

#### Center for Bygningsbevaring

Mapping of knowledge, issues and projects in relation to energy improvements in European listed buildings and buildings worthy of preservation

Climate changes and reliability of supply are at the centre of many political initiatives these years, including more stringent energy efficiency requirements.

The Danish Cultural Heritage Agency wishes to contribute to developing methods that can improve energy efficiency in historical buildings while respecting their historical qualities.

The Agency has therefore initiated a survey of experience with and knowledge of energy improvements in European buildings protected by law due to their historical or architectural qualities.

The purpose of the survey is to gain an overview of practice and experience in relation to energy improvements in the light of the enhanced energy saving requirements resulting from climate change. Through the exchange of experience, the Agency hopes to map existing knowledge and disclose the need for further pilot projects and research, as well as dissemination of existing knowledge. The survey will thus provide the basis for concrete cooperation projects.

The Agency hopes that many countries will participate and share their experience in this area via the questionnaire.

The results will be communicated in English to the Agency's European cooperation partners.

The Centre for Building Preservation in RAADVAD will carry out the survey on behalf of the Cultural Heritage Agency, in cooperation with the Technical University of Denmark BYG.DTU, among others.

The questionnaire can also be completed electronically at:

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For further information, please contact:

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# 1 Has your organisation launched any special initiatives to reduce energy consumption in listed buildings?

Yes/No:
If yes, which:
If no:
Not relevant:
Not a priority:
Relevant, but resources are insufficient:
2 Have you set targets and prepared action plans in this area?
No:
Yes, targets:
Yes, action plans:
Yes, both:
3 Have you launched initiatives to reduce energy consumption in buildings that you own?
Yes/No:
If yes, which:

## Experience and projects in countries with energy improvements in listed buildings and buildings worthy of preservation



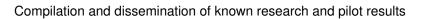
4	Are the	anaray	requirements	the	came	for:
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Yes/No:			
<b>B. Energ</b> <b>buildings</b> Yes/No:		ting buildings compared to ne	ew
Further co	mments/links/references:		
		., does building legislation pro buildings worthy of preservati	
Yes/No:			
Further co	mments/links/references:		
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Does build	ding legislation include spe	ecial provisions on energy reg	uirements
	ding legislation include spe to the following:	ecial provisions on energy req	uirements
in relation nergy require	to the following: ements		
in relation nergy require nergy equirements	to the following:	Energy improvement measures in old buildings	uirements  Energy requirements for new buildings
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В	$\mathbf{Y}$	G	N	$\mathbf{I}$	N	G	S
В	E	V	Α	R	Ι	N	G

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Are listed buildings subject to special regulatory requirements in terms of accounting for:	of
<b>Total energy performance</b> (calculation of the total energy loss from a building taking into account e.g. free solar heating through the windows)	ე,
Yes/No:	
<b>Life cycle analysis (ecopoints)</b> (the total environmental impact, e.g. from production, operations and decomposition)	
Yes/No:	
CO <sub>2</sub> accounting (assessing the total CO <sub>2</sub> emissions on the basis of the energ performance and the life cycle analysis)	у
Yes/No:	
Indoor climate	
Yes/No:	
Further comments/links/references:	
Had the debate on climate change led to a change of practice in relation energy savings in listed buildings and buildings worthy of preservation?	
Yes/No:	
Links, addresses or contacts concerning the above	
Further comments/links/references:	
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What are the specific development requirements in relation to energy savings?	
Models for calculation of total energy loss	
Life cycle analysis calculations	
Examples of concrete solutions	
Cooperation and networking on knowledge-sharing in this area	

Research and pilot projects





8 Are new tools needed for assessing potential energy savings in relation to preservation interests?

Yes/No:

	100/110.
	Links, addresses or contacts concerning the above
	Further comments/links/references:
9	Is there an increased need for new research into achieving substantial energy savings without compromising fundamental preservation interests?
9	
9	energy savings without compromising fundamental preservation interests?
9	energy savings without compromising fundamental preservation interests?  Yes/No:
9	energy savings without compromising fundamental preservation interests?  Yes/No:  Links, addresses or contacts concerning the above
9	energy savings without compromising fundamental preservation interests?  Yes/No:  Links, addresses or contacts concerning the above
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9	energy savings without compromising fundamental preservation interests?  Yes/No:  Links, addresses or contacts concerning the above



### SPECIFIC QUESTIONS concerning reinsulation of old buildings

To give us an overview of the existing knowledge, please inform us of the exchange and documentation of new materials and methods for energy improvements and reinsulation of old houses taking place within the following areas:

### **Doors**



Projects, pilot projects, research and experience in relation to energy improvements to: Traditional materials and solutions: New materials and solutions: Further comments/links/references: **Ground deck** Projects, pilot projects, research and experience in relation to energy improvements to: Traditional materials and solutions: New materials and solutions: Further comments/links/references: **Heating methods** Experience, pilot projects, research in relation to energy improvements to: Traditional methods and solutions: New methods and solutions: Further comments/links/references:

## Ventilation



Projects, pilot projects, research and experience in relation to energy improvements to:

Traditional methods and solutions:
New methods and solutions:
Further comments/links/references:
On allian
Cooling
Projects, pilot projects, research and experience in relation to energy improvements to Traditional methods and solutions:
New methods and solutions:
Further comments/links/references:
Respondent:
Country:
www.
Background information
Name of organisation
Address:
Street:
Town: Postcode:
Country:
Contact: Job title:
Tel.: E-mail: