



Intelligent Energy  Europe

# Best Façade

Best Practice for Double Skin Façades

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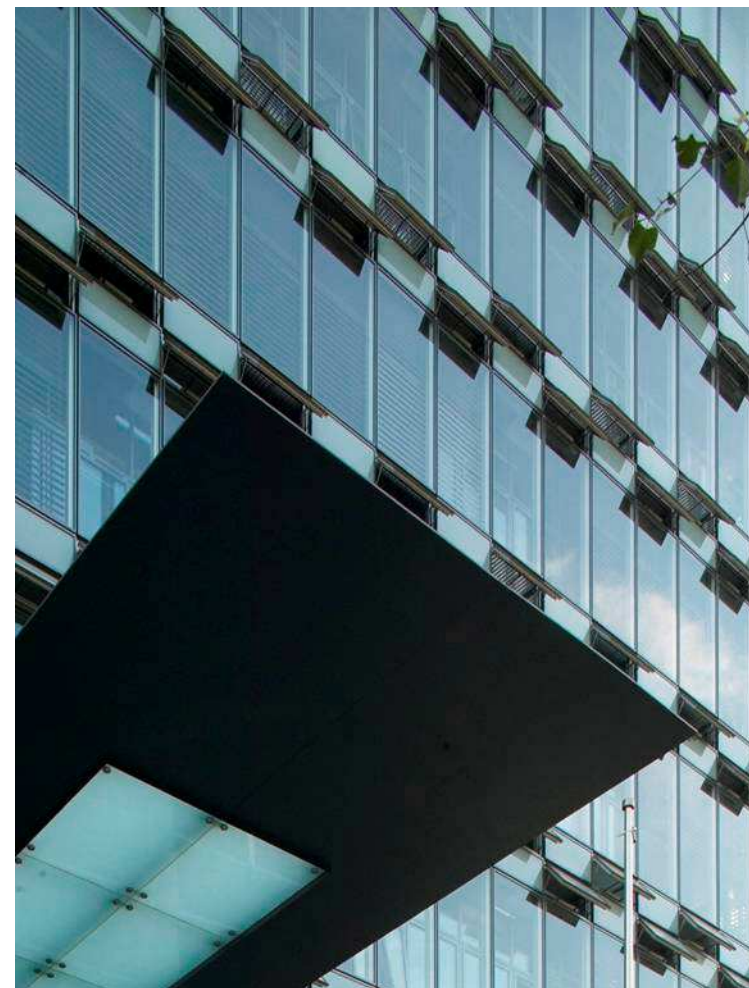
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# Description

Double skin façades have become a major architectural element in office buildings over the last 15 years. The double skin façade can provide:

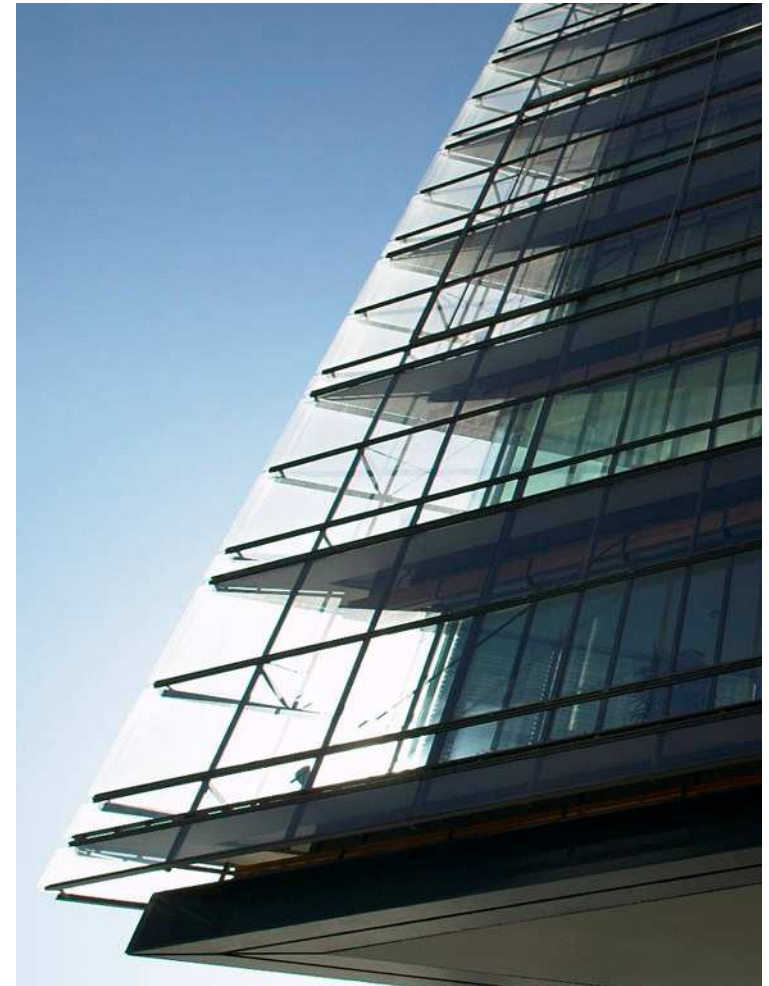
- a thermal buffer zone,
- solar preheating of ventilation air,
- energy savings,
- sound protection,
- wind protection
- pollutant protection with open windows
- night cooling.

Commercial buildings with integrated double skin façade can be very energy efficient buildings with all the good qualities listed above.



# Description

However not all double skin façades built in the last years perform well. The BESTFACADE project actively promotes the concept of well-performing double skin façades. Different media have been produced to supply the target group (architects, designers, consultants, façade industry, HVAC industry, building industry, investors, building owners and operators) with a common basic scientific, technical and economic knowledge on double skin façades. This allows the target group to design, choose, manage, use and maintain double skin façades.



# Achieved results

## **Best practice guideline of double skin façades**

Using this guideline designers and investors can avoid application of non relevant concepts of double skin façades performing worse than traditional façades.

## **Centralised information system database**

The database contains data collected from a survey of double skin façades built in the European Union. It has been established and is available on the project web site.

The state of the art of double skin façades in different countries and climatic regions can be found in the WP1 report.





# Achieved results

## Assessment method

An assessment method has been developed in WP4, which can be used in the further development of the assessment methods of the EPBD. With this method the thermal and visual behaviour and the energy performance of a double skin façade can be calculated with reasonable accuracy for assessments of potentials and a prediction of the efficiency of the façade technology can be derived. The method was presented to the relevant CEN and ISO standardisation committees and is the basis of a new work item (ISO TC 163).



# Achieved results

## **Internet-based simple design guide**

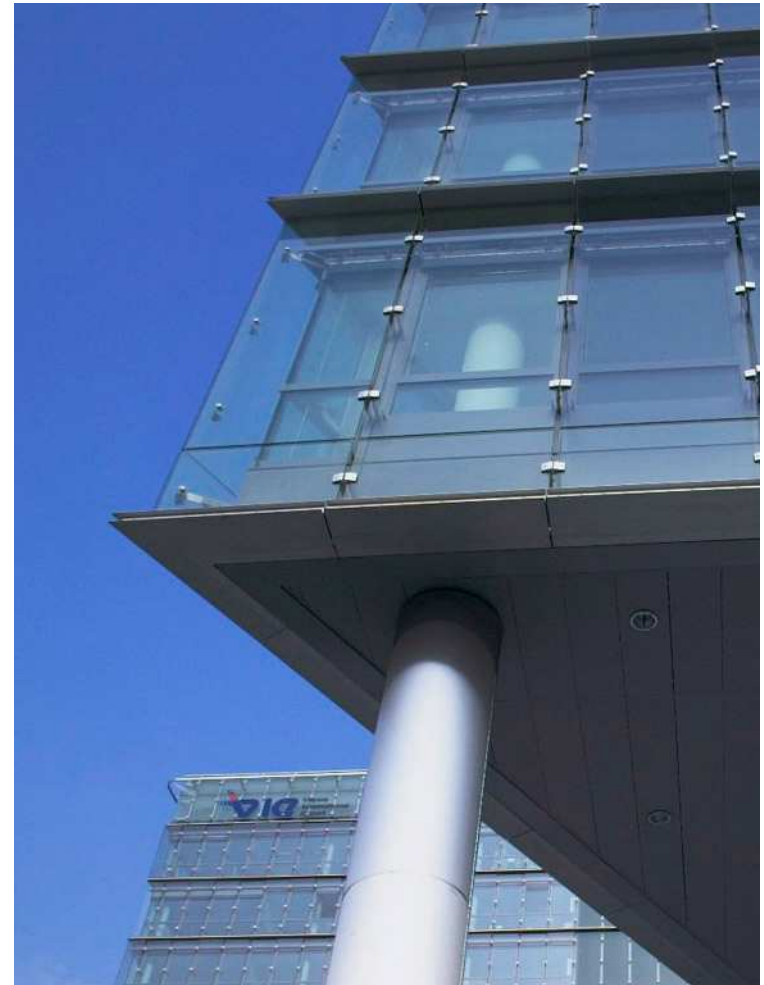
An internet-based pre-design tool allows designers and investors to study the impact of different façade systems on the energy demand and visual characteristics.

## **Benchmarks**

Benchmarks developed in WP3 allow the users and operators to compare their energy consumption levels with others in the same group, set future targets and identify measures to reduce energy consumption.

## **Certification method**

A façade energy certification method using a reference façade method has been proposed.



# Achieved results

## Non-technological barriers

Non-technological barriers to DSF have been identified and solutions to overcome them were presented in the WP2 report. These non-technological barriers are more difficult to overcome due to the fact that the factors which govern them are not objective and differ from country to country. An analysis was carried out of non-technological barriers such as legal, financial, sociological-behavioral and institutional aspects.

## Dissemination

The results have been disseminated by different strategies, like website, CD-ROMs, workshops and presentation at conferences.

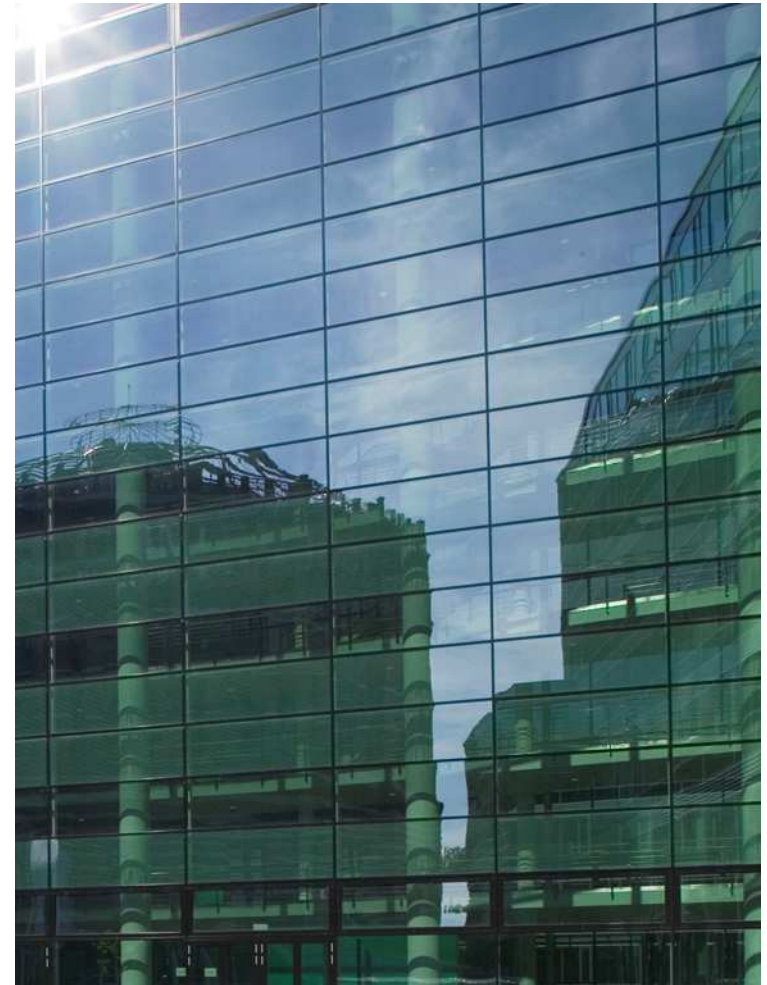




# Partners

BESTE  
FACADE

- MCE Anlagenbau Austria GmbH & Co (Coordinator)
- Graz University of Technology, Institute of Thermal Engineering, Austria
- Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., Institute for Building Physics, Germany
- National and Kapodistrian University of Athens, Group of building environmental studies, Greece
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8