



## RAW MATERIALS FROM SEWAGE - LEGISLATION

### FLANDERS CIRCULAR

In the 2050 vision, the Flemish government has laid down how Flanders will realize the transition to a circular economy. This is done under the heading of "Circular Flanders". Raw materials from sewage water can contribute to the realization of a circular economy. However, this is still not happening enough. This is partly due to market conditions, and waste legislation, which still assumes a linear approach in which residual flows are regarded as waste. What opportunities are there and what needs to be done to capitalize on these opportunities?

### SEWAGE IS VALUABLE

A biocomposite made from recycled toilet paper? Yes you can! Raw materials in sewage can be used for all kinds of applications. A few examples:

- Application of phosphate as a fertilizer.
- Sewage sludge to produce biogas or as a raw material for the cement industry.
- Use of lipids for biodiesel production.
- Activated carbon made from screenings for the removal of micro pollutants from sewage.
- Making degradable plastics (PHA) from fatty acids.

### LEGAL FRAMEWORK

Raw materials from sewage are classified as waste materials. A substance only ceases to be waste if the following conditions from the waste framework directive (WFD art. 6, update 2018/851/EU) are met:

- The material is to be used for specific purposes.
- There is a market or demand for the material.
- The material meets technical requirements for the specific purposes and meets the existing legislation and standards applicable to products.
- The use of the material generally has no overall adverse effects on the environment or human health.

These conditions have been detailed for Flanders in the materials decree (Dec 2011). Implementation is in the hands of OVAM. Flanders can draw up its own criteria for the use of waste materials in specific applications. This has already happened for a number of applications (including fertilizers and building materials).



Bio char



Bio oil



Bioplastic

### TOP 4 PRACTICAL CHALLENGES

Challenges for making valuable products from sewage water is the Flemish policy and legal framework.

1. The price of raw materials from sewage water is currently even higher than that of conventional comparable raw materials. Current policy is not aimed at realizing preconditions for creating a good market
2. Flanders has a 30 days decision time for an End-of-Waste (EoW) status application. This is very good. However, this applies from the time the application file is complete.
3. In principle, a Flemish EoW declaration is location-bound and only applies to the process described in the application. There is an option for a group end-of-waste declaration, but only if it concerns identical processes and the raw material is used in one specific application. This is often not the case for raw materials from sewage. So separate applications must be submitted. This is time consuming and hinders proper positioning in the market.
4. The Flemish EoW declaration is only valid in Flanders. Not in other EU countries or even in Wallonia (Belgium). This hinders proper positioning of raw materials from sewage on the EU market.

### MORE INFORMATION

For more information please contact Jappe de Best, Centre of Expertise Biobased Economy/Avans Hogeschool - [jh.debest@avans.nl](mailto:jh.debest@avans.nl).

Or visit the website [www.nweurope.eu/wow](http://www.nweurope.eu/wow).

## WHICH ACTIONS ARE NEEDED!

### SHORT TERM (< 1 YEAR)

1. Implementation of the guidance for the assessment framework for raw materials from sewage.
2. Formulate concrete goals on resource recovery from wastewater to stimulate resource recovery in the short term.
3. Allow Flemish EoW declaration also in Wallonia and vice versa.

### MEDIUM TERM (1-3 YEAR)

1. Expand the options for agreeing to an end-of-waste status of the same type of raw materials for different locations and different buyers.
2. Free trading of raw materials within Belgium: an EoW status applies for whole Belgium (and lobby for free trading of raw materials between all EU countries).