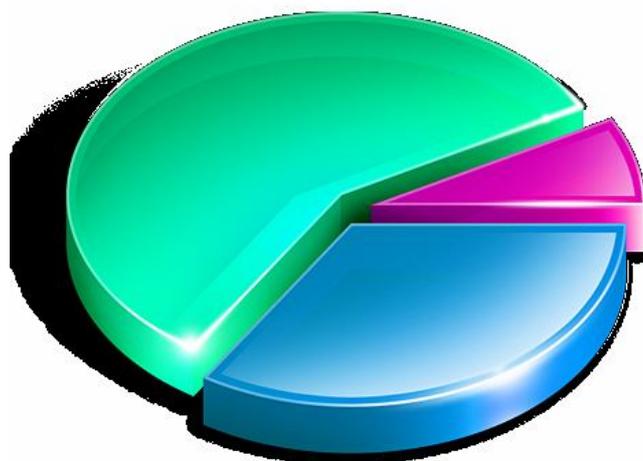


Co₂Bricks

Summary of consultations on the energy efficiency problem, conducted with the environment associated with monuments conservation in Poland. Elaboration of the survey.



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Introduction

This paper concerns the development of the results of the consultation on the energy efficiency of historic buildings in Poland, conducted among peoples involved in this topic. Consultations have been carried out for the Co2ol Bricks project, co-financed from Baltic Sea Region Programme 2007-2013. The main tool in the process was the survey, carried out among people who are close to the thermo modernization of historic buildings, from both: technical and legal site.

Representatives of the European Foundation for Monuments Protection, Co2ol Bricks Project Partner in Poland (PP16), reached the consultation issues to representatives of different backgrounds: architects, construction engineers, conservators, politicians, administration officials and energy auditors. 220 questionnaires were filled, casting a brighter light on the question about the need for introduction of legal obligation of energy audit for monuments in Poland, and showed a general knowledge about this subject among the various communities.

Methodology of the survey

The survey has been completed in the fourth quarter of 2012, during the promotional activities of the project "Co2ol Bricks - Climate Change, Cultural Heritage and Energy Efficient Monuments" on the events in the sphere of its interests, including conferences, congresses, events related to energy efficiency. Questionnaire has been prepared for self-completion by the respondent, which consisted 6 single choice questions. Questionnaires were handed to participants of events:

- II Urban Regeneration Congress in Cracow, 12-14.09.2012
- XV Conservators Forum in Torun, 18-19.10.2012
- Pomerania Energy Days 2012, 25-26.10.2012
- Partners Meeting of "SERPENTE" Project in Katowice, 11.12.2012

PP16 reach out and get a return of completed questionnaires from 220 peoples, who are involved directly or indirectly in decision-making, technical or legal issues related to thermo- modernization of historic buildings.

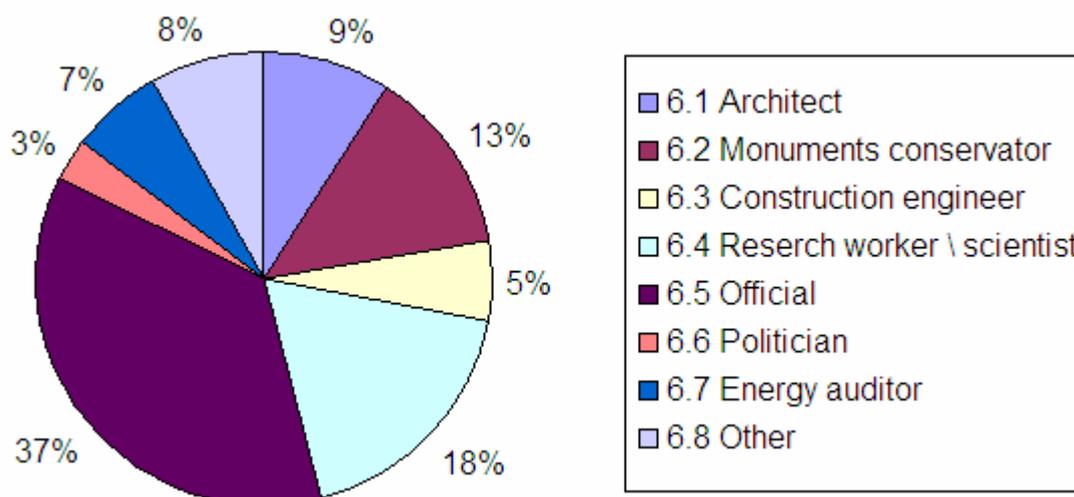
The purpose of the survey was to identify approaches to the issues related to an energy audit in historic buildings. The survey sought above all:

- Check the feedback on the possible exclusion of monuments from the process of adapting to the current Polish technical requirements of energy efficiency,
- Examine views on the introduction of an energy audit requirement for monuments
- Check the current awareness of benefits resulting from energy audit on the monument.

The overall results of questionnaires

Respondents

Survey respondents were representatives of professions and backgrounds relevant to the process of thermo modernization of monuments. The most represented groups were officials of local and central administration (37%), research workers and scientists (18%), monuments conservators (13%), architects (9%) and energy auditors (7%). It is important to emphasize that 8% of the respondents not belonged to the previously established groups. It is known, however, due to leave room for feedback, that they were mainly students of engineering, architecture and urban planning from the Polish universities.



Respondents attitude to changes in Polish law affecting adaptation to EU requirements for energy efficiency of monuments

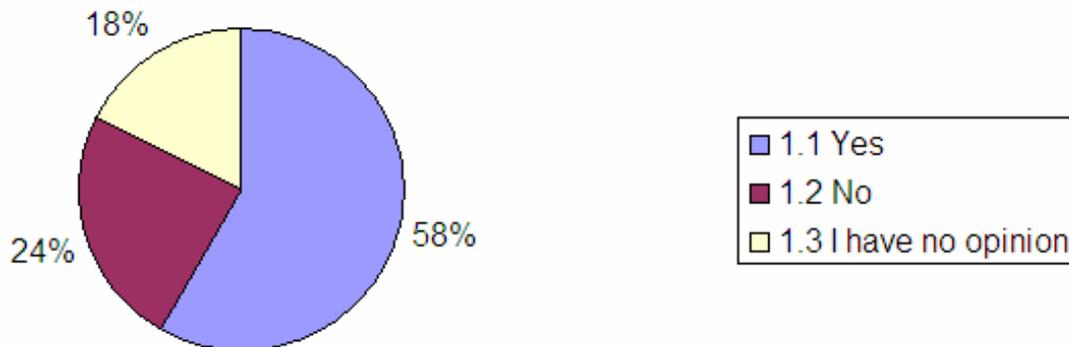
Questions about views on changing the law on technical requirements for historic buildings were:

- **Question 1.** Does monuments should be excluded from the WT2008¹ technical requirements for energy efficiency, due to their historical, artistic and scientific value?
- **Question 5.** Do Polish construction law rules should be adapted to the new EU Directive, which provides increased technical requirements for improving the energy efficiency of an historical objects?

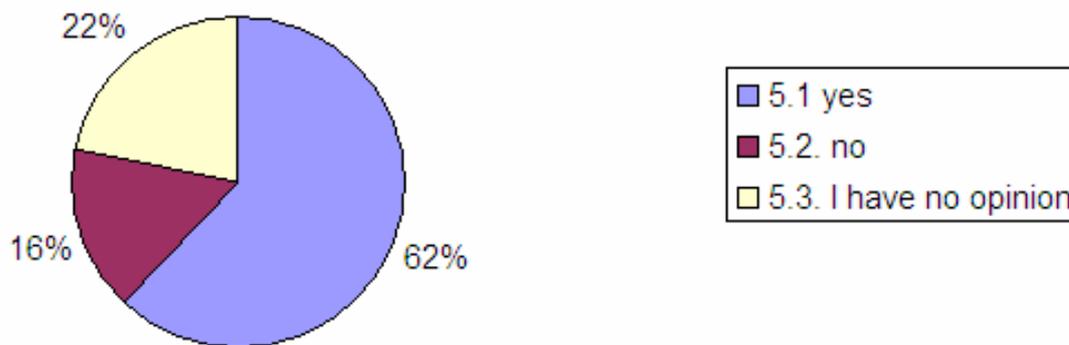
¹ WT2008 – technical conditions for buildings in Poland, also specifies requirements for energy efficiency. Annex to Regulation of the Minister of Infrastructure, dated 12 April 2002, and subsequent amendments.

These questions are designed in such a way as to check the knowledge of the EPBD and the consequences of its implementation. They ask on the same subject, examining opinion and knowledge.

Question 1.



Question 5.



For question 1, most of respondents said yes (58%), claiming that monuments should be excluded from the current technical requirements in force in the Polish legal system. Respondents also pointed (62%) to the need to adjust Polish law to the revised EU Directive, providing increased technical requirements for energy efficiency in monuments (EPBD). This shows that the respondents do not understand that after excluding monuments from WT2008, they will not be covered by the requirements enshrined in the new EPBD.

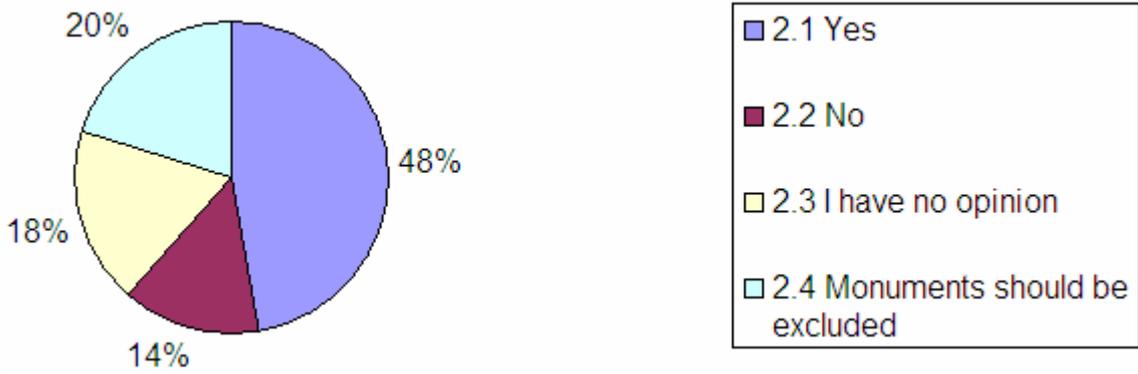
Opinions on the introduction of the obligatory energy audit and energy certification of Monuments

Two questions was related to views on the obligatory energy audits and certification in historical sites:

- **Question 2.** Do obligatory energy certificate should apply to all buildings, including monuments?
- **Question 4.** Will the introduction of the requirement to prepare of an energy audit for the monuments could simplify the process of consulting thermo-modernization project with the Local Monuments Conservators?

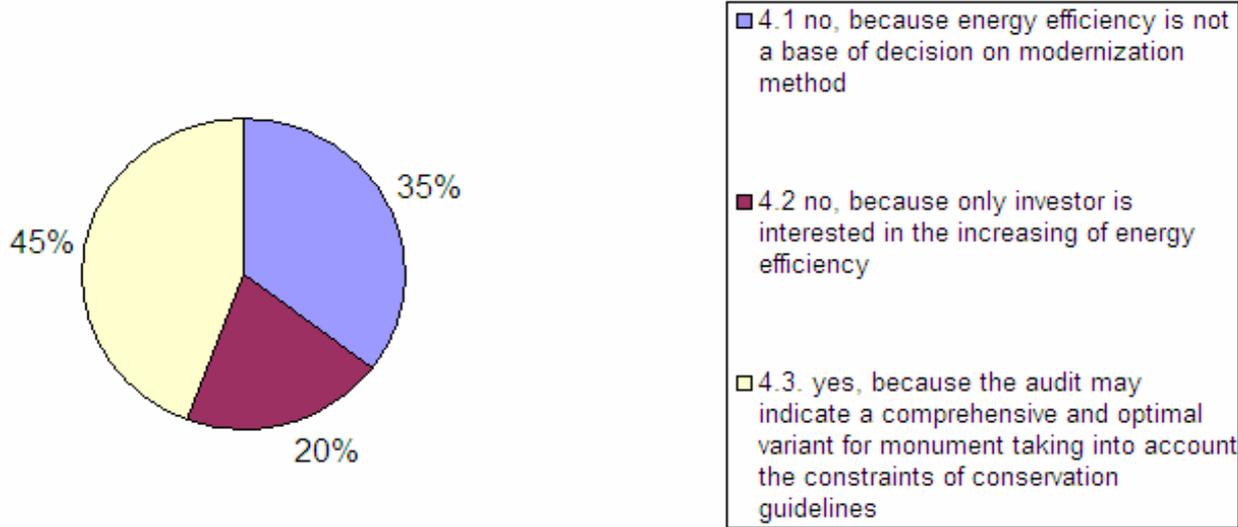
Questions were designed to show the views on the introduction of obligation for historical buildings to have an energy certificate and opinions about reaching benefits from the implementation of the obligatory audit in monuments. 48% of respondents said that the obligation of energy certificates should include all buildings, 20% said that monuments should be excluded from this obligation.

Question 2



Respondents were divided when it comes to Question 4 about the usefulness of an obligatory energy audit, in the consultations on the thermo-modernization project of building with monuments conservator. Most of respondents (45%) said that it could optimize the process of selecting a variant of modernization, by taking into account the conservator guidelines. Close amount (35%) claim that won't be useful, because it is not a base for choosing a thermo-modernization method. 20% of peoples choose answer that audit want be useful, because only investor is interested in increasing the energy efficiency.

Question 4

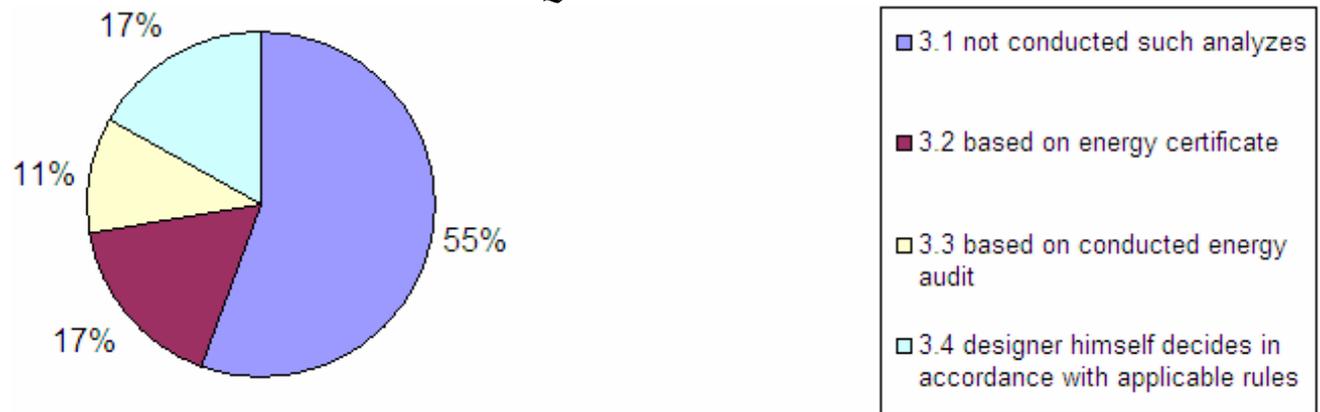


Knowledge about the process of thermo modernization methods selection in refurbishment design.

Question 3 was formulated as follows: On what basis, during the designing of refurbishment, variant of the work to improve the building's energy efficiency is chosen?

The answer to this question was to provide information on the knowledge about selection of thermo modernization methods in process of planning renovation of the monument (It is now noted that in most cases, an analysis to facilitate selection of the method of modernization is not conducted.) The majority of respondents (55%) said that such an analysis have no place in designing process, which corresponds to reality. 28% of peoples claimed that the analysis is conducted. Accordingly: based on energy audits - 11%, based on energy certificates - 17%. Almost every six respondent (17%) indicated that the designer take autonomous decisions in this area.

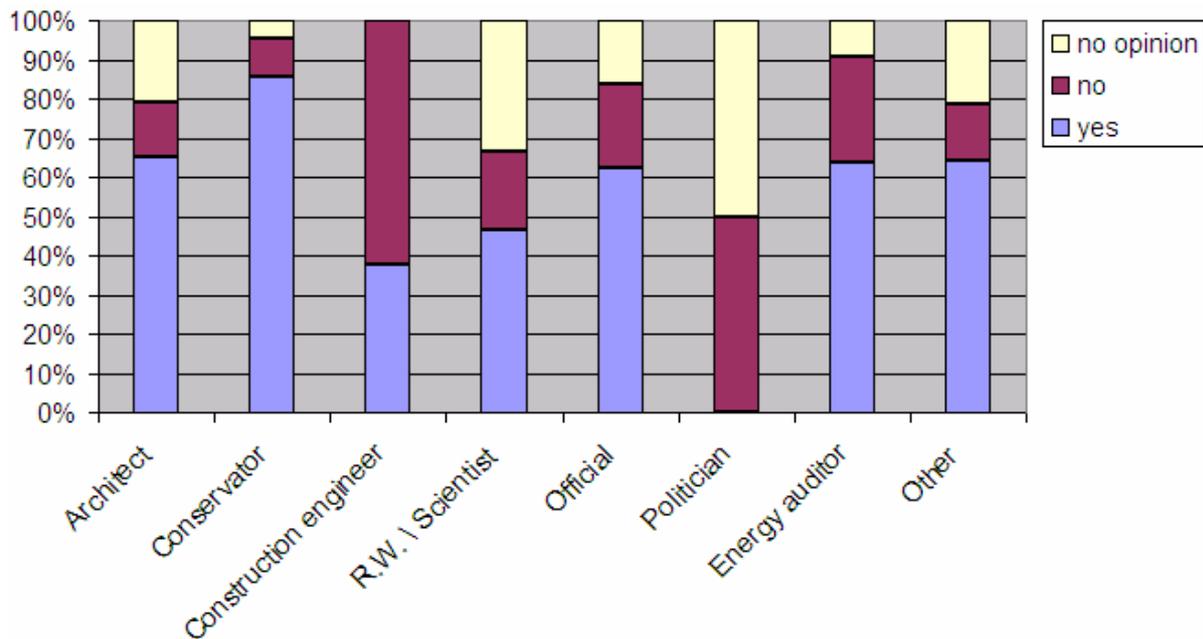
Question 3



Detailed results

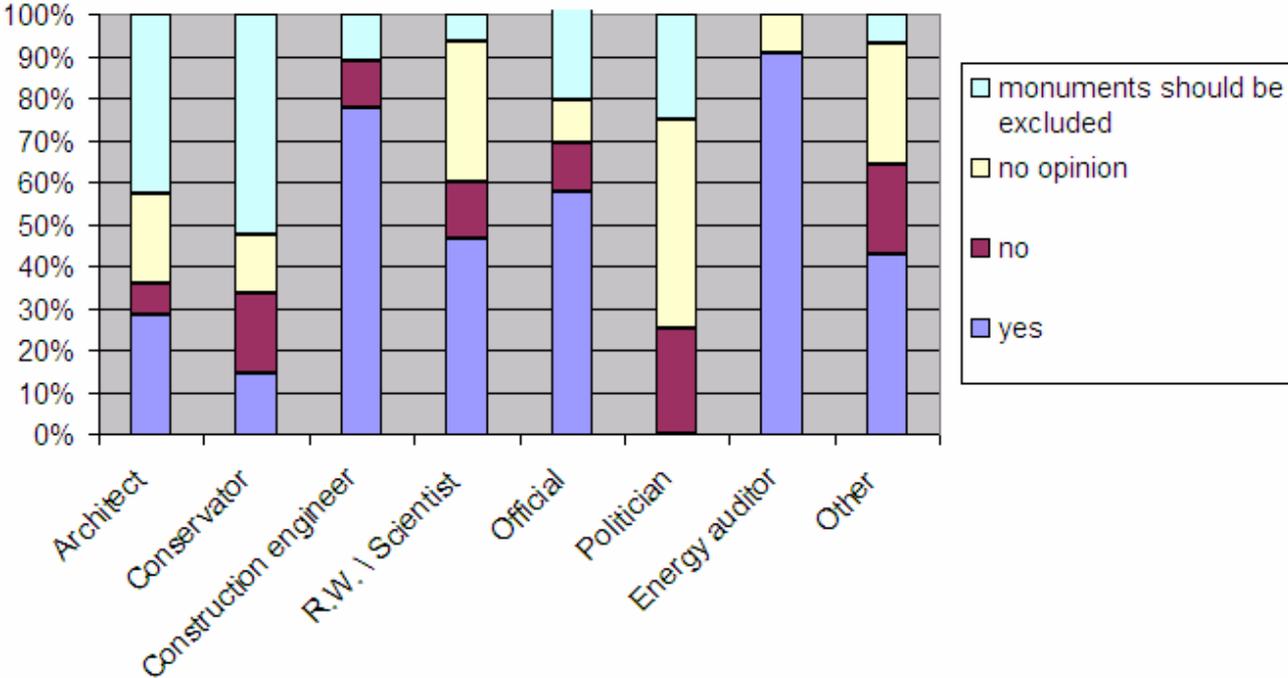
Survey results were differed depending on the profession / environment that respondent represented.

Question 1. Does monuments should be excluded from the WT2008 - technical requirements for energy efficiency, due to their historical, artistic and scientific value?



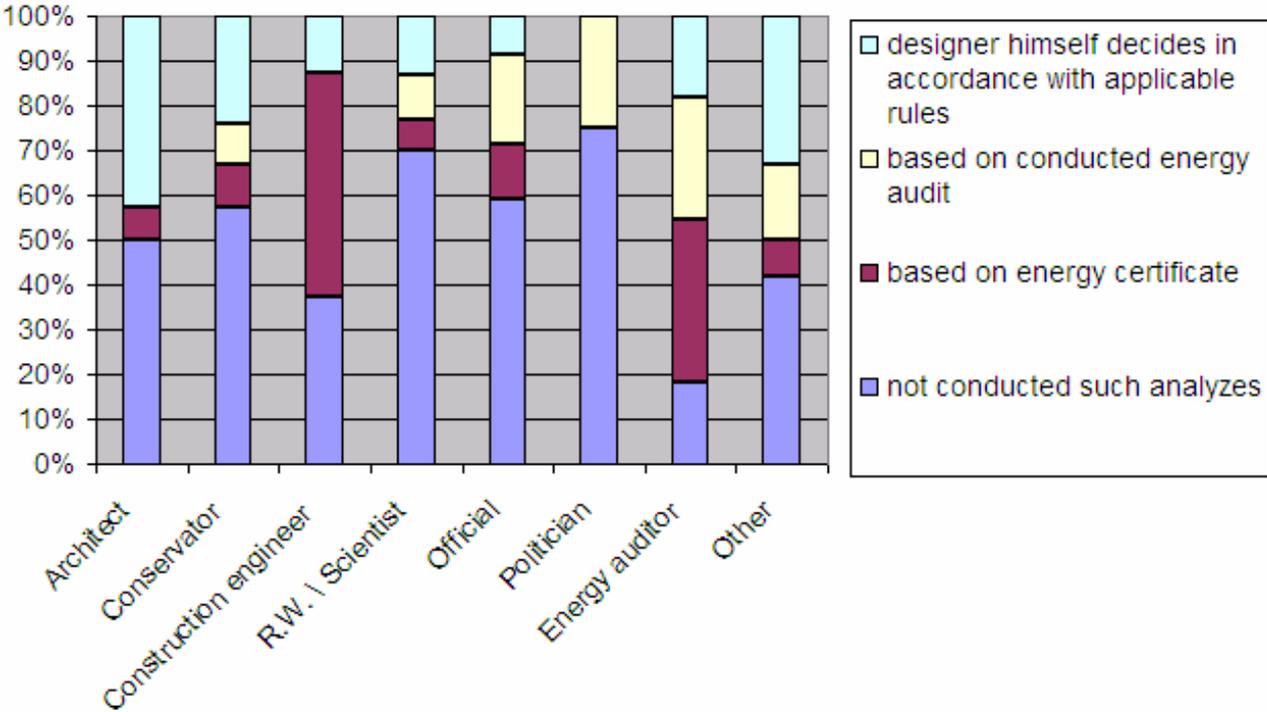
Looking at the detailed results, we can see that the biggest difference in the views of exclusion of monuments from energy efficiency conditions (WT2008) is between conservators (about 90% of the answers to 'yes') and construction engineers (about 40% of the answers to 'yes'). Another category was the politicians, who do not have an opinion on the legal changes or were in favor of leaving the current situation (50%). A big supporter of the exclusion of monuments from WT2008 were also architects, energy auditors and officials (about 65%).

Question 2. Do requirement to have an energy certificate should apply to all buildings, including monuments?



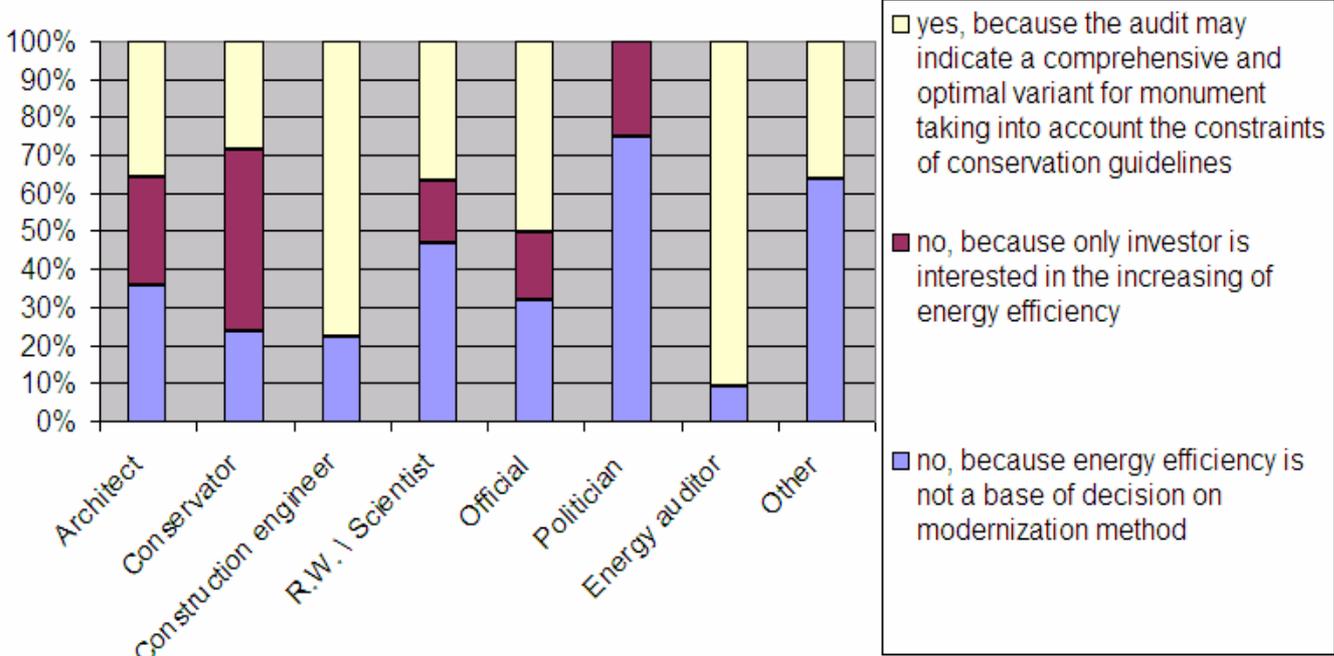
The question about obligatory energy certificates gave completely different results, depending on the profession represented. Almost 91% of the auditors supports required to certify all buildings. This contrasts with the opinion of monuments conservators who claim (51%) that monuments should be excluded or (almost 20%) that the certificates should not be obligatory. Architects supports conservators with 41% responds about excluding the monuments from obligation, however, construction engineers have similar sentence to energy auditors (nearly 80% 'yes' responses).

Question 3. On what basis, during the designing of refurbishment, variant of the work to improve the building's energy efficiency is chosen?



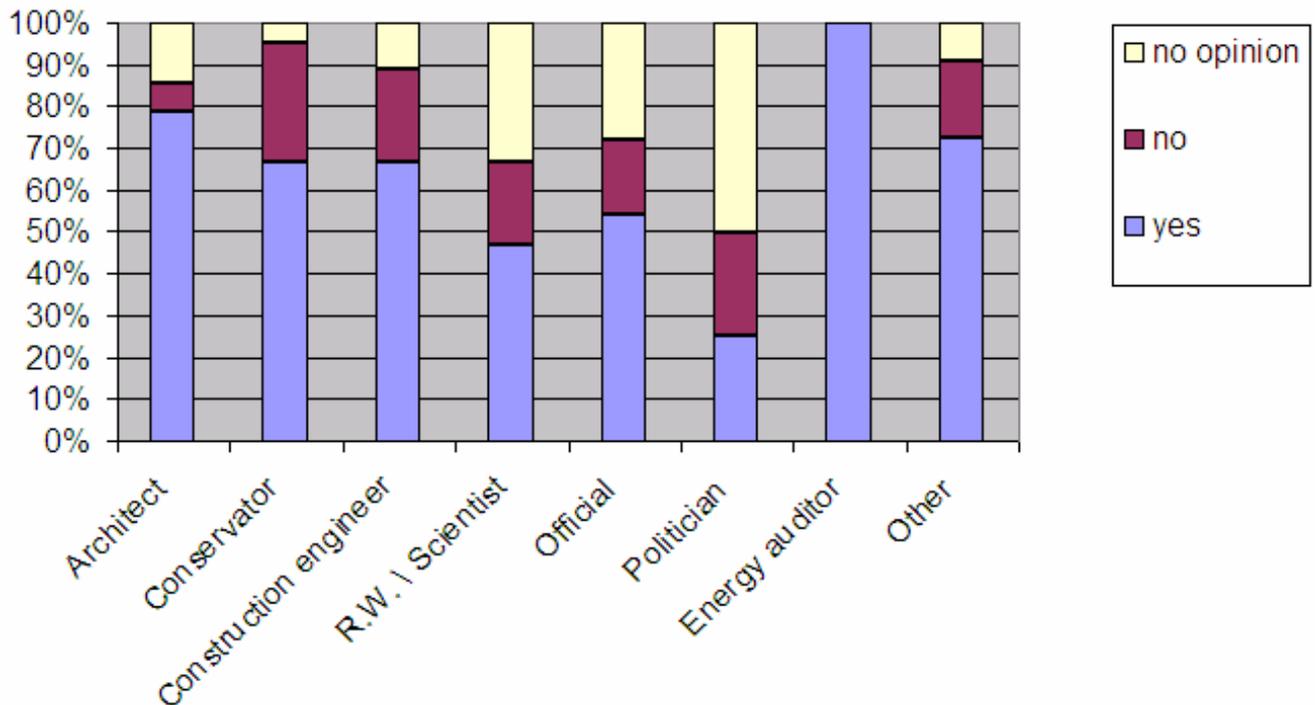
When it comes to the analysis of energy audits or certifications, most professionals said that they do not know the cases in which they were taken into account when selecting a thermo modernization method. Only construction engineers (50% - knows or believes that certificates are taken into account in designing of refurbishment) and energy auditors (over 60% indicate audits or certifications) answered this question differently.

Question 4. Will the introduction of the requirement to prepare of an energy audit for the monuments could simplify the process of consulting thermo-modernization project with the Local Monuments Conservators?



Energy auditors (91%) and construction engineers (78%) were also in agreement that the introduction of an energy audit requirement for the monuments will simplify the process of consultation on thermo modernization methods with conservator. Different tasks were conservators themselves, believing that it does not simplify anything because the audit is not the basis for the decision (22%) or only investor is interested in increasing the efficiency (46%).

Question 5. Do Polish construction law rules should be adapted to the new EU Directive, which provides increased technical requirements for improving the energy efficiency of an historical objects (EPBD)?



Question 5 was the one in which most respondents to agree. In most cases, more than half of the respondents indicated that Polish law should be adapted to the directive of the EU. Disagreed or have no opinion only politicians (50% - no opinion, 23% - no) and research workers (33% - no opinion, 20% - no). It is worth noting 100% support from energy auditors to the implementation of directive.

Summary and additional comments to consultations results

Consultations revealed differences of opinion, approach and awareness of different environments on the energy efficiency of historic buildings. It is worth noting that many people did not know the legal conditions for energy efficiency in Poland, and asked for it when filling out the questionnaire. Also not everyone knew the content of the EPBD.

Most aware of environment in the issues survey turned out to be energy auditors. They had also, in addition to structural engineers, the most different view than monuments conservators (which shows question 2). It could be worried that politicians and officials often answers the questions: no opinion, because they create and implement legal foundations of the functioning of construction law in Poland. The final conclusion that can be noted, that there is a needed of educational campaign, showing the current deficiencies in the system of upgrading monuments for their energy efficiency, and also opportunities offered by the introduction of obligatory energy certification and audits.

Attachments

Annex 1 - content of the survey

Please fill in the survey on the problem of increasing the energy efficiency of protected historical sites* , hereinafter referred as "monuments".

** For a protected historic building, in our project, we understand the objects entered in the register of monuments or protected by conservator protection in the local development plan.*

1. Does monuments should be excluded from the WT2008 technical requirements for energy efficiency, due to their historical, artistic and scientific value?

1.1 yes

1.2 no

1.3 I have no opinion

2. Do requirement to have an energy certificate should apply to all buildings, including monuments?

2.1 yes
excluded

2.2 no

2.3 I have no opinion

2.4 monuments should be

3. On what basis, during the design of refurbishment, variant of the work to improve the building's energy efficiency is chosen?

3.1 not conducted such analyzes

3.2 drawn up on the basis of an energy certificate

3.3 based on conducted energy audit

3.4 designer himself decides in accordance with applicable rules and WT2008

4. Will the introduction of the requirement to prepare of an energy audit for the monuments could simplify the process of consulting thermo-modernization project with the Local Monuments Conservators?

4.1 no, because energy efficiency is not a base of decision on modernization method

4.2 no, because only investor is interested in the increasing of energy efficiency

4.3 yes, because the audit may indicate a comprehensive and optimal variant for monument
taking into account the constraints of conservation guidelines

5. Are Polish Construction Law rules should be adapted to the new EU Directive, which provides increased technical requirements for improving the energy efficiency of an historical objects (EPBD)?

5.1 yes
opinion

5.2 no

5.3 I have no

6. Profession currently performed by you:

6.1 architect **6.2** monuments conservator **6.3** structural engineer **6.4** research
worker

6.5 civil servant

6.6 politician

6.7 energy auditor

6.8 other