
PERICOLO
RISCHIO
BIOLOGICO

AXIS	CATEGORY
Circular Economy	Wastewater Treatment
Short Description	
Operation of wastewater collection and treatment aiming at reducing sewage sludge	

8. Efficiency and modernisation of the purification sector (sludge reduction, centralisation and processing capacity increase, energy efficiency)

Acea, within the most important players in the integrated water system and national leader in the sector for consumers served, started different initiatives that converge to the efficiency and modernisation of the water purification sector. In particular, Acea Ato 2, the major subsidiary for the water sector within the Group, has developed a few projects with relevant impacts. Among those, the definition of a "Sludge Plan" which includes structural interventions aimed at increasing the power of medium-to-big-sized purifiers and reducing the quantity of the overall sludge produced thanks to, by means of example, the further development of dryers, the process integration of different technologies such as ozonolysis, the renewal or the adoption of sludge drying compartments, and so on. Acea Ato 2 has also defined a plan for the rationalisation of purification plants, identified through the study of the territory on both an urbanistic and a geomorphological perspective. This activity will continue to be carried out by upgrading existing small plants or, whenever possible, through the centralisation of the purifying treatment process in bigger plants, with the related dismissal of smaller plants. Lastly, various energy efficiency activities have contributed to the modernisation of the purification sector, having been identified with a deep analysis of the plants' energy consumption and their relative sub-compartments.

PROJECT STATUS: ongoing
LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT *(€ MILLION)*	**2019**	**2020**	**2021**	**2022**
128.22	12.12	24.62	26.25	65.23

Environmental performance indicators

KPI	UoM	2020	2021	2022
Sludge reduction				
Total sludge (solid and liquid)	t	78,934	66,605	63,279
Reduction with respect to base year (2019)	%	21.3	33.6	36.9
Rationalisation of purifying plants				
Percentage increase of the purifying capacity with respect to base year (2019)	%	3.7	3.7	3.7
Dismissed-centralised plants	n.	7	6	4
Population equivalent interested in the centralisation of purifiers	PE	15,730	26,540	17,100
Energy efficiency interventions				
Avoided emissions thanks to energy savings in the purifying compartment (*)	tCO_2	399.6	567.36	649.08

(*) The calculus refers to the Terna conversion factor of the national mix for 2019, when the project started. The 2021 and 2022 figures also consider the avoided emissions linked to energy efficiency measures in the purifying sector carried out in previous years, which also determine benefits for the following year.