

## Protecting cultural heritage in times of climate change – the EU project “Climate for Culture” ■

“Climate for Culture” can look back on five years of successful cooperation. Twenty-seven partners from 14 countries investigated the impact of climate change on the indoor environments of historical buildings and developed mitigation and adaptation solutions for the future.

From Neuschwanstein Castle to the Sistine Chapel, many world heritage sites are suffering the effects of climate change. This is because rainfall is increasing and with it the moisture levels in the buildings. An international team of researchers investigated the impact this is having on the indoor environments, art collections and energy demands of historical buildings as part of the EU project “Climate for Culture”.

### Climate change is altering the climate of spaces inside historical buildings

Leipzig Fraunhofer Center researchers were serving as finance and project managers in the EU project. With a total funding budget of some EUR 5 million, Climate for Culture is one of the largest cultural research projects ever established, bringing together experts from 27 partner institutions and 14 countries. With scientific coordination from the Fraunhofer Institute for Building Physics, the project for the first time coupled climate modeling with building simulation tools and applied these tools in castles, museums and churches.

### Climate for Culture – brochure summarizes results

A key result of the research, aside from the climate, energy-demand and risk maps, is the software that the owners of heritage property will be able to use in future to access online advice as to how to manage their historical buildings in an energy-efficient and sustainable manner. Additionally, the brochure “Built Cultural Heritage in Times of Climate Change”, developed by Leipzig Fraunhofer Center researchers, summarizes selected findings from the project.

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**Partners:** Fraunhofer Institute for Building Physics IBP, Fraunhofer Institute for Silicate Research ISC, Czech Technical University Prag, Italian National Research Council - Institute of Atmospheric Sciences and Climate, University of Zagreb, Foundation for Research and Technology - Institute of Electronic Structure & Laser, Max-Planck-Institute for Meteorology, Technical University Munich, Eindhoven University of Technology, University of Ljubljana, Gradbeni Institut ZRMK - Center for Indoor Environment, Building Physics and Energy, Uppsala University - Campus Gotland, Andreas Weiß - Freelance conservator-restorer, Jan Radon - Engineering Consulting & Software Development, Krah&Grote Measurement Solutions, TB Käferhaus GmbH, Haftcourt Ltd., ACCIONA Infrastructure, Bavarian Department of State-owned Palaces, Gardens and Lakes, Bavarian State Painting Collections – Doerner Institute, National Trust for England, Wales and Northern Ireland, Kybertec Ltd., Glasgow Caledonian University, Center for Documentation of Cultural & Natural Heritage Egypt, Jonathan Ashley-Smith – Consultant for Conservation Risk Assessment, The National Institute of Cultural Heritage France, The London School of Economics and Political Science, Fondazione Salvatore Maugeri



**Contact:** Urban Kaiser

Research Fellow Unit Stakeholder Dialogue and Social Acceptance

urban.kaiser@moez.fraunhofer.de  
+49 341 231039-15



**Contact:** Uta Pollmer

Research Fellow Unit Stakeholder Dialogue and Social Acceptance

uta.pollmer@moez.fraunhofer.de  
+49 341 231039-125



■ Main façade with pool and Flora fountain Neuschwanstein Castle in winter.  
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*“This project has been a success story.”*

Mr. Dr. Kurt Vandenberghe, Director for Directorate Climate action and resource efficiency, Directorate-General for Research and Innovation, European Commission.

