

Conference on ICT and Robotics for a Sustainable Agriculture

24 November 2017, Copenhagen

- **Niels Götke**
 - Danish Agency for Science and Higher Education
 - Coordinator of ICT-AGRI ERA-NET





Future Internet

Sensors

Precision Agriculture

Smart Applications

More for Less

Internet of Things

Agriculture 4.0

Big Data

Drones

Sustainable Intensification

Cloud computing

Satellites





1. History - Precision farming

- Focus on precision farming starts around 1990 (national initiatives, FP 3....)
- SCAR Committee, SCAR foresights
- SCAR working group (CWG) set up in 2006 on ICT and robotics in agriculture
- Cross Thematic ERA-NET (ICT-ENV-AGRI) in 2009



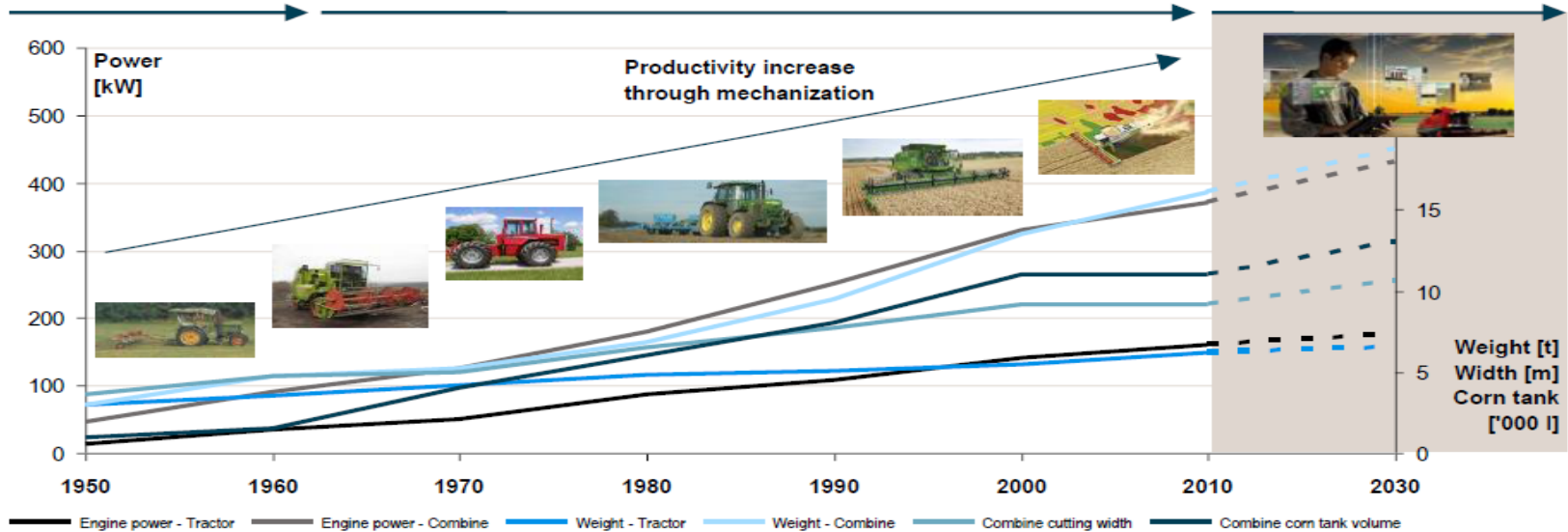


Productivity increase since 1950s

Universal machine
1950s

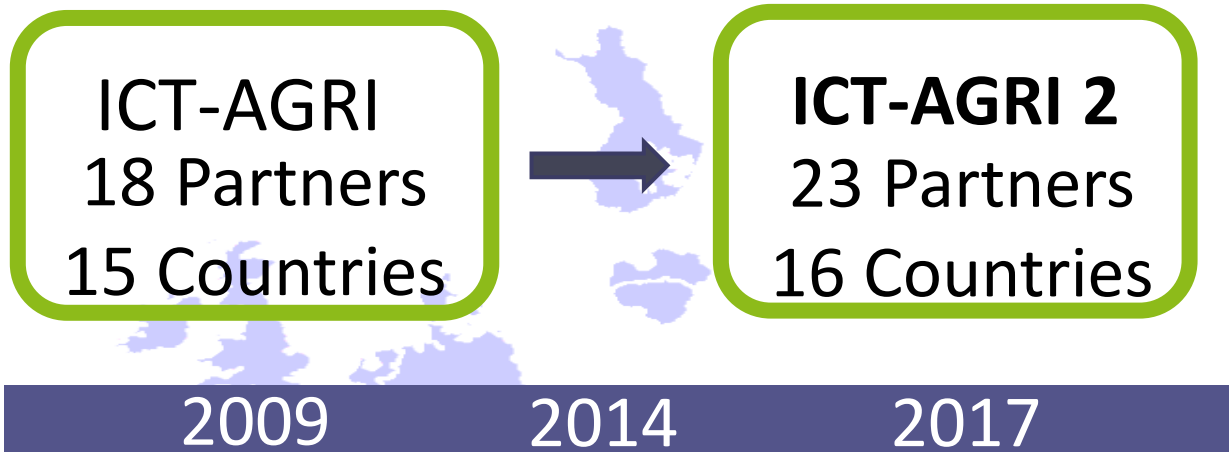
Bigger, faster, wider
1960-2005

Smart, connected
2005-2030





2. ICT-AGRI Consortium overview





European Research Area - **NET**work

Information and Communication Technology
and Robotics for Sustainable Agriculture

ICT-AGRI-1 2009 – 2014

ICT-AGRI-2 2014 – 2017

ICT-AGRI-3 2019-

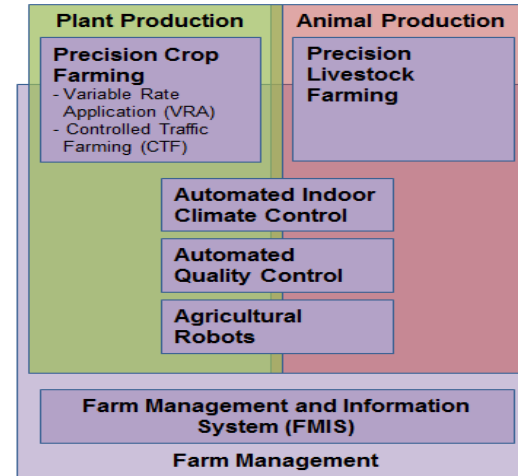


Strategic Research Agenda



Global food security
Sustainable resource management
Energy consumption
Food quality and safety
Climate change
Social aspects and demands

Increase productivity
Reduce waste in the food chain
Optimize fertilizer and pesticide use
Optimize water management
Maintain soil quality
Protect and promote biodiversity
Minimize air pollution
Increase energy efficiency
Ensure food quality and safety
Food traceability and information
Reduce greenhouse gas emissions
Increase animal welfare and health
Less tedious and hazardous work





Calls for transnational projects

Funded and managed by National Funding Agencies

- 2010 Integrated ICT and automation for sustainable agriculture (7)
- 2012 ICT and automation for a greener agriculture (8)
- 2014 Applications for smart agriculture (with SmartAgriFood) (9)
- 2015 Enabling Precision Farming (8)
- 2017 Farm Management Systems for Precision Farming (6)**





Aim of the ICT-AGRI Conference

- Focus on the digitisation in the agri-food system: opportunities and challenges
- Meet the industry, researchers, stakeholders and connect to relevant initiatives
- Expose results, plans and activities



ICT-AGRI conference

Friday 24 November 2017 Copenhagen



Thank you for your attention

Niels Gøtke

nigoe@ufm.dk

Danish Agency for Science and Higher Education

