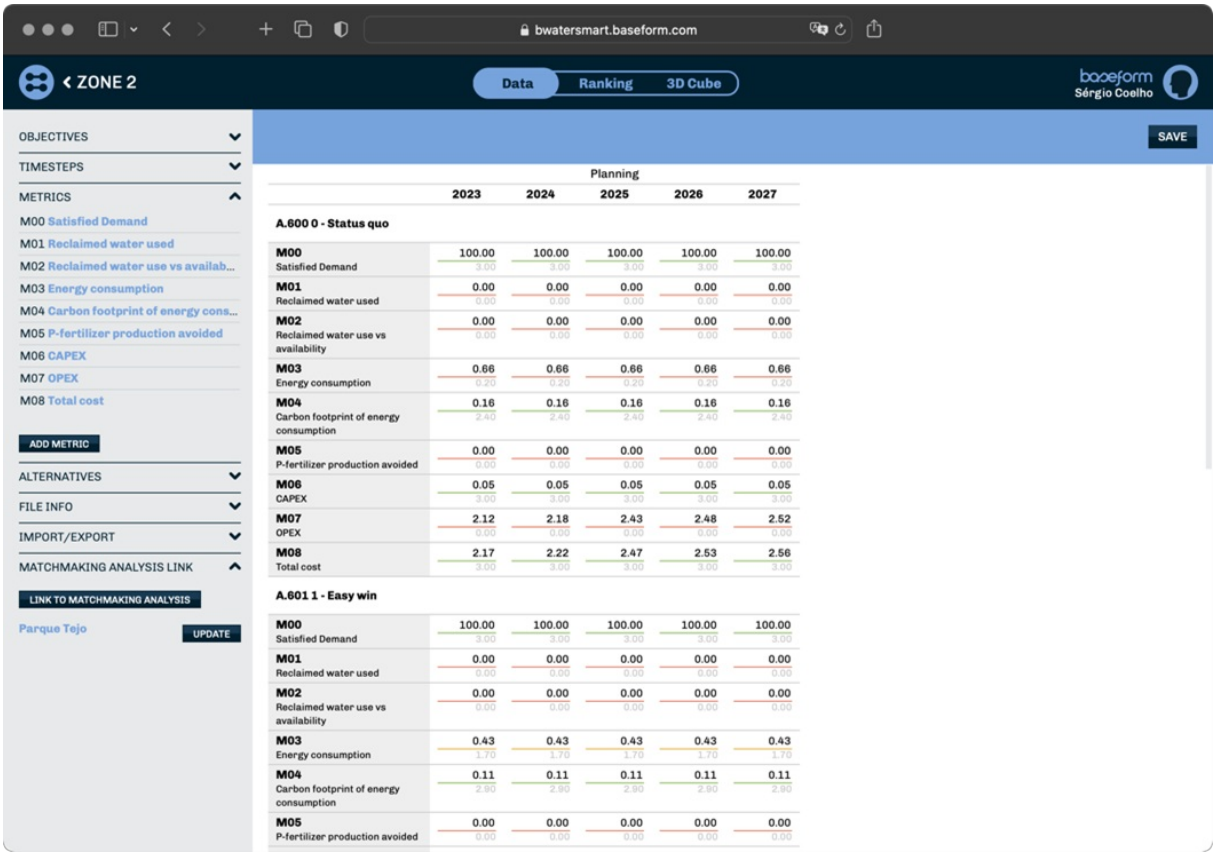
Product factsheet

Environment for decision support and alternative course selection

Software solution



Description

A multi-criteria decision framework designed to allow for direct comparison of the supply/demand matchmaking alternatives produced by the water-energy- phosphorous balance planning module and potentially qualified by the reclaimed water distribution network water quality model and the risk assessment for urban water reuse module.

The high-level goal of this tool is to enable users to select the best water source combinations to satisfy specific non-potable uses, and to enable prioritisation of strategic and tactical planning options on the governance of water sources and water uses in an urban setting.

It is applied to the final prioritization between the supply/ demand matchmaking alternatives developed in Tool #25 (Water-energy-phosphorous balance planning module) and qualified by tools #24 (Reclaimed water distribution network water quality model) and #27 (Risk

Assessment for urban water reuse module).

The supply and demand alternative combinations are assessed through a range of standardized, user-selected performance, risk and cost metrics, complementing those employed to qualify the initial selection in Tool #25 (e.g., volume availability, cost, energy content, carbon footprint, nutrient content) and further qualification through risk assessment in Tool #27 as well as potentially Tool #24, if applicable.

The tool is deployable at any spatial scale as it applies to any supply/demand context. This tool may be applied to any decisional problem of the same type (alternatives vs. metrics over time).

The tool was developed by Baseform using its own proprietary Java-based, web-centric software platform designed for networked infrastructures.

Training material of the environment for decision support and alternative course selection is available at https://youtu.be/xkjRRawFXLo.

Target audience

Water demand planners and decision-makers in urban management, municipal and water utility contexts.

Actors, their roles and interactions

This tool is targeted at water demand planners and decision-makers in urban management, municipal and water utility contexts. The tool is however applicable to any decisional problem of the same type (alternatives vs. metrics over time). The tool is easy to use, fully documented and can be used by non-experts.

Unique selling points

Standardized means to compare reused water supply/demand combinations through multiple criteria.

Technical requirements

Computer, tablet or smartphone with internet access.

Software data

- Initial release: 2023
- License type: Commercial

Technology applied by the product

- **Resource for Circular Economy**

Technology Readiness Level

Level 7 (Last update: 2024-05-10)

Case Study applying the product

Lisbon, Portugal

https://mp.watereurope.eu/d/CaseStudy/45

Related tags

water Reuse Supply Demand multicriteria