

VALUEWASTE

Unlocking new value from urban biowaste

Feeding our soils: fertilisers of the future



1. Selective collection in cities

The brown container: organic residues (biowaste).



3. Treatment by industrial partners: Nuresys and Ekobalans

Recovery of nitrogen and phosphorus from the wastewater effluents as struvite and ammonium sulphate.



2. Waste Management Plant

Urban biowaste is subject to anaerobic digestion and then dewatered. This liquid effluent is treated for nutrients recovery.



4. The final product: soil fertilisers

Nutrients are blended and granulated for its use as soil fertilisers.

KEY FERTILISER COMPONENTS

Nitrogen (N), **phosphorous (P)** and **potassium (K)** are the three major nutrients that plants need for growing.

N **Nitrogen** is a core component of plant cells and tissues, and essential for producing the photosynthesis.

P **Phosphorous** is needed for normal development. It is also used for photosynthesis, transfer of energy and respiration

Agricultural production is sustained by the use of fertilisers that contain nutrients needed for plant growth.

SUSTAINABILITY

Phosphorous: mainly obtained from phosphate rock, a limited and depletable resource. In addition, the excess of phosphorous from human activities may cause environmental problems if it reaches water ecosystems.

Nitrogen: the production of nitrogen fertilisers is highly energy-demanding and it is directly linked to fossil fuels, a limited and contaminant resource.

THE SOLUTION: Valuwaste

We will implement a combined approach for producing sustainable fertilisers from liquid effluents characterised for its high nitrogen and phosphorous content. That is, an **environmentally friendly, highly nutritive soil fertiliser.**

Partners involved: NURESYS (BE), EKOBALANS (SE), CESPA FERROVIAL SERVICIOS (ES) and INDEREN (ES).

Basic information

Call: CE-SFS-25-2018
Duration: 48 months (Nov.18'-Oct.22')
Total budget: €10,863,876
EU Contribution: €8,375,472

Consortium

17 partners from
BE, DK, FI, FR, ES
and SE



Coordinator

Technological Centre
for Energy and the
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