



**State of play:
Cluster Bio-economy -
October 2015**



Flanders
State of
the Art

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MAKE TOMORROW
MORE BEAUTIFUL

OVAM

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1 BIO-ECONOMY

Leader: OVAM

INTRODUCTION

How do we make sure that biomass residual flows from agriculture and the food industry are used optimally as materials, chemicals, soil conditioners, and sources of energy?

AMBITIONS AND REALISATIONS

There are five different actions within this cluster:

- The realisation of a sustainable bio-economy via all-encompassing discussions;
- Valorising and marketing recovered nutrients and organic carbon;
- Inventory of biomass flows and potential applications;
- Identifying and stimulating the demand for bio-based products;
- Attention to all the objectives of the bio-economy in the renewable energy policy in Flanders.

We will discuss these 5 themes and the corresponding action points below.

1.1 The realisation of a sustainable bio-economy via all-encompassing discussions with the government and sector

The Interdepartmental Working Group (IWG) Bio-economy would like to see Flanders evolve into a sustainable bio-economy by 2030. It has thus developed a vision and strategy via discussions between the government and the sector. An action plan has also been drawn up in close consultation with the stakeholders: 'Sustainable management of Biomass (residual) flows 2015-2020' was approved by the government of Flanders on 10 July 2015. The various stakeholders shared their respective expertise and exchanged ideas at working meetings of the IWG Bio-economy. This was a great success. In 2015, stakeholders provided input for the KET-roadmap Industrial Biotechnology and the results of the NWE Interreg.

Alongside meetings, work has also taken place on an online expertise platform (www.ceebio.be). On this platform expertise, know-how and the activities of the Flemish bio-based economy are shared, both by businesses and researchers. Collaboration and cooperation are thus encouraged.

1.2 VALORISING AND MARKETING RECOVERED NUTRIENTS AND ORGANIC CARBON

Because of the fact that this action was included in the 'Sustainable management of Biomass (residual) flows 2015-2020', there are binding clauses for all actors that carry out public tasks with regard to environmental policy.

Various initiatives and studies are investigating the valorisation and marketing of recovered nutrients and organic carbon. On this basis, concrete business models are being developed around waste water and sewage sludge. The marketing plan for organic carbon is currently being finalised by the VLACO.

A few inspiring studies:

- Nutrient Clearing House: recuperation and reuse of nutrients from household waste water, animal manure and related flows. The cycle is closed and substances can be reused ad infinitum, and less waste is produced.
- ZAWENT: recuperation and reuse of nutrients, water and energy from waste water from more than 400 dwellings, a school, a crèche and a sports hall in Ghent. Result: 15,000 m³ less water consumption and 33,000 m³ of water reuse. In addition, 30% of the total heat demand is generated locally and nutrients are recuperated.
- StokStroom: the reuse of (mechanically purified) waste water for the cultivation of tomatoes and fish.

A solution is still being sought for a continuation of the Flemish Nutrient Platform and Flemish representation in the European Sustainable Phosphor Platform. Finding financing continues to be tricky. Nevertheless, the parties concerned require active management in order to launch new initiatives regarding nutrient management.

1.3 INVENTORY OF BIOMASS FLOWS AND POTENTIAL APPLICATIONS

Knowledge about what biomass flows exist and what can be done with biomass, is an important source of information. That is why we are improving information collation and the corresponding communication, taking into account the various aspects of sustainability.

In 2016, OVAM drew up a new biomass inventory. We are thus attempting to further improve the reliability of the statistics. Biomass flows have also been presented more effectively using Sankey diagrams.

1.4 IDENTIFYING AND STIMULATING THE DEMAND FOR BIO-BASED PRODUCTS

This activity is implemented according to the bio-economy action plan. In October 2014 an event was organised around the importance of bio-based products for Flemish SMEs.

Bio-economy was one of the central themes of the Open Companies Day in 2015. The awareness of the public at large was thus raised and they were provided with information about where they could encounter it on a day-to-day basis.

The government must also set a good example. That is why, the policy document 'sustainable government purchasing' issued by the government of Flanders, states that the purchase of bio-based materials and products is an opportunity for sustainable tendering.

1.5 Attention to all the objectives of the bio-economy in the renewable energy policy in Flanders

The 'Action plan (residual) biomass flows' indicates what biomass is available for renewable energy production. Energy producers then know what biomass they can legally use.

'Action programme 16' of this plan covers the development of a set of sustainability criteria for woody biomass flows in 2016. The government and the stakeholders concerned are monitoring the sustainability of wood flows that are used for renewable energy production and material applications.

Closer dialogue between the various administrations is also set out in this plan. Continuous harmonisation between the materials and energy policy would thus be ensured.