migration flows and productivity in EU Member States.

The framework was used to observe and explain a number of related factors, such as the education gradient, and how these impact the macroeconomy. The economic life-cycle model developed provides a general framework for examining ageing in the biological sense and ascertaining how it can be applied to decisions surrounding retirement.

Being able to assess how ageing affects productivity offers insight into the optimal retirement age from the perspective of both individuals and society. The project's research also has the potential to inform immigration-management policies and promote knowledge on national approaches to investment in health care.

Other areas investigated by the LEPAS project include the impact of an ageing society on education, technical progress and long-term economic growth. A number of scientific reports were produced. These covered topics such as historical evolution of retirement age and retirement duration, immigration and social security, life expectancy and long-run growth, and healthcare demand and supply.

With Europe's countries facing the challenges of economic crisis and an increasingly older population, the LEPAS initiative could not be more timely. Project results are expected to boost social science research and facilitate better approaches to decision-making in areas relevant to better welfare, growth and competitiveness.

The project was coordinated by the Gottfried Wilhelm Leibniz Universität Hannover in Germany.

1 'Long-run economic perspectives of an ageing society'.

Funded under the FP7 specific programme 'Cooperation' under the research theme 'Socio-economic sciences and humanities'.
http://cordis.europa.eu/marketplace > search > offers > 10521
Project website:
http://www.lepas-fp7.de/

Climate change and cultural heritage

Climate change threatens many aspects of our world, including our cultural heritage. The museums, art and buildings that give Europe its identity must be preserved by mitigating its effects.

Not much is known yet about how climate change will damage Europe's cultural artefacts. As part of the EU-funded CLIMATE FOR CULTURE[1] project, researchers aim to investigate these effects and develop strategies to prevent them.

The focus is on assessing the risk of damage and the potential economic consequences, and on sustainable preservation practices. A large multi-disciplinary team from Egypt and Europe, as well as leading institutes in climate modelling and whole building simulation, are working on the project.

For the first time, researchers are connecting high-resolution climate change scenarios with the simulation of entire indoor environments. In this way, the impact of outdoor climate change on historic buildings can be modelled. Work has started on these scenarios, with the identification of important climate factors and the validation of tools.

Some of the experimental monitoring techniques being used include laser speckle interferometry and three-dimensional (3D) microscopy. The researchers have also begun to classify buildings in both regions into categories such as churches or museums.

Climate risk maps are being developed to analyse regional climate effects on the 'performance' of buildings, for instance their energy use. In addition, new algorithms will optimise the control of relative humidity and temperature indoors.

Ultimately, the managers of these historic buildings will be better equipped to preserve the structures. And the solutions obtained for the buildings in these regions could be applied to those in any other similar climatic zones. The simulations could also be extended to other sectors like agriculture, fisheries, tourism, construction and even insurance.

The project is coordinated by the Fraunhofer Institute for Material and Beam Technology in Germany.

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1 'Damage risk assessment, economic impact and mitigation strategies for sustainable preservation of cultural heritage in the times of climate change'.

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http://cordis.europa.eu/marketplace > search > offers > 10605
Project website:
http://www.climateforculture.eu/