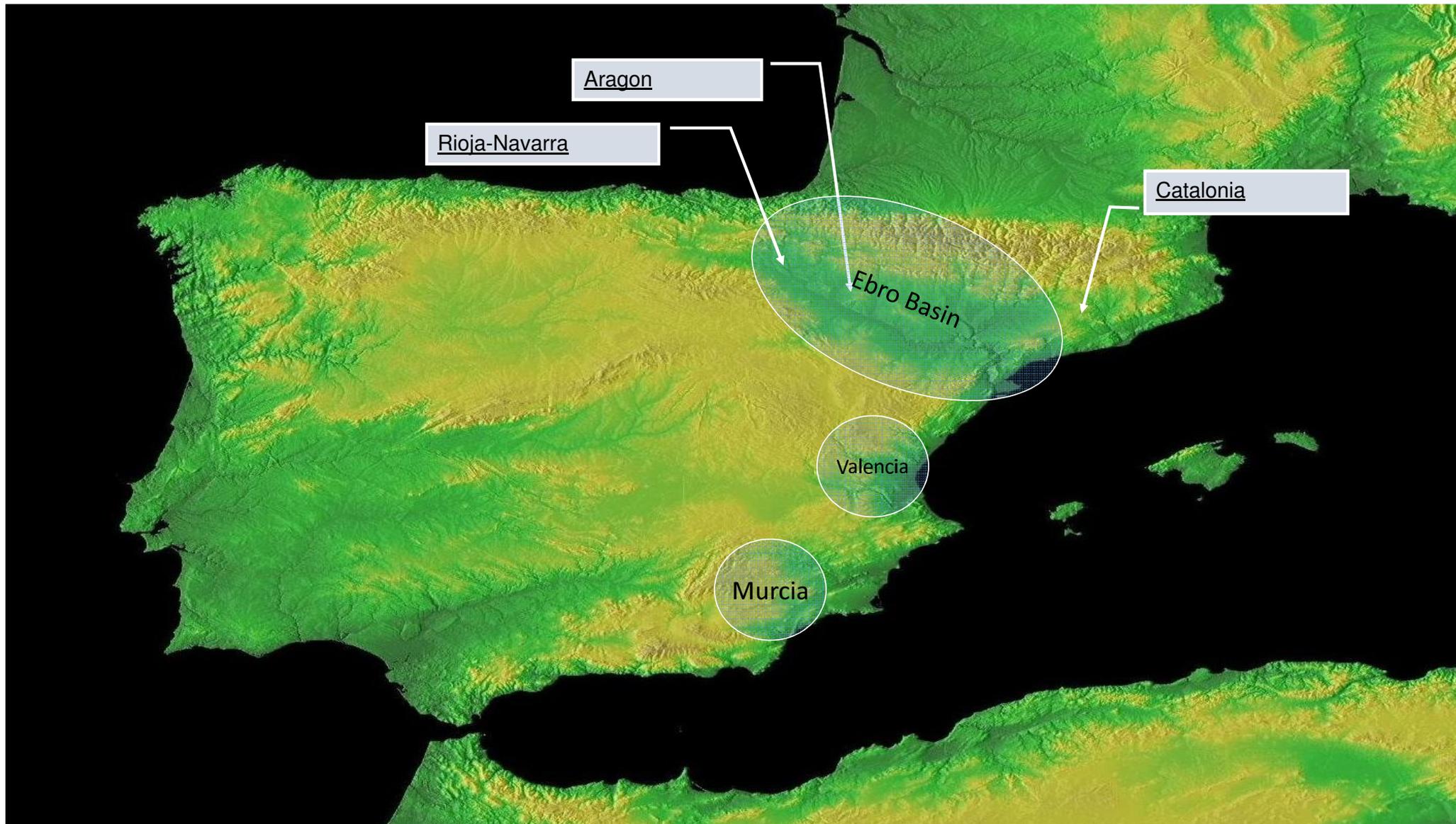


Strategic Conference on Agritransformation

Brussels, 6/11/2019

Joan Bonany, IRTA, Catalonia

Jaume Boixadera, DARP, Catalonia



Aragon

Rioja-Navarra

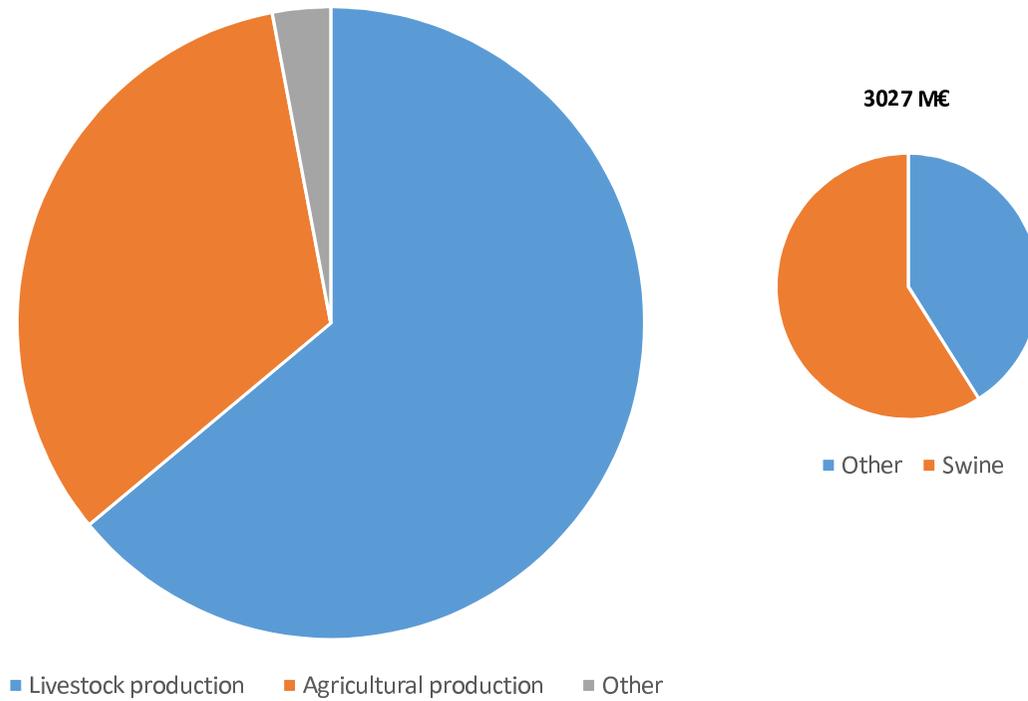
Catalonia

Ebro Basin

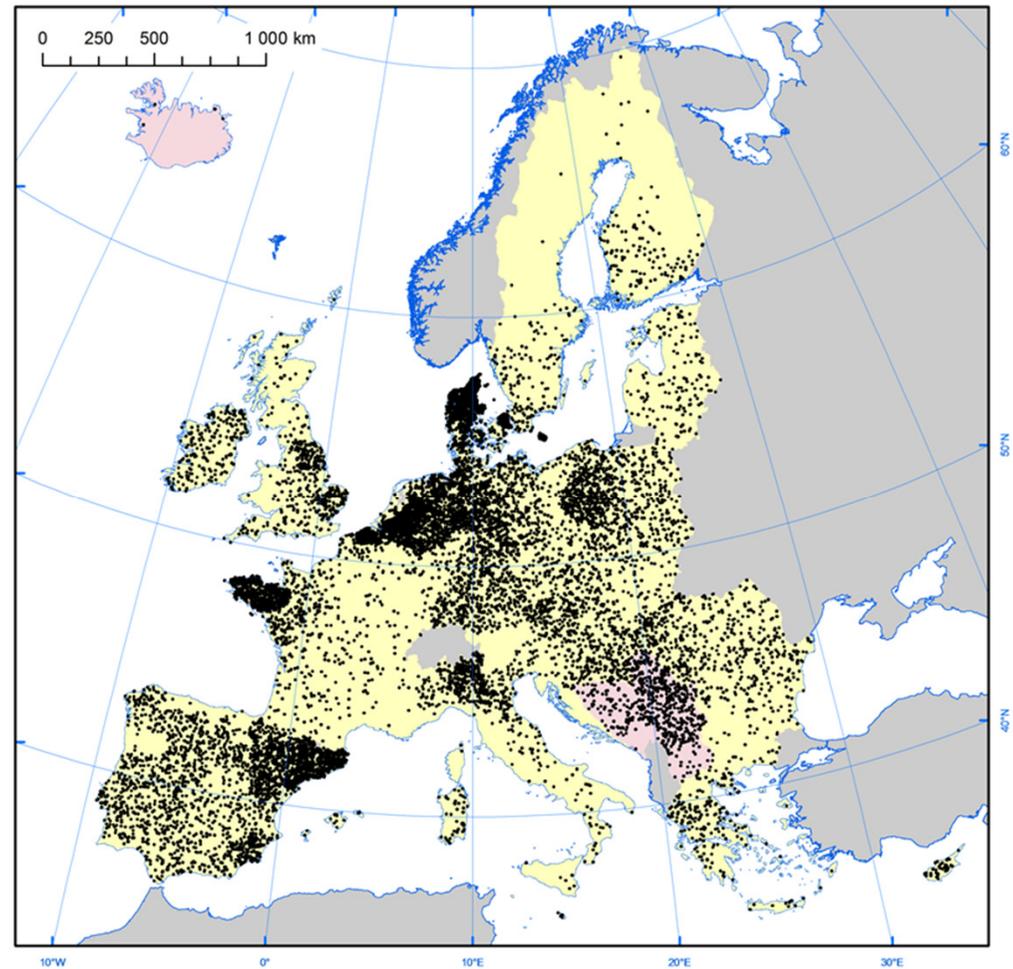
Valencia

Murcia

Agricultural sector in Catalonia (1)



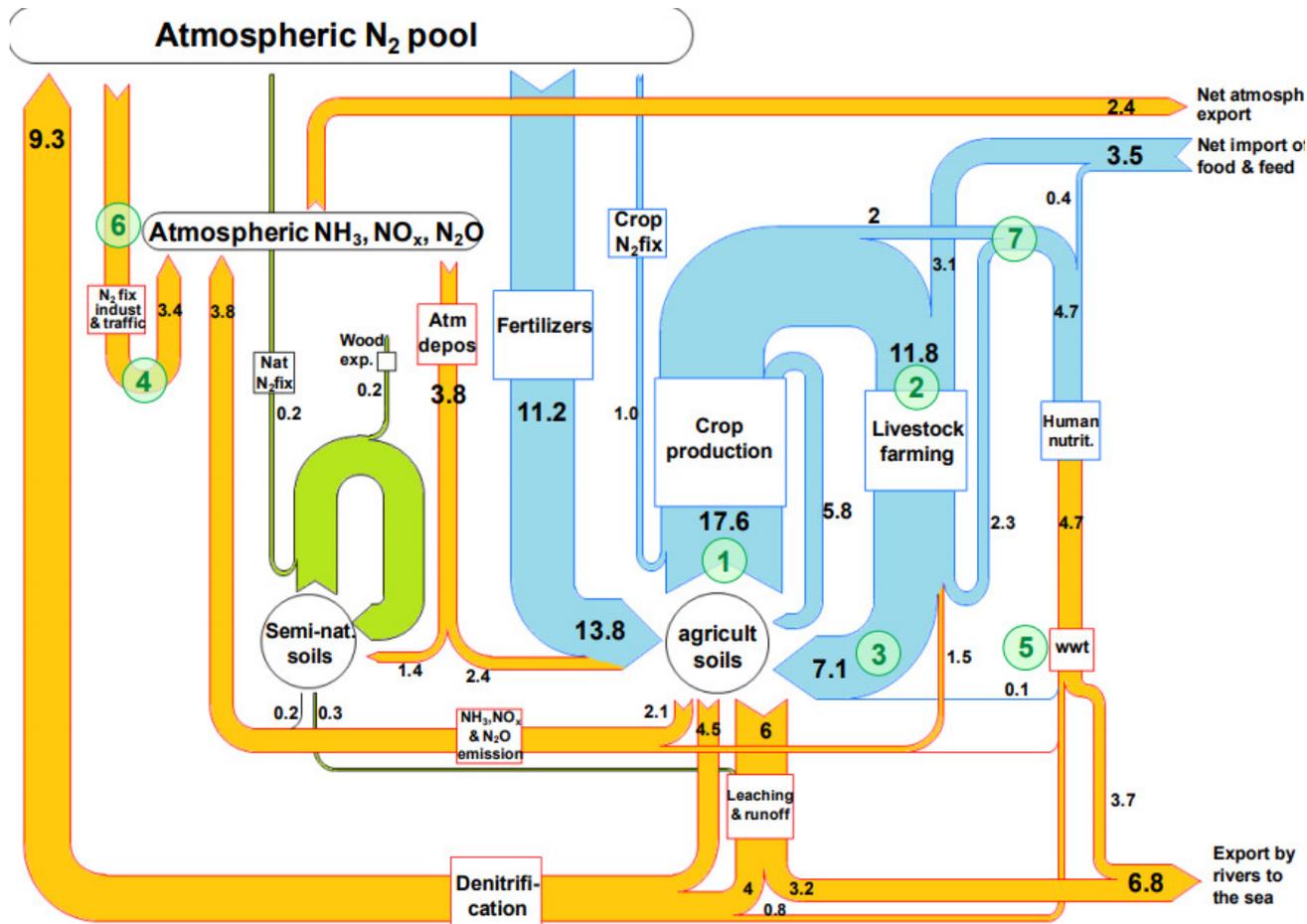
Pig density map



What role plays the agricultural sector in your country/region ? (1)

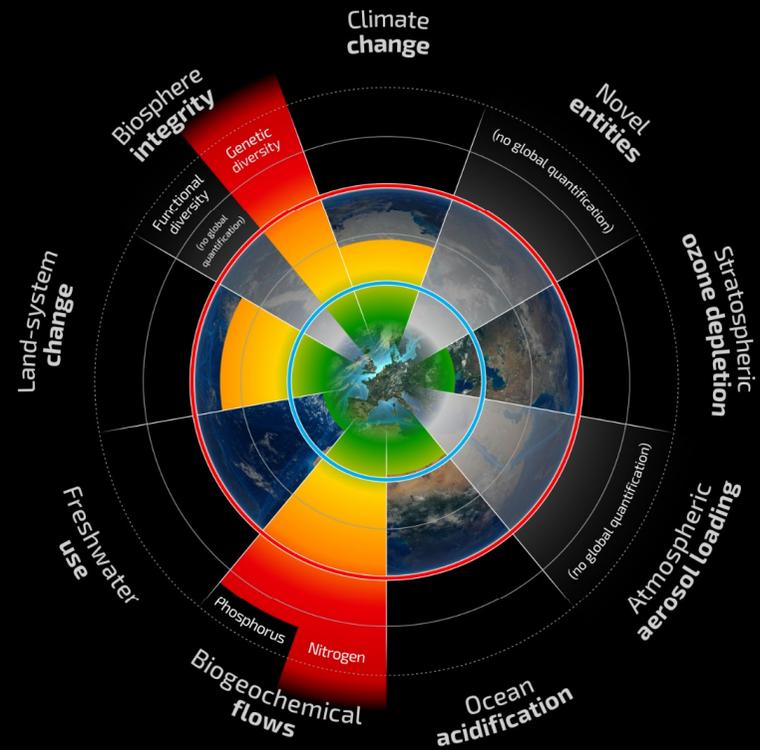
- Animal or livestock production
 - Swine production in Catalonia is based in raising pigs intensively producing high-quality safe food while ensuring affordable prices.
 - 50% exported
 - Feeding of monogastric animals is largely based on imported cereals and oilseeds
- Food industry (food and drink) largest industrial sector
 - 26.000 M€
 - 11.9% of the industrial companies
 - 18% of the employment

Nitrogen fluxes (Europe)



Planetary Boundaries

A safe operating space for humanity



- Beyond zone of uncertainty (high risk)
- In zone of uncertainty (increasing risk)
- Below boundary (safe)
- Boundary not yet quantified

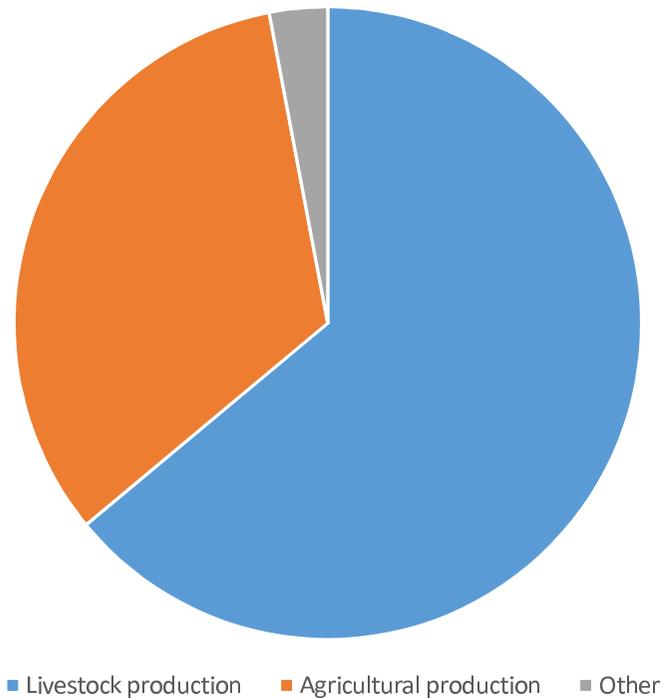
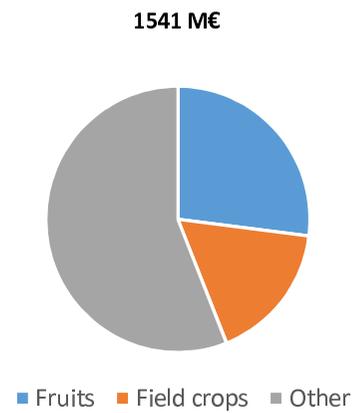
Rockström et al. (Nature (2009), 461, 472–475)

IRTA

Generalitat de Catalunya
Gobierno de Cataluña

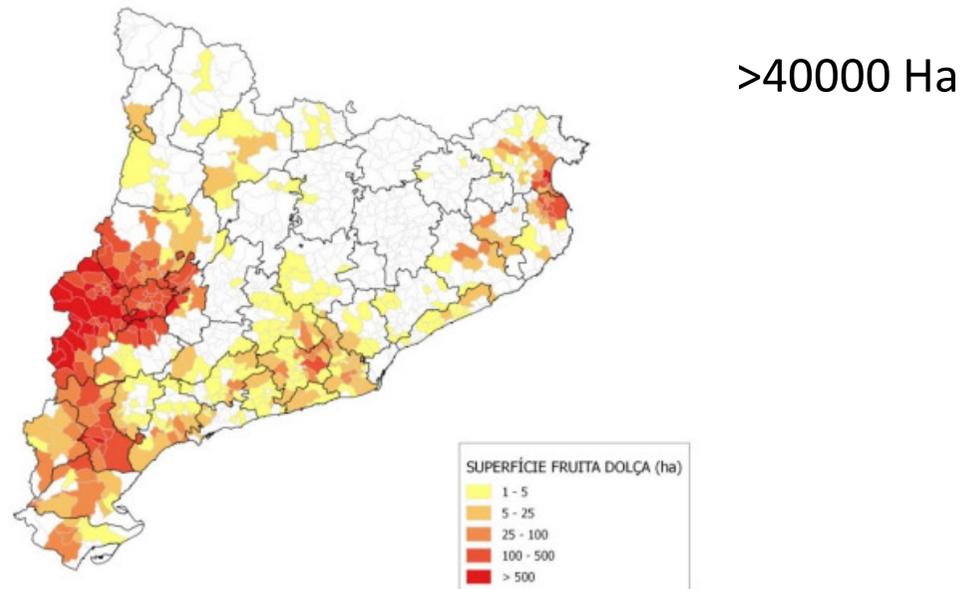
Source: Steffen et al. Planetary Boundaries: Guiding human development on a changing planet, Science, 16 January 2015.
Design: Globalia

Agricultural sector in Catalonia (2)





Deciduous fruit production (Catalonia)



What role plays the agricultural sector in your country/region ? (2)

- Agricultural production accounts for 33 % (1,541.32 M€) of agricultural final production
 - 23% fresh fruit
 - > 40000 Ha of deciduous fruits (peaches & nectarines, pears, apples)
 - Largest European exporter (Spain) of stone fruit
 - Intensive farming
 - Intensive use resources
 - Water
 - Nutrients
 - PPP's

Challenges

- Competitiveness of some key agricultural sectors
- Climate change / carbon neutral agriculture
- Resource management
 - Nutrient management (manure management -oversupply)
 - Water(amount and/quality) / irrigation management
 - Soil erosion/salinization
- Food security / safety / new demands
 - Antibiotic reduction
 - Food loss and waste
 - Food safety
 - Increase / Alternative protein sources
- Plant/ animal Health
 - Phytosanitary Plant Products management / expectations from consumers
 - Emerging pests and diseases.

Why these challenges have to be dealt with ?

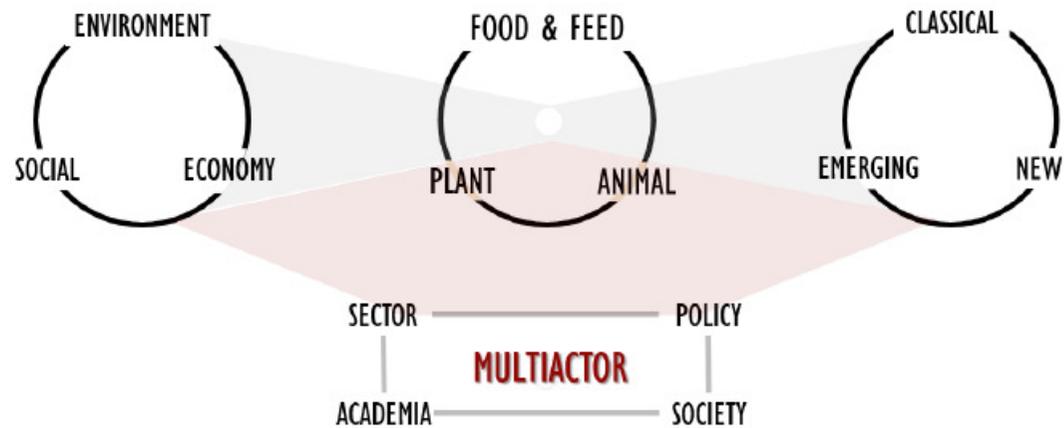
- Ensure future competitiveness.To be or not to be of some sectors
- Societal demands
- Environmental challenges

What does >>transformation<< mean for you in regard to areas of intensive farming ?

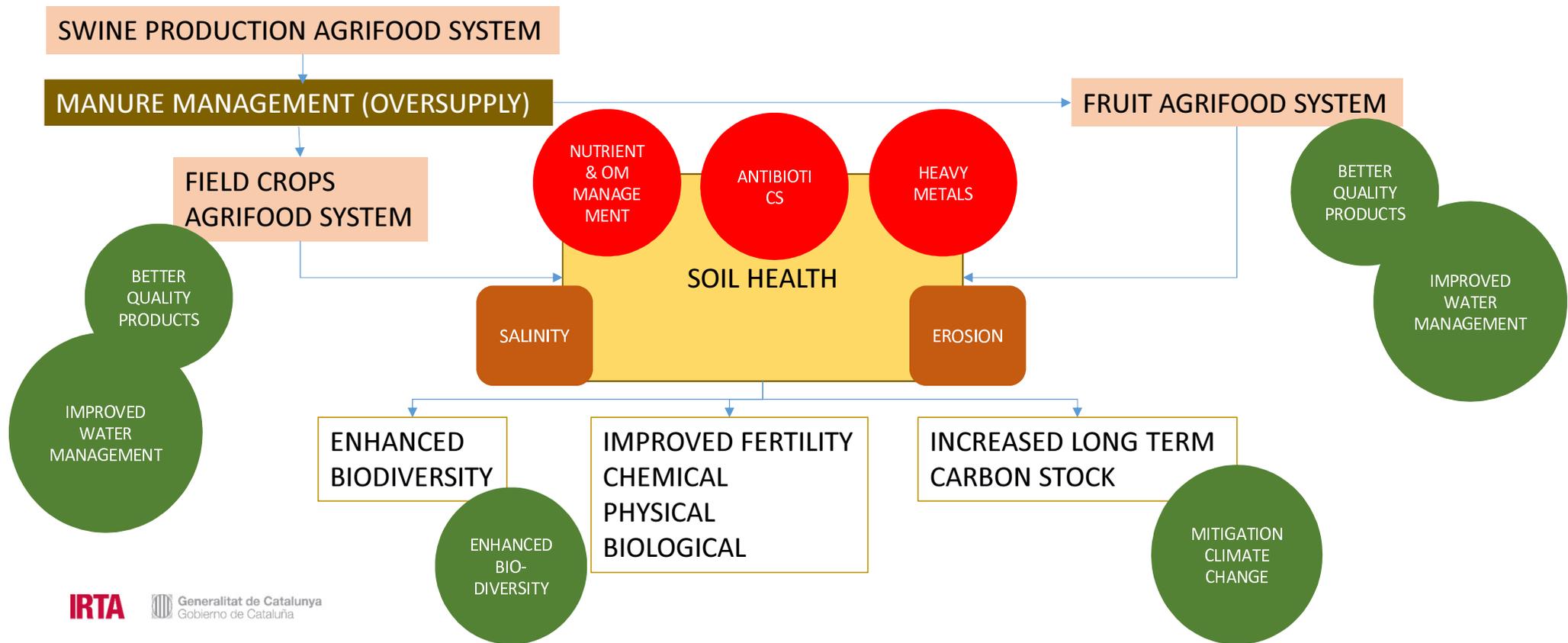
- Set of fundamental changes to ensure sustainability (environmental, economical and social) of the agrifood system
- Sustainable intensification / produce more with less resources and impacts
- Use of classical / new and emerging technologies

Transformations

SUSTAINABLE FOOD SYSTEMS FOR **HIGH-QUALITY HEALTHY FOOD** THROUGH **TECHNOLOGIES**



Transformations on two intensive farming systems to reduce impact on soil health





Gràcies per la vostra atenció

Gracias por su atención

Thanks for your attention

Merci beaucoup pour votre attention

Grazie mille per la vostra attenzione

Vielen dank für ihre aufmerksamkeit

Bedankt voor uw aandacht

謝謝你的關注

Спасибо за ваше внимание

شكرا اهتمامكم

あなたの注意のおかげで