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### **New project funded by EU LIFE+**

The European Commission has approved on April 30 funding for **225 new projects** - from a total of 1468 proposals- under the LIFE+ programme, the European Union's environment fund.

The Mediterranean Center for Environmental Studies (CEAM) will lead and coordinate the project: *Air pollution treatment in European urban environments by means of photocatalytic textiles* (LIFE PHOTOCITYTEX). Three Spanish institutions: CEAM, AITEX and Quart de Poblet City Hall, and 2 Italian institutions : LEGAMBIENTE and Next Technology Tecnotessile (NTT ) are the partners of this project.

The general objective of this project is to demonstrate the environmental possibilities of textiles with photocatalytic activity in terms of decontamination of urban atmospheres. This initiative takes advantage of the technical opportunities offered by the textile architecture industry and the current advances in technology of photocatalysis in order to consider the depollution of air in urban environments.

In Europe, emissions of many air pollutants have decreased substantially over the past decades. However, air pollutant concentrations are still too high. A significant proportion of Europe's population live in areas, especially cities, where exceedances of air quality standards occurs. Several countries have exceeded one or more of their 2010 emission limits for four important air pollutants. Reducing air pollution therefore remains important. Air pollutants released in one country may be transported in the atmosphere, contributing to or resulting in poor air quality elsewhere. On the other hand, in urban environments there is a huge variety of textiles used in applications as diverse as awnings, canopies, umbrellas, dividers, tents, roofing construction/maintenance, textile facades, blinds, etc. These textile elements represent a significant fraction of the available urban surface and therefore they should be considered as potential components to be functionalized with photocatalytic materials in activities related to depollution of contaminated atmospheres.

The general objective of this project is to demonstrate the environmental possibilities of textiles with photocatalytic activity in terms of decontamination of urban atmospheres. This general objective leads to the following specific objectives:

- • To manufacture photocatalytic textile demonstrators in order to be applied as depollution systems in urban environments.
- • To study the photocatalytic properties at laboratory and semi-industrial scale of two types of textile based architecture elements: awnings and wall coverings.



- • To demonstrate their application and to estimate its efficiency by testing the photocatalytic textiles in a higher scale but under atmospheric controlled conditions at EUPHORE simulation chamber.
- • To demonstrate its application in a real polluted environment by installing some of the photocatalytic textiles in different urban locations at Quart de Poblet City (Valencia, Spain) and conducting field measurements before and during the prototypes installation.
- • Provide a basis to encourage local authorities and stakeholders to adopt a more integrated approach to urban air quality management and to implement the techniques and methods successfully tested in PHOTOCITYTEX project.