

# MSc Biosystems Engineering

- Please mute your mic.
- You can ask your questions in the chat.
- We would like you to join with video, so we can see who we are talking to.



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# Our challenge



# What do we need?

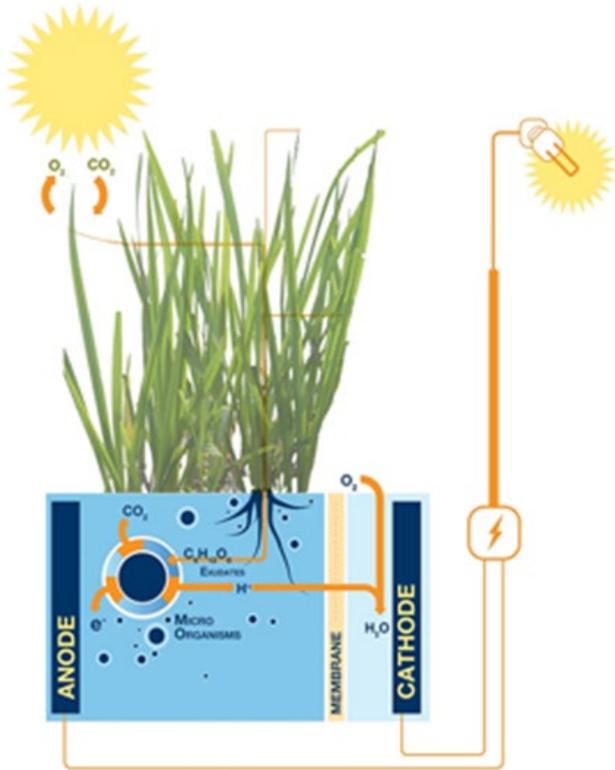
- Food
- Feed
- Flowers
- Fuel
- Fibres
- Fish
- ....





# F

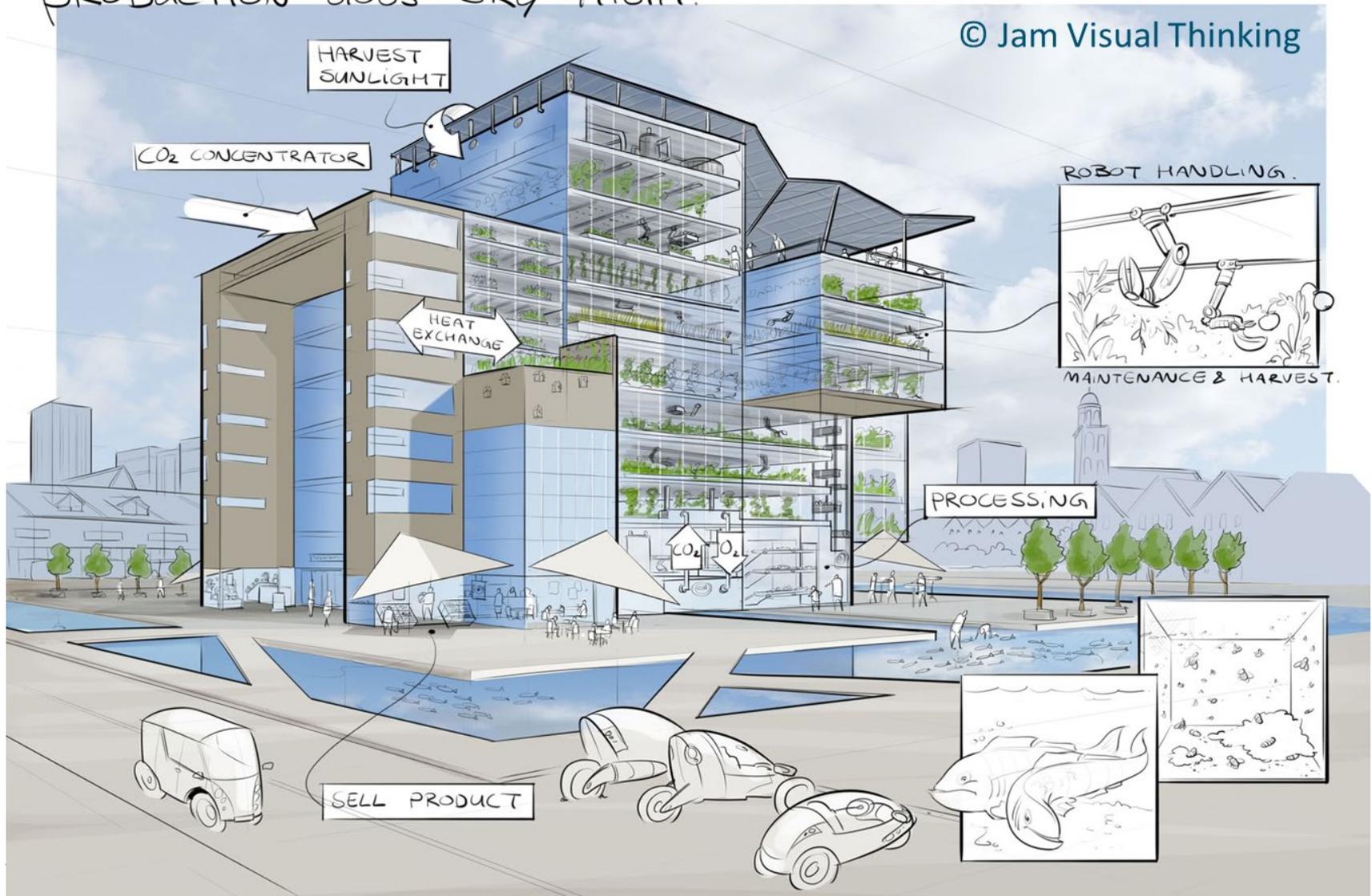
un, feelings & funny  
unexpected things



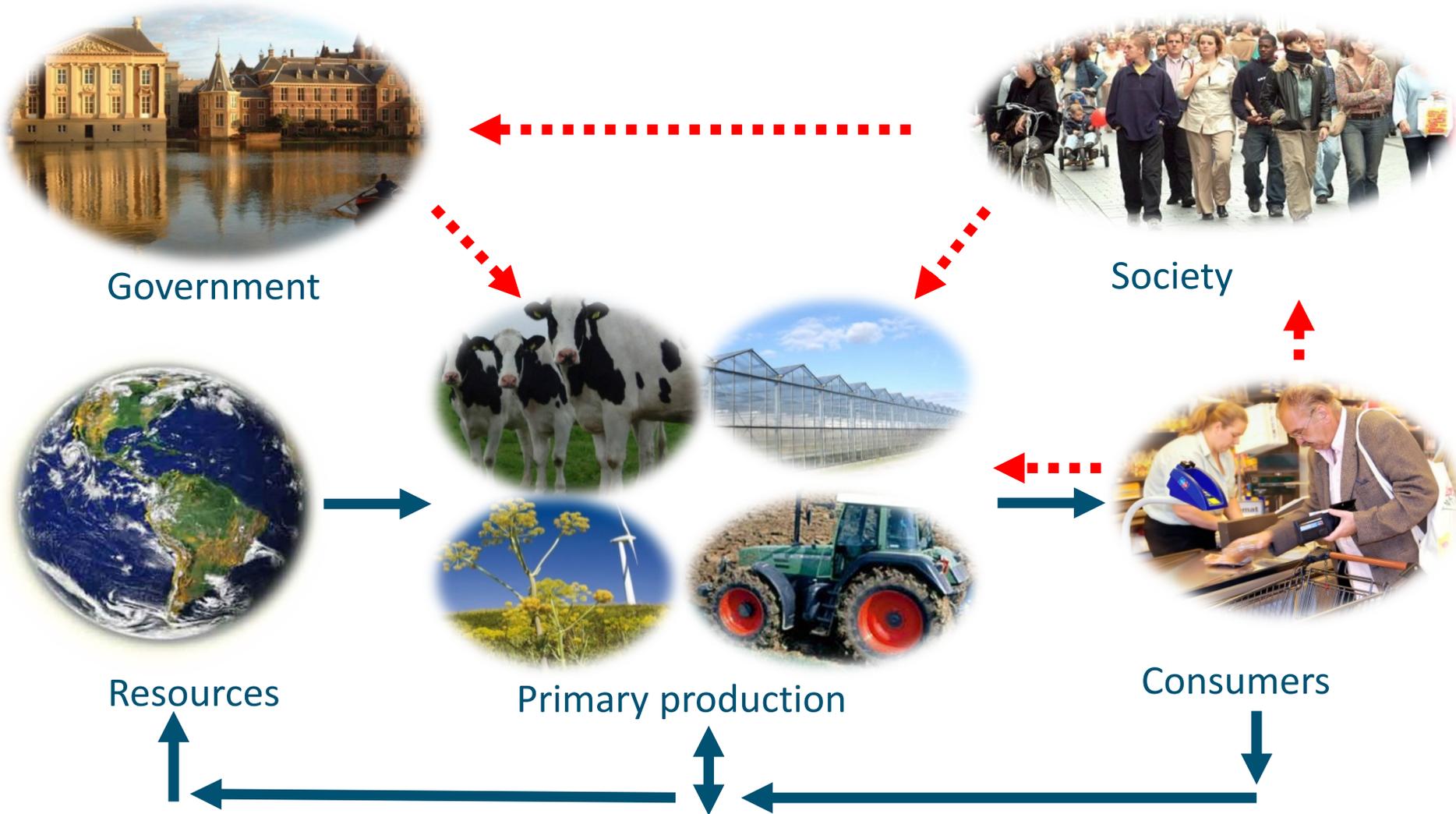
# Engineering in the future

PRODUCTION GOES SKY-HIGH.

© Jam Visual Thinking



# Position Biosystems Engineering



# Engineering: **System thinking**

Study  
Research



Understand  
Model



Optimize  
Control



Innovate  
Design

Existing system  
& structures



Functions

Relations  
between  
entities &  
environment

Manage system  
state variables &  
Output



Experiment

Needs &  
requirements



Functions



New  
structures  
& systems

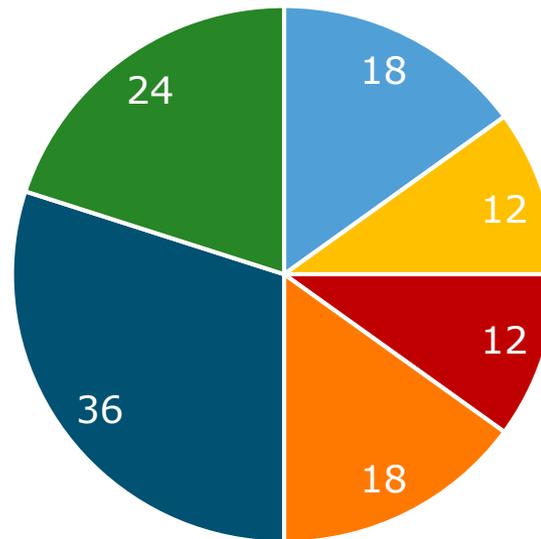
# Study programme

- Duration: 2 years
  - One year courses
  - One year thesis/  
internship
- Tailor made programme
  - Thesis oriented
  - Based on your  
competences and  
ambitions



# Study programme

Total 120 ECTS



- Compulsory courses
- Career preparation courses
- Thesis
- Thesis preparation courses
- Free choice courses
- Internship

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# Compulsory courses

- Overview to Biosystems Engineering
- Three courses
  - Biosystems Design
  - Modelling of Biobased Production Systems
  - Quantitative Analysis of Innovative Biosystems

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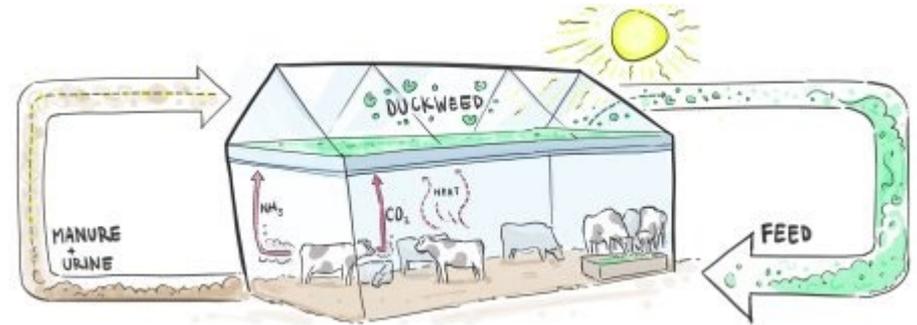
# Career preparation courses

- Research Master Cluster
  - Preparation PhD
  - Write your research proposal
  
- Academic Consultancy Training
  - Organizations' questions
  - Students from entire WUR

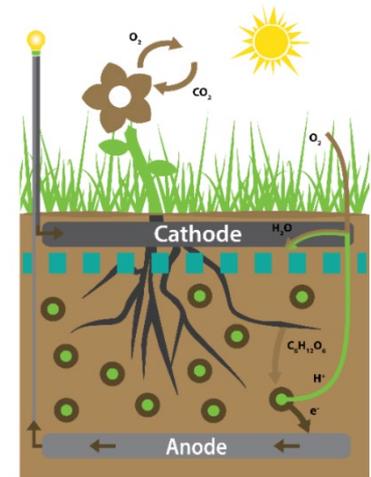


# MSc tracks

- Biobased Chemistry and Technology



- Environmental Technology



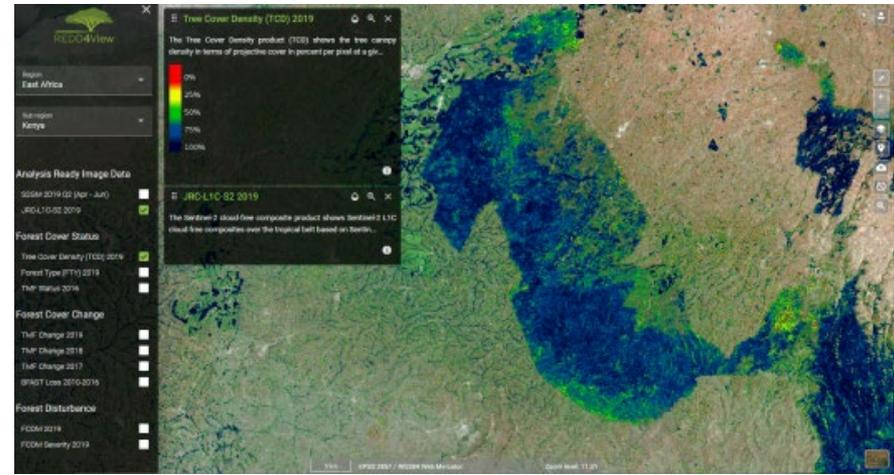
# MSc tracks

- Farm Technology



# MSc tracks

## ■ Geo-Information & Remote Sensing

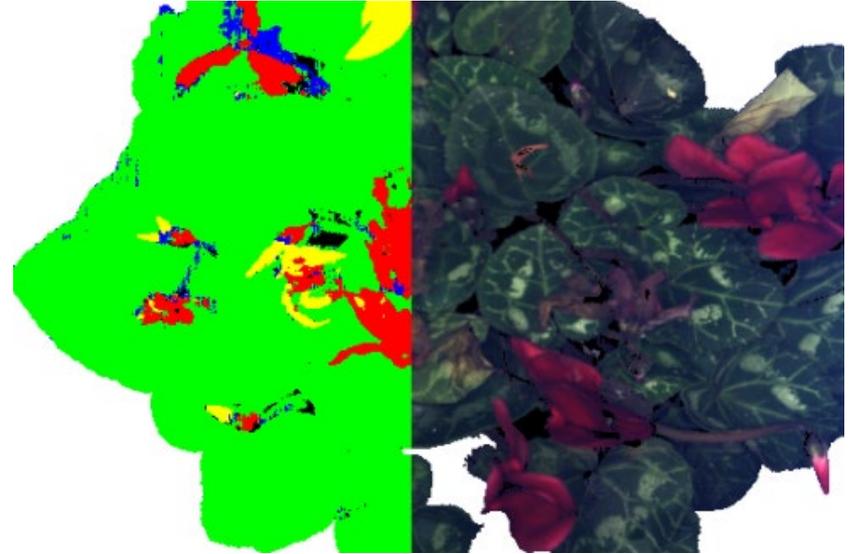


## ■ Information Technology

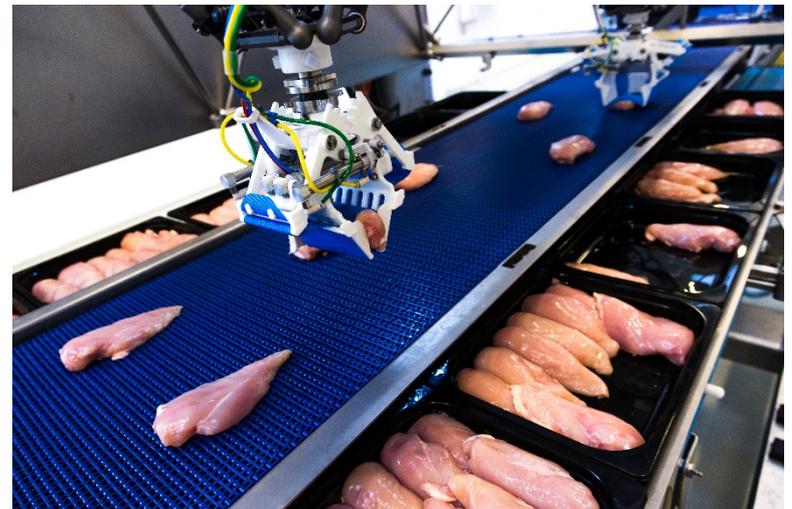


# MSc tracks

- Mathematical & Statistical Methods



- Operations Research & Logistics



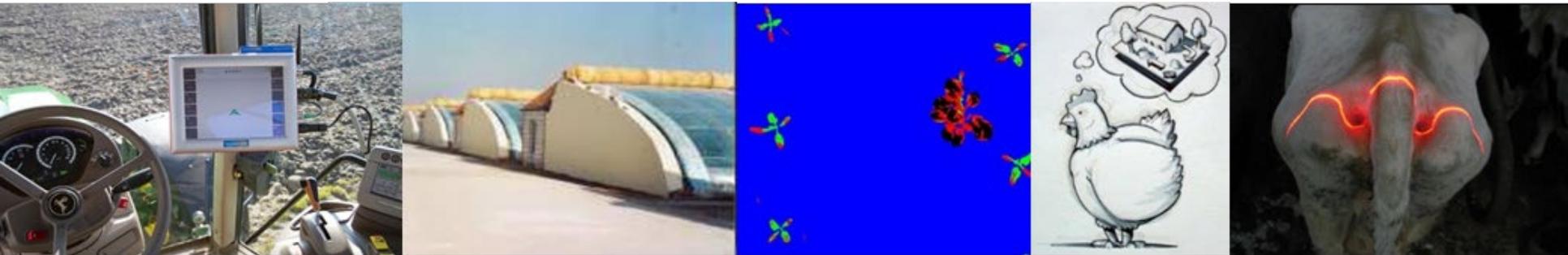
# Entrepreneurial track

- Possible to combine with all other tracks
- Develop skills to create new products, services or processes, or stimulate existing organizations



# Thesis

- 24 weeks (36 credits) of thesis research and report writing
- Thesis usually fits into on-going research
- Other research subjects can be discussed
- Interested? [Read more](#) about our students' experiences.



# Academic Internship

- 16 weeks (24 credits) working outside the university
- Put knowledge and skills into practice
- Professional setting
- In the Netherlands or abroad



# Future career Biosystems Engineer

- Diverse career prospects:
  - Product engineer
  - Systems engineer
  - Research and education
  - Entrepreneur
  - Consultant



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# Biosystems Engineering

## What we do/are

- Technology
- Multidisciplinary approach
- Design & Innovation
- Living environment

## What we don't/aren't

- Only technology
- Only biology
- Livestock farming
- Plant sciences

→ **Systems approach!**

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# Admission

- September and in February start possible
  - September start recommended
- Online application
  - For information: [WUR admission website](#)
  - Add **ALL** requested documents
    - Exception BSc certificate
- Admission Committee decides: yes, no, after a premaster

# Admission requirements

- Relevant Bachelor degree
- GPA of 70%
- Average mark of at least 7.0
- Fluency in English
- Sufficient knowledge mathematics, physics, modeling
  - Dutch HAS students: Prepare during HBO & linkage programme
  - Other HBO and BSc-students possibly 15-30 credits linkage programme
- Engineering content in bachelor programme: at least 60 credits
- Experience with agricultural engineering or environmental engineering subjects is an advantage



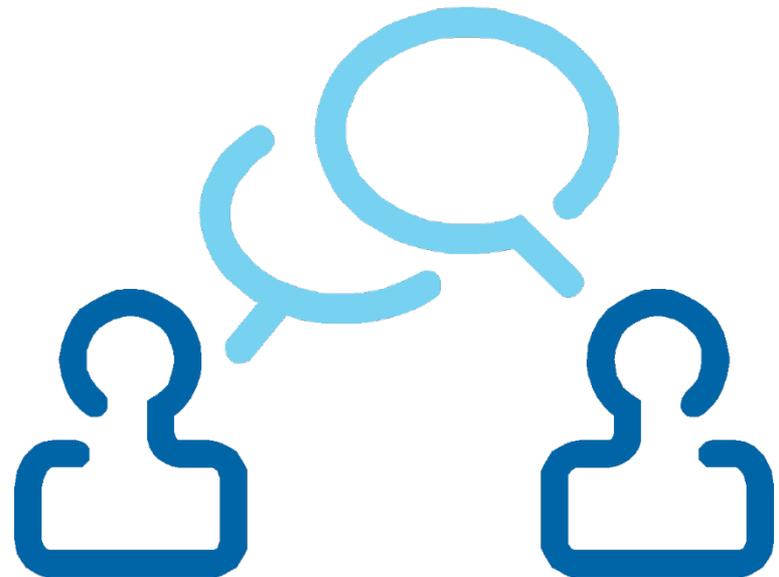
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# English

- All master courses are given in English
- All applicants must provide recent evidence of their spoken and written command of English.
  - English language proficiency (non-EU)
  - English language proficiency (EU)

# Experiences

- Student presentations
- Break out rooms
  - Talk to current students or a study advisor
  - Switch freely between rooms



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# Thank you for your attention

Any questions left? Contact us via email:

Study advisers:

- Randy Möwes
- Gerard Straver



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