

Communicative Management of Transdisciplinary Research

Experiential Theory

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What is Transdisciplinary Research?



Interdisciplinarity

- Communication and co-operation of scientists,
- Having different disciplinary backgrounds,
- (Within a defined group);
- Aiming at **generation** of **knowledge**



Transdisciplinarity = „Joint problem solving amongst science and society“

Transdisciplinarity conference, Zürich 2000



What makes the Difference?

... to other forms of research...



Td goes beyond Research!

Problem solving
(= generation and use of
knowledge)

→ **Implementation**

Exit the „Ivory Tower of Science“!



Transdisciplinarity

„Joint problem solving amongst science and society“

- Co-operation and Participation of Science and Practice (= knowledge producers, disseminators, and users)
 - ➔ together/interaction with all (relevant) stakeholders
- Problem orientation: Contributions to **solve** real problems of societies/ of stakeholders
 - ➔ (Activities towards) **Implementation!**
- Need of flexible organisational structures
 - ➔ Often „inter-institutional“ research („projects“, „consortia“), Third-party founded



Communication and co-operation of
scientists and non-scientists

The **A**gricultural **K**nowledge and **I**nnovation **S**ystem Theory



Definition

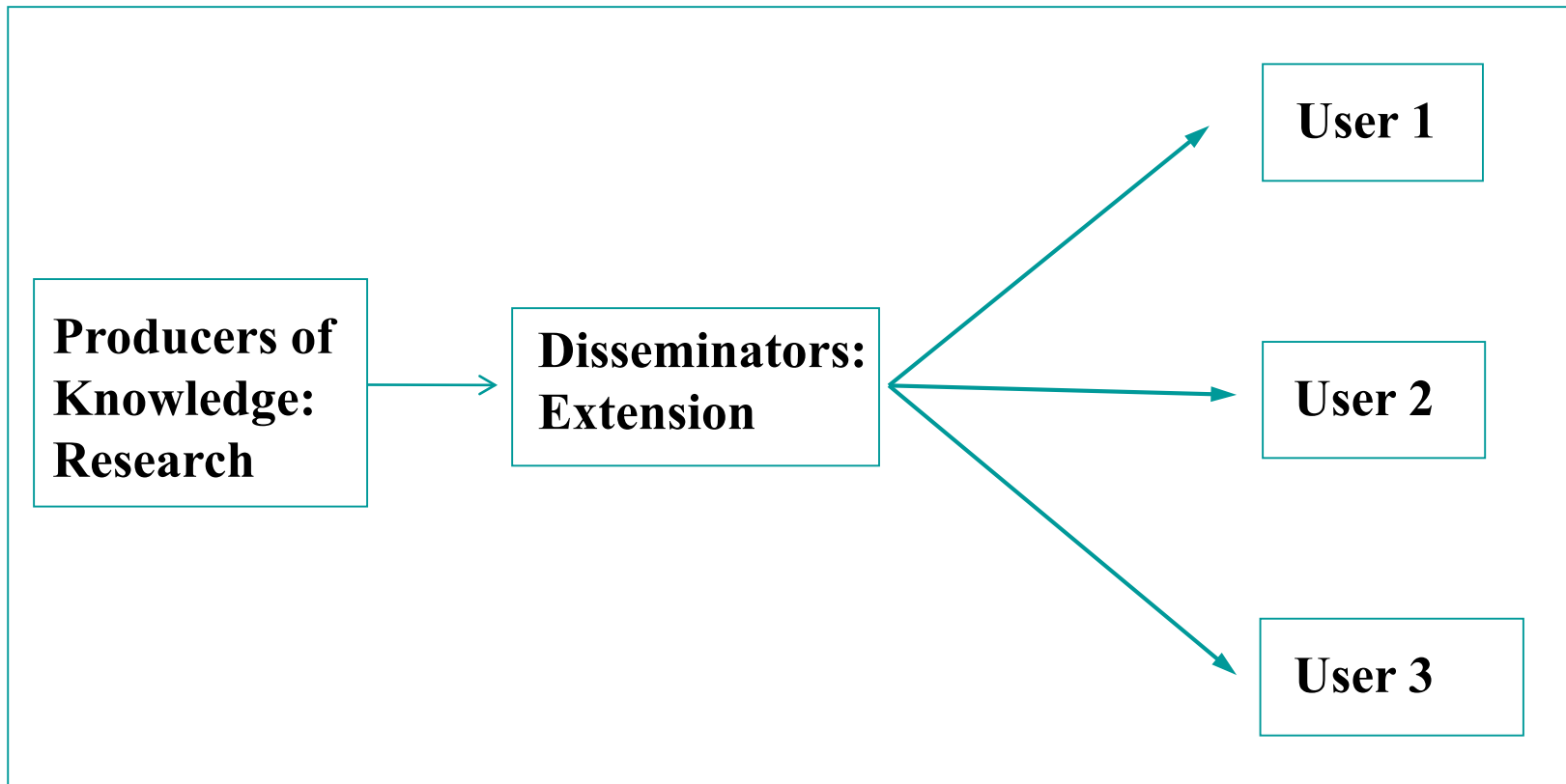
A **system** that **links people and organisations** to promote mutual learning, to generate, share, and utilize agriculture-related technology, knowledge, and information.

Components of an AKIS are diverse actors from the private, public and non-profit sectors relating to agriculture. The system may include actors such as farmers, farm workers, agricultural educators, researchers, non-academic experts, public and independent private advisors, supply chain actors, and other actors in the agricultural sector.

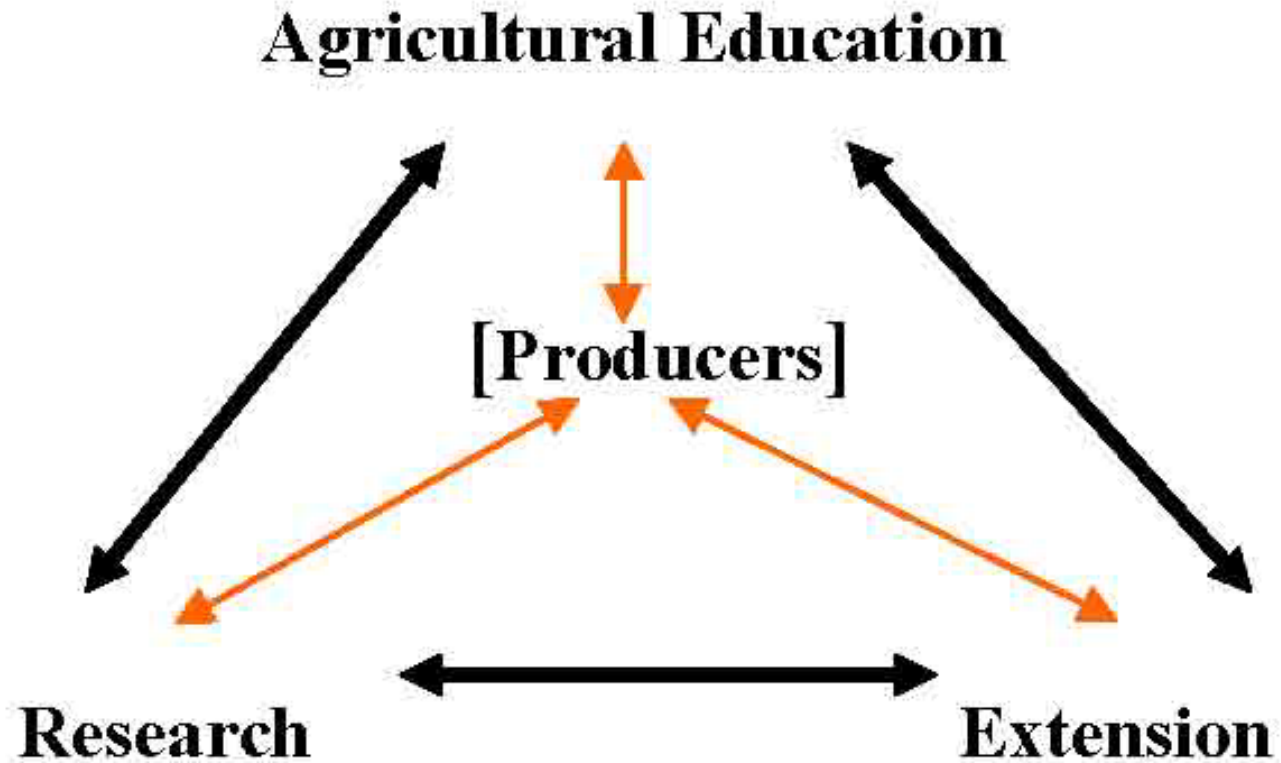
(Source: PROAKIS project)



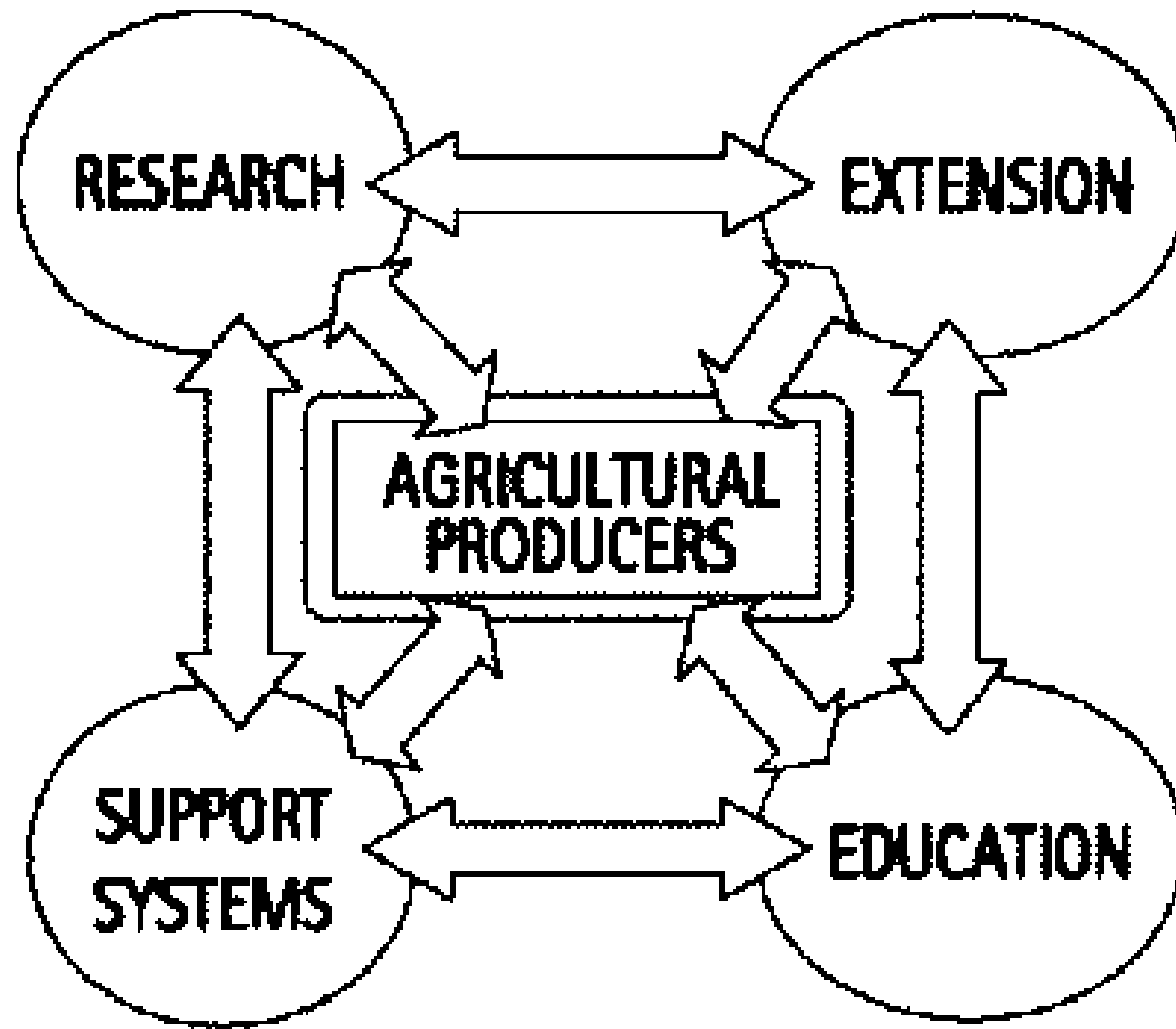
The classical „transfer of technology“ concept (mode-1)



Research, Extension & Education towards „the users“



Source: Rivera, William 1995

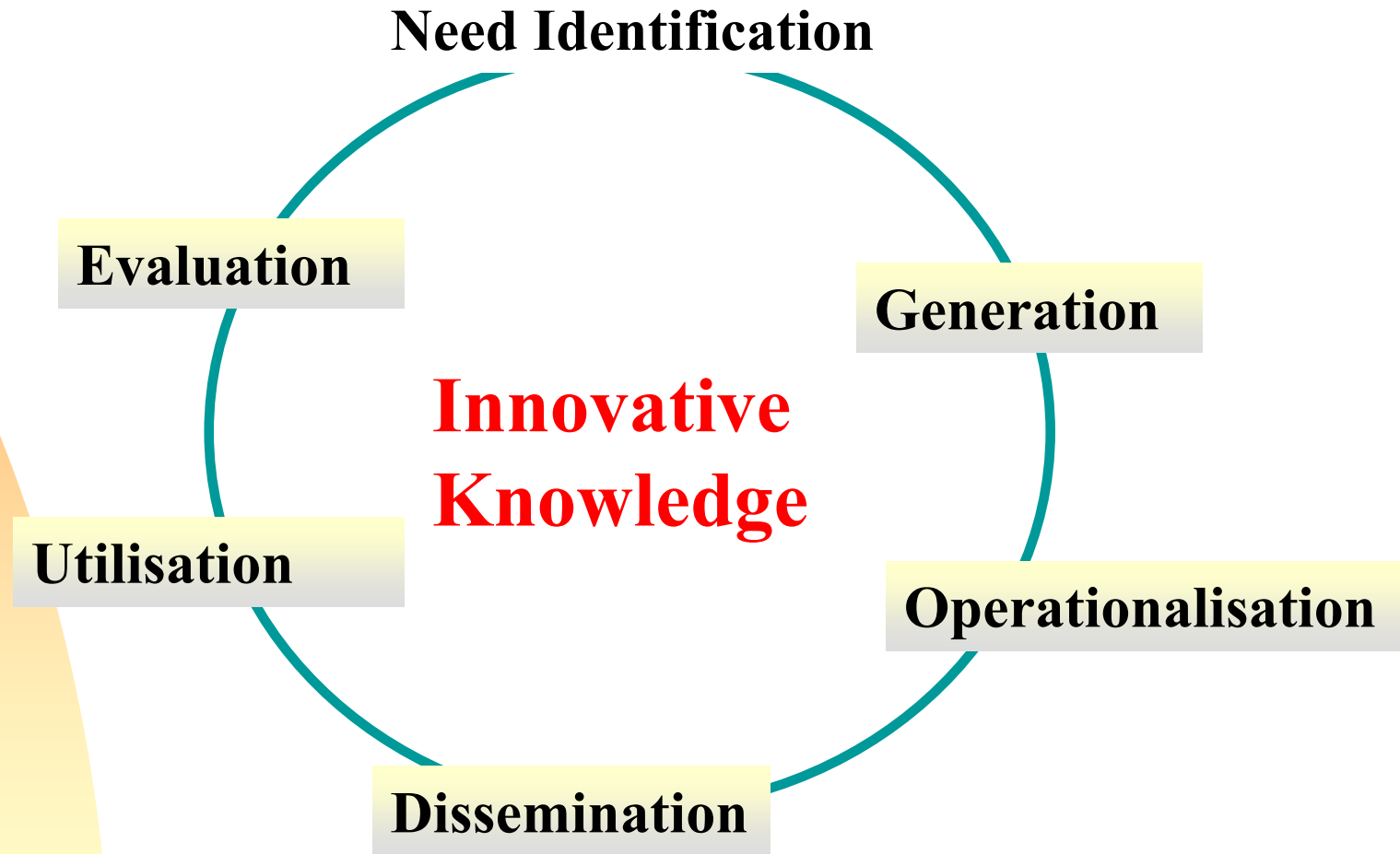


Source: Rivera et al. 2005

Recent concepts focus on „Innovation“: AKIS

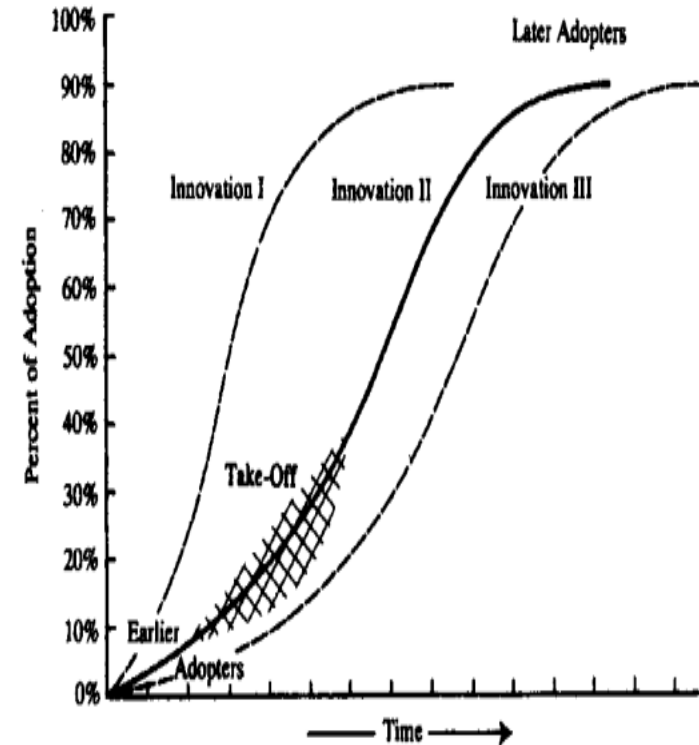
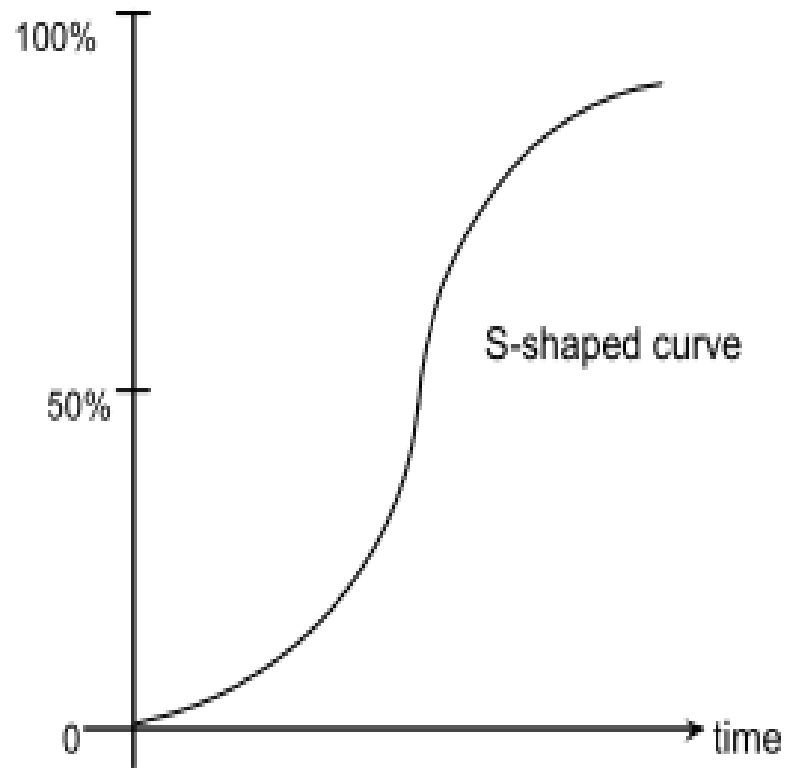


Basic Functions of an AKS (Nagel 1979)



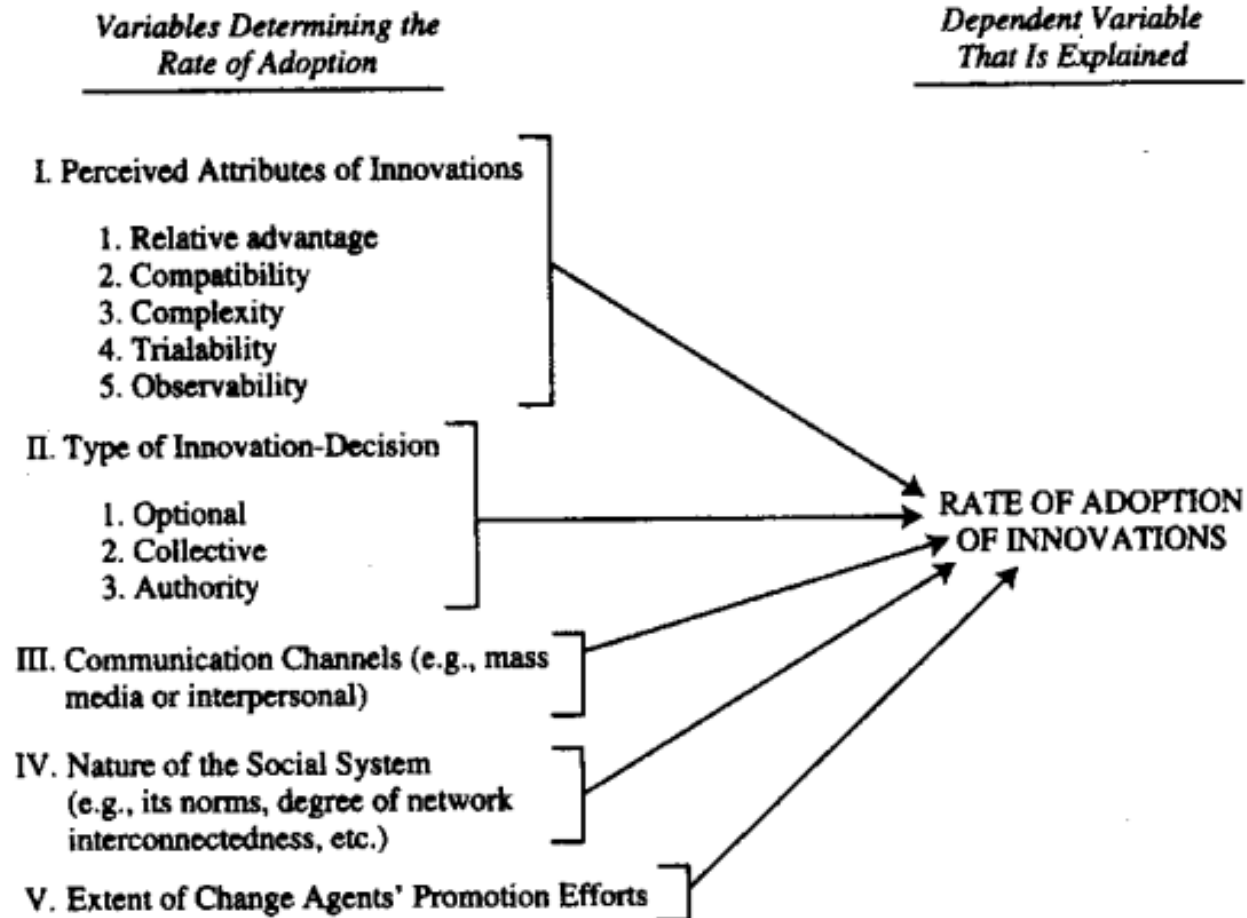
The Diffusion of innovations theory

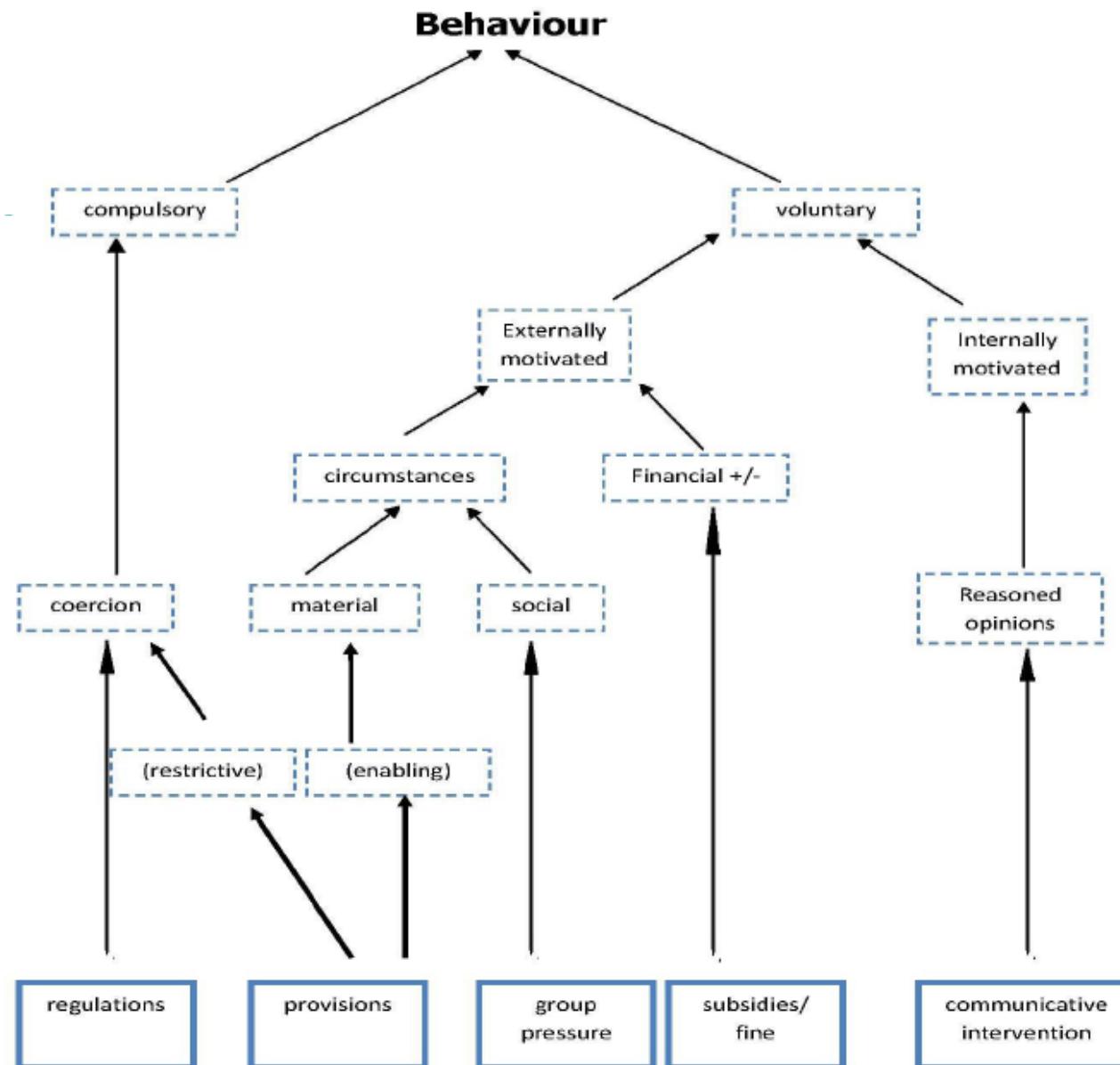
'S-Shape curve'



Diffusion is the process by which (1) an *innovation* (2) is *communicated* through certain *channels* (3) over *time* (4) among the members of a *social system*.

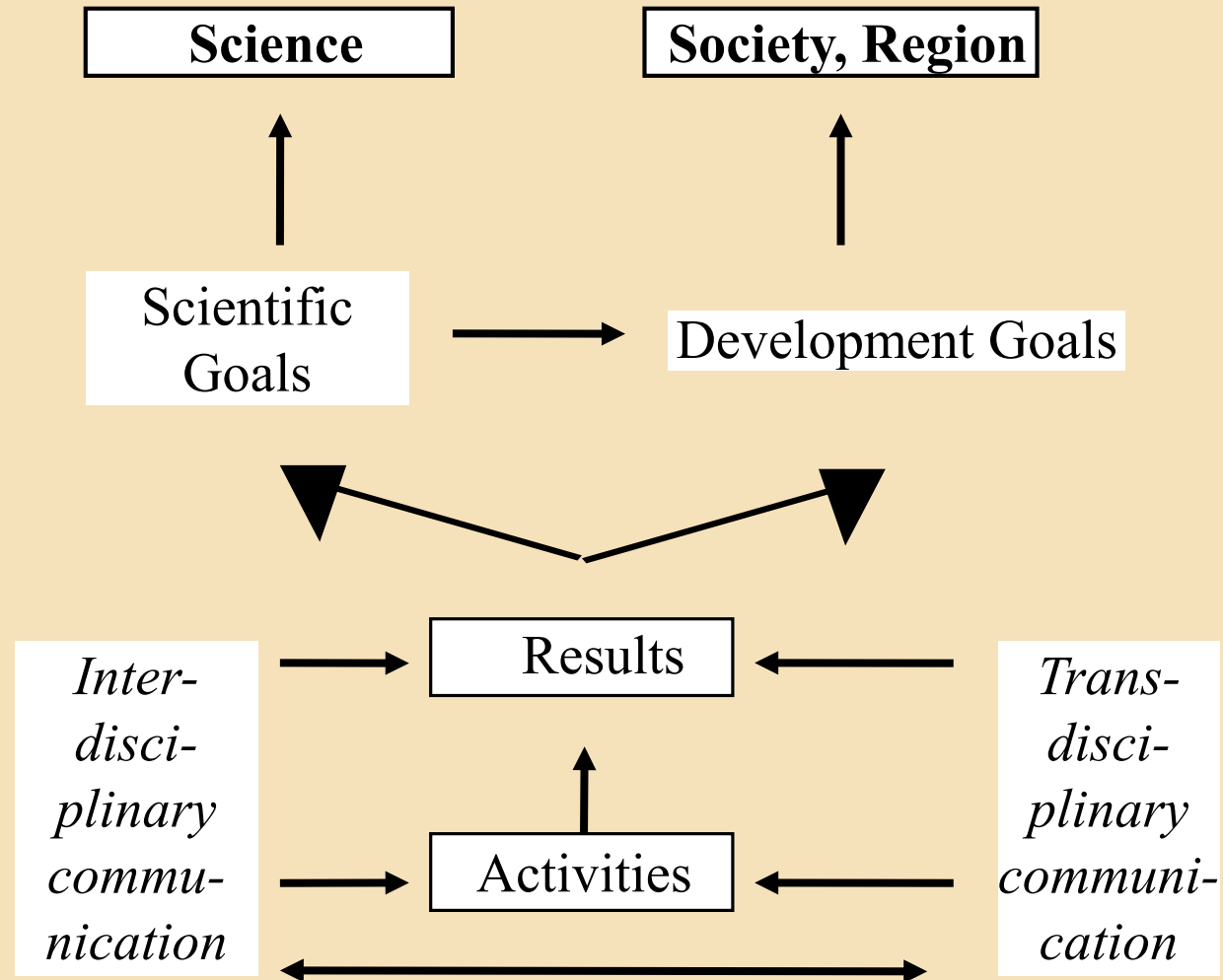
Variables determining the rate of adoption of innovations





The relationship between communicative intervention and other policy instruments aimed at stimulating behavioural change, as conceptualised by Van Woerkum (1990), cited in: Leeuwis (2004), p.51

Objectives of transdisciplinary Research



It is a Team Approach!

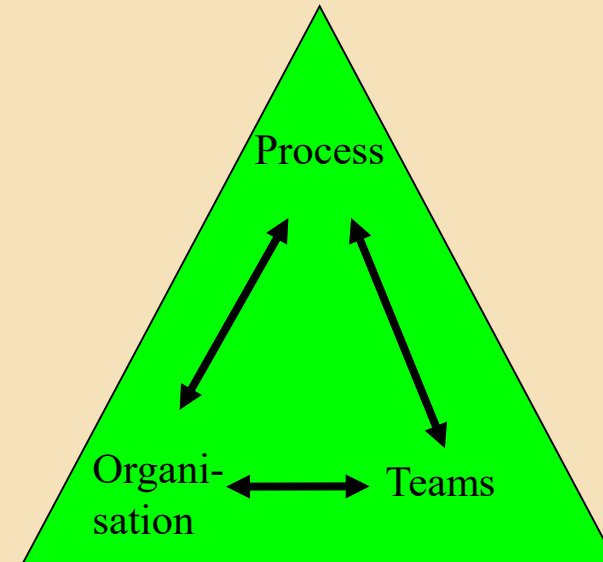
**Smaller „teams“ within a larger
group, the „organisation“**

Problems of research in large groups

- ❑ Conflict of interests, paradigms, procedures
- ❑ Different views of problems
- ❑ Unclear objectives, status, hierarchies
- ❑ personal and subject-based conflicts escalate
- ❑ lengthy group dynamic processes
- ❑ ➔ inefficiency, disintegration, break-off
- ... are often related to group communication
- ... increase with group size and heterogeneity
- ... need inner-group management

The communication System „large research team“

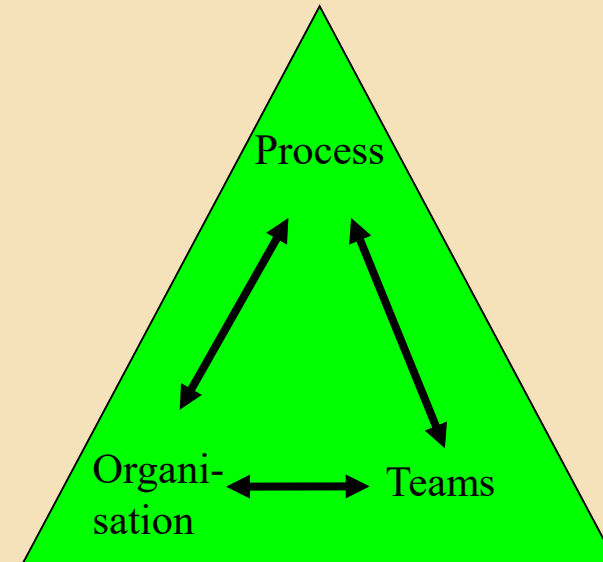
- ❑ Direct **Team** communication: group dynamic processes within various formal or informal small groups;
- ❑ **Organisation** communication: direct communication within the large group, indirect communication between teams, creation of project structures
- ❑ **Process** communication: planning, monitoring and evaluation of networked activities (projects) at different levels: large group, teams, meetings, workshops



Integration as an objective!

Integration must refer to all three levels

- ❑ Integration of scientists and practitioners in teams and the organisation;
- ❑ Built up effective and flexible organisational structures and clear the roles of group representants
- ❑ Agreement on interlinked goals, indicators on output and impact level, evaluation methods and procedures



MANAGEMENT BY COMMUNICATION

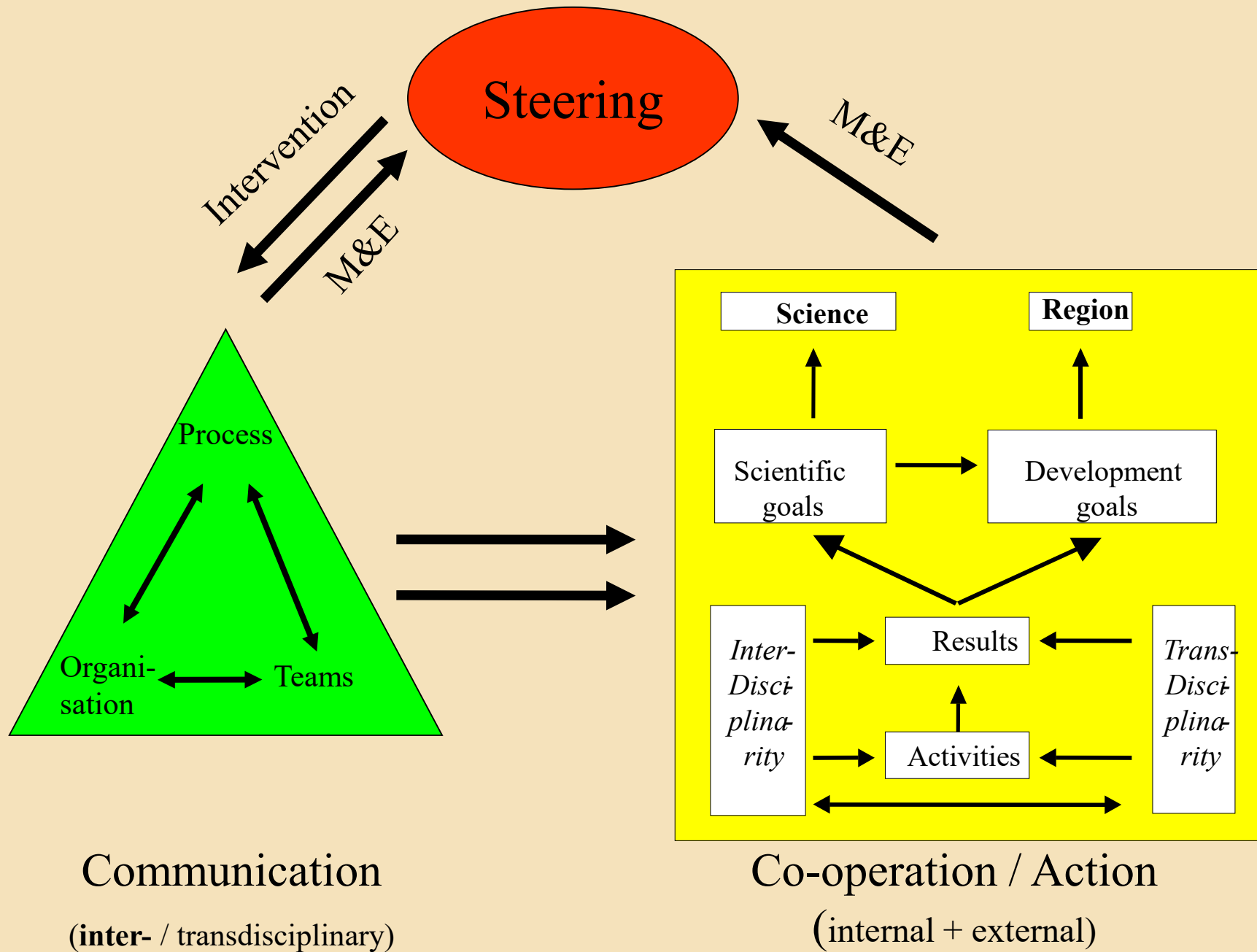


The pragmatic aspect of communication:

communication

steers co-operation

(Watzlawick, Beavin and Jackson 1990: 22)



Literature

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