

# *The co-innovation work in PURE-IPM*

*Towards innovation-driven research projects*

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# IPM: what and why

- Pesticide use in agriculture: risks for environment and public health (users, consumers)
- EU policy (SUD): reduce pesticide use and impact by means of Integrated Pest Management (IPM).
- IPM: management strategy
  - Prevention
  - Decision support
  - Interventions
    - Non-chemical
    - Chemical

Photo: Jens Erik Jensen



# PURE-IPM

- PURE-IPM: FP7 research project  
*'providing IPM solutions for selected EU farming systems'*
- Specific work package dedicated to exploration of co-innovation approach in four pilots:
  - Wheat-based systems: DK, F
  - Outdoor vegetables: D, NL
- Aim: development of the approach
  - action research



# Co-innovation

- Characteristic
  - challenge or problem driven, focus on innovation
  - a multi-actor process, based on equality, different expertises
  - a social learning process
- Requires a different management approach
  - Exploration of challenges, agenda setting, system context, stakeholder involvement etc
  - Skills and tools
- Innovation:  
the implementation of a new practice that contributes to long term business continuation



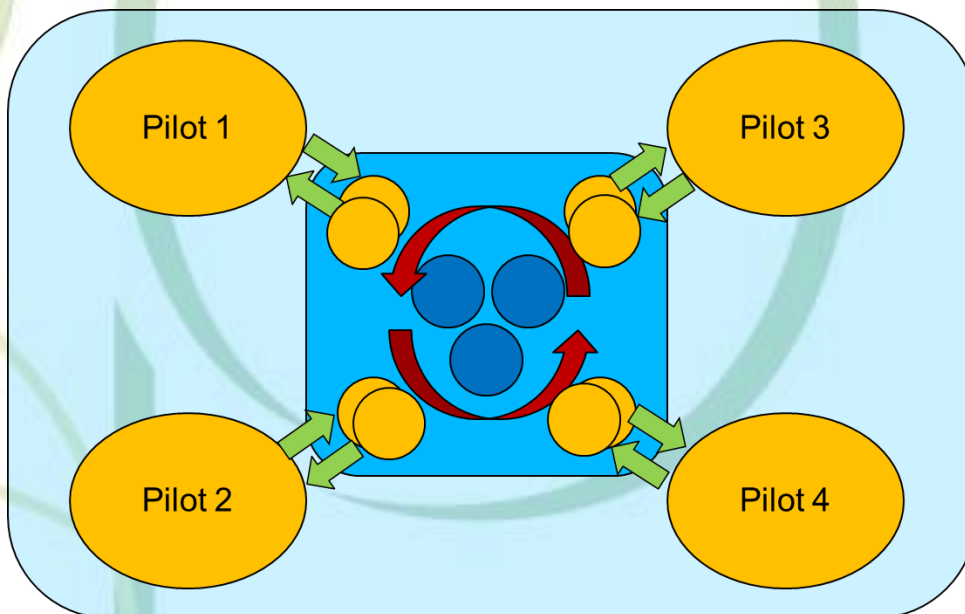
# Co-innovation pilots

- To develop a new practice for advisors & researchers:

- Provide basic training, coaching,
- Organise monitoring
- Share learning
- Group work as pilots
- Monitor and evaluate: Action research

- Structure

- Two persons/pilot interact with
- Core team with facilitator, monitor and trainers (on demand)



# How we started

- Basic point of view:

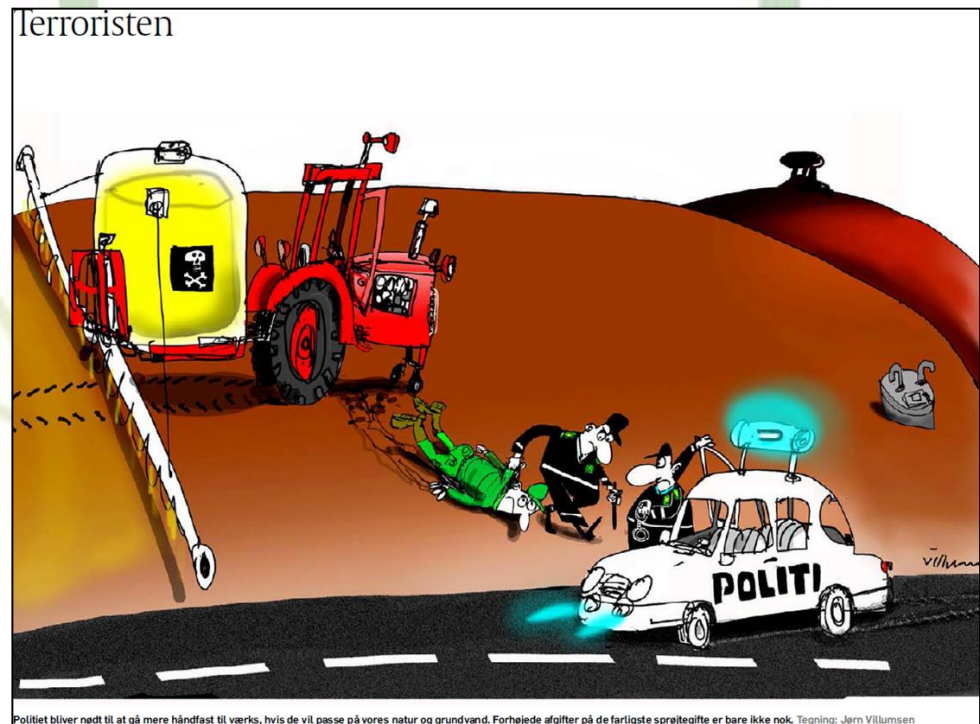
- IPM is a farmer-driven innovation in a
- multi-actor context (public and private demands)
- It is therefore multi-objective (economy agronomy= ecology etc)
- Pest management is integral part of the farming system
- Start with farmers outlook on the future
- Capture ideas and innovations



# Denmark: facing the future

- Workshop with farmers and advisors
- Societal pressure on pesticide use
  - Scenario: ban on pesticides in the (near) future?
- Main problems perceived
  - Weeds
  - Diseases
- Solutions:
  - Wider row cropping
  - Mech. weed control
  - Variety mixtures

From a Danish newspaper



Politiet bliver nødt til at gå mere håndfast til værks, hvis de vil passe på vores natur og grundvand. Forhejede afgifter på de farligste sprøjtgifte er bare ikke nok. Tegning: Jern Villumsen

# Denmark

- Main question of the farmers:
  - What are the practical, agronomic and economic effects?
  - Can we influence society, policy and farmers with this approach (experimentation and communication)?
- Different on-farm experiments:
  - With parts of the concept on different farms
  - Facilitated by advisors
  - Exchange experience
- Communication:
  - Open field day for farmers (mechanical weed control)
  - Presentation of farmer for coop board





# Denmark

- Summer/autumn 2012 very bad weather conditions:
  - spraying unavoidable
- Yield result almost comparable to ‘standard’
  - Not bad, but still with spraying
- Issues:
  - Equipment
  - Practical skills
  - Impact at farm level (other crops)



# France

- Start: INRA suggested management extensification, rejected by farmers (existing network)
- In 2012/13: co-design workshops for individual farms (research, advisory, farmers)



- Follow-up: different tracks
  - On-farm (implementation, experimentation)
  - Research / dissemination (general agronomical results)
  - Development of co-design approach (Reau *et al*, 2013)



# Some reflections

- Co-innovation requires good facilitation
  - skills of facilitator and tools
  - different attitude needed from researchers and advisors
  - training & coaching

- Key elements

- Exploring the future,
- System context,
- Stakeholder involvement,
- (Co) design
- Experimentation (conditions for)

facilitate learning,  
reflexivity

dynamic learning agenda,

Project set up should allow  
dynamic approach



# More reflection

- What's the role and function of (scientific) research for innovation in practice?
  - ITS NOT THE STARTING POINT
  - Research can have an important role (sometimes limited)
  - It starts with the challenge that is adressed
  - Providng input in the dialogue (status quo knowledge)
  - Listen and pick up innovations
  - Knowledge and innovation agenda
  - Engage in co-design and experimentation
  - More attention needed for innovation context
  - Research is not solely responsible for solutions and implementation, stakeholders need to be involved
  - Different actors different expertise different roles, respect that.



Co-innovation is not...

Magic!



But it is...



**Work in progress**

With adequate road map,  
skills and tools  
It can deliver lasting  
results.

