

The European Sustainable Phosphorus Platform (ESPP)



1.1. The European Sustainable Phosphorus Platform (ESPP)

Full scale Nutrient recovery plants operating or under permitting/construction, Nutrient Recovery technologies at TRL 6+ or at R&D scale are presented, according to the latest version of the European Sustainable Phosphorus Platform (ESPP) report on Nutrient Recovery technologies with the assistance of the German Phosphorus platform (DPP) (Deutsche Phosphor Plattform, 2022) and the Netherlands Nutrient Platform (NPP) (Nutrient Platform NL, 2022).

This document summarises a number of phosphorus recovery technologies, particularly targeting operational information on processes to this day operating full-scale for P-recovery from sewage, but also including a number of processes which concern nitrogen recovery (full scale) or R&D scale P-recovery from sewage. Due to personal data handling concerns and the publication of information regarding industries in the private sector, in this section, all publicly accessible official data sources are presented and their content is evaluated. Therefore, the catalogue aims to specify input materials for each process, output products, the fate of iron/aluminium and of heavy metals or other contaminants, a summary of the process steps, current operating status (full-scale or pilot operation at how many sites, capacity and duration of operation).

The previous version of the ESPP, DPP and NNP P-recovery technology catalogue (14/9/21) (Phosphorus Platform, 2021) included:

- ✓ Sewage P-recovery (full scale plants operating or under permitting/construction)
- ✓ Sewage P-recovery(TRL 6+)
- ✓ Other Nutrient Recovery (TRL 6+)
- ✓ Nutrient Recovery technologies at R&D scale and
- ✓ Nutrient Recovery technologies no longer under development.

The latest version (26/4/2022) (Phosphorus Platform, 2022) includes:

- ✓ Sewage P-recovery (full scale plants operating or under permitting/construction)
- ✓ Sewage P-recovery(TRL 6+)
- ✓ Other Nutrient Recovery (TRL 6+)
- ✓ Nutrient Recovery technologies at R&D scale and
- ✓ Nutrient Recovery technologies currently no longer under development (to our knowledge)-or integrated into other processes (Extraphos-RecoPhos thermal-BioEcoSim (Suez)-ePhos (Fraunhofer IGB were removed from the previous version)
- ✓ Nutrient Recovery technologies whose update has not been completed by 2022 or is underway.



1.2. References

Phosphorus Platform. (2021, 09 30). Retrieved from ESPP – DPP – NNP phosphorus recovery technology catalogue: https://phosphorusplatform.eu/images/download/ESPP-NNP-DPP_P-recovery_tech_catalogue_v_3_9_21.pdf

Phosphorus Platform. (2022, 4 26). Retrieved from ESPP – DPP – NNP phosphorus recovery technology catalogue: https://phosphorusplatform.eu/images/download/ESPP-NNP-DPP_P-recovery_tech_catalogue_v26_4_22.pdf

