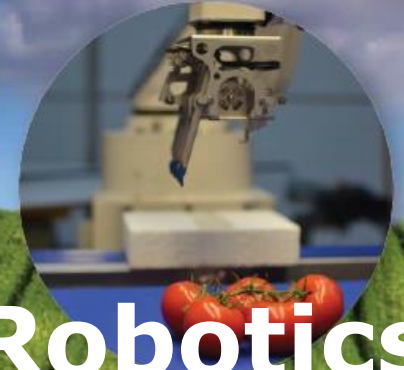


Welcome to the



Workshop on Agri-Food Robotics

State of the art and future challenges

Organisers:

- **Gert Kootstra** Wageningen University and Research
- **Gesa Reiss** York, North Yorkshire & East Riding Enterprise Partnership

Challenges of agri-food sector

More people

food, feed, fuel, fibres, ...

Scarcity

water, fossil fuel, fertilizer,
human labour, ...



More with Less

Impact

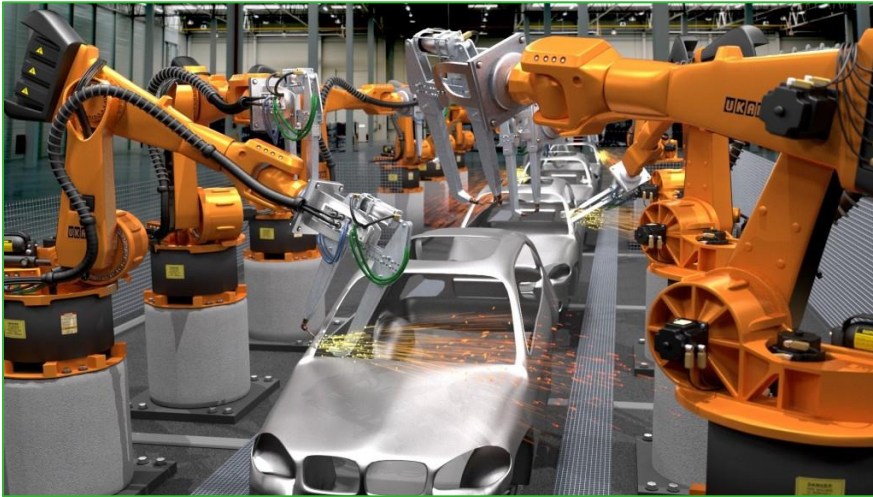
greenhouse gas, waste,
chemicals, diseases

Agri Food Robotics



- Robotics and sensing for sustainable food production
 - Improve efficiency
 - Reduce use of resources
 - Reduce waste
 - Improve quality and food safety
- Roboticists + agronomists + end users

Agro-food vs automotive

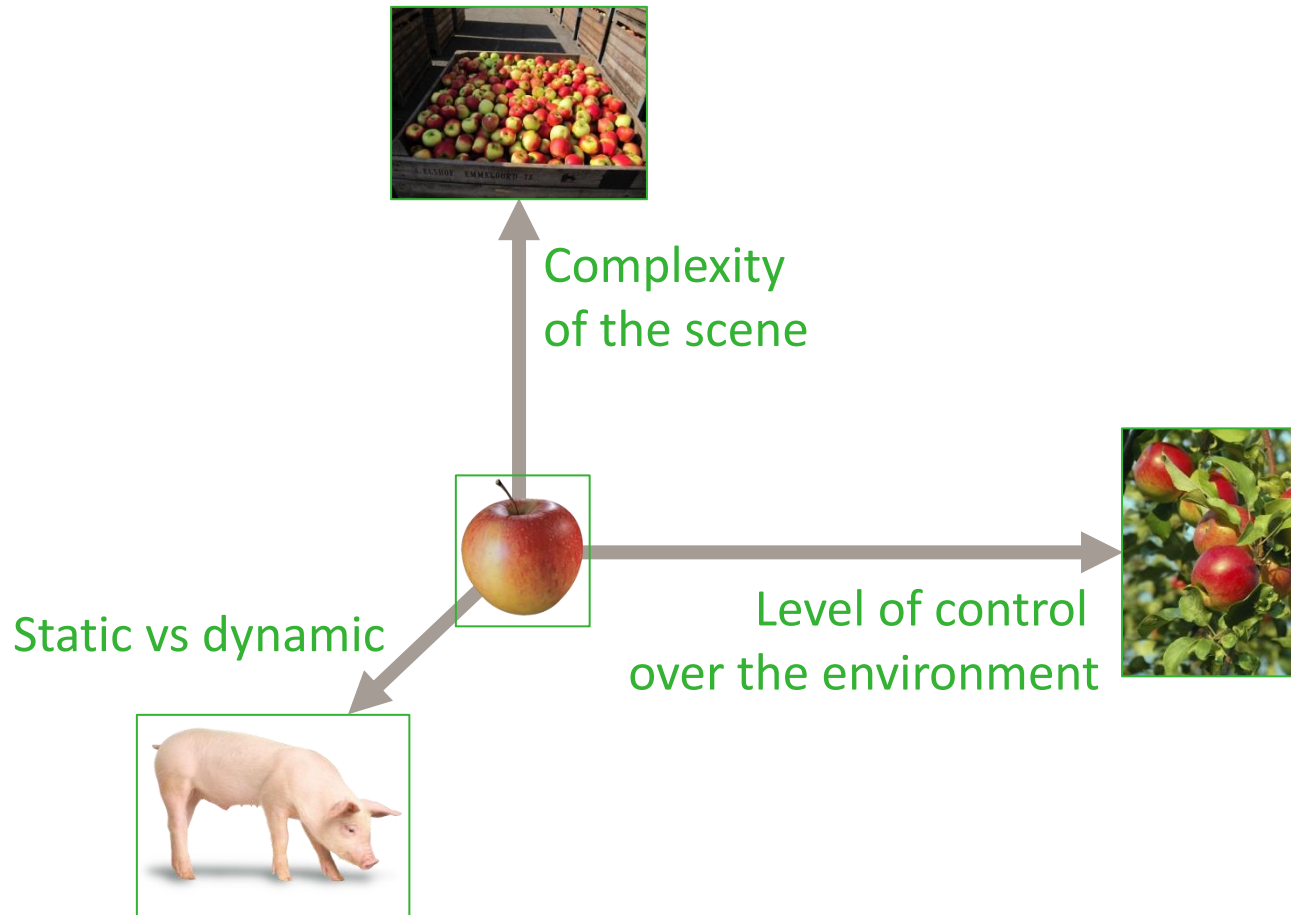


Main technical challenge: variation

- Variation in objects
- Variation in environment
- Uncertainty



Complexity of a Computer Vision Problem



Today's workshop

- 14:00 **Gert Kootstra** (Wageningen University and Research)
Introduction to Agri-Food Robotics
- 14:10 **John Gray** (University of Manchester)
An IoT enabled adaptive packaging line for fresh and processed food products – PicknPack Project
- 14:20 **Simon Pearson** (Lincoln Institute of Agri-Food Technology, University of Lincoln)
Agri-food robotics - from dreams to aspirations and reality
- 14:30 **Richard Green** (National Centre for Precision Farming, Harper Adams University)
Agri-Food and Horticultural Robotic and Data Analytic Developments
- 14:40 **Thilo Steckel** (Claas)
Data management challenges in arable farming while heading towards higher degree of autonomy
- 14:50 **Gesa Reiss** (York, North Yorkshire & East Riding Enterprise Partnership)
Economic development aspects
- 15:00-15:30 **Discussion on future challenges** (panel discussion)

Statements

Robots in agriculture are just another useless toy, please convince us of the contrary (Thilo Steckel)

Statements

After numerous EU projects and tens of millions of Euros spent, why are there practically no robot vehicles on farms? (Richard Green)

Statements

What will it take for agri robotics to reach commercial “escape velocity”?
(Simon Pearson)

Statements

What are the key drivers for the uptake of RAI technology within the European food supply chain?
(John Gray)

What are the barriers to this uptake and how best can they be addressed?
(John Gray)

Statements

Robots in agriculture are not a technology issue, but economical and organisational (Thilo Steckel)

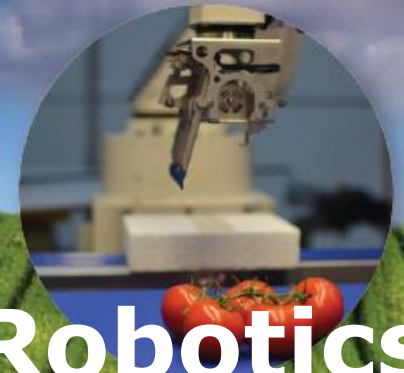
Statements

The UK Agri-Food sector has currently not the skilled labour force required to take full advantage of the RAS agenda (Gesa Reiss)

Statements

Does agricultural robotics research have a future in Britain after Brexit?
(Richard Green)

Thank you for attending



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