

**BioGov.net**

Governance & Upskilling for a  
Stronger Bioeconomy

# Case Studies in Bioeconomy education, training and skills development

Case study sample: CO3 Campus

Southwest- Netherlands,  
Zeeland, East and West  
Flanders Belgium

AVANS



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# CO3 Campus

## 1 Abstract

A networking center for the sustainable economy and innovation in the technical sector. Sustainable building with an exemplary function in the region. It offers demo facilities like:

- Water purification system
- Suntrackers
- Circular coffee area
- Circular Biobased offices / meeting rooms
- Energy neutrality / energy transition

CO3 Campus facilitates events, trainings, workshops, meetings.

## 2 Target Groups

All organisations, companies and networks in the North Sea Port region: Zeeland, West Brabant, Oost-Vlaanderen, West-Vlaanderen.

## 3 Case Study Category

Bioeconomy education, training and retraining in Vocational Education and Training (VET).

## 4 Training Provider

CO3 Campus (with help from Competence Development Center / Scalda)

## 5 Region

Southwest- Netherlands, Zeeland, East and West Flanders Belgium.

## 6 Language

Dutch and English.

## 7 Objectives of the education Format

Complementing education for professionals.

## 8 Final objective of the education format

Training and re-training the (biobased) process operators.

## 9 Scope and context of the education format

The CO3 Campus has successfully developed simulation software tailored for the (bio) process industry. This software is integrated into the curriculum of the local vocational school, where it plays a crucial role in educating the next generation of (bio) process operators. Additionally, various companies leverage the software as a comprehensive guide for theoretical reference or as a refresher course.

The CO3 Campus extends its services to the Maintenance and Process Industry in the region, conducting compliance training for approximately 6000 employees annually. Beyond technical training, the campus also facilitates non-technical and soft skills training sessions.

## 10 Specific Skills and competences addressed

Technical competences.

Transversal competences.

The study centre is where you can find digital study materials, exams and process simulation.

These tools are aimed to further develop competences for (future) operators and technicians.

The study materials are useful for both students and more experienced employees in bio-based- and petrochemical companies, as well as the food industry.

All tools are currently available in English and Dutch.

- Separation technologies like; distillation, extraction, drying, washing, absorption
- Fermentation with; fermentation, biochemistry, cell biology, bioprocess
- Heat exchange
- Simulation software
- And others.

## 11 European Qualification Framework level/s

Level 4.

## 12 Main benefit of the participant

Certificates that are essential to be able to do the work as an operator or other jobs in the chemical industry; communication skills, and other relevant skills.

## 13 Main cost categories considered

€ 750000 (for the English update and distillation and fermentation parts).

Withing the Interreg IV Bio Base Europe Project the investment was approximately 7 million for the total project with the building included.

The online and onsite courses, facilitated through simulation, provide participants with valuable insights into effective work practices within biobased industries. The development of the simulation software was a key component of the project.

The primary investment was directed towards constructing the complex in Terneuzen, housing the CO3 Campus. Currently, with no subsidies available, the financial support for the campus is sustained through contributions from companies within the region

## 14 Importance and impact

+/- 50 people per year since 2013 with the software and the Scalda opleiding procestechniek.

The Competence Development Center has trained up to 6000 people per year since 2013 for compliance trainings in the Maintenance and process industry.

## 15 Relevance (of the format)

The region has a strong focus on the chemical industry. The region ranges from Terneuzen to Gent and all major companies in the area are connected to the CO3 Campus for their educational activities.

## 16 How can it inspire BioGov.net (Why was it designed in this specific way / what are the success factors?)

This organization stands out as a unique entity not only within the region but also across the Netherlands and Belgium. What sets it apart, particularly in this case study, is the exceptional feature of hosting training facilities that cater to a diverse range of skills. The impetus behind constructing this complex originated from the local companies, recognizing the demand for specialized courses to equip their operators and employees with the latest information and requisite skills.

A dedicated team spearheaded the project, maintaining direct communication channels with relevant industry partners and regional governments. The availability of e-learning modules and simulation software comes with an annual subscription fee.

## 17 Data sources

- **Online resources:** CO3campus.nl / studiecentrum.bbetc.org
- **Resource persons:** Alexander Lie Kwie, Jean-Paul Leenknecht
- **Other sources, if any:** -

