

Jappe de Best

avans
university of
applied sciences

INNOVATE OR DIE.

completely
renewed

MINOR BIOBASED TECHNOLOGY & BUSINESS DEVELOPMENT

A unique multidisciplinary semester programme preparing you for a future without fossil fuels. Together with a group of international students from different educational backgrounds, you will explore new sustainable technologies and develop business models to market the products of these technologies.

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more



STARTS SEPTEMBER



Focus of the minor

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- How to make a successful switch to a more sustainable and circular biobased economy
- Multidisciplinary **BROADENING** minor: **economic** – **technical** – **marketing**
- Students & lecturers with different backgrounds: **finance** - (environmental) sciences / **engineering** – (business) **marketing**
- International focus (in English)
- Cooperation with
 - Companies
 - Centre of Expertise Biobased Economy (www.coebbe.nl)
 - Biopolymer Application Centre (BAC)
 - Research group Sustainable Finance and Accounting



*“I think the minor was great. It really made me doubt whether I have chosen the right study programme”
(exchange student)*

“This minor was really interesting and I really learned a lot about the way a biobased economy works and what you need to do to realize one”



Project Biobased Chains

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- Body of the minor (12 EC)
- Multidisciplinary project for a client (industry, water board, government)
- Work in groups of 4-5 persons
- Technical design of a new innovation
- Economic feasibility
- Marketing aspects
- Write a business plan for the client

“We did a very fun project that was really applicable for our client. I liked the different fields of research that we had to do for the project”

“I really liked it that the courses were related to the project. The new knowledge that you gain helps you to improve the result for you project client”





Project Biobased Chains



Some examples

1. Using roots from mushrooms to make bricks or plant pots
(Blue city)
2. Production and possible uses of bioplastics from industrial waste water
(Waterschap Brabantse Delta)
3. Processing and possible uses of residual grass from nature reserves (for telephone cases or coffins)
(Newfoss – part of EU Interreg project)
4. Possible use of residues from crops (leak, asparagus) as (food) packaging material
(ZLTO - designer Isaac Monte)





Project CO₂ neutral cities

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- Case study (4 EC)
- How can you make a city CO₂ neutral?
- Work in groups of 4-5 persons
- Set-up infographic flyer to convince stakeholders (citizens, government, companies)
- In 2 project weeks





Courses & Trainings (12 EC)



Technical design

- Introduction to biobased technologies (1 EC)
- **Biobased energy & technology (2 EC)**

Finances

- Investment decisions (1 EC)
- Biobased business models (1 EC)

Other

- Biobased battle Brazil (1 EC)
- **Course sustainable challenges (2 EC)**
- **Guest lectures (1 EC)**
- Doing business with your talent (1 EC)

Biobased Economy

- Think Biobased MOOC (1 EC)
- **Biobased business development MOOC (1 EC)**

Marketing

- **Marketing & branding instruments (2 EC)**
- **Communication instruments (1 EC)**

Introduction program (2 EC)

- **Social program**
- **Working in multidisciplinary project teams**
- **Games (entrepreneurship, sustainability, creativity) to introduce you to the theme of the minor**

Bold = compulsory. Other courses = free choice



Why choose this minor?

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- A biobased circular economy is the future
- A multidisciplinary approach is the future
- You will **broaden your horizon** by learning from different backgrounds
- This will definitely help you in your future career
- International focus
- Improve your English

"This minor really helped me to improve my English skills"

"I liked the project and working with a team with different backgrounds. It allows you to learn from each other"





More information & subscription

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More information

- <https://www.kiesopmaat.nl/modules/avans/ATGM/139981>
- E-mail: Jappe de Best (Jh.debest@avans.nl)

Subscription Osiris

- Academy ATGM
- School of Life Sciences and Environmental technologies'
(or 'Academie voor Technologie gezondheid en Milieu')