

PRESS RELEASE

A one-day workshop on Raising the Lifetime of Functional Materials for Concentrated Solar Power Technology

22.05.2017, Almería

On 17th May 2017, the Universidad Complutense de Madrid hosted a public workshop related to durability of materials for Concentrated Solar Power (CSP). The workshop was associated to the H2020 funded project “Raising the Lifetime of Functional Materials for CSP Technology (RAISELIFE)”.

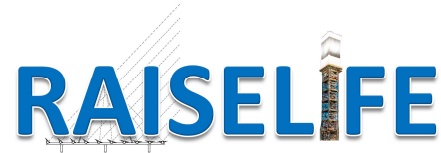
The aim of this workshop was to disseminate project results and to bring together the main actors of industry, plant owners and researchers related to the topic of material and component degradation in the CSP field. The workshop was divided into four different sessions:

- 1) Durability of solar reflectors for CSP
- 2) Absorber coating durability
- 3) Durability issues related to Molten Salt
- 4) Impact of degradation on plant performance and economics

The RAISELIFE project, its activities, and its first results were presented to the audience during these sessions. In the afternoon, two discussion sessions in two parallel groups were organized in order to discuss the different topics presented by the RAISELIFE consortium members, providing the possibility to compare the methodology and results with the external attendees of the workshop. Main points of discussion were: testing conditions for absorber coatings under high flux, the influence of different salt composition and additives on the corrosion rates, the performance and durability of reflectors and anti-soiling coatings, the main degradation types experienced in the plants and how degradation is considered in financial models. The workshop was attended by 66 participants, of which 21% came from external industrial companies, 30% from external research and innovation centres and the remaining 49 percent were members of the RAISELIFE consortium.

The presentations given during the workshop are available online under:
<https://www.raiselife.eu/dissemination/workshops.php>.





The RAISELIFE project is funded by the European Commission with a total budget of EUR 10,509,246.50 (EU contribution of EUR 9,291,722.75). It is coordinated by Dr. Florian Sutter from the German Aerospace Center, DLR, and is being carried out by a consortium of several organizations (industrial partners, SMEs, universities and research organizations) from both the concentrating solar thermal and the materials science areas, offering a broad set of interdisciplinary expertise. Besides European partners from Germany (DLR, Fraunhofer, DECHEMA and Flabeg), Spain (CIEMAT, Universidad Complutense de Madrid and INTA), France (PROMES, Corning and Vallourec) and Italy (Soltigua), the consortium includes two parties from the associated countries of Israel (BrightSource Industries Israel) and Morocco (MASCIR), giving access to in-service testing in CSP relevant environments and commercial installations. The project started in April 2017 and has a duration of 48 months.

The main project goals are:

- Durability testing newly developed functional materials for CSP (TRL4-6)
- Analysis of their failure modes and producing a second generation of life-time optimized materials
- Deriving performance prediction models of the RAISELIFE materials
- Computing the economic impact of material degradation
- Improvement of production process and O&M: automatic coating machine for absorber coatings, sensor development to monitor corrosion in molten salts, definition of a catalogue of best practices to reduce in-service degradation

It is planned to hold a second RAISELIFE Dissemination Workshop by the end of 2019.

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Group photo of the participants at the workshop.

