

# AERoGELS COST Action - COST CA18125 - Advanced Engineering and Research of aeroGels for Environment and Life (2019-2023)



Partners: 38 COST members, one cooperating member and one partner member.

CERIS Research Action Member: **I. Flores-Colen**

Funding: COST Action - Horizon 2020

Framework Programme of the European Union

Total budget: -

CERIS: -

Period: 30/4/2019 - 29/04/2023

<https://cost-aerogels.eu/>

<https://www.cost.eu/actions/CA18125/#tabs|Name:overview>

**Summary description:** intends to bring together the knowledge on research and technology of aerogels at the European level from academia, industry and regulatory experts. Aerogels are a special class of mesoporous materials with very high porosity and tunable physicochemical properties. Although some types of aerogels have already reached the market in construction materials and aerospace engineering, the full potential of aerogels are still to be assessed for other sectors. In this Action, the use of aerogels specifically for environmental and life sciences applications will be explored in a multidisciplinary approach to tackle two of the current main European challenges: circular economy and active ageing. The scope of the Action is to advance the state-of-the art on the topic by joining the knowledge and efforts of the most renowned experts on cutting-edge aerogel technology, on advanced characterization of materials as well as on biomedical and environmental research. Aerogels will be assessed from a materials performance point of view but also regarding health and environmental implications.

**CERIS participation:** There are five working groups. CERIS participates in WG3 - Materials engineering and characterization, which the objective is applied research to impact aerogels application-specific properties, such hydrophilicity, lipophilicity, ultra-low density, flame retardation, tailored porosity, nanomorphology or surface chemistry to fit the specific needs. And WG4 for industrial applications.

**Output:** will set a forum to disseminate knowledge to society, to boost the industry-academia interactions and to train European young researchers on research, innovation and entrepreneurial skills via technical schools, publications and exchanges. Finally, the interdisciplinary collaborations are expected to yield innovative and integrated solutions for environment and for life sciences. The long-term scope of this Action is to develop an aerogel technology able to improve the welfare of European people and to move towards cleaner and smarter production in Europe.

## Illustrations:

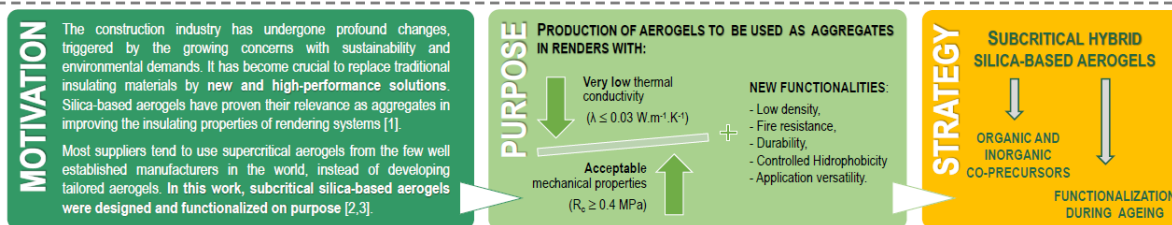
### AMBIENT PRESSURE HYBRID SILICA AEROGELS FOR SUPERINSULATING RENDERING SYSTEMS

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TRAINING SCHOOL ON  
 AEROGELS PROCESSING, MODELLING AND  
 ENVIRONMENTAL-DRIVEN APPLICATIONS  
 Coimbra, October 2019



(research by ongoing PhD study from M. Júlio).

**Indicators:** a poster to a training school in Coimbra (PhD - ongoing M. Júlio), forums and dissemination on AERoGELS Action profile in Research Gate.

<https://www.researchgate.net/project/AERoGELS-COST-Action-CA18125-WG3-Aerogel-Materials-Engineering-and-Characterization>