

SUSTAINABLE WATER RESOURCE MANAGEMENT IN PUBLIC AND PRIVATE COMPANIES

Innovations and Benefits - ENEA provides thematic surveys and technical support according to the following innovative approaches:

- Integrated water cycle check-up through mass and energy balances applied to single production processes as well as to wider urban contexts
- Process management and optimisation implementing circular and sustainable energy-efficient approaches
- Modelling of urban drainage systems and wastewater treatment plants using professional and GIS integrated software tools

Uses - Main fields of application are:

- Technical and economic feasibility assessment and further implementation of measures aimed at closing water cycle by promoting water saving and water reuse in municipal and productive contexts;
- Modelling of hydraulic and bio-chemical processes in sewer systems and wastewater treatment plants
- Impact assessment related to receiving water bodies
- Scenario analysis implementing circular approaches, including raw matter and energy recovery/reuse
- Big environmental data management
- Development of methods and tools supporting decision support systems

Past and Present Activities - Previous and on-going activities:

- Identification and implementation of measures aimed at improving water management, energy efficiency and raw matter recovery in several manufacturing processes (e.g. textile and agro-food industries)
- Surveys and thematic studies regarding several environmental issues (as service activities for national ministries or public/private agreements)
- Support to Italian Statistic Institute (ISTAT) for the realisation of the Municipal Water National Surveys (2012 and 2016), data validation and benchmarking)



Characteristics: CUSTOM

CUSTOM Thanks to its flexibility, the service can be adjusted to different needs and contexts