP

Project RESULTS

- Production of **new formulations** to be used in the animal feed.
- **Reduced costs** and environmental impact of olive-oil productions.
- **Added value** to the local productions of beef and milk.
- **New markets** for the olive-oil supply chain (fodder industry).
- **Integration** between two supply chains.
- Discovered the potential of turning olive stones waste into bioethanol.
- **Replications** of the project are under development in other regions.
- Set of a **new larger partnership** for continuing the project by setting up the pomace drying machineries in loci.

Conclusions: STRENGHTS, WEAKNESSES and TIPS

- **Policy Delivery**: I-Strategy and **simple procedures** (selection criteria resources, accountability system); identify local boosters.
- Project **Leader**: driver; reliable; facilitator; **networking**, market VA.
- **Needs** Assessment: starting point; exploring **specific problems**.
- Applying **Research**: R&I to firm; **solutions** fitting the local needs.
- **Project** development: design innovation to firms; **share** the design.
- **Cooperation** project: **Smoothing** innovation across the supply chains.
- **Partnership**: inclusive, participatory, **commitments**.

Project references

Luciano Concezzi – 3A–Umbria Agro-food Technology Park : +390758957209 – lconcezzi@parco3a.org - www.parco3a.org

A cooperative and educational project for the rural areas of Lower Saxony and Bremen.
Ein Kooperations- und Bildungsprojekt für den ländlichen Raum von Niedersachsen und Bremen.

Creating Transparency – from the counter to the producer

Transparenz schaffen – von der Ladentheke bis zum Erzeuger

Main Intention:
to successfully arrange good communication between rural producers and young food consumers

Zentrales Anliegen:
Kommunikation zwischen ländlichen Produzenten und jungen Konsumenten von Lebensmitteln erfolgreich gestalten

Approach:

Implementation of on-site learning activities and educational events on farms and other enterprises along the food chain.

Constitution of regionally guided networks of involved farm enterprises and other institutions.

Training for the involved farming and food entrepreneurs to communicate with young consumers.

Objectives:

- Making the provenance and production routes of food products visible and understandable.
- Promoting an understanding of fundamental regional economic procedures.
- Supporting a considered and health orientated approach to nutrition and consumption.
- Enabling local economic actors to gain a better understanding of customer expectations.
- Establishing the contact with consumers and the provision of knowledge as additional economic resources for farmers.
- Providing basic insights into the professional perspectives which the regional farming and food industries have to offer.

Vorgehen:

Durchführung von Bildungsveranstaltungen und Aktionstagen direkt vor Ort, auf landwirtschaftlichen Betrieben und in anderen Unternehmen der Nahrungsmittelkette.

Aufbau regional gesteuerter Netzwerke der in das Projekt eingebundenen Betriebe und Institutionen.

Aus- und Fortbildung der beteiligten Wirtschaftsakteure zur Kommunikation mit jungen Verbrauchern.

Ziele:

- Die Herkunft und der Herstellungsweg von Lebensmitteln sichtbar und verständlich werden lassen.
- Das Verständnis für grundlegende regionale Wirtschaftsabläufe fördern.
- Ein reflektiertes wie gesundheitsorientiertes Ernährungs- und Konsumverhalten entwickeln.
- Den beteiligten Wirtschaftsakteuren eine bessere Einschätzung von Kundenerwartungen ermöglichen.
- Den Kontakt zum Konsumenten und die Vermittlung von Wissen als ergänzende ökonomische Ressourcen für Landwirte/innen etablieren.
- Einblicke in Berufsperspektiven ermöglichen, die die regionale Land- und Ernährungswirtschaft bietet.

Outcomes:
Participating in the project are:

- about 46.000 pupils per year
- from about 2.400 classes
- 44 regional educational providers which coordinate the work at the locations

Ergebnisse:
Am Projekt nehmen teil:

- rund 46.000 Schülerinnen und Schüler pro Jahr
- aus ca. 2.400 Schulklassen
- 44 regionale Bildungsträger, die die Arbeit vor Ort koordinieren

Contact:
Central Coordination Unit "Creating Transparency – from the Counter to the Producer"
Zentrale Koordinierungsstelle: Horst Brockhoff, Hans-Joachim Meyer zum Felde
Education and Conference Centre Oetheide - Bildungs- und Tagungszentrum Oetheide (BTO)
DE-21397 Barendorf - Lower Saxony - Phone +49 (0) 4137 - 81 23-28 - Fax +49 (0) 4137 - 81 23-55 - e-mail: brockhoff@bto-barendorf.de

Contact Brussels:
German Chambers of Agriculture + EU-Platform of Chambers - Rue du Luxembourg 47-51 - B-1050 Brussels
Michael Kügler - Phone: +32-2-2804058 - Fax: +32-2-2804059 - e-mail: m.kuegler@vlk-agrar.de

Gefördert aus Mitteln des Landes Niedersachsen, der Freien Hansestadt Bremen und der Europäischen Union

Niedersachsen · Netzwerk
Nachwachsende Rohstoffe
Kompetenzzentrum
3N

3N Kompetenzzentrum

Kompetent - Unabhängig - Innovativ

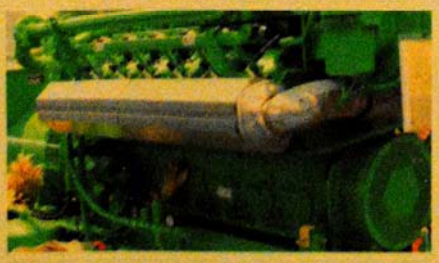
3N ist die zentrale Anlaufstelle für Informationen über Nachwachsende Rohstoffe und Bioenergie in Niedersachsen.

3N Service

- Förderung von Innovationen
- Technologietransfer
- Umsetzungsberatung
- Machbarkeitsstudien
- Projektbetreuung / Vermittlung von Partnern

Competent – Independent – Innovative

3N is the central point of contact for information about renewable resources and bioenergy in Lower Saxony.



3N key activities

- Consultancy
- Information
- Innovation
- Projects

Träger des Kompetenzzentrums:

Emsland · Landesenergieagentur Niedersachsen · DIL · H/WK

3N wird gefördert durch:

Niedersachsen · Emsland

sowie durch 12 niedersächsische Unternehmen

Niedersachsen

Sie kennen unsere Pferde. Erleben Sie unsere Stärken.


Verband der
Landwirtschafts-
kammern
Netzwerke in Europa
Bildung
Selbstverwaltung
Versuchswesen
Marktberichte
Gutachten
Beratung
Qualitätssicherung
Planungen
Untersuchungen
Ländliche Entwicklung
Träger öffentlicher Belange
Förderung
Stellungnahmen
Agrarverwaltung

eufrin

European Fruit Research Institutes Network

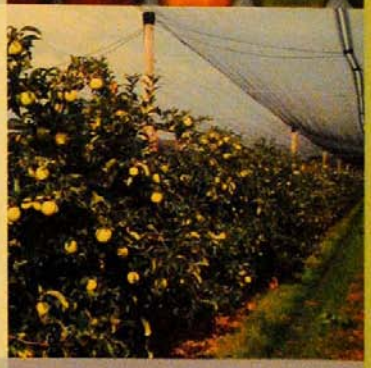
About EUFRIN

EUFRIN is an informal, voluntary organization of university departments and research institutes that specialize in research, development, innovation and extension on temperate fruit crops and which are based within European countries.

The first meeting was held in Bonn in 1993, attended by representatives of Germany, France, Netherlands, United Kingdom, Switzerland, Belgium, Denmark, Greece and Italy. In the years since, many more countries have been invited to and have joined EUFRIN.

EUFRIN general objectives:

To prepare and submit joint bids for funding of R&D.
To enhance and facilitate coordinated research, development, innovation and technology transfer, focused on aiding sustainable production of quality fruit.
To establish and improve cooperation between those involved in fruit R&D within Europe.
To create a philosophy of fruit production through research and education.



EUFRIN Working Groups:

EUFRIN Working Groups:
Apple and Pear Variety Testing
Stone fruit variety evaluation
Plum and prune
Soft fruits
Rootstocks for fruit trees
Fruit thinning
Water relations
Spray application technique
Sustainable fruit production to minimize residues
Fruit quality
Improvement of fruit by biotechnology

EUFRIN-derived research projects/networks:

DARE
HIDRAS
ISAFRUIT
CLIMAFRUIT
EUROBERRY
ERWINIA
SHARCO
COST projects on fruits
FRUIT BREEDOMICS

Innovative approaches to maintain Romania's HNV farmed landscapes

Fundația ADEPT Transilvania www.fundatia-adept.org

PROBLEMS

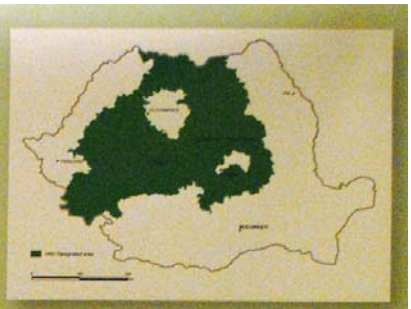
Gains in agricultural productivity in Europe rely on unsustainable levels of inputs, and have come at the cost of significant environmental damage. This is a threat to food security, and to other public goods and ecosystem services. The need to repair these damaged farm ecosystems, to secure our European future, is recognized by the Greening of the CAP 2014-20.

This trend will also extent to parts of Europe whose farm ecosystems are still healthy. The EU recognises the importance of **High Nature Value** (HNV) farmed landscapes, characterised by small and traditional farms, which still supply many valuable public goods and ecosystem services. How can we avoid the same pattern of unsustainable and destructive development being repeated in these better-preserved farm ecosystems?

A SOLUTION

Since 2005 Fundația ADEPT has been implementing a training and information programme in Romania. This has demonstrated that imaginative, integrated use of Rural Development measures can succeed in supporting farmers and communities in sustainably farmed landscapes. **This requires innovative approaches to:**

- **local communication** to overcome barriers to access to measures
- **local advice** to effectively integrate and implement available measures
- **local training** to link measures to commercial initiatives and economic viability.



ROMANIA AS A CASE STUDY

There are about 3 million hectares of **High Nature Value** farmland in Romania, managed by hundreds of thousands of farmers. The survival of these rich agricultural ecosystems depends on support for the small-scale farming communities that live within them and maintain them.

Romania has been very successful in implementing agri-environment schemes. But this on its own is not enough to create socio-economic viability in these communities and landscapes.

Romania's, and wider Europe's, HNV farmed landscapes can only be maintained by INNOVATION and INTEGRATION. The scale of this problem is significant. 30% of the EU's farmland is HNV, extremely important for Europe's environmental and food security, but under threat owing to loss of economic viability.

One-stop shop for farmers, providing information on a wide range of topics: applications for measures; obligations linked to measures; food safety and hygiene regulations for processing and direct sales; marketing.

Policy development through cooperation with the Romanian Ministry of Agriculture & Rural Development, and consultations with DG Agriculture, so that design and implementation of measures in current and future Rural Development Programmes are informed by ADEPT's practical experiences.

Information groups for farmers, packaging information and channeling it through farmer groups. Using SMS in cooperation with Orange Romania. Links to National Rural Development Network.

Communication with the consumer such as the 'Know what you eat, know where it comes from' campaign, and top quality products to provoke publicity. With Orange Romania, we are developing mobile phone apps for use by consumers.

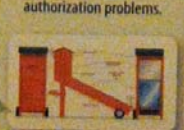
Training of individual farmers, and of farmers' associations, to increase their capacity to carry out individual and joint actions.

THIS CIRCLE SHOWS HOW LINKED ACTIVITIES OF FUNDAȚIA ADEPT ARE INCREASING THE ECONOMIC VIABILITY OF SMALL-SCALE FARMS, COMMUNITIES AND SUSTAINABLY FARMED LANDSCAPES

Imaginative diversification such as innovative mountain bike trail networks which link guesthouses and attract visitors and income to the area.

Innovative machinery for management of traditional grasslands under agri-environment schemes, but suited to modern expectations.

Innovative processing to assist micro-producers , and to overcome authorization problems.



Marketing initiatives, developing modern brands and packaging, producer groups, short supply chains and genuine farmers' markets across Romania.

The impact of this integrated information programme has been remarkable . . . increased local incomes of over €2m per year for 2,000 small-scale farmers in the Târnava Mare area, increasing farm viability and community prosperity while supporting sustainable farming practices.

INNOVATIVE CROPPING SYSTEMS JOINT TECHNOLOGY NETWORK

AGRICULTURES & TERRITOIRES
CHAMBRES D'AGRICULTURE

Réseau Mixte Technologique Systèmes de Culture Innovants

JOINT TECHNOLOGY NETWORK

- Managed by **Burgundy Chamber of Agriculture**
- **Gathering 60 stakeholders** from R&D, advisors and training, and **in touch with many farmers groups**
- **To facilitate face to face and direct exchanges and debates** between farmers, advisers, experts and researchers

Innovative Cropping Systems (ICS)

- **To deal with societal issues** (water management, energy and gas emissions, biodiversity, ...) and **economic performances**
- Results as much from **the combinations of existing crops**, than from **the introduction of new crops and new techniques**

OBJECTIVES

RESSOURCES & TOOLS for INNOVATION

CO-DESIGN and CO-EVALUATE

Guide STEPHY : practical guide for the design of cropping systems less reliant on pesticides

Farmers training to learn how to design productive and sustainable cropping systems

45 ICS designed in multi-actors workshops

EXPERIMENT ON FARMS and WITH FARMERS

Network of 70 experimental ICS managed by a scientific protocol on experimental farms and farmers plots

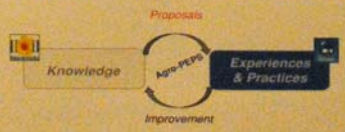
- Description of the ICS **with the collaboration of farmers**

20 ICS managed by farmers on their farms and shared within the network

ADVISE and DISSEMINATE

Agroseil vademecum helps advisers to :

- **Give relevant advices** considering the needs and wishes of farmers
- **Network about their experiences and practices**



Agro-Pep's, a collaborative web tool to facilitate technical information exchanges

TRAIN and PROMOTE

Symposiums 2008 & 2011
inra.fr/ciag/revue /volume_20_juillet_2012

Training "Tomorrow's Advisors" (14 days) designed by Chambers of Agriculture and AgroParisTech which helps advisers to have a reflexive stance about their practices
gis-relance-agronomique.fr/Axe-Formation/Conseiller-demain-en-agronomie

PARTNERS

www.systemesdecultureinnovants.org/

Farming with Future – stakeholder involvement in development and implementation of sustainable crop protection

Frank Wijnands, Wageningen UR & Harm Brinks, DLV

WAGENINGEN UR
For quality of life

DLV plant

Background

- Urgent need to reduce use and impact of pesticide use
- Adoption of IPM methods (with lower impact) is too low
- NL Policy of stimulating development and adoption of IPM

The adoption challenge

Substantially improve the adoption of IPM in practice

- Revisit existing technology
- Develop selectively new "ready for use" technology

The project Farming with Future in The Netherlands

- National network, pilot farms, stakeholders, advice and research
  - Period 1: 2001-2004, 33 pilot farms in 6 sectors + experimental farms
  - Period 2: 2004-2007, 34 regional networks with > 400 farms
  - Period 3: 2008-2010, interactive network with > 200 organizations
- Arable crops, vegetables, glass house, nursery trees, bulbs, fruit
- National focal point of R&D for IPM adoption in practice
- Period 2001-2010, Commissioned by government in framework of national covenant Sustainable Crop Protection, government financed (ca. 2 M€/annum)
- Strong involvement of stakeholders – active interaction
- Operational team: Wageningen UR and DLV (independent advisory organization)

Two critical succes factors

Excellent, relevant, contextual, road tested technology

Concerted effort of farming community

Sharp focus of knowledge development

- Focus on the key problems in practice
- Select promising new techniques (from all sources) and identify existing technologies with low adoption rate (but potential)
- Prioritise into action list for R&D
- Test and develop new (& old) methods in practice: road testing
- Focus on the context of user and use the expertise of the farming community

Strong stakeholder involvement throughout

- Start up dialogue - engagement in challenges
- Selection/identification of promising technology
- Participation in road testing (see left side)
- Active communication, also about necessity & urgency
- Stimulating adoption in practice in daily contacts
- Coordinated efforts with other stakeholders

Road testing new technologies FOCUS

- Testing selected techniques in practical conditions (on farm)
- Together with farmers, advisors, researchers and stakeholders
- Develop/improve the techniques and methods
- "Writing the user manual along the way"
- Is already first step in dissemination

Stakeholder management NEW APPROACH

- Stakeholder involvement needs active management
- Stakeholdermanagement is a well structured "new" method aimed at enrolling stakeholders
- Enrollment means ; stakeholder takes responsibility for an objective/challenge and acts pro-active accordingly

IPM – Integrated Crop Protection

- Strategic approach based on prevention
- Smart integration of cultural, technical and chemical solutions
  - Minimizing use and impact of pesticides
  - Safeguarding high quantity and quality of yields

Involved partners - stakeholders

Pesticide manufacturers
Suppliers (private companies, cooperatives)
Water boards (in relevant area's)
Drinking water companies
Farmers organisations, Ministry of Agriculture
& many others

Results 2007-2010

- Focal point and transfer point of new knowledge ICP
  - 100 tested methods, 80 made ready for broad use
  - Documented, communicated in many ways
- Communication
  - Hundreds of activities, reaching thousands of farmers
- Increasing adoption of road tested technology
- Less problems in the area's with water – coalitions

Impact

Results 2007-2010

- Large network of stakeholders (> 200 contacts)
  - With > 100 regular contact and common activities
  - Regional, local, national level
- More open dialogue, more coalitions, more actions
  - Stakeholder enrollment takes time
  - Change in behaviour and attitude of stakeholders
  - Higher commitment stakeholders, more co-operative efforts

Applied Plant Research
P.O. Box 670, 8200 AK, Lelystad, the Netherlands
Contact: frank.wijnands@wur.nl
T + 31 (0)320291621
www.wageningenur.nl

DLV Plant
P.O. Box 7001, 6700 CA, Wageningen, the Netherlands
Contact: h.brinks@dlvplant.nl
T + 31 (0)620423895
www.dlvplant.co.uk

Dairy Farming and Nature Management

DAIRYMAN

The Netherlands

- Example of successful cooperation between a dairy farmer and (local) authorities in the realisation of nature and environmental objectives

Forestry Sint Anthonis

- Re-construction plan 2005 with objectives regarding
  - Nature, Environment and Water
  - Agriculture and
  - Recreation

Agricultural nature management

- Six year lease contract (17 ha)
- Restore/increase nature value
- No fertilisation and adjusted cutting and grazing management
- Financial compensation government for yield loss

- Added value for all partners and stakeholders

Nature objectives

+

Provincie Noord-Brabant

Regional Government

Forestry Authority

+

Biodiversity

staatsbosbeheer

Frank van Kalleveen, Forest Ranger
"De Kleijne is the ideal farmer to lease our pastures. He experiments with new grasses and mixtures and even educates about ecological farming. Also the groundwater table has improved considerably. Yes, this cooperation is a true win situation for all."

Dairy Farmer

+

- ✓ Extra grazing area
- ✓ Opportunity to extensify
- ✓ Roughage rich on minerals and fibre
- ✓ Financial compensation
- ✓ Sustainability image dairy sector

Cooperation

Municipality

+

Gemeente Sint Anthonis

Living Environment Civilians

Regional Water Board

+

Water Quality

Waterschap Aa en Maas

Bottlenecks in nature management schemes

Fertilisation:
Zero fertilisation leads to soil acidification and desired nature types will not be realized. Heavy decrease in grass yield and quality impede these parcels to fit in the farm.

Grazing:
Frequent cutting and limited possibilities for grazing lead to an open sod. Leaving space for the to cattle poisonous Ragwort *(Jacobaea vulgaris)* to settle.

Legislation:
Rigid legislation and bureaucracy demotivate farmers to start nature management.

Practical solutions

Allow a maintenance fertilisation (50 kg nitrogen with organic manure) and lime to counter acidification.

Allow grazing from June 15 instead of August 1. Be alert for flowering Ragwort and prevent seed infestation of neighbouring parcels.

Provide regional tailored and flexible regulations and simplified administrative procedures.

Investing in Opportunities

nwe

INTERREG IVB

www.interregdairyman.eu

Dairy Farming and Hedges for Energy

DAIRYMAN

Brittany (F)

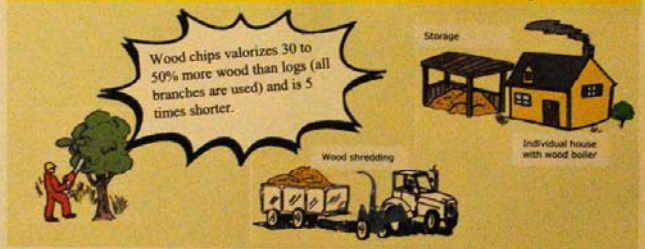
- Example of successful cooperation between a dairy farmer and customers for wooden chips

- Fossil energy becomes more scarce and expensive
- Growing number of boilers based on wood chips

- Environmental benefits
  - landscape
  - biodiversity
  - soils and water protection

- Exploiting hedges = maintaining hedges and regional heritage

Hedges' utilization, an opportunity for many farms



Information

- 1 dried ACM (Apparent Cubic meter) = 250 kg dried wood chips
- ± 25 ACM heats a house of 100 m²
- 1 liter of fuel = 2,7 kg of dried wood chips
- 3,3 kW/h/kg of dried wood chips

Production costs

- Per hour: labour € 15, tractors € 16, shredder € 200
- 100 m hedges = 25 dried ACM
- Felling, pruning, storage: 8 à 20 hours
- Shredding: 0,5 à 3 hours
- Transport: 0,5 à 2 hours
- Total cost: € 290 à € 850
  ± € 23/dried ACM

AGRICULTURES & TERRITOIRES
CHAMBRE D'AGRICULTURE BRETAGNE

www.interregdairyman.eu

SOLINSA
Support of Learning and Innovation Networks for Sustainable Agriculture

Agricultural Knowledge Systems In Transition:
Towards a more effective and efficient support of Learning and Innovation Networks for Sustainable Agriculture

solinsa.net

SOLINSA – linking innovation networks and knowledge systems

Heidrun Moschitz, Project co-ordinator, Research Institute of Organic Agriculture, Switzerland

Picture: FiBL

Objective

SOLINSA **studies networks of innovative European farmers** as they implement **sustainable agriculture** and spreads the lessons learnt across Europe.

Barriers will be identified and we will explore how **policy, research , education** and **advisory services** can **support** them in effective ways.

The concept of **LINSA** as '**L**earning and **I**nnovation **N**etworks for **S**ustainable **A**griculture' has been developed by the experiences and scientific reflections of the researchers. It will be further developed throughout the project.

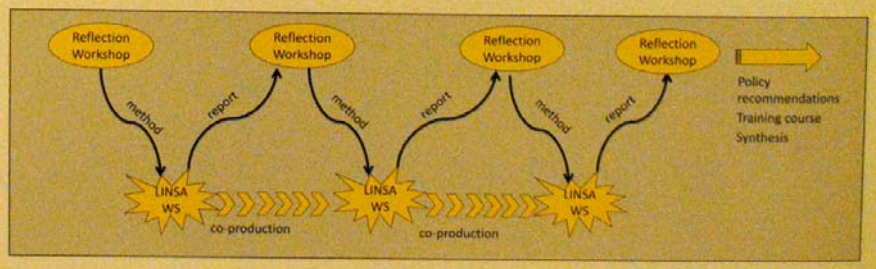
LINSA

- are **networks** of producers, local administrations, formal AKIS components, SMEs, and civil society
- create **mutual engagement around sustainability** goals in agriculture and rural development
- are **open to ideas from outside**
- **facilitate learning**, change, and **innovation**

Picture: Idele

Our Approach

We apply a transdisciplinary methodology **linking research and practice** in order to produce results that can be applied in the field.



First results

- Comparative analysis of the AKIS in the eight partner countries
- Exploration of LINSA's scope and governance structure of 17 cases in the eight partner countries
- Reflection of outcomes with experts linking to AKIS policy and practice across Europe

Partners in SOLINSA

Research Institute of Organic Agriculture, Switzerland; **University of Pisa**, Italy; **University of Gloucester**, **University of the West of England**, Bristol, England; **Wageningen University**, The Netherlands; **AGRIDEA**, **Federal Institute for Technology**, Switzerland; **Baltic Studies Centre**, Latvia; **French Livestock Institute**, France; **University of Hohenheim**, Germany; **Institute of Economics of Hungarian Academy of Sciences**, Hungary

FiBL

For further information:
www.solinsa.net

WAGENINGEN UR
For quality of life

Innovative farmers, facilitating researchers and a stimulating government

Herman Schoorlemmer, Alfons Beldman, Krijn Poppe and Maarten Vrolijk

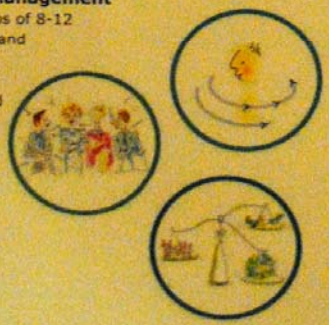
Developments in EU:
- Horizon 2020: tackling societal challenges, creating industrial leadership
- European Innovation Partnership: closing the innovation gap, working with stakeholder networks
- CAP reform: end of support product price
- More focus on sustainability, chain innovation and biobased economy

Challenges European farmers
- From optimization of the farm to innovation on the farm
- From price support to customer value
- From production skills to entrepreneurship
- From sector orientation to society orientation
- From a hindering regime to an entrepreneurial climate

Dutch Approach

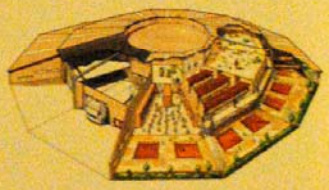
Goal	Concepts
Farmers improve entrepreneurial skills	• Interactive Strategic Management • Innovative networks
Farmers recognize and realize opportunities	• Development of business plans and new Product Market Combinations • Co-innovation • Lead user innovation
Stakeholders improve entrepreneurial climate	• Regional transition approaches • Stakeholder management • Network approach with innovation brokers / free actors

Interactive strategic management
Interactive training in groups of 8-12 farmers facilitated by tools and qualified trainers. Goal is to develop strategic skills, an individual farm strategy and action plan.



Innovative networks and innovation brokers
Farmer networks develop new business or technological innovations facilitated by a 'free actor' or innovation broker.

Co-innovation
Co-creation by farmers, researchers and other relevant actors of sustainable farming systems.
For example the case of Rondeel: innovative housing for laying hens.



Regional transition
Development of a regional research & innovation agenda and new regional opportunities. In cooperation with private sector, policy makers and researchers.

Why (not) these approaches in the EU?
- No copy-paste!!
- Mutual inspiration and tailor made approaches
- Decontextualize en recontextualize European practices
- Connection with EU policies and facilities?
- How do we go forward?

Applied Plant Research
P.O. Box 430, NL-8200 AK Lelystad
Contact: herman.schoorlemmer@wur.nl
T + 31 (0)320 29 13 37
Internet: www.ppoagv.nl

LEI
P.O. Box 29703, NL-2502 LS 'S GRAVENHAGE
Contact: krijn.poppe@wur.nl / alfons.beldman@wur.nl
T + 31 (0)703 35 83 13 / + 31 (0)320 29 35 40
Internet: www.lei.nl/uk / www.agrocentax.wur.nl/uk

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solinsa.net

Building innovation around food: LINSA Crisoperla

Gianluca Brunori, Adanella Rossi, Elena Favilli

Why this LINSA?

Crisoperla biologica e solidale

An association aimed at promoting organic farming, closer relationships between producers and consumers, local economy.
It involves organic farmers and fishers, technicians, consumers' groups and associations, small food artisans
Its network is part of other local networks.

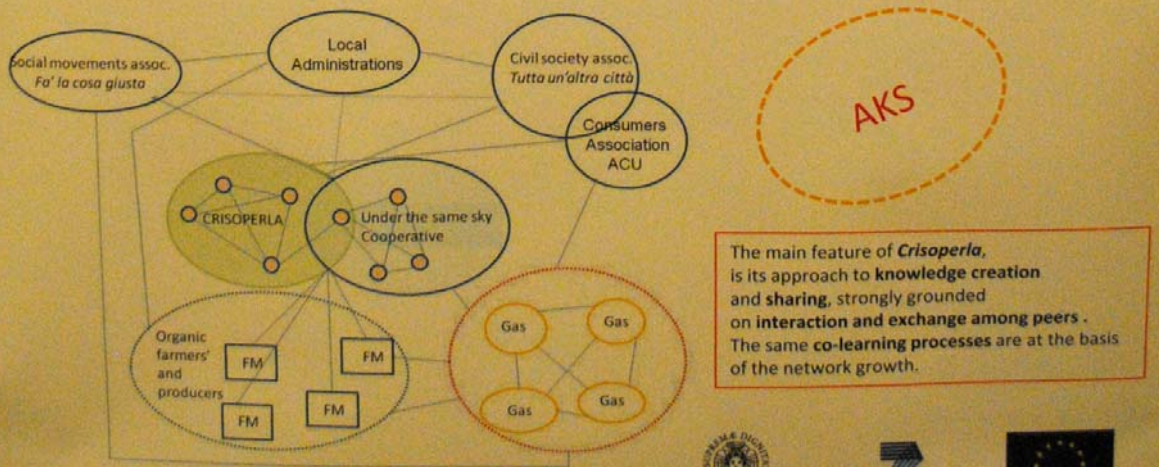
Functions of the LINSA
- linking consumers and producers
- organizing farmers' market
- providing and sharing technical support
- activating learning among producers and between consumers and producers
- interacting with public institutions and civic movements

The beginning

2006. **Two technicians** start their collaboration giving technical assistance to organic farms within a project funded by the Regional Government of Tuscany.
2007. They follow a course on communication and project planning funded by the Regional Government.
2008. After the course they **start to network** with organic farmers and honey producers.
Together with them they **apply to other projects funded by the Province of Massa**.
The group consolidates to a number about ten farms.
2009. The two technicians get in contact with GAS (solidarity purchase groups) of Massa province. They favour interactions between GAS and farmers.
Together with other associations, they help organic farmers to organize farmers' markets in the province.
2010. Some GAS members and the group of farmers **decide to create an association, *Crisoperla***.

The network now

A broader, **hybrid network** able to mobilize knowledge and other local resources from outside AKS



The main feature of ***Crisoperla***, is its approach to **knowledge creation** and **sharing**, strongly grounded on **interaction and exchange among peers**. The same **co-learning processes** are at the basis of the network growth.

UNIVERSITÀ DI PISA

SEVENTH FRAMEWORK PROGRAMME

Funded by the European Union


Closing the loop through nutient recycling : Towards a more eficient resource management
The Lombardy Example: A Local System for the collection, recovery and distribution of recycled nutrients from municpal and organic waste to agriculture.
CITIES
MUNICIPAL WASTE WATER
ORGANIC FOOD WASTE
WASTE TREATMENT AND STORAGE CENTRE WHERE NUTRIENT RECYCLING TAKES PLACE
FOOD CONSUMPTION –HUMAN CONSUMPTION OF SOME NUTRIENTS
FOOD PROCESSING WASTE TRANSPORTED TO THE PLANT
FOOD PROCESSING
NUTRIENTS RESTORED TO THE SOIL
CROP PRODUCTION– NUTRIENTS REMOVED FROM SOIL
FARMS
RENEWABLE ENERGY AS BY-PRODUCT
For information about de project please contact: rise@risefoundation.eu
www.risefoundation.eu
www.neorurale.net
acqua & sole
RiSE

PROGRAMMA
PRECISIE
LANDBOUW

- Nieuwe technieken om in te spelen op de specifieke lokale (bodem) omstandigheden.

- Optimale efficiëntie van gewasbeschermingsmiddelen, meststoffen, brandstof en water.

controlled traffic farming

gewasbescherming

bemesting

In het Programma Precisie Landbouw (PPL) investeren het landbouwbedrijfsleven en het ministerie van LNV in hulpmiddelen en voorwaarden voor innovatieve Controlled Traffic Farming, Bemesting en Gewasbescherming.

www.pplnl.nl

Dairy Farming and Education

DAIRYMAN

Flanders (B)

- Example of successful cooperation between a dairy farmer and several organisations in the realisation of education of children and students

Dairy farm
- Education since 2011
- 120 dairy cows, 40 ha, zero grazing
- 2 labour units

Plattelandsklassen vzw
(Landelijke Gilden, Boerenbond)
- Since 1987
- Agricultural education by network of app. 70 farms, development of educative material
- Target group: schools (3 to 18 years)

Muisje Pierlepein
(Provinciale landbouwkamer Oost-Vlaanderen)
- Since 2004
- 19 farms
- Target group: individuals and groups (children and adults)

Melk4kids (VLAM)
- Since 2007
- 88 dairy farms
- Target group: schools and youth associations (3 to 12 years)

- Added value for all partners and stakeholders

Critical success factors
- ✓ Infrastructure (room for education, education materials, ...)
- ✓ Open minded
- ✓ Creative to adjust the educative tour to the public, the theme of the tour, age of the children,...
- ✓ Good time management

Peter Boghaert and Tineke D'Hondt

Dairy Farmer

+

- ✓ Financial compensation
- ✓ Sustainability image dairy sector

Cooperation

Plattelandsklassen vzw

Muisje Pierlepein

Melk4kids

VLAM

Melk4Kids

Pierlepein

+ + +

- ✓ Reduce distance between broad society and dairy farming
- ✓ Inform children on the origin of their food and the activities on a farm
- ✓ Raise interest in agriculture
- ✓ Offer training to farmers to guide groups of children on their farm

More info: www.plattelandsklassen.be
www.pierlepein.be
www.melk4kids.be

www.interregdairyman.eu

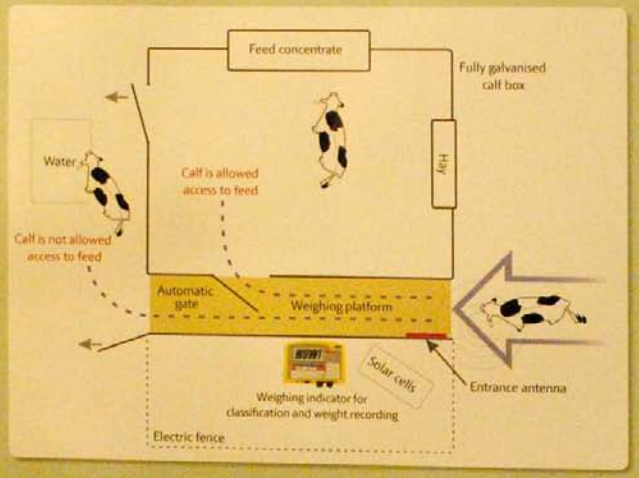
The Intelligent Calf Feeding Box

KNOWLEDGE CENTRE FOR AGRICULTURE Cattle

JYFA Engineering

TRU-TEST Scandinavia

The 2011 Annual Workshop
'New Technologies and new challenges for breeding and herd management'.

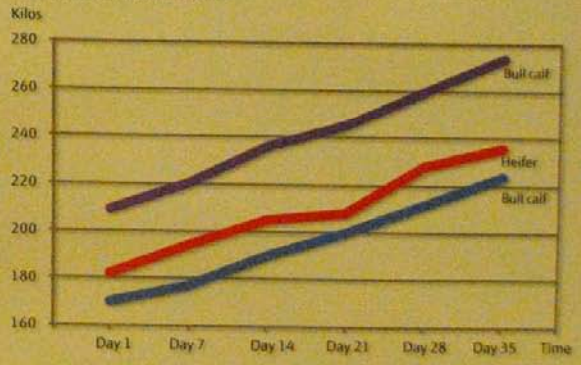


- The **Entrance antenna** identifies the animals by their electronic ear tag.
- The intelligent calf feeding box lets you control which animals from the herd should have access to concentrate. All the animals are weighed by walking through the box on a **'Walk-Over-Weighing'**. The animals do not have to stop to have their weight recorded.
- The power supply for the box is from a battery recharged by solar cells.
- The **Weighing platform** with the weighing indicator is removable and can be used in the field as well as in the barn.
- Weighing data will be transmitted via 'Dyreregistrering' to The national cattle Database and could be retrieved from the control lists.

Knowledge Centre for Agriculture, Cattle, Denmark[1] has developed an intelligent calf feeding box for use in beef cattle herds.

The box has been developed in cooperation with the companies of **JYFA Engineering**[2] and **TRU-TEST**[3].

Weighing data from the intelligent calf feeding box. Calfs are weighed every time they visit the box. The three calfs are all Limousine.



DLBR

InCrops
Knowledge. Innovation. Enterprise.

Innovation in Crops
An innovation partnership supporting growth in the low carbon bio-economy

InCrops bridges the gap between the rural and knowledge based economies.

East of England Agri-business industry is worth £8bn pa

East of England knowledge based economy
- 11 universities and 49 research institutions
- Knowledge-intensive services account for 43% of jobs

Partners ↔ InCrops ↔ Clients

Research organisations with expertise in plant and crop science

Expert team of staff with academic and business skills to bridge the gap between R&D, business and regional economic growth and provides business support

SMEs
- Technology developers
- Biomass suppliers
- Manufacturing companies
- Design companies
- Farmers
- Consultancy companies
- Project developers

Bespoke advisory services for businesses

Technology & materials knowledge transfer → Market assessment → Accessing funding → Business development

- Environmental and low carbon strategies (including life cycle analysis)
- Supply chain development

InCrops brings together research and innovation expertise of academic partners and businesses.
- Phytochemicals
- Biorefining
- Algal Technologies
- Biopolymers & Biocomposites
- Renewable materials for the Built Environment
- Functional Foods & Medicinal Plants
- Soil Improvement

Strategic context and impact

Harmonisation of EU and UK policy

Evidence to inquiry of UK House of Lords select committee into Innovation in EU Agriculture a proposal for European Innovation Network for Agriculture

Case Study one: Hemp

InCrops has conducted field trials to evaluate the properties of hemp varieties transferring this knowledge to the hemp growing community. It has facilitated the agricultural engineering development of an efficient method of hemp harvesting and supported businesses in the hemp supply chain delivering hemp based building materials.

Case Study two: Algae

InCrops has collaborated with industry in a wide variety of sectors, including energy, food, feed, and fertilisers to facilitate the development and patenting of processes utilising varieties of algae to provide bio-remediation services. CO_2 and NO_x can be scrubbed out of flue gases, and nitrates, phosphates and certain heavy metals removed out of waste water. High performance fertiliser with low carbon footprint is another possible application. One particular benefit of this technology is that it can recover, and recycle, most of the water used in beef production, which is a highly water intensive industry.

Case Study three: Exemplar Low Carbon Building

New ERDF funded project on low carbon sustainable building. The £15.2m / €19.1m Exemplar Building.

Innovation:
- Around 300 small businesses assisted
- 39 successful innovation-related initiatives originated
- 31 businesses integrated new products, processes or services

Low carbon economic growth:
- Enabled the creation of over 50 new jobs and 18 new start-ups
- Levered in €2.4m of public and private sector funding
- Development of low carbon products in supply chain

Knowledge transfer:
- over 40 businesses supported in new collaborations

Our track record

William Anthony, EcoTechnilin and José Manuel Barroso, EC President

InCrops Knowledge. Innovation. Enterprise. adapt UEA

Contact us: www.incropsproject.co.uk Tel: 0044 (0)1603 591765 twitter: @incrops

InCrops draws upon the expertise of 19 world-class research institutes

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