



## Join the Short Training Programme on

# Sustainable use and re-use of biomass



## For who?

MSc, PhD and postdoc students in the fields of life sciences, engineering, environmental sciences and chemistry

### When?

From 11—13 September 2017

### Practical information

- This programme is equal to 3 ECTS credits
- · Language of instruction: English
- Location: Ghent University,
  Conference Centre Het Pand, Onderbergen 1, Ghent, Belgium
  Faculty of Bioscience Engineering, Coupure Links 653, Ghent, Belgium
- Tuition fee: € 250 (free for U4 students)

#### Included:

- 3 days programme on Sustainable use and re-use of biomass
- Lunches, social activity, company visit and dinner

#### Not included:

- Local expenses
- Travel cost
- Accommodation

A combination with the <u>Short Training Programme on Introduction to the Circular Economy: Economics and Management of Natural Resources programme</u> (18—22 September) costs € 750 and includes a guided tour in the city of Ghent on 15 September.

# How to enroll

Contact applications.itc@ugent.be

The maximum number of participants is set to 50.

Registration deadline: 15 August 2017



### Content

Within the cluster for Science and Technology a U4 Summer School cycle will be launched on Energy, Sustainability and Society. A first edition will take place at Ghent University around the central theme of 'Sustainable use and re-use of biomass'.

Each day of the programme focuses on a specific theme with contributions of leading scientists in the field of all U4 partner universities and of the Ghent University based International Thematic Network 'GREEN-CHEM'. Day one will focus on biomass production. On the second day technological processes are considered to transform biomass into useful end products (by thermal, thermochemical, chemical, microbiological, ... processes). On the third day legal, economical and political aspects of (re)use of biomass are dealt with. Also a company visit is scheduled.

# **Programme**



### September 11th 2017: Biomass production

Biomass production for bio-energy : opportunities and threats for Flemish Agriculture Chances and ecological impacts of woody biomass generation on agricultural land Engineering trees for the biorefinery

Photosynthetic microorganisms (Cyanobacteria) and the possibility to custom design them to produce selected biofuels and chemicals in direct processes

Flash presentations by and interactive discussion with course participants The material hierarchy: Unilin's vision on the circular economy

#### September 12th 2017: Technological processes to transform biomass into useful end products

Thermal conversion processes: biomass incineration and gasification

Pyrolysis of biomass

Upgrading of pyrolysis liquids

Biomass refinery: opportunities in the north of the Netherlands

Biofuels by fermentation: the bio-ethanol case

Second generation biofuels from industrial and agricultural waste streams

Green Chemistry: chemical conversion processes

Challenges in biomass conversion and strategies to face them

### September 13th: Legal, economical, political, ... aspects

Certification in order to secure sustainability

Renewable energy: financial support, investment security and the lifecycle of projects Outlook for the biobased economy, using state-of-the-art assessment reports

Bridging the gap between industry and academia in green chemistry

Company visit to Stora-Ensa (paper recycling + biomass-based Combined Heat- Power + Heat network)

# Need more info?



