

THE SCENT OF SUSTAINABLE SEWAGE SLUDGE



ERDF. Sewage sludge humification for less CO₂

Wastewater is carefully treated in a sewage plant. The clean water is returned to the natural cycle, while sewage sludge remains. This sludge is then dewatered, a process that consumes considerable amounts of energy. An alternative technology is now being established at the association for wastewater treatment (TAV) Liebenwalde.

TAV operates a sewage treatment plant in Liebenwalde, which purifies the domestic wastewater of around 15,000 people. The sewage sludge produced during purification is recycled at the end of the process, for example, as fertiliser for agriculture or incinerated to generate electricity and heat. Since this kind of recycling does not usually take place on the premises of the sewage treatment plant, suitable transport procedures are needed. In order to minimise the number of transports and therefore CO₂ emissions, water can be removed from the sewage sludge in various processes in order to reduce the total volume. The sewage sludge humification plant offers a suitable process.

What exactly happens at the plant?

With the help of grants from the European Regional Development Fund (ERDF), TAV Liebenwalde has commissioned the construction of a sewage sludge humification plant with four humification beds next to its own

Project details



Beneficiary:

Trink- und Abwasserzweckverband (TAV)
Liebenwalde
Berliner Straße 85
16559 Liebenwalde
www.tav-liebenwalde.de



Priority:

Supporting efforts to reduce CO₂ emissions



Investment amount:

EUR 2,041,000, of which EUR 1,632,000 is ERDF-funding



Project term:

February 2020 to June 2020





Official ground-breaking ceremony of the sewage sludge humification plant in March 2020

WHY IT MAKES SENSE

- ✓ **Cutting energy consumption** by around **10,000 kWh per year** thanks to humification of sewage sludge
- ✓ **Over 35 tons less in CO₂ emissions each year** now the removal of sewage sludge is no longer necessary
- ✓ **No increase in fees for connected households** due to the construction of the humification system
- ✓ **Reduced workload of the staff** as a result of no more sludge thickening and related maintenance

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sewage treatment plant. These beds will be planted with reeds which will promote evaporation of the sludge water. The systems used at the sewage treatment plant to dewater sludge have seen better days, they require considerable maintenance and repair work and are unable to achieve any significant reduction in volume. This meant that in the recent past around 250 tours per year (carrying about 22 m³ of sewage sludge each time) were needed to dispose of the sludge. In addition, changes in legislation have made the agricultural use of sewage sludge more difficult. This was one of the reasons why TAV had to act and finally decided to build this plant.

From sewage sludge to a natural biotope

The project is special for TAV Liebenwalde in several ways. Since the sewage treatment plant was built, this is the first investment of this dimension. Moreover, the examination of possible alternatives for disposal showed that humification is a particularly ecological approach. Apart from cutting climate-relevant gases, the reed-overgrown humification beds create a valuable biotope, both for many insects and for various bird species.

TAV has done it again!

This is not the first time that TAV in Liebenwalde has used ERDF funding. The aeration system of the sewage treatment plant is currently being modernised, which will boost the efficiency of wastewater treatment. In addition, the construction of a photovoltaic system is set to begin in spring 2020.



DID YOU KNOW?

If you think that a sewage plant always smells unpleasant, Liebenwalde will prove to you that this is not true. Only the wastewater circulating in the corresponding basins gives off an unpleasant odour. This, however, is only a small part of the entire sewage plant. The sewage sludge that remains after wastewater treatment has a rather pleasant scent, almost like potting soil.