



FACCE-JPI Knowledge Hub





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Modelling European **A**griculture with **C**limate Change
for Food **S**ecurity

Martin Banse

with contributions by F. Brouwer, T. Heckeley, H. Lehtonen,
PP Roggero, F. Ewert, K. Helming, G. Dono,
and other MACSURians



MACSUR Knowledge Hub

MACSUR community

- *Project Leadership Team*
- *Project Steering Committee*
- *Themes Management Team/s*
- *Theme leaders*
- *Activity/Task leaders*
- *Partners*

Partners

- *more than 300 scientists*
- *around 80 organisations*
- *from 18 Countries*





Planning for 2017-2022

- Outline of research plan by March 2016
 - research plan
 - structure
 - funding options
 - presentation to decision makers and potential funders
- Opportunity for collaboration





Next steps

- What kind of activities would you like to continue in cross-cutting activities or MACSUR-Themes in CropM, LiveM or TradeM?
- Do you already have plans to continue these activities during the intermediate period?



Cross-cutting Issues

XC1 Model comparison & improvement

XC2 Scaling

XC3 Uncertainty and risk assessment

XC4 Capacity building

XC5 Interaction with stakeholders

XC6 Regional case studies

XC7 Impact Assessment for Europe

XC8 Variability and extreme climatic events

XC9 Identifying sustainable opportunities to reduce yield gaps in Europe

XC10 Contributions of new technologies to adaptation and mitigation

XC11 Feeding livestock: forage production, feed quality, efficiency of feed resource use

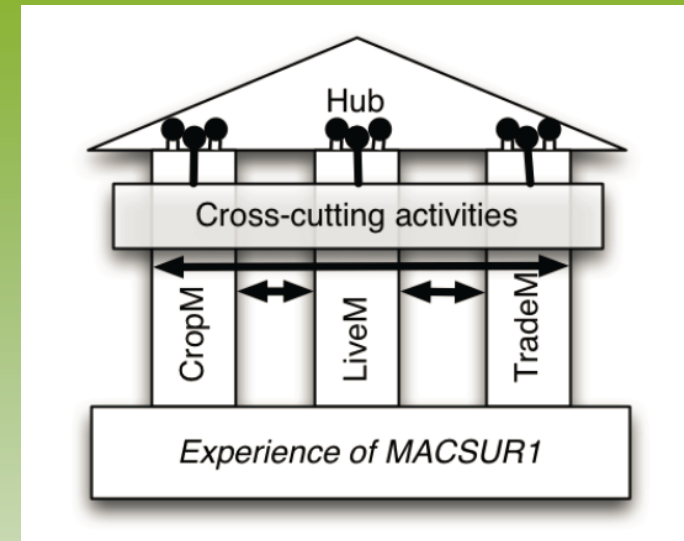
XC12 Farm-scale risk assessment

XC13 Impact of consumer behaviour

XC14 Impacts on ecosystem services and rural development

XC15 GHG mitigation from agriculture

XC16 Overall scenario development





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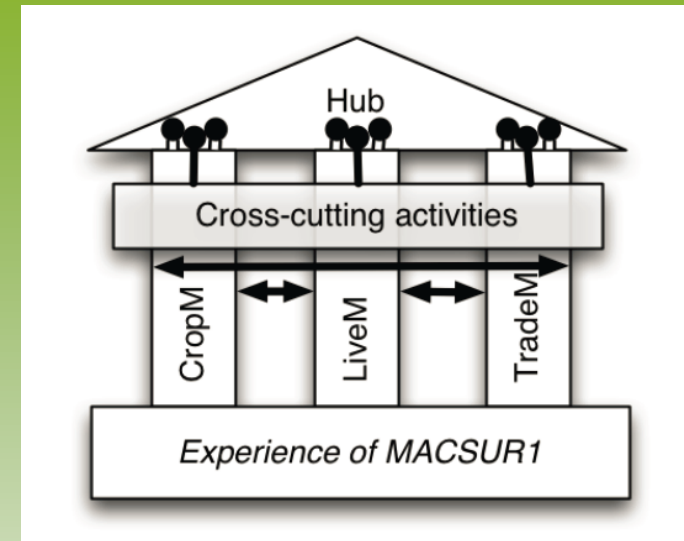
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XC1 - Model comparison & improvement

- to expand the reflexion around the assessment of model outputs to come up to international standards of model quality.





XC-6 - Regional Case Studies

- Important to design a new framework for addressing risk and adaptive capacity implementation pathways
 - through the integration of the case study analysis
 - including the stakeholder engagement processes and
 - global/regional modelling approaches.
- Next steps
 - harmonizing methodologies,
 - stimulate collaborations,
 - Responsiveness across case studies





XC-6 - Regional Case Studies

- Target:
Design a comprehensive analysis of the perception of cc and the public engagement strategies
 - at farmers, citizens and policy maker levels
- Comparison of case studies, scenarios and methods
 - implemented to better understand climate adaptations and mitigation options.
 - Especially the case of agriculture related practices for water quality protection is relevant to us.



X-14 - Impacts on ecosystem services and rural development

- Policy analysis paper of 20 regional adaptation case study
 - Follow up paper of the 20 case study paper we submitted in March
- Mapping of environmental impact indicators that models used in MACSUR can cover
 - Identification of gaps and challenges for matching between scales and contexts
- Translating SSPs and/or RAPS into soil management scenarios and into landscape level, regional specifications
 - What do SSPs mean in a certain spatial and farming system context



Feedback from G. Dono:

- Continuation on adapting farm management skills in the current transition phase of climate change
 - also considering the impact of CAP policies, pillars I and II, and
 - changes in the agricultural markets of Mediterranean Europe
- However, very sceptic about future funding possibilities in Italy



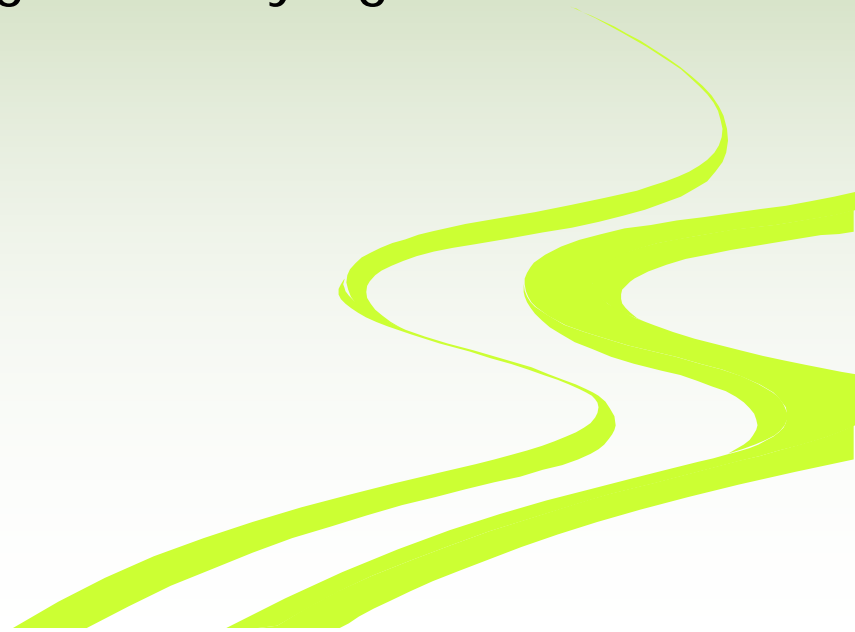
Feedback: TradeM

- Dissolve PCT and PLT after end of MACSUR-2
- Form a group of 15-20 people with a core group of up to 6-10 people)
 - Wageningen Economic Research (former LEI) offers to host “writing-session” in the coming months with up to 15-20 participants
 - Communication via Skype every two weeks
- Regarding TradeM: Side-event during the EAAE-conference (August 2017 in Parma)
 - To organize joint work/activities over the next months
 - In case CAPRI scenario output and interaction with crop models is desirable
 - Peter Witzke and Markus Kempen (EuroCARE) offer support to exchange scenario results.
 - Direct contact is needed (and should be coordinated).



Feedback CropM

- Continuation of work on the Impact Assessment
 - perhaps with a slightly different focus
 - but linked to the CGRA organized by AgMIP





How to keep the MACSUR consortium alive during the interim period?

- Requires...
 - Ideas - goals - visions
 - Leadership
 - Meetings





Ideas - goals - vision

- Main target:
- Continuation of MACSUR
 - MACSUR-3
 - Other initiatives
 - FLAGSHIP
 - H2020
 - ERA-NET(s)





Approach

- Prepare for 2030 targets, and test options for European agriculture to be climate neutral by 2050
- Cross-sectoral, with more climate and water focus (e.g. establish interaction with JPI Climate; JPI Water)
- Link spatial scales: regional - national - continental - global
- Multi case study method
 - Consistent case studies
 - Upscaling to European level

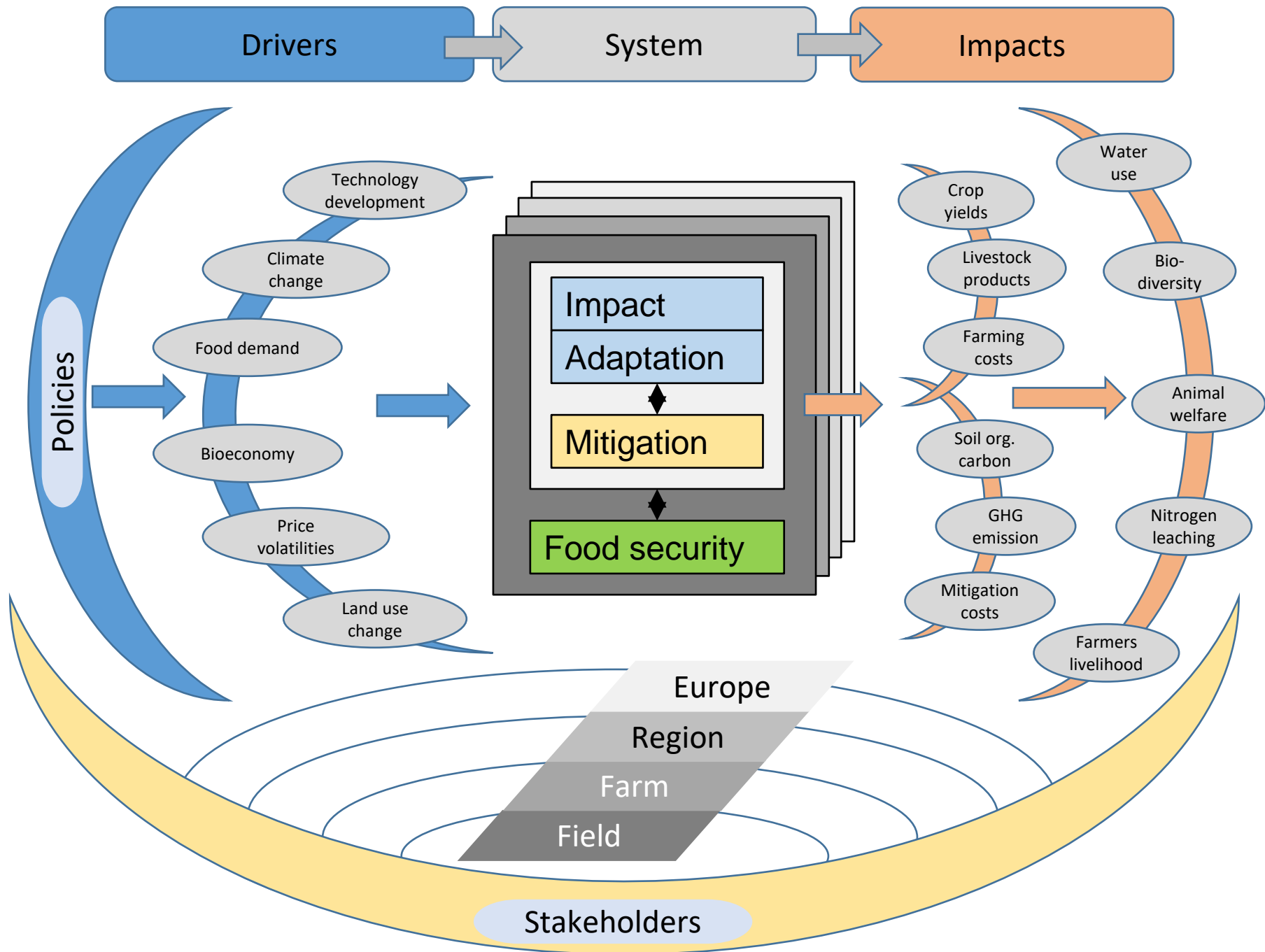




Prepare for

- adaptation to climate uncertainty and variability, as well as the synergy with mitigation
- evaluate those options in terms of their capacity in achieving climate-smart farming systems







Leadership

- Core group
 - Jørgen Olesen
 - Frank Ewert
 - Nigel Scollan
 - Floor Brouwer (tbc)
 - Pier Paolo Roggero
 - Martin Banse
- together with other interested members of the MACSUR Project Steering Committee and the consortium



Support to organize Interim Period

- Idea:
 - Virtual secretariat
 - Contact point
 - Organisation of website and email lists
 - Organisation of meetings...
- ZALF, Aarhus University and Thünen Institute offer in-kind support for technical services



Meetings

- Meetings of the core group
- Side events at different conferences
- EAAE Conference
 - Parma - August 2017
- Conference on Regional Case Studies
 - Rome, Autumn 2017 (tbc)
- ZALF Conference ,Landscape 2018'
 - March 2018, Müncheberg and Berlin



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For further information
please visit: www.macsur.eu