README file

Data Set Title: **MADFORWATER. WP5 Decision Support Tool for wastewater, water reuse and water and land management strategies in agriculture and WP6 Integration and assessment of water and land management strategies**

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Publication Year: **2020**

Project Info: **MADFORWATER (DevelopMent AnD application of integrated technological and management solutions FOR wasteWATER treatment and efficient reuse in agriculture tailored to the needs of Mediterranean African Countries),** funded by European Union, Horizon 2020 Programme. Grant Agreement num. **688320**; **http://www.madforwater.eu/**.

Data set Contents

The data set consists of:

- 1 Excel file saved in .xlsm format
  "**POSEIDON2.0.xlsm**"
- 1 Handbook file
  "Handbook_Poseidon2.0.pdf "
- 1 README file
  "README.pdf "

Data set Documentation

Abstract

The data set consists of a Decision Support Tool (DST) for water reuse developed within MADFORWATER project, based on Poseidon 1.1.1 developed in COROADO project (see http://doi.org/10.5281/zenodo.3341573).

Different data compose the skeleton of the DST: relevant regional information (regional specificities of the 3 selected basins, such as national regulations for water quality, social acceptance and cost profiles - labour, electricity, land cost); quality standards: international (WHO, US EPA, FAO) and Egyptian / Moroccan / Tunisian standards for treated wastewater (WW) reuse in agriculture for selected parameters; technology data: database of unit processes (the project WW treatment pilots and irrigation pilots and benchmark technologies) and regionally adapted treatment trains from case studies. Each unit process includes data on pollutant removal efficiencies and rates, costs & benefits and other evaluation criteria, such as social acceptance and environmental impacts and benefits. Data and evaluation results can potentially be used by researchers active in similar research areas in their experiment designs, as well as by companies as a means for innovation decisions and business development.

Content of the file/s

- file **[POSEIDON2.0.xlsm]** is the decision support tool and should be opened with Microsoft Excel
  [Provide a brief description of the content of the file/s. This is an example of how you could start]
- file **[Handbook_Poseidon2.0.pdf]** is the handbook on how to use the decision support tool

Notes

This dataset is linked to following additional open access resources:

1. **Publication**: Oertlé E, Hugi C, Wintgens T, Karavitis C, Oertlé E, Hugi C, Wintgens T, Karavitis CA. 2019. **Poseidon—Decision Support Tool for Water Reuse**. Water. 11(1):153. doi:10.3390/w11010153. [accessed 2019 Jan 22]. http://www.mdpi.com/2073-4441/11/1/153 .
2. Externally hosted supplementary file 1, Oertlé, Emmanuel. (2018, December 5). **Poseidon - Decision Support Tool for Water Reuse (Microsoft Excel) and Handbook (Version 1.1.1)**. Zenodo. http://doi.org/10.5281/zenodo.3341573
3. Externally hosted supplementary file 2, Oertlé, Emmanuel. (2018). **Wastewater Treatment Unit Processes Datasets: Pollutant removal efficiencies, evaluation criteria and cost estimations (Version 1.0.0)** [Data set]. Zenodo. http://doi.org/10.5281/zenodo.1247434
4. Externally hosted supplementary file 3, Oertlé, Emmanuel. (2018). **Treatment Trains for Water Reclamation (Dataset) (Version 1.0.0)** [Data set]. Zenodo. http://doi.org/10.5281/zenodo.1972627
5. Externally hosted supplementary file 4, Oertlé, Emmanuel. (2018). **Water Quality Classes - Recommended Water Quality Based on Guideline and Typical Wastewater Qualities (Version 1.0.2)** [Data set]. Zenodo. http://doi.org/10.5281/zenodo.3341570