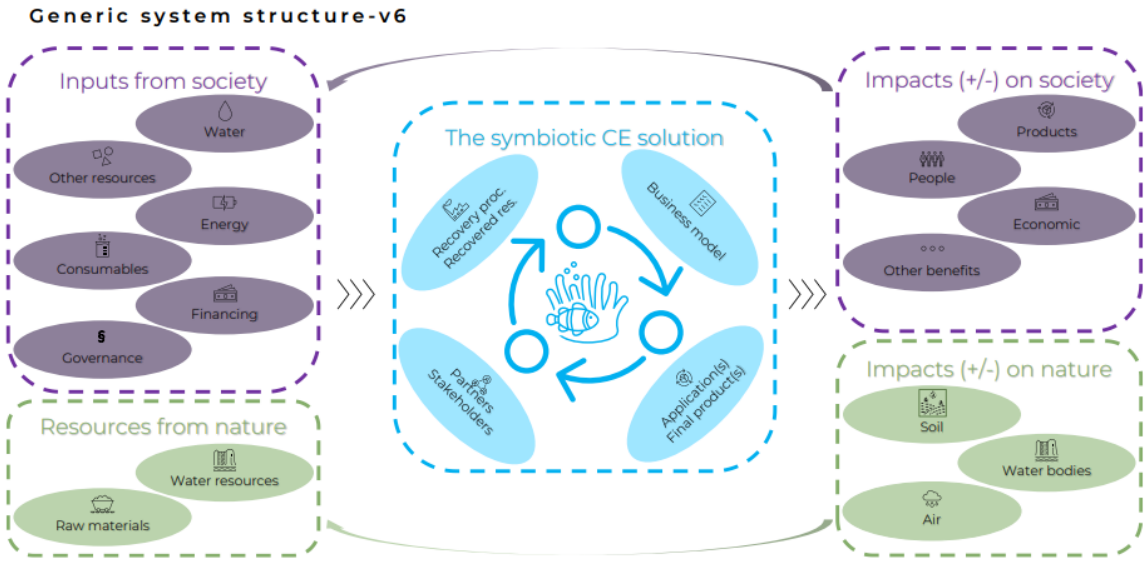
Product factsheet

Water smartness and sustainability assessment framework and user guide

Methodology or process



Description

The WIDER UPTAKE Water Smartness and Sustainability (WS&S) framework is a structured assessment tool designed to evaluate the water smartness and sustainability of Symbiotic Circular Economy Solutions (SCES). Its core is a multi-dimensional approach, assessing performance across five key areas:

- **Social:** Focuses on the social benefits provided by the solution, equity in resource allocation, and societal well-being. Indicators might include public access to water services and equitable distribution of benefits.
- **Environmental:** Examines the environmental impacts of the solution, considering both direct and indirect discharges, chemical risks, biodiversity effects, and climate change impacts. Indicators could measure greenhouse gas emissions, water footprint, and ecosystem health.
- **Economic:** Assesses the economic value generated by the solution, including the value of recovered resources and final products. Indicators might include profit margins, economic benefits to stakeholders, and value-added per unit of water used.
- **Governance:** Evaluates the regulatory compliance of the solution, its integration with other sectors, transparency, and stakeholder participation. Indicators could cover alignment with

regulations, collaboration with other sectors, and stakeholder engagement.

- **Technical Performance:** Assesses the reliability and resilience of the technical aspects of the solution. Indicators might encompass water quality, treatment efficiency, and resilience to climate change events.

Each dimension comprises objectives, criteria, and indicators. These are structured hierarchically to allow for a detailed and comprehensive assessment. The overall assessment is summarized by a **Water Smartness & Sustainability Index (WS&S Index)**, which is calculated by aggregating weighted indicator scores and is visualized using sector plots. This index facilitates comparison between different SCESs and enables tracking of progress over time.

The framework's design allows for flexibility and adaptability. The selection of indicators can be tailored to the specific context, and the iterative nature of the assessment process permits updates and refinements based on new data and stakeholder input. The aim is to provide a robust, transparent method for evaluating the holistic performance of SCES, facilitating informed decision-making within the water sector and the broader pursuit of sustainable development.

Target audience

Decision-makers in public sector and private companies, consultants and researchers that want to assess the water smartness and sustainability of their solutions or alternative solutions. The framework can be used for both strategic and tactical level planning.

URL

https://zenodo.org/records/14000741

Technologies applied by the product

- **Wastewater treatment technologies for water reuse**
- **Water Resources and Management**

Costs

Open
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