

MSc Biosystems Engineering



*Engineering a green future
with agrotechnology*



MSc Biosystems Engineering

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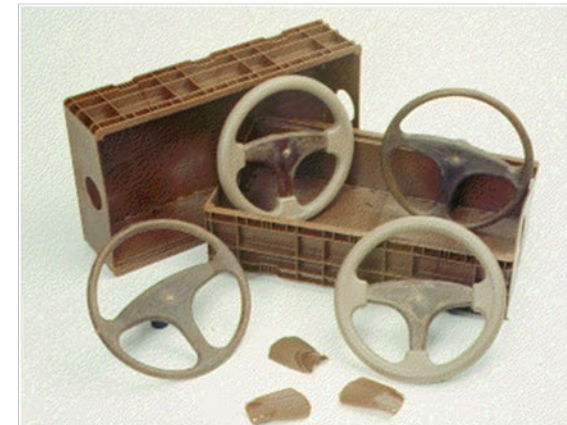


Our challenge



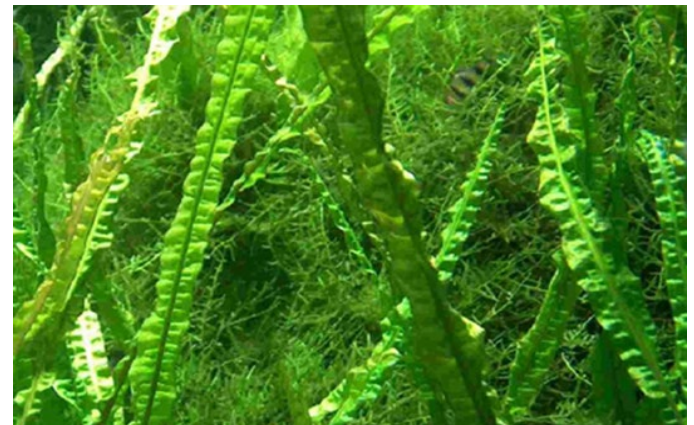
What do we need?

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





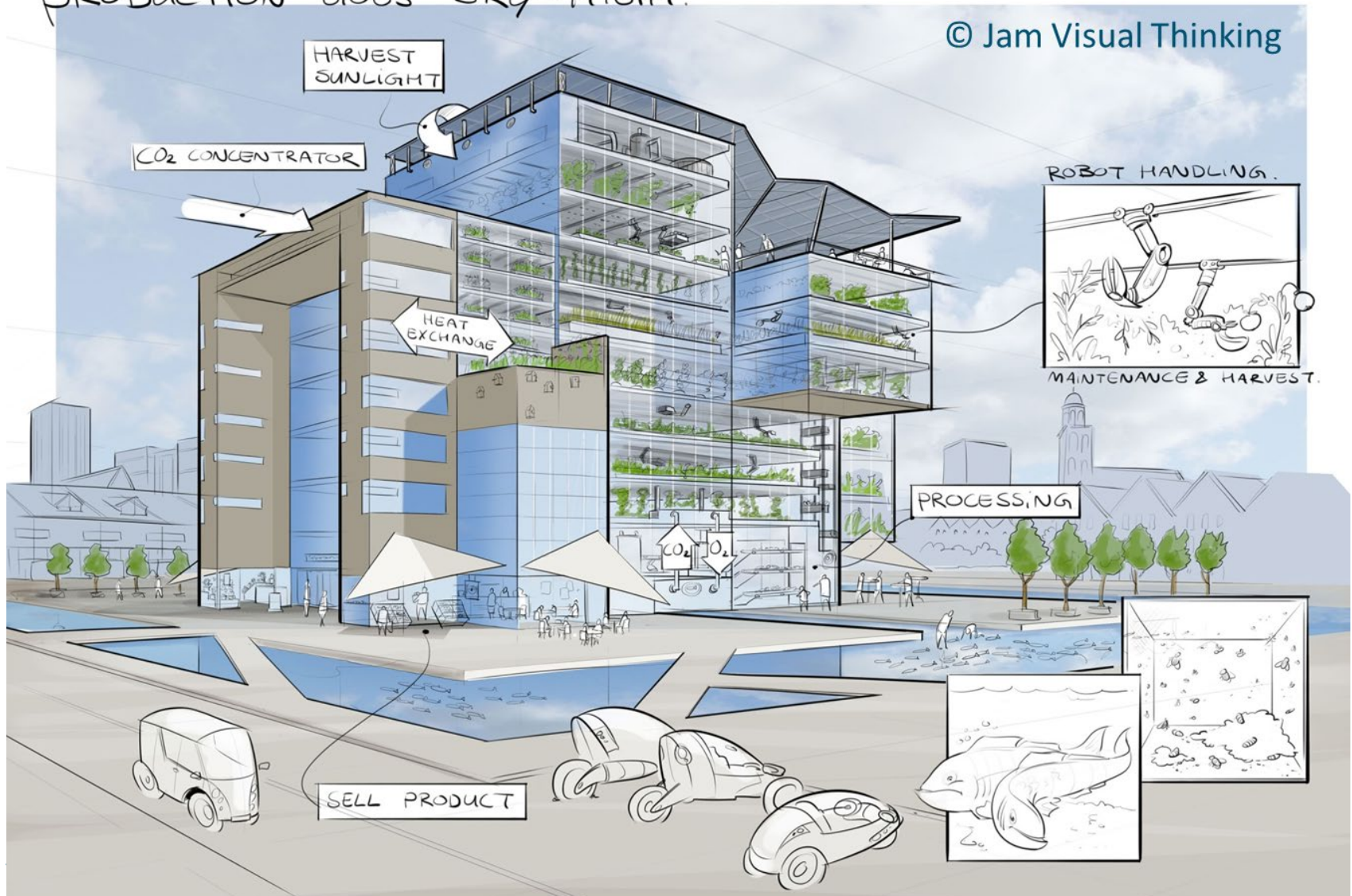
Fun & unexpected things



Engineering in the future

PRODUCTION GOES SKY-HIGH.

© Jam Visual Thinking



Position Biosystems Engineering



Government



Society



Primary production



Resources



Consumers

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

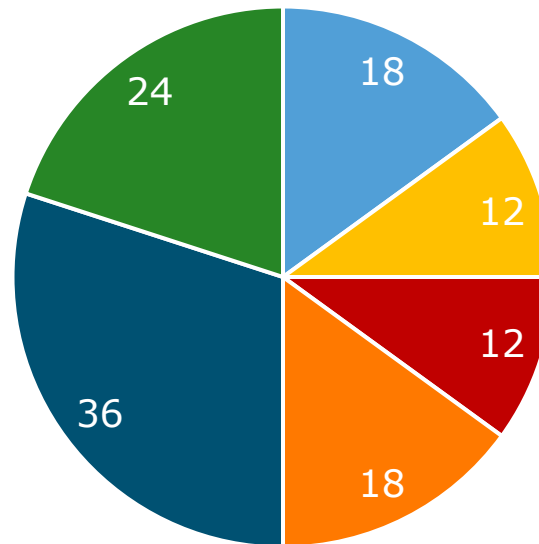
Study programme

- 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

Compulsory courses

- Three courses
 - [Biosystems Design](#)
 - [Modelling of Biobased Production Systems](#)
 - [Quantitative Analysis of Innovative Biosystems](#)
- These three courses give an overview of Biosystems Engineering

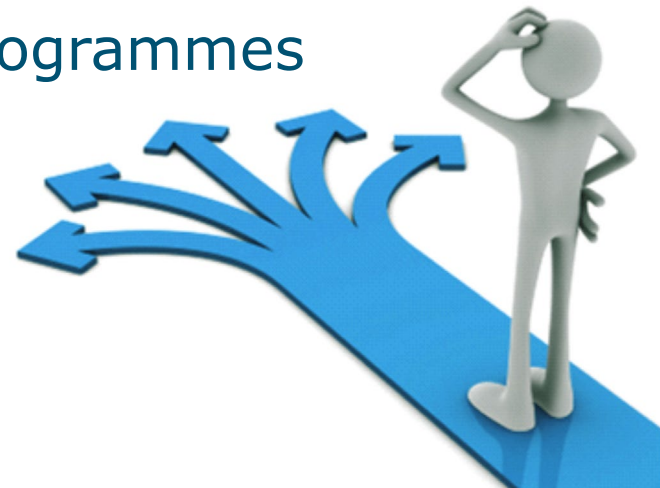
Career preparation courses

■ Research Master Cluster

- Preparation PhD
- Write your research proposal

■ Academic Consultancy Training

- Real life questions from companies
- Students from different WUR programmes



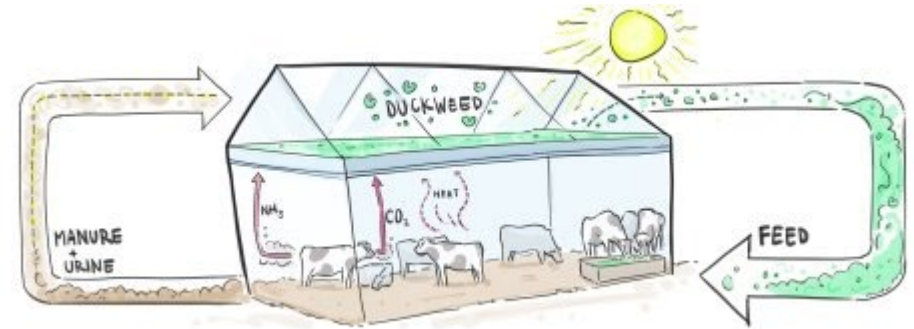
Seven thesis tracks

- [Biobased Chemistry and Technology](#)
- [Environmental Technology](#)
- [Farm Technology](#)
- [Geo-Information & Remote Sensing](#)
- [Information Technology](#)
- [Mathematical & Statistical Methods](#)
- [Operations Research & Logistics](#)



MBE thesis tracks

- Biobased Chemistry and Technology



- Environmental Technology



MBE thesis tracks

- Farm Technology

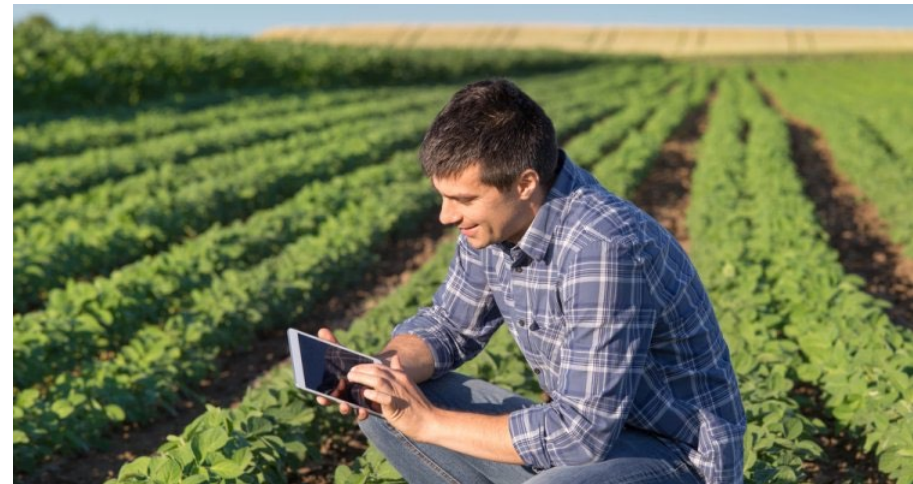


MBE thesis tracks

- Geo-Information & Remote Sensing



- Information Technology



MBE thesis tracks

- Mathematical & Statistical Methods
- Operations Research & Logistics



MSc Track Entrepreneurship

- Develop your entrepreneurial skills!



Thesis



- 6 months of thesis research and report writing
- Usually fits into on-going research
- Other research subjects can be discussed
- For examples see www.wur.eu/mbe

Academic Internship



- 4 months outside the university
- Put knowledge and skills into practice
- Professional setting
- In The Netherlands or elsewhere

Future career Biosystems Engineer

- At graduation 80-90% of students have a job
- Diverse [career prospects](#):
 - Product engineer
 - Systems engineer
 - Research and education
 - Entrepreneur
 - Consultant



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!**

Admission

- Possible start: September and February
 - Start September is recommended
 - Online application
 - [How to apply for a master's programme?](#)
 - [Application and admission - Biosystems Engineering](#)
- Add **ALL** requested documents
- Exception BSc certificate (later)
- Admission Committee decides: yes, no, after a pre-master

Application and admission - Biosystems Engineering

- Relevant BSc Degree
- At least 60 credits in BSc of subjects such as engineering, mathematics, physics, modelling, programming, design
- GPA of 70%
- Average mark of at least 7.0
- Fluency in English
- Possibility for Dutch hbo students: minor during hbo and/or linkage (pre-master) programme



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 MSc – WUR](#)

Thank you for your attention

Any questions? Contact us via email: MBE.msc@wur.nl



Randy Möwes



Suzanna
Overtoom



Edith Rasch

your study advisors