FIT4REUSE aims to:

1. Optimize nature-based (e.g. constructed wetlands) and intensive solutions for municipal wastewater treatment by integrating techniques and advanced nano-materials.

2. Develop a customized and innovative combination of intensive and nature-based technologies that will provide adequate water quality, suitable for irrigation purposes, focusing mainly on the removal of pathogens and emerging contaminants.

3. Explore the cost reduction in the existing desalination technologies.

4. Investigate alternative drip irrigation technologies and practices for agriculture.

5. Improve the aquifer recharge process with treated wastewater and soil aquifers treatment (SAT) maintaining its water quality and ecological balance.

6. Support a wider adoption of water reuse safety planning in the Mediterranean basin by developing suitable guidelines.

7. Analyze the economic, environmental and social impacts of the proposed solution and enhance the use of treated wastewater and desalinated water through a multi-stakeholder approach.

FIT4REUSE will perform research activities by means of:

i) lab scale tests,

ii) pilot scale experiments,

iii) field application in relevant environment,

iv) modelling approaches,

v) integrated assessment considering economy, environment and society,

vi) digital instruments and a dedicated event campaign to directly involve citizens and key-stakeholders.

This methodology will be applied (and adapted for) the different scenarios characterizing the Mediterranean area (i.e. Near East, North Africa and Mediterranean Europe), in order to develop solutions and results that will be FIT for increasing the REUSE of treated wastewater and desalinated water in the overall Med basin.