Title	Assessment of additionally extractable recyclable materials from wastewater and sewage sludge of municipal and commercial origins **(extraWert)**
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The extraWert project is a REFOPLAN project funded by the Federal Environment Office. It is processed by the Federal Institute for Materials Research and Testing (BAM) and the Institute for Urban Water Management (ISA) of the RWTH Aachen University. The aim is to examine the recyclable materials in wastewater and sewage sludge that are not legally covered by the amended Sewage Sludge Ordinance (AbfKlärV) and that therefore are not subject to any recovery obligation.

In the project both municipal and industrial wastewater are examined. On the municipal side, the phosphorus potential from sewage and sewage sludge, which is at least not directly affected by phosphorus recovery by the regulations of the *AbfKlärV*, is of particular interest. These are especially sewage sludges from sewage treatment plants of smaller size classes and sewage sludges with phosphorus levels below 20g P/kg TM. In the commercial sector, wastewater from the food industry is particularly relevant, which, despite its similarity to urban wastewater and the often-higher nutrient concentrations in wastewater and sewage sludge, is not subject to the obligation of recovering nutrients.

For this purpose, the ISA, together with the BAM, carries out analyses of various sewage sludges from municipal wastewater treatment plants. These analyses are intended to show which recyclable material-potentials are present in sewage sludge. Obligations for recovery are currently only mandatory for phosphorus. Furthermore, the wastewater of

selected industries is specifically examined for potentials and technical possibilities for the use and/or recovery of nutrients or other recyclable materials.