## Nanomaterials supporting preventive conservation of Cultural Heritage: the contribution of the EU funded APACHE project

The European project APACHE (Active & intelligent PAckaging materials and display cases as a tool for preventive conservation of Cultural HEritage) aims to develop innovative and affordable preventive conservation solutions for tangible and movable cultural heritage. One of the project's goals is the development of novel sensors for microenvironmental monitoring as well as solutions for re-establishing equilibrium in these environments in case of need. Another project goal is the creation of an application to support decision making and actions by personnel tasked with collection conservation. In all projects, APACHE is dealing with a range of agents of deterioration including temperature, humidity and pollutants, including VOCs, that derive from the environment, packaging and objects themselves.