Synergia Societal Aspects

WP5

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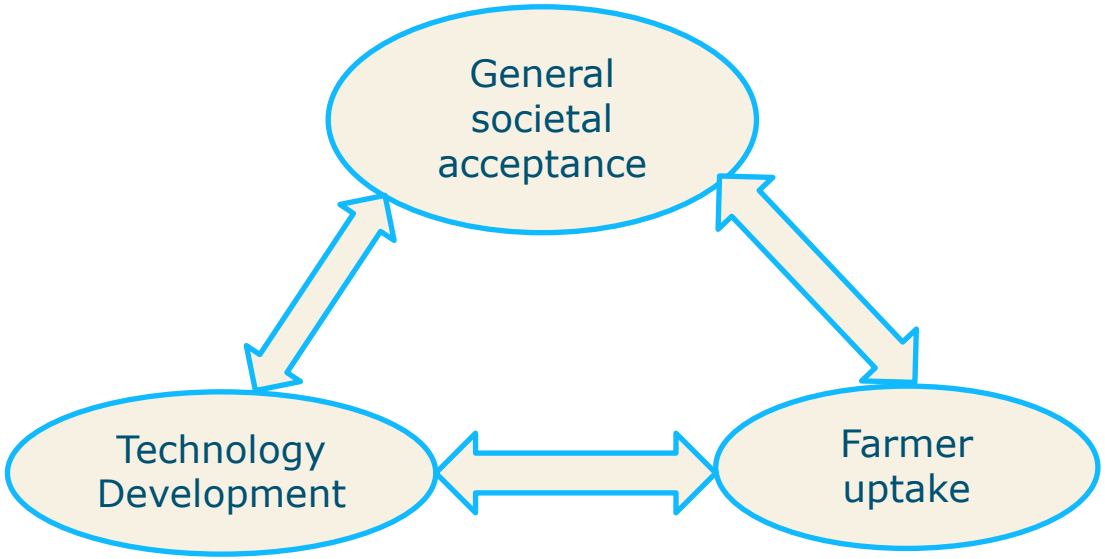
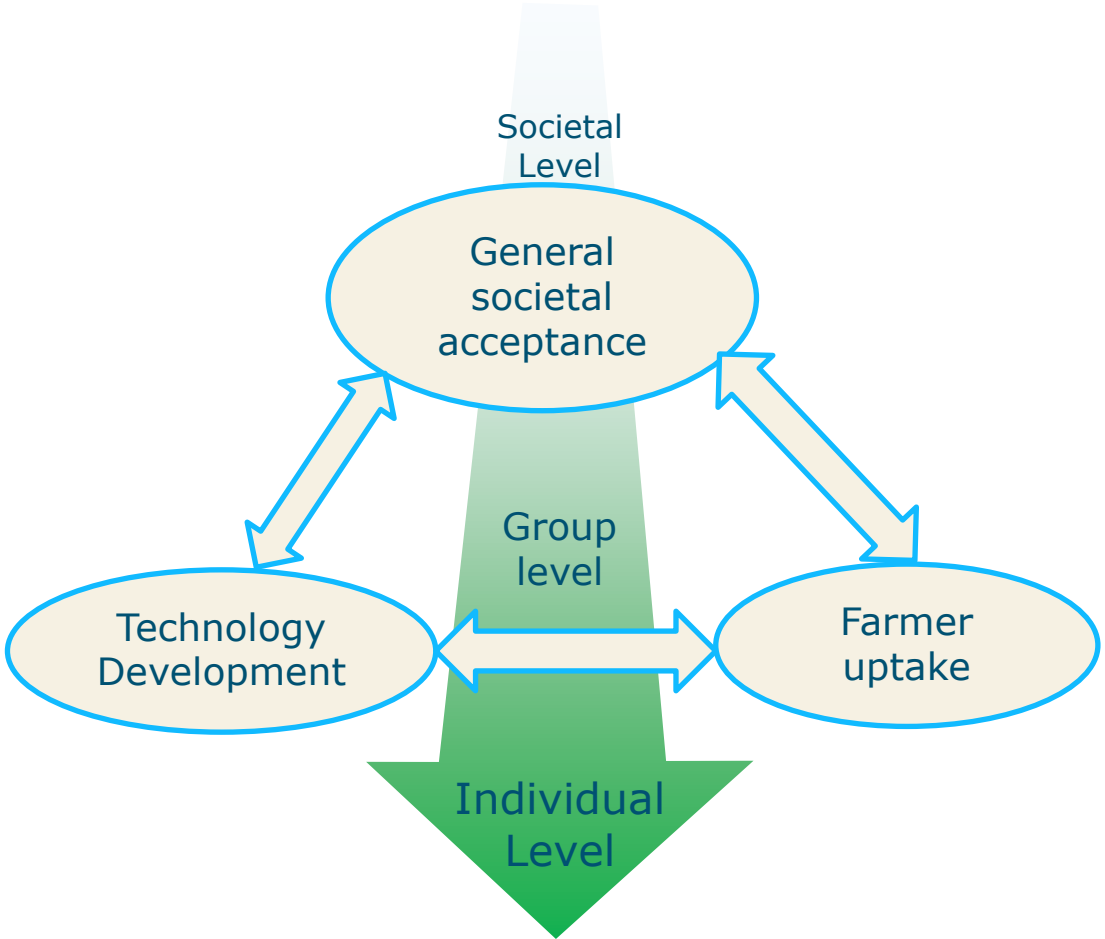
Projects in the workpackage



Projects in the workpackage



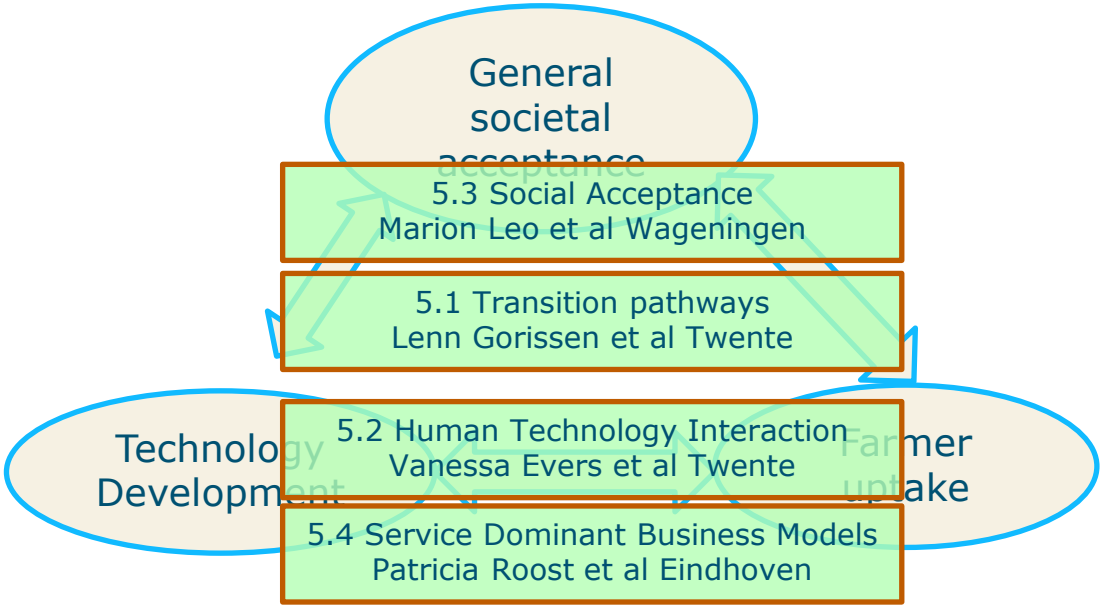
note

- This work was mainly done from a range of social science perspectives – but be reminded – there is no single social science

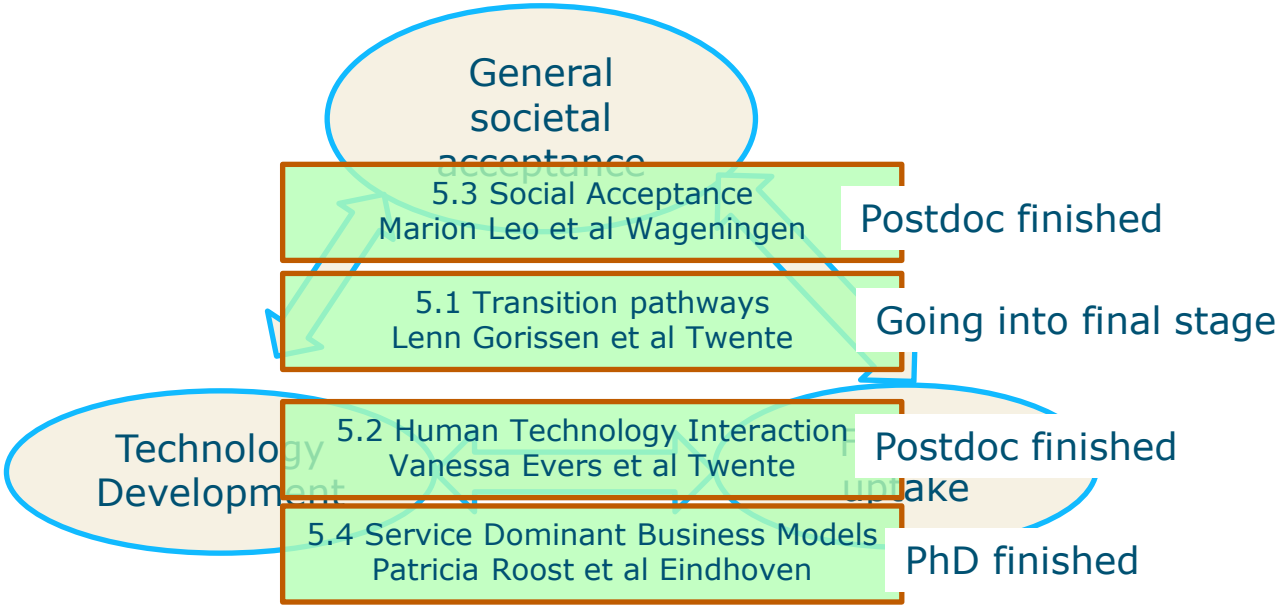
  Psychology and Sociology may be further apart than Physics and Chemistry – and Economy in many respects is the Mathematics of our fields

  - WP5.1 Innovation science
  - WP5.2 Human Computer Interaction
  - WP5.3 Consumer Psychology
  - WP5.4 Strategic Marketing

Projects in the workpackage



Projects in the workpackage



5.4 Service Dominant Logic

- *Case Lely-dairy farmers*
- Shift in strategic positioning across suppliers of advanced equipment
- What is the underlying service farmers want from their supplier of milking robots
    - Advanced services are initially positive, but beyond a certain point, turn negative. Differentiation benefits of advanced services, after some point lead to complexities and costs surpassing these benefits
    - Specific marketing approaches need to be developed to inform and maintain contacts in the shift from hardware to service

5.4 Service Dominant Logic

Individual level
Product-Service
to Farmer relation

- *Case Lely-dairy farmers*
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5.2 Human Technology Interaction

- Several explorations on what robots do to humans and what robots can learn from humans
- Exploration in friendly outlook of weeding robots to increase societal acceptance
- Training of Robot-Product handling by transferring human experience

Individual level
Farmer-technology,
Society-technology

5.1 Transition Pathways

Social practice theory – the real functionality of an object is revealed by how user use it in daily, social practice

- Interviews revealing social practice of sensor use by farmers
- How farmers see agricultural sensors depends on their belief of society, technology, and ecology.

Group level Farmer-technology, Society-technology

5.1 Transition Pathways

- Ideas about “good society” the farmers’ role to ensure food security and to make high quality foods compete
- This friction influences what farmers think sensors could and should do
- Clashing views of
    - technology’s relationship to nature (control vs. regeneration)
    - ecology (nature as resource/passive vs. partner/active)
- … further delimit what is considered worth sensing and acting.

5.3 Social Acceptance

- Combining Agriculture with Ecology and Technology may make for a hard mix to intuitively understand
- This may likely lead to mixed beliefs and emotions
- This in turn may lead to ambivalence which
    - Could cause unstable opinions
    - And even negative feelings

Individual level
Society-agriculture-ecology-technology

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5.3 Social Acceptance

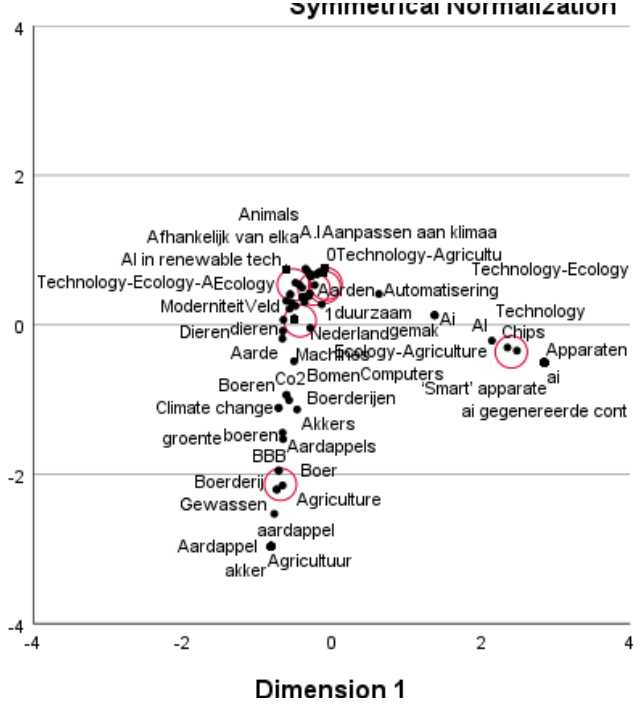
- First study shows that people in Dutch society have mixed beliefs and feelings about
    - Technology: Functionality is liked but fear something goes wrong and about cost is also there
    - Agriculture: Necessity is clear, it is part of who we are, but pollution, hard work are seen as negative
- But are generally positive about Ecology

5.3 Social Acceptance

- When combining Ecology with Agriculture people tend to become positive (Arcadian ideal)
- When combining Agriculture with Technology people maintain mixed beliefs and feelings
- When combining Ecology with Technology people maintain mixed beliefs and feelings.
- A second large scale survey showed similar tendencies for actual ambivalences (evaluations) and added that when freely speculating

5.3 Social Acceptance

- Spontaneous wording (not yet spell checked)
- Suggest Technology and Agriculture stand apart
- Agri-tech-ecology mixes more towards each other
- Across both studies we see some level of mixed beliefs and feelings whenever technology is involved



Marion Leo, Arnout Fischer, Ynte van Dam, Ionannis Petrakis
(PhD left after year 1, postdoc ended)

Across the workpackage

- Landing t4e into society requires effort to align the development with the expectations, often implicit of society
  - Balancing doubts and mixed beliefs about technology and agriculture when combining with ecology
  - Finding ways to fit in sensor use with how farmers imagine their function
  - Creating business models for information based services that balance level of detail, specificity with simplicity in daily use
  - Developing machinery that speaks friendly to humans and can learn from their experience