

## Expected results

Treatment up to 15 m<sup>3</sup>/day of leachate in a prototype introduced in containers for easy transport and installation, that allows flexibility in operating conditions.

To obtain a high quality final effluent, 100% free of pathogens and xenobiotic compounds that can be reused or discharged into watercourses.

To reduce the cost of leachate treatment over 80% when comparing with a traditional leachate treatment plant, by using solar radiation, biomass and residual heat as energy sources.

To reduce by 80 to 90% the environmental impact associated with leachate streams proceeding from waste disposal in landfills or waste treatment centres.

To eliminate the associated transport costs of leachate to municipal wastewater treatment plants.

100% valorisation of the by-products generated in the process. The amount of sludge generated (1-3% of the total volume of leachate) can be interesting for the ceramic industry.

60% reduction of the leachate storage reservoir size in landfills and waste treatment plants. Pollution removal at the source.



## Contact

[www.lifeleachless.eu](http://www.lifeleachless.eu)



[info@lifeleachless.eu](mailto:info@lifeleachless.eu)



## Partners

[ TECHNOLOGY CENTRE ] **CARTIF**



Seeding sustainability,  
harvesting future



“ Low energy treatment  
technology for  
leachate valorisation ”





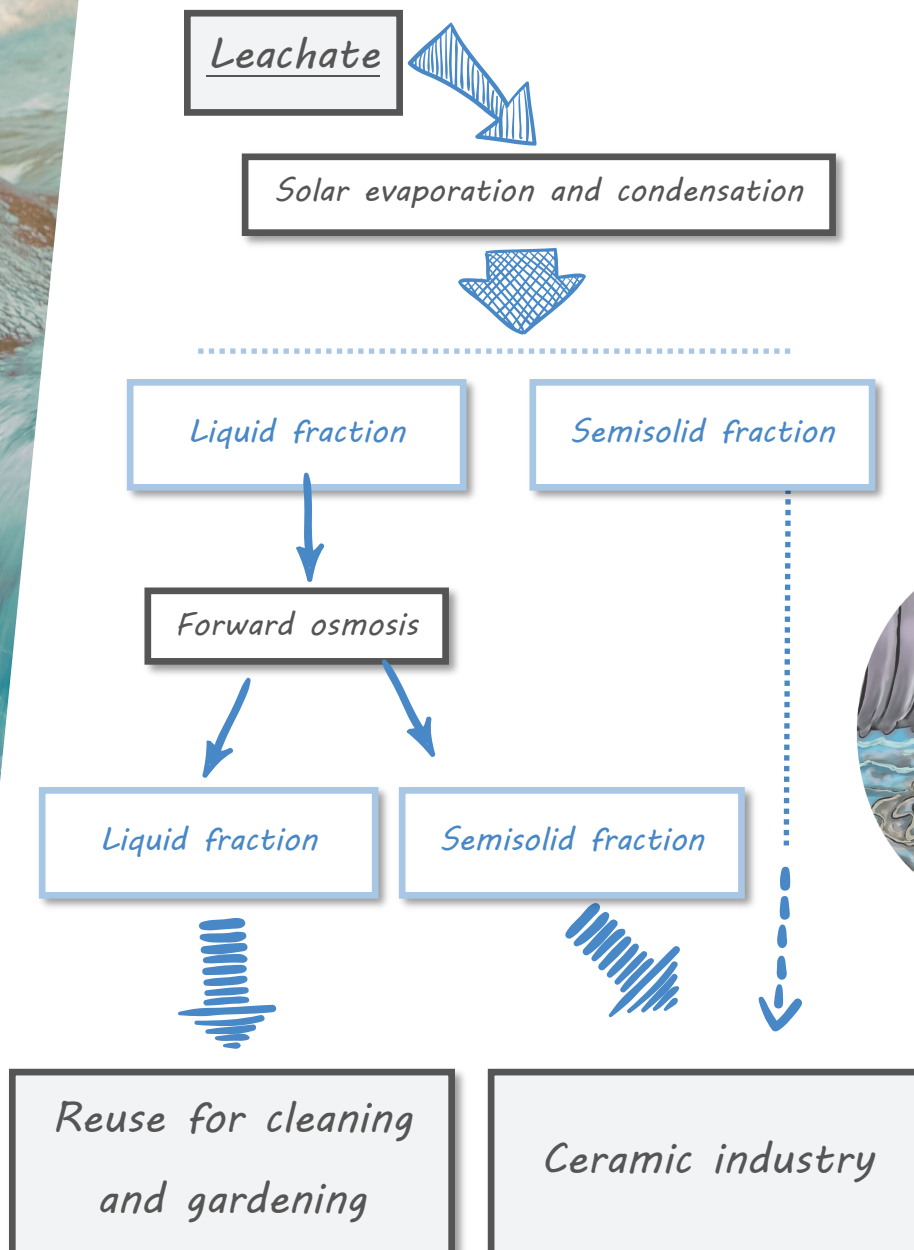
The LIFE LEACHLESS project (LIFE15 ENV/ES/000530) will promote water resources management actions in accordance with the Water Framework Directive 2000/60/EC by enabling managers of landfills and waste treatment centres to achieve good qualitative and quantitative status of their effluents.

Large amounts of leachates are generated in Europe and, because of their composition, having a high pollution load. The LIFE LEACHLESS project proposes a treatment model that will be carried out "in-situ" using a cost-effective novel technology that combines solar evaporation/condensation plus forward osmosis. The prototype will be powered by renewable energies (solar energy, biomass and residual heat), which will minimise the carbon footprint of the process.

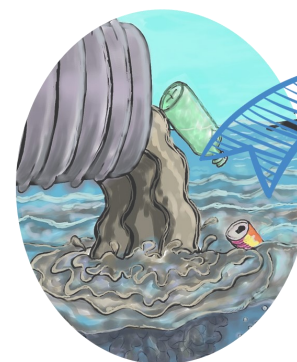
The final effluent quality will be very high, allowing reuse (preferred) or discharge into watercourses. In the particular case of this project, the final effluents will be reused for cleaning and gardening purposes. A minority semi-solid residual stream will be also generated in the process. Due to its special composition (rich in metals and inorganic elements), this stream will be valorised in ceramic industries to improve the final products characteristics.



Low energy treatment technology  
for leachate valorisation



The LEACHLESS technology is for general application but especially suitable for countries with the highest number of hours of solar radiation, including Spain, Greece, Italy, Portugal or Malta. Furthermore, the benefit of the project is increased because these countries are the ones that generate the largest volume of waste across the EU and they have the highest landfill rates.



Total Project: 1,775,805 €  
EU contribution: 1,041,237 €  
October 2016 - December 2019