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# Research & Innovation for Sustainable Animal Production



## Cooperation between China and EU

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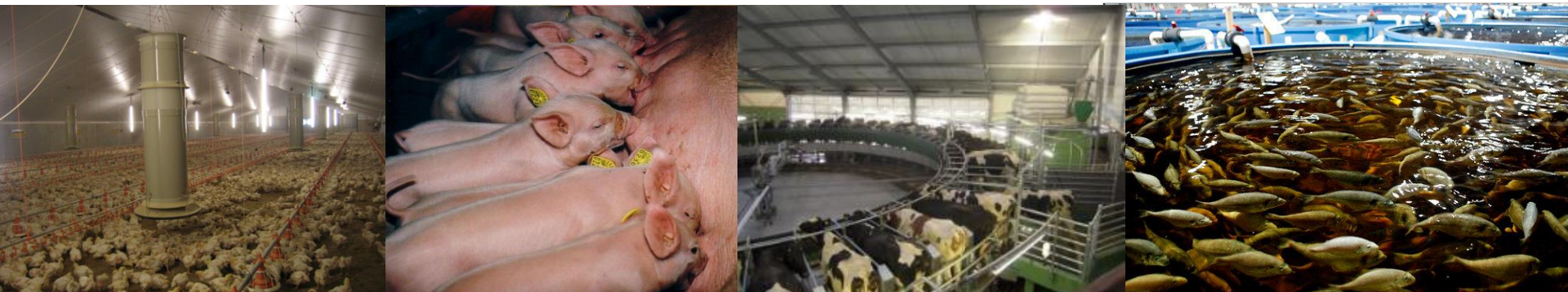
# Challenges



- Increase in animal production
- Decrease in environmental impact
- From societal concerns to societal appreciation

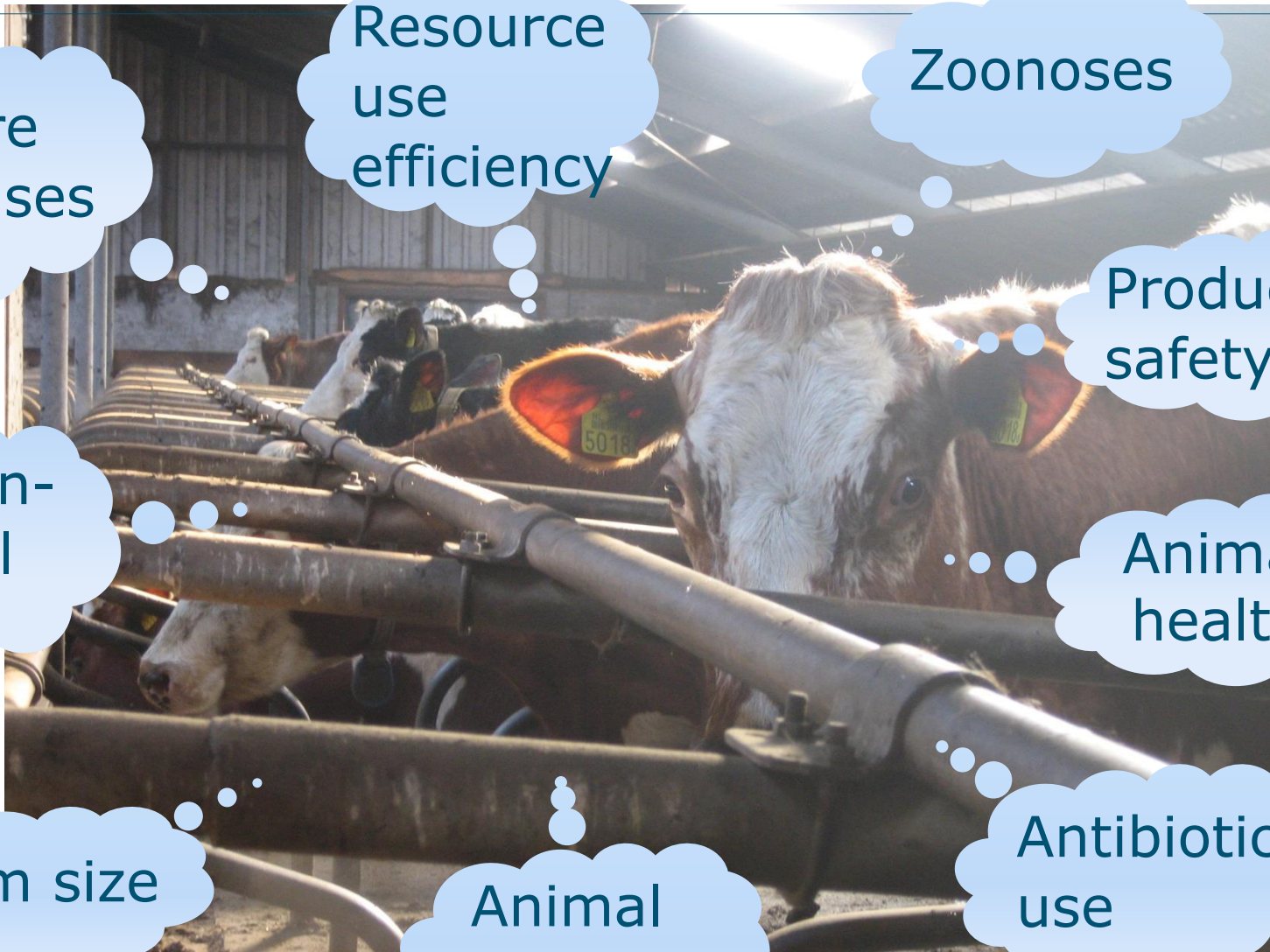
“Two times more with two times less”

- Food quality for a healthy life





# Societal concerns on animal production



Manure  
surpluses

Resource  
use  
efficiency

Zoonoses

Product  
safety

Environ-  
mental  
safety

Animal  
health

Farm size

Animal  
welfare

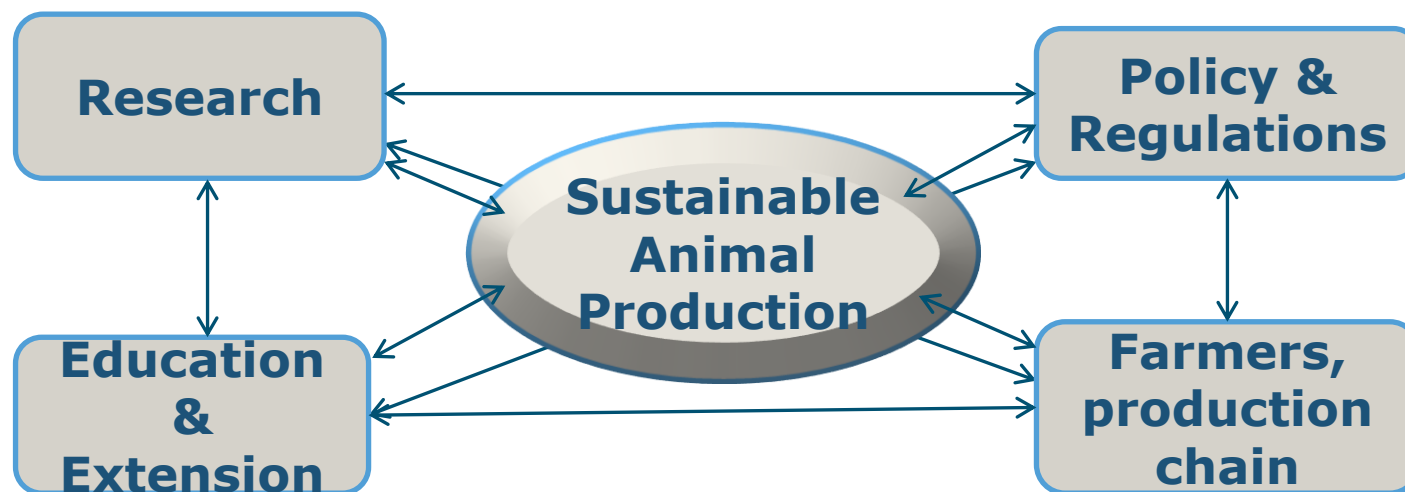
Antibiotic  
use

# Cooperation in Research **and** Innovation

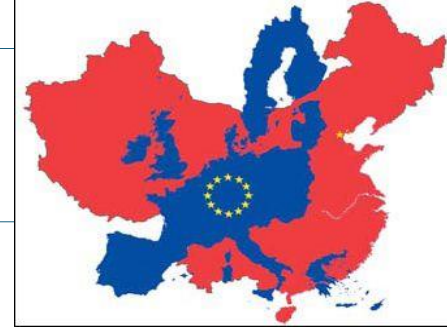


- R&I on control of animal diseases (zoonosis)
- R&I on sustainable and animal welfare friendly livestock production systems

Not only 'what' (technical solutions), but also 'why' (societal support) and 'how' (implementation of solutions = innovation)



# China and EU



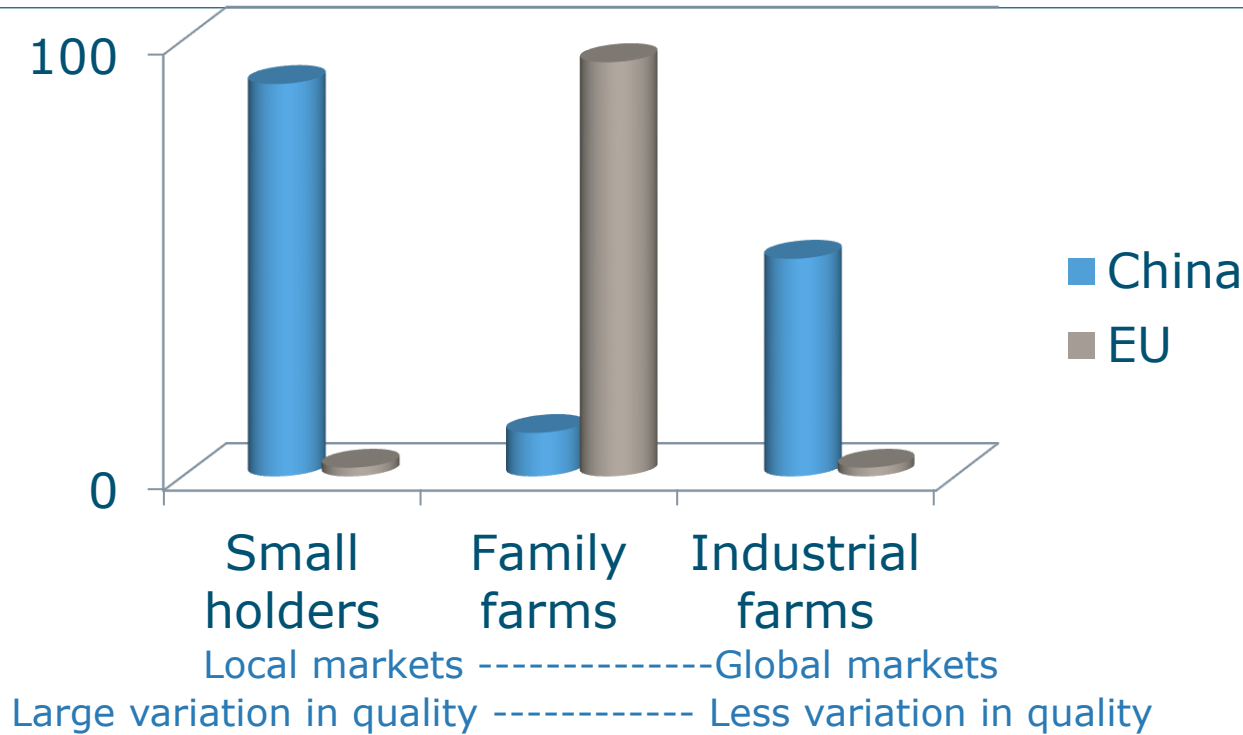
## Similarities

- **Urbanisation, densely populated areas**
- **Livestock production close to urban areas**
- **Demand for safe food and safe production methods**
- **Manure problems**
- **Decrease in number of farms and farm staff**
- **Rural areas economically vulnerable**
- **Dependent on import of protein feedstuffs**



# Farm size in China and EU

## Take farming system into account



**Smallholders tend to quit or grow to family farms**

**Family farms can be specialized or multifunctional**



# Existing alliances, EU-programmes



STAR-IDAZ: Global Strategic Alliances for the Coordination of Research on the Major Infectious Diseases of Animals and Zoonoses

Vaccinology as important area for collaboration



FACCE-JPI: Joint Programming Initiative on Food security, Agriculture and Climate Change

Plant and livestock production, rolling strategic research agenda



# Existing alliances, continued

## Animal Task Force (EU-alliance on livestock production)

Resource efficiency;  
Responsible livestock systems  
Healthy livestock and people;  
Knowledge exchange towards innovation;  
Opportunities and needs for excellent science



## Livestock Dialogue (FAO)

Production practices; grassland management; manure management



**GLOBAL AGENDA OF ACTION**  
IN SUPPORT OF SUSTAINABLE LIVESTOCK SECTOR DEVELOPMENT



WAGENINGEN UNIVERSITY  
WAGENINGEN UR



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# Existing alliances, continued

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## Global Research Alliance on Agricultural Greenhouse Gases (GRA, Livestock), current agenda

GLOBAL  
RESEARCH  
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

- Increase agricultural production with lower emissions  
'Feeding the world within the carrying capacity of earth'
- Improve global cooperation in research & technology
- Accelerate/strengthen knowledge and technology development that would not happen without the Alliance
- Work with farmers and partners to provide knowledge
- Develop relevant mitigation options and strengthen productivity and resilience of food systems.



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# Cooperation in research and innovation

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Between China and EU

Between scientific disciplines

- From breeding and genetics to social sciences

Between stakeholders, across species, mutual learning

- Aimed at implementation of desired changes

For healthy and sustainable animal production systems  
that provide two times more with two times less!

