



Networks for Innovation in Agriculture

W. Sukkel

Workshop Knowledge circulation and generation

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Personal introduction

- Wijnand Sukkel
- Agronomist, Specialist organic plant production

Applied Plant Research (PPO)
Wageningen University and Research Centre (WUR),



Organic Agriculture needs
a specific approach in (applied) research and
knowledge transfer

The linear knowledge model does not work for
the development of organic farming systems



Linear Knowledge Transfer

Research (analysis)



Advice + Education (synthesis)



Practice (application)



Conventional	Organic
Uniformity	Diversity
Recipy	Concept
Reductionism	Holism
General	Situational
Control	Cooperation
Specialist	Universalist
Reaction	Precaution
Economy	Ecology
Global	Regional

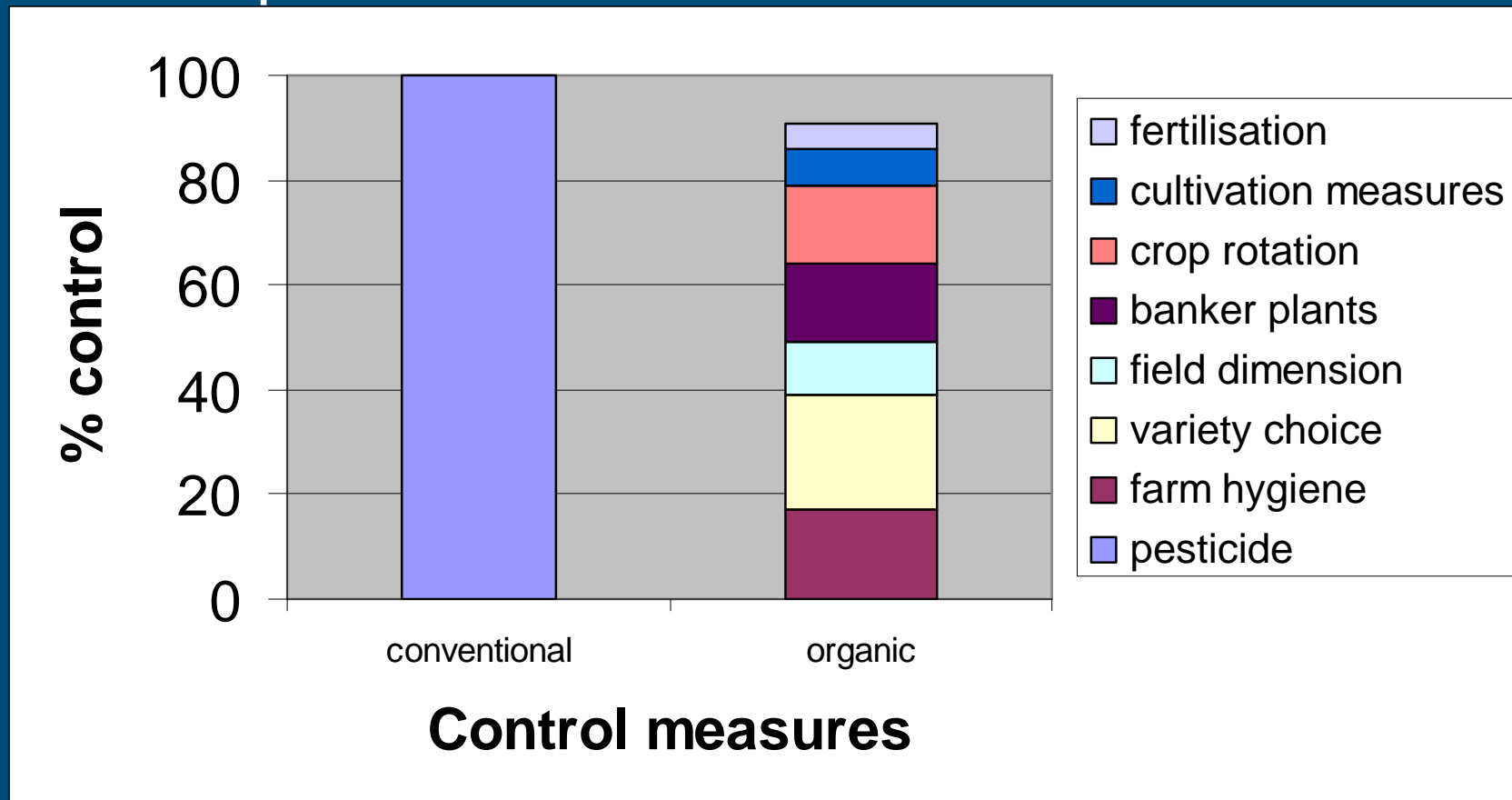


Consequences values and intentions organic

- Few monofactorial solutions
- Available methods and techniques have complex effects on farm performance
- Application of methods and techniques is situational



Control pest x



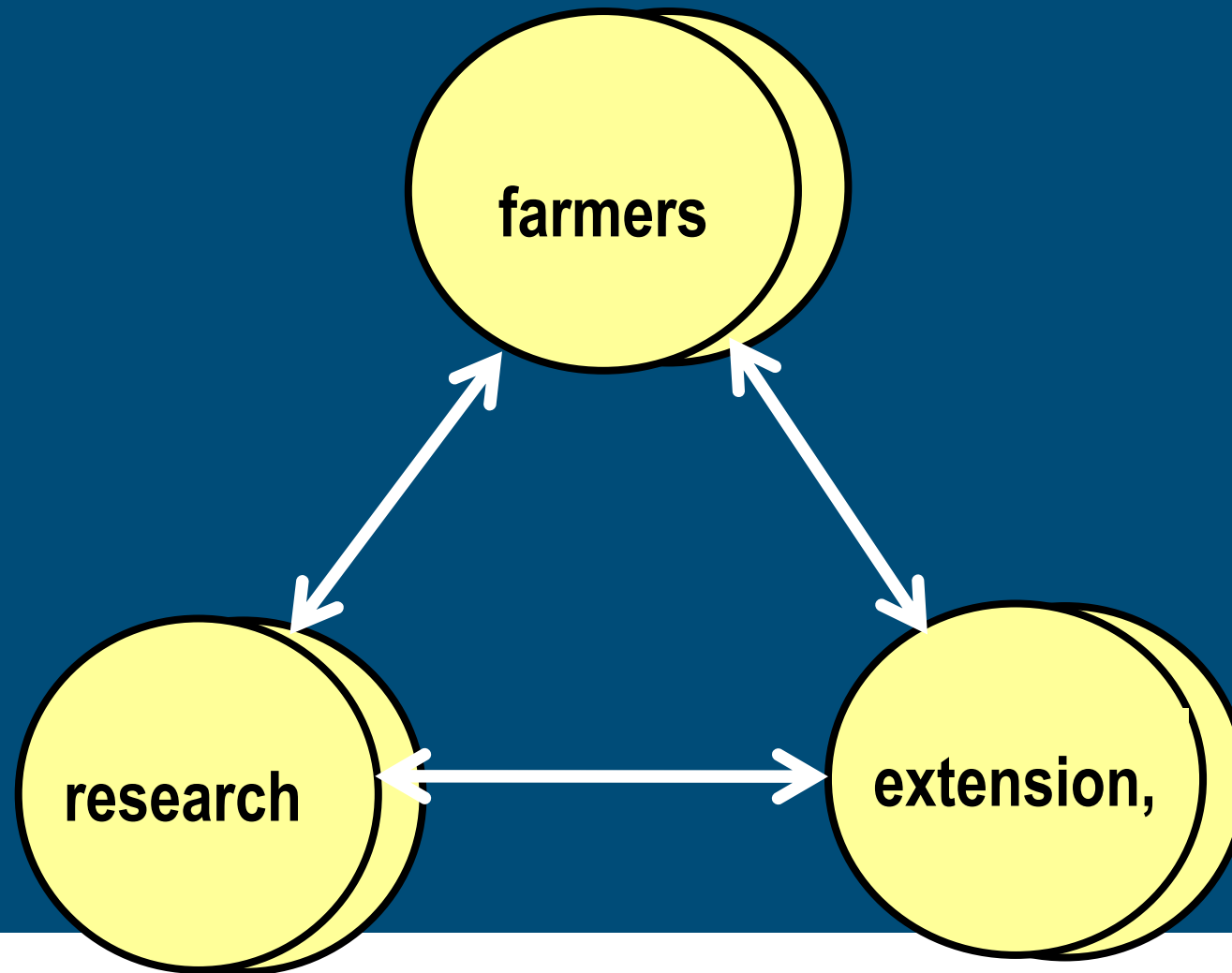


Partners in knowledge network

- Farmer: craftsmanship, experience knowledge
 - Integrated methods and strategies instead of recipes
- Advisor: integrated practical knowledge
 - Application of methods under different circumstances
- Researcher: Formal knowledge, concepts
 - processes and systems, integration of disciplines
- Changing roles and skills of partners in network
- Basic information through internet

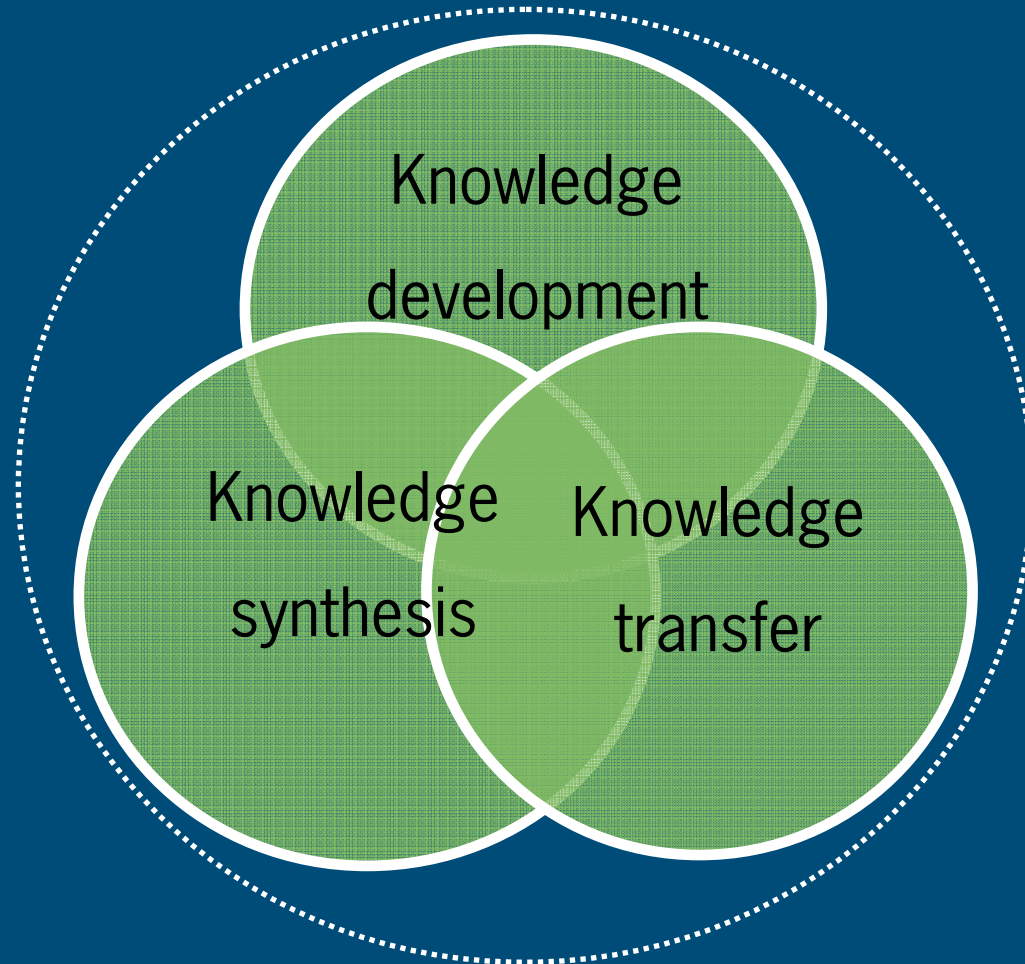


Participatory approach





Integrate development, synthesis and transfer





APR Farmers networks in the Netherlands

- Farmers networks since 1990
- Momentarily two main projects in plant production
 - BIOM (organic), 50 farmers
 - Farming with Future (integrated), 350 farmers
- Regional and sector groups of 5-15 persons
- Objectives:
 - Farming with Future: Implementation/support of policy (pesticide and nutrient emission)
 - BIOM: development organic farming



Main Principles

- Development, synthesis and transfer of knowledge is integrated
- System approach
- Learning by doing and seeing
- Knowledge input of partners is valued equal
- Learning from colleagues, advisors, researchers



Ingredients

- Regional and/or thematic farmers groups
- Farm visits, meetings, excursions, demonstrations
- Involvement various stakeholders
- Farm Registration
- On farm research



Objectives

- Implementation of Policy
- Individual farm development (People, Planet, Profit)
- Support and stimulation of innovation
- Regional development
- Sector development (total chain)

- Set up and organisation of network dependant of objectives



Functions

- Provide policy information, statistics
- Lobby, interest care
- Identification bottlenecks (research, policy, ..)
- Platform for cooperation
- Steering research
- Testing and improving methods
- Research facilities



Advantages network

- Faster knowledge transfer
- Improved acceptability and managability of new methods
- Open up and exchange op experience knowledge
- More cooperation among farmers
- Improved innovation drive
- Better insight in farming bottlenecks



Critical succes factors

- Skills of workers
- Selection of participants
- Objectives and targets supported by participants
- Involvement of right stakeholders
- Win-Win situation for all involved
- Take care of hardware, software and orgware



Whats in it for me?

- Farmers
- Researchers
- Advisors
- Suppliers
- Trade parties
- NGO's
-



Pitfalls and disadvantages

- Knowledge stays with participants
- Participants lose interest
- Short term economy is leading

- Effects can be hard to measure
- Costs?



Integrate development, synthesis and
transfer of knowledge

Farmers networks are a valuable tool to
achieve this!



APPLIED PLANT RESEARCH

Farming with Future



Objective project

- Stimulate application more sustainable farming methods in broad practice
 - Plant production in covered and field crops
 - Main focus on crop protection and fertilisation
- Reduction of environmental pollution

- Related to the “Covenant Crop protection”, and the policy of The Ministry on crop protection and fertilisation



Expected results

- Newest knowledge from research is tested by farmers under diverse conditions
- It became clear which methods are feasible and effective
- Constraints and questions are communicated to the government and the research organisations
- Agricultural organisations, advisory services and agribusiness actively promote the gained knowledge and experience with the tested methods
- The effective and feasible methods are being used by many farmers in practice



Critical success factors

- For a successful application in broad practice,
 - Support from advisory services and agri-business is needed and
 - An active role from these organisations in the dissemination of knowledge and experience
- Again a key issue in the project
 - Inform them over and involve them in project
 - Initiate and organise together activities



Critical success factors

- For a successful application in practice (farmers point of view), the farmer has to
 - Know (knowledge of techniques and methods),
 - Be able (in technical and economical terms, labour, risks, costs etc.)
 - Have the will (vision and motivation) and
 - Be allowed to do so (“socially desired” behaviour, acceptance in network)
- All these issues have to be taken care of



In the heart of knowledge development

- Farming with future uses the newest knowledge
 - From government sponsored research programmes on crop protection and fertilisation
- Links this with
 - The practical experience and innovative powers of farmers
- Develops and tests
 - Together with farmers practicable effective and feasible methods for more sustainable farming systems
- Disseminates new knowledge via the network of advisory, agri-business et.
- Questions, chances and constraints are communicated to research and policy (agenda)



Project set-up

- Start with groups of 10-15 farmers, able and willing to develop their farming methods
- Directly connect to agricultural organisations, agri-business and advisory services related to the group
 - Involve them in project and initiate common activities
- Farmers contribute with expertise and innovations and test new methods in practice
 - In coöperation with research and advisors
- Disseminate the tested knowledge and methods
 - Via the network of the farmers
 - Support this with specific technical and practical information

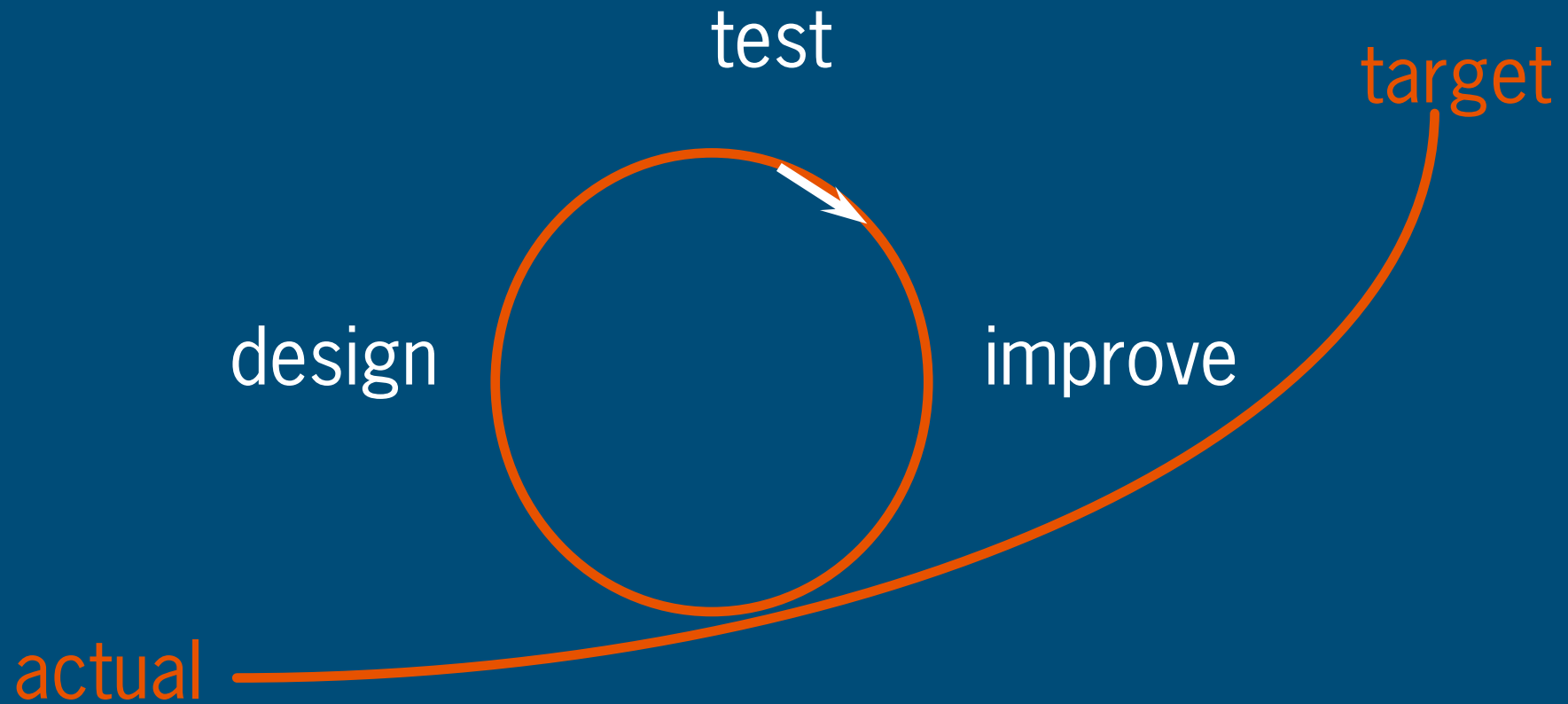


Unique approach project

- Farmers link their practical expertise with the results of agricultural research
 - In close coöperation of farmers, research and advisory services
 - Using all the experience of the different groups involved
 - Testing in practice innovations from farmers and the youngest knowledge and results of agricultural research
- Farmers, agricultural organisations, advisory services and agri-business disseminate the tested knowledge



Testing and improving





Agricultural treadmill

- Market demands and low costprice
- Uniformity and high production
- Scale enlargement
- More vulnerability
- Higher protection (sterile conditions)

(free interpretation Cochrane)



Total system approach and participatory development are crucial steps towards organic agriculture that makes true its intentions