



FACCE-JPI Knowledge Hub



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

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FACCE Knowledge Hub (summer 2011)

- Network of selected research groups from JPI Member countries within a defined area of research (concept: ‘Networks of Excellence’)
- Instrument developed by FACCE JPI to foster transnational co-operation, collaboration and communication of the research communities in the field of FACCE
- Facilitate networking and information exchange



Knowledge Hub

- Brings together **research groups *that already have funding*** in a thematic area
- Support given can be **coordination costs, travel expenses and thematic workshops**
- Countries may choose to support research and/or mobility of researchers





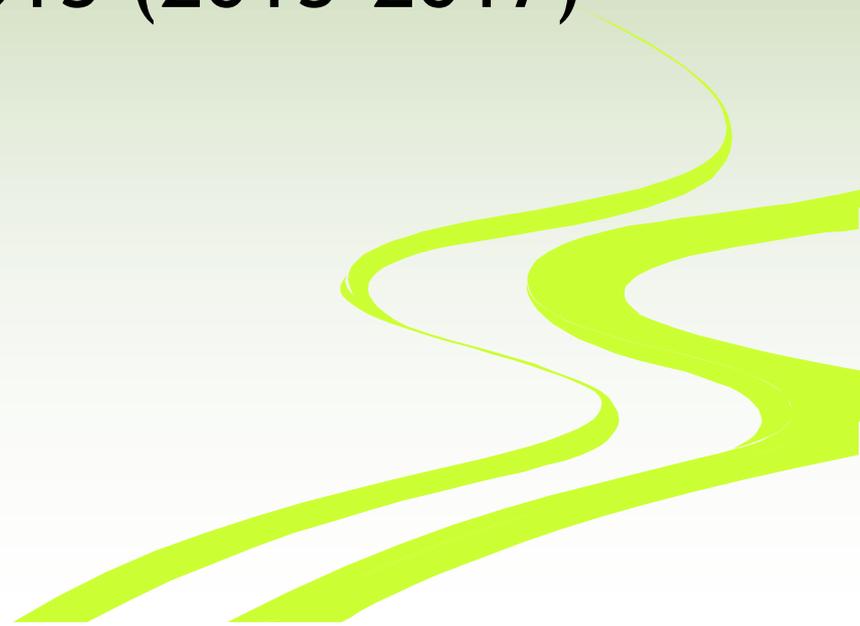
Process

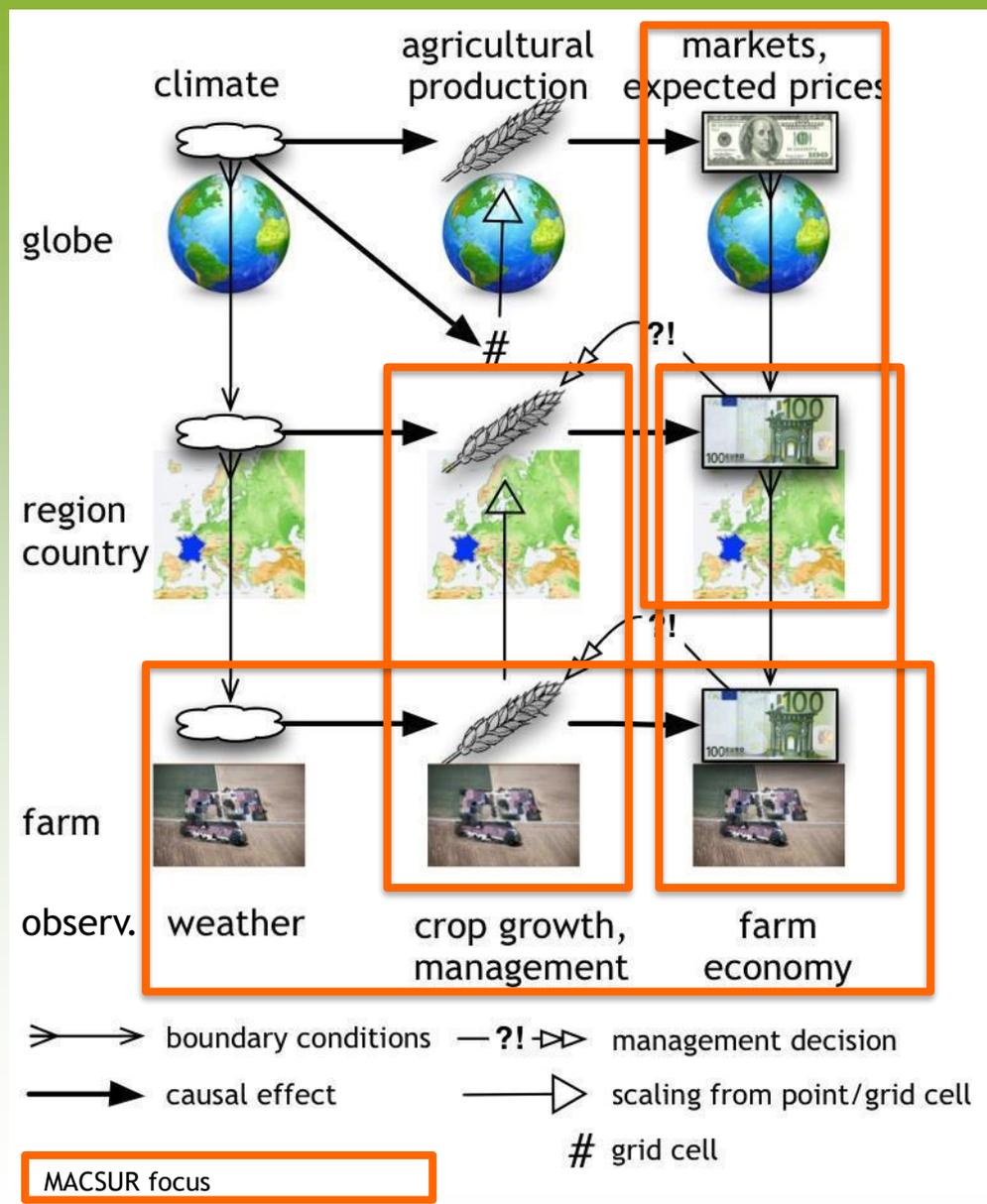
- Letters of intent (96 submitted, September 2011) and 74 are invited, following selection in the participating countries
- FACCE JPI Pilot Action Networking meeting (October 2011), and agree on the leadership of the Knowledge Hub
- Submission of proposal (December 2011)
- Post evaluation meeting (March 2012)
- Launch MACSUR (June 2012)



Two phases proposed

- MACSUR proposed a two step approach, with a first phase (2012-2015), and anticipating a second phase, which in fact also started in 2015 (2015-2017)





MACSUR's mission:
Improving the modelling cascade
for interdisciplinary and multi-scale integration





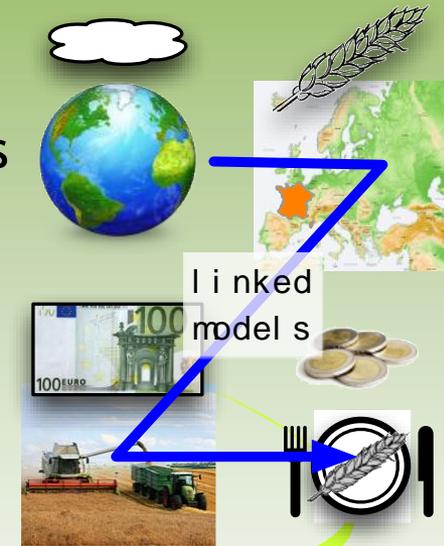
Key activities in MACSUR

- Good-practice approaches/guidelines
- Model comparison & improvement
 - model description, output comparison, new approaches
- Uncertainty and risk assessments
 - data, assumptions, scaling, model linking, new approaches
- Regional case studies: impacts, adaptation
 - description, output comparison, new approaches
- Capacity building: courses, staff exchange
- Impact assessments for Europe & regions
 - Adaptation and mitigation options, sustainability aspects
- Networking: meetings, new projects, global: AgMIP et al.
- Involvement of stakeholders (EU, national, regional)



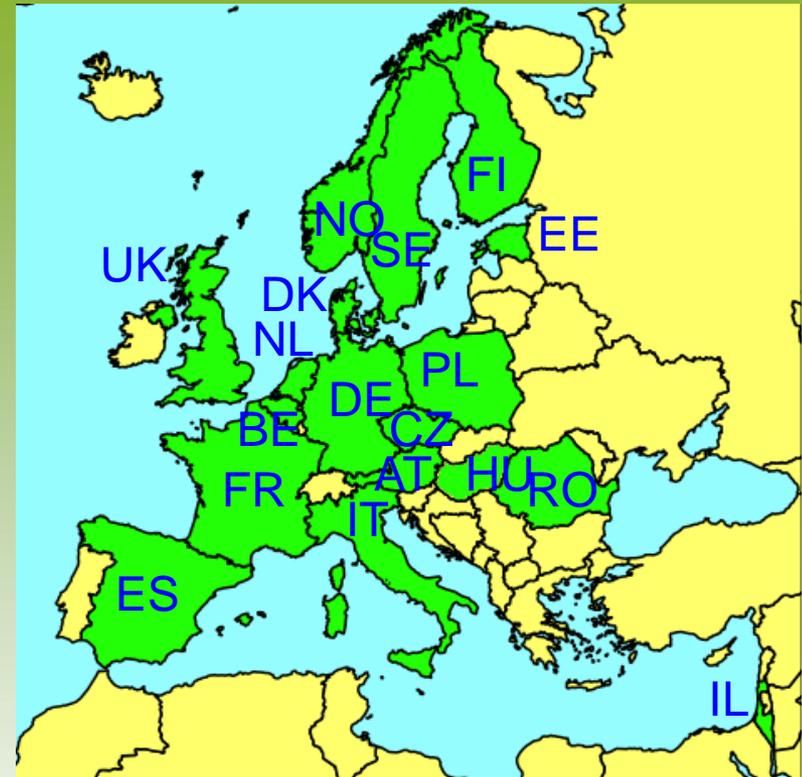
MACSUR's aims

- improve and integrate models
 - crop and livestock production, farms, and national & international agri-food markets
- improve integration & links
 - of models for selected farming systems and regions
- provide hands-on training
 - to junior and experienced researchers in integrative modeling
- identify risks and consequences of adaptation and mitigation in agriculture for better availability, accessibility & affordability of food





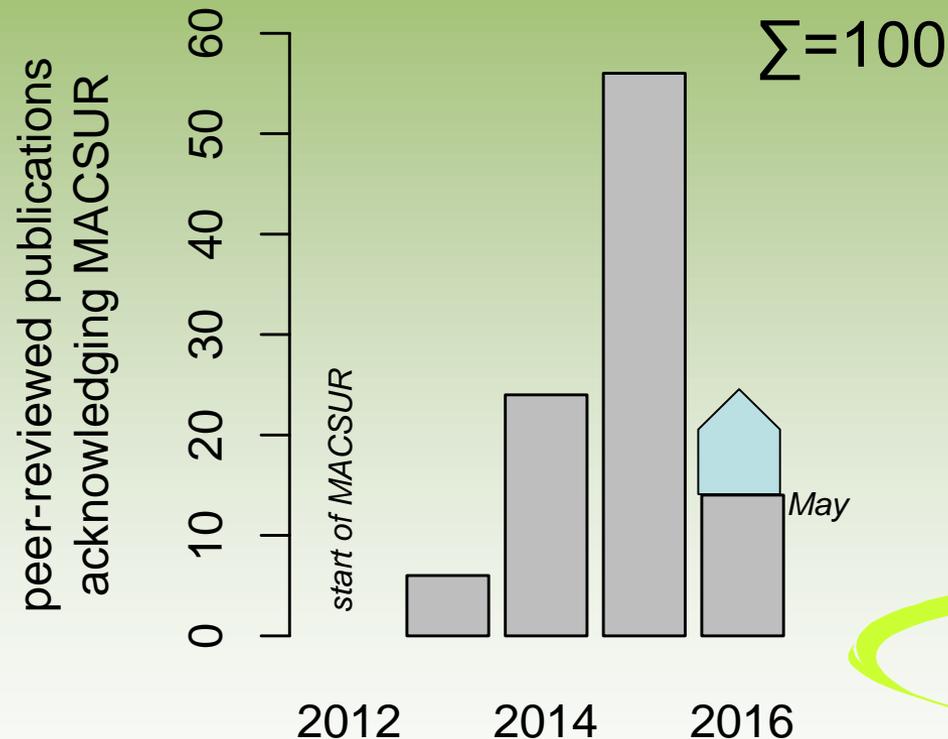
- MACSUR (3 yr) 2012-2015
17 countries, 0-1M €/cntry
180 members
- MACSUR2 (2 yr) 2015-2017
18 countries,
300 members
- output after 4 years
 - 310 papers/chapters
 - 200 reports
 - 500 presentations
 - 31 workshops/conferences
 - 13 funded new projects
 - 24 PhD/MSc students



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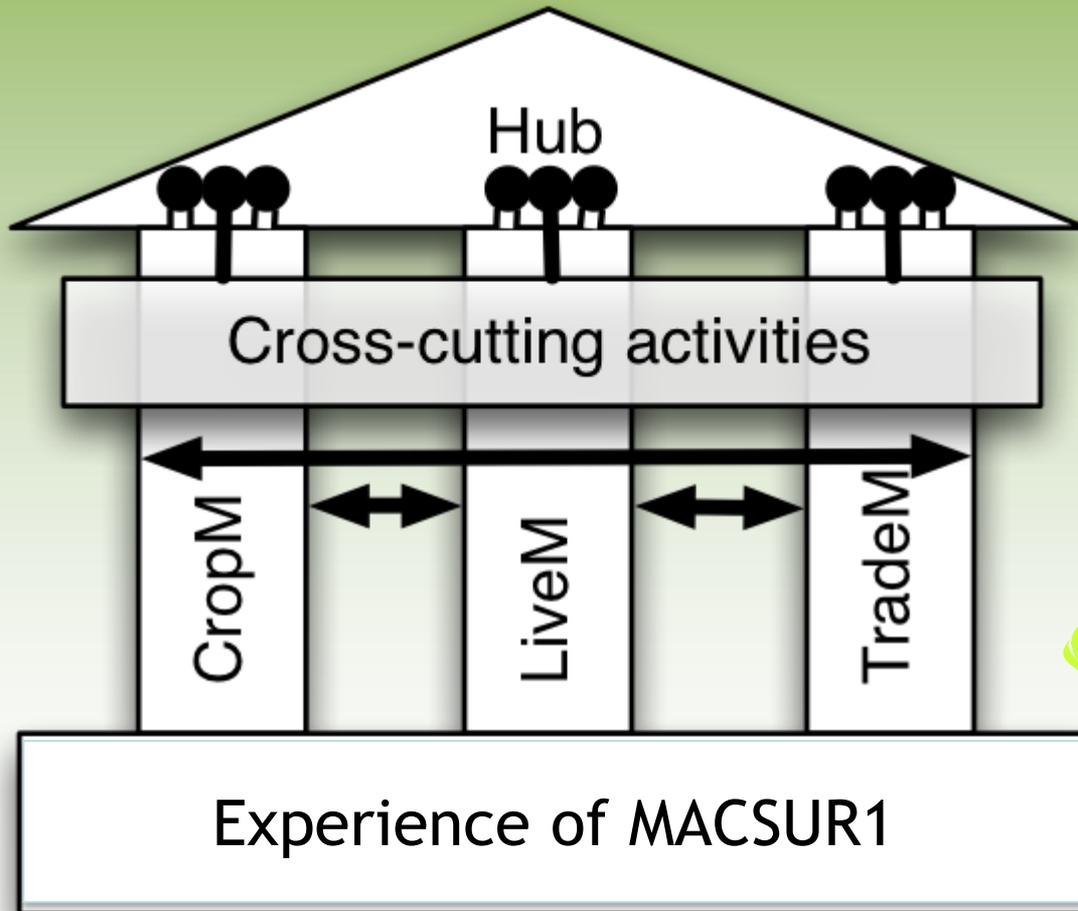
Quality and impact take time



Peer reviewed articles (reviews and original research) acknowledging MACSUR, based on Web of Science and additional information and as of May 2016.



MACSUR2: Work in XC Activities

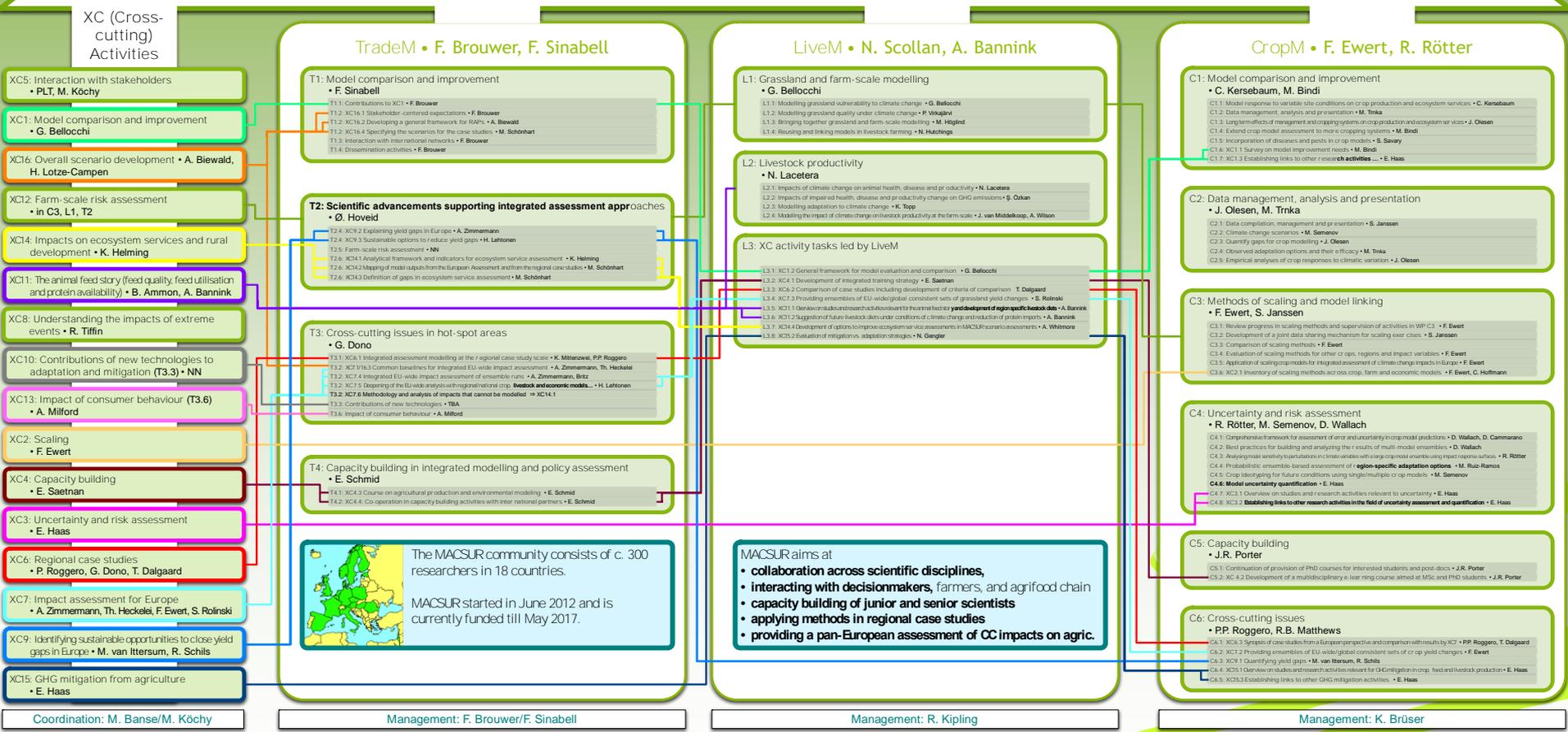




FACCE MACSUR

Modelling European Agriculture with Climate Change for Food Security – a FACCE-JPI knowledge hub –

Project Steering Committee
Project Leadership Team (PLT): M. Banse, F. Brouwer, Ch. Foyer, **R. Rötter**, N. Scollan |
 F. Ewert, A. Bannink, F. Sinabell | **Management:** M. Köchy



Coordination: M. Banse/M. Köchy

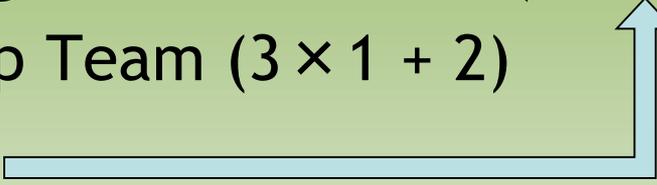
Management: F. Brouwer/F. Sinabell

Management: R. Kipling

Management: K. Brüser



Organisation

- Project Steering Committee ($3 \times 2 + 2$)
 - ↳ Project Leadership Team ($3 \times 1 + 2$)
- Theme Leaders 
 - WP leaders
 - Task leaders \Rightarrow Cross-cutting activities
 - Collaborators





How to strengthen modelling capacity?

- A detailed comparison of models that are available in the three Themes
- Clarify the strengths and weaknesses of individual models, indicate uncertainty of results as well as the needs for further model improvements





Knowledge Hub: Strengths

- Multidisciplinary topics
- Interaction with other disciplines
 - exchange of knowledge, views, approaches
- Enhanced visibility, global collaboration; interaction with external stakeholders (food chain, decision makers)
- Greater pool for new collaboration
- Resource for capacity building



Knowledge Hub: Weakness

- **Heterogeneity in funding**
 - 0-1 M€/country in MACSUR1, for different purposes
 - Funding contracts delayed, with different dates
 - National rules on reporting and admin
- **In-kind funding**
 - requires bottom-up planning, limits coherence of work
 - limits identification with project and attribution
 - limits available time and staff
- **Slow reaction to changes in stakeholder demands**
- **Few staff for management/coordination**



Knowledge Hub: Opportunities

- Major societal issue (food-water-climate)
- Funding for an interdisciplinary topic
- Input from stakeholders, which adds to the impact
- Collaboration on emerging topics by subgroups





Knowledge Hub: Threats

- Greater attractiveness and precedence of global initiatives
- Variable support of national governments
- Great and many expectations – low input
- Incoherence of external and internal goals, uncertain future





Conclusions

- Partners need a clear vision of the benefits they will gain through collaboration
- Regular scientific events are essential to make a vision explicit
- Balance bottom-up driven decisions with top-down directions (e.g. external contacts, reporting requirements, intellectual property rights)



Lessons from Knowledge Hub

- Balance in-kind versus fresh funding among partner countries; be prepared for the time needed to manage a knowledge hub
- New research is funded by fresh money
- Equal eligibility rules for knowledge hub members to participate in meetings
- Priority to a clear scientific focus
- Limit reporting to national funding agencies