



PORTABLECRAC

Portable Solution for the
Electrochemical Regeneration
of Activated Carbon

SPIRE-09-2017

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Full Title: PORTABLE SOLUTION FOR THE
ELECTROCHEMICAL REGENERATION OF
ACTIVATED CARBON

Aim:

PORTABLECRAC has the purpose of developing an environmentally friendly and economically beneficial technology, to regenerate the activated carbon used in small and large industry for water filtration. Major focus will be in the adaptation of a compact and portable device that will improve the flexibility, operational and investment costs significantly with respect to existing equipment (assuring replicability and up-scaling of the proposed solution). It will bring a sustainable and long term solution creating a direct and indirect employment in the EU “service-sector”. Its key value proposition is providing a solution with 86% reduction in cost per kg/AC and 4 times reduction in CO₂ emissions

Concept:

PORTABLECRAC is a flexible solution tackling different niches, that will allow an in-site treatment service by compact/portable prototypes able to adapt to client’s needs with huge economic and environmental impacts. PORTABLECRAC will provide a successful business case to Pilot Plant applied to either water consumption or chemical niches. PORTABLECRAC will offer batch micro-solution to clients with low requirements of carbon regeneration or continuous solutions to clients with high demand of carbon regeneration. Additionally, in-site operation at end-user’s will report transport cost and time savings for end-users. Indeed, the utilization of electrochemistry instead of thermal technology will reduce considerably carbon footprint, energy input and wastes. By contrast, specifically water wastes reduction will be achieved by contaminant elimination via oxidation.

Start date:

01/10/2017

End date:
30/09/2020