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LEnSE

Methodology Development towards a Label for Environmental,
Social and Economic Buildings

SSP Thematic Priority 8.1 Policy-oriented research

D3.6 Report of Third Trans-national Expert workshop (3rd TEW)

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| PP | Restricted to other programme participants (including the Commission | |
| RE | Restricted to a group specified by the consortium (including the Commission | |
| CO | Confidential, only for members of the consortium (including the Commission Services) | |

Third Trans-national Expert Workshop (3rd TEW):

'Testing of the Methodology'

**26th September 2007
Prague – Czech Republic**

1 Introduction

Oliver Kornadt opened the workshop with welcome statements and a description of the workshop program.

Following his welcome, all participants, i.e. the external expert and the LEnSE partner, introduced themselves.

2 Presentations

There have been three presentations from the LEnSE partners to give the experts an overview of the LEnSE project and an introduction to the structure and format of the methodology.

- Katrien Putzeys, Belgian Building Research Institute (BBRI)
'*Overview of the LEnSE project (past and future work)*'
- Tim Bevan, Building Research Establishment (BRE)
'*Content of the Assessment (development of sub issues)*'
- Nikos Zarkadis (European Profile)
'*Assessment tool and testing of the method*'

Katrien Putzeys reported in her presentation on the methodology development for an overall assessment in general and pointed out the importance of raising awareness with a tool based on LEnSE. She gave a brief overview of the program, which clearly identified the different phases with their appropriate outcome publications "stepping stones" which she describes as knowledge issuing.

The presentation from Tim Brevan (BRE) gave a basic understanding of sub issue identification, their development and the balancing of the criteria to work out an appropriate rating.

Nikos Zarkadis (European Profile) gave the audience an introduction into the assessment tool, which European Profile developed within the LEnSE project. He explained the interface functionality as well as the basic processes behind it.

Following these presentations there was time for discussion and answering questions. It has been questioned by the experts how and on what basis a certain entry level is set. Katrien Putzeys mentioned that all the chosen entry levels do refer to national standard values.

It has also been asked for the way the methods excludes interference of adjacent topics. The experts stated that social scientists might contribute quite beneficially when it comes to a more precise specification of the sub issue contents.

3 On-hands testing exercise

3.1 General

All participants were asked to perform an on-hands testing exercise. Therefore, teams were set up consisting of an expert and a LEnSE partner, respectively, to individually use the prototype assessment tool developed within the LEnSE project. One example building has been used to perform different parts of the overall assessment method.

Prior to the testing of the teams, Oliver Kornadt and Nikos Zarkadis gave a short introduction on how to use the tool and what would be expected from the participants. Both also assisted the participants during the testing phase.

The testing persons have also been formally arranged in groups in which they should express and summarise their findings and report in a short presentation. After each section of the exercise a previously appointed expert of each group presented the results and findings. These groups were:

Group A: Thomas Lützkendorf (speaker)
Aleksander Panek
Anne van Autreve

Group B: Nils Larsson (speaker)
Marzia Sedino
Elliot Carter

Group C: Ionnis Skias (speaker)
Christian Binetruy
Gert van den Elsen

3.2 Testing Group A

Thomas Lützkendorf (Universität Karlsruhe) pointed out that in all groups, which are working on the assessment of sustainable building, occur similar problems. He demonstrated his assessment and brought up problems his team had while using the tool. He stressed the necessity of clear defined terms used in the assessment and also doubted appropriateness of process-based assessing rather than just check lists which would presume a certain order or regulation which the assessment criteria is based on.

3.3 Testing Group B

Nils Larsson (iiSBE) stated that the LEnSE tool is a very interesting assessment tool. For further improvement he proposed more refined categories to clearly reflect the actual building features. Also, the assessment criteria should be more refined to

recognize different user groups using the building, e.g. assessing distances for young and old people or different needs and their appropriate importance such as schools and bars. The LEnSE partners responded that during the methodology development it has been sought that the assessment should be as general as possible to accomplish all kinds of possible users of a building. Furthermore, simplicity of the usage was also declared to be high priority to ensure it will be used.

There was no time left for group C to report findings.

3.4 Discussion

A short discussion then followed which questioned for what users the assessment should be about. In this context it has been revealed, that an assessment could be related to the users who are in the building already or are likely to do so. However, the scale of the assessment can also be extended to all possible users for now and in the future. Furthermore a change in the assessment of the building as a consequence of a change in the infrastructure or the utilization of the building was discussed.

Finally, the experts stressed the importance of the benchmark definition, which also includes the weighting factors. It was proposed that the definition is done locally where certain needs and particularities are well known.

3.5 CESB07 Panel discussion

Johann van Dessel participated as a panellist on a panel discussion representing the LEnSE team.

4 Public Session

This part of the expert workshop was open to the public. There were a few guests apart from the previous participants (LEnSE partners and experts) attending this session.

4.1 LEnSE Overview

There was a brief overview given by a short presentation from both Katrien Putzeys and Nikos Zarkadis covering the basic concept of LEnSE and also the assessment tool that has been developed within the project.

4.2 Open discussion

The open discussion provided the possibility to address different issues, which came up during the workshop so far and have not been discussed yet.

During the open discussion the issue of the location assessment was identified as global problem. Support could be obtained from real estate agents, which use several tools to describe and value buildings with respect to their location. It was also found that the wording of "site" and "location" needs to be clarified in the context of the building assessment.

The experts were then asked to estimate the effort of using the tool, e.g. collect data and fill tool. It was stated that the extent of data both to collect and to fill in the tool is

strongly depending on the size of the building. Although the basis of the estimation was found too uncertain and thus is impossible to give a clear estimation, a possible relation can be:

- Five days to collect data
- Two days to fill the assessment tool

The tool in general was found to be fine, sufficient and very convenient. It was stated that there might be the need for an intermediate to calibrate the very basic and general tool for a specific user at a certain location, e.g. language and national code related particularities.

5 Closure

Oliver Kornadt summarised the issues covered by the workshop and thanked the participants for attending the workshop and for their fruitful input into the discussion. The LEnSE team will stay in contact with the experts and inform them about future work of the project (e.g. 2nd National Stakeholder Meeting, Final Symposium). With many thanks for the good presentations from LEnSE partners and the keynote speakers, Oliver Kornadt closed the workshop.

6 Conclusions

The first part of the second trans-national expert workshop proved that not only the methodology towards a label for environmental, social and economic building developed in the LEnSE project is reasonable and practicable, but also the tool that has been developed to form a convenient user interface. This has been clearly stated by the testing teams and also by experts individually.

In the second part of the workshop relevant issues concerning concept, design, form, structure, and usability have been discussed with the invited experts. During this discussion many details have been mentioned by the experts, which will help all LEnSE partners to improve the sub issues furthermore. Moreover, three main aspects have to be faced with during the progress of the LEnSE project:

- Should the assessment of a building reflect its capabilities for all possible users?
- How will the LEnSE project team deal with the overlap of sub issues?
- How will the difference of national regulations and European wide standards incorporated into the weighting of the sub issues?
- How could the LEnSE tool include already existing assessments for specific topics respectively in some member countries?
- How can the LEnSE team proceed with the results already obtained?

In general the workshop was very successful for development of the LEnSE project. The experts gave a very positive feedback on the work, which has been done already within the project. All experts wish to stay in contact with the LEnSE team and are looking forward to further phases and the final output of the LEnSE project.

The 3rd TEW was shaped by the involvement of real experts on the topics and powerful persons, e.g. representatives from CEN. This will be very helpful in the achievement of the methodology development by LEnSE.

Annex 1: Participants

Experts

Nils Larsson (Canada)
iiSBE

Marzia Sedino (Italy)
ITC-CNR

Thomas Lützkendorf (Germany)
Universität Karlsruhe

Christian Binetruy (France)
Alter Studios

Elliot Carter (United Kingdom)
PDM Consultants

Gert van den Elsen (Netherlands)
Municipality of Tilburg

Ioannis Skias (Greece)
Skias Engineering

Anne van Autreve (Belgium)
Flemish Government – Department of Environment, Nature and Energy

Aleksander Panek (Poland)
Warsaw University of Technology

LEnSE partners

Mr Tim Bevan (United Kingdom)
Building Research Establishment (BRE)

Mr Freek den Dulk (Netherlands)
Piode – architects and consultants

Mr Petr Hajek (Czech Republic)
Czech Technical University (CVUT)

Mrs Saskia Van Hulten (Netherlands)
W/E consultants

Mr Oliver Kornadt (Germany)
Bauphysikbüro Kornadt

Mrs Clare Lowe (United Kingdom)
Building Research Establishment (BRE)

Mr Antonin Lupisek (Czech Republic)
Czech Technical University (CVUT)

Mr David O'Rorke (United Kingdom)
Imperial College London

Mr Bruno Peupartier (France)
ARMINES

Mrs Katrien Putzeys (Belgium)
Belgian Building Research Institute (BBRI)

Mr Johan Van Dessel (Belgium)
Belgian Building Research Institute (BBRI)

Mr Mario Rinke (Germany)
Bauphysikbüro Kornadt

Mrs Quitterie Barthou (Switzerland)
Planair

Mr Nikos Zarkadis (Greece)
European Profiles

Annex 2: Agenda

Agenda 3rd Trans-national Expert Workshop

Wednesday 26 September 2007 in Prague, Czech Republic

9.00 Opening of the meeting

Short Introduction of each Participant

Presentation of LEnSE Partners:

- 9.15 – 9.25 Overview of the LEnSE Project (past and future work)
Johan van Dessel, Katrien Putzeys (BBRI)
- 9.25 – 9.35 Content of the Assessment (development of sub issues)
Clare Lowe, Tim Bevan (BRE)
- 9.35 – 10.00 Introduction of assessment tool
Nikos Zarkadis (European Profiles)

10.00 – 10.15 Coffee break

- 10.15 – 12.15 On hands testing exercise of the prototype of the
assessment tools developed within the LEnSE project
Nikos Zarkadis (European Profiles)
- 12.15 – 12.30 Open discussion
Moderated by Oliver Kornadt (Bauphysikbüro Kornadt)
- 12.40 – 13.30 CESB07 Panel discussion

13.30 – 14.30 Lunch break

- 14.30 – 15.15 Overview of the LEnSE Project and assessment tool
*Johan van Dessel, Katrien Putzeys (BBRI) and Nikos Zarkadis
(European Profiles)*
- 15.15 – 15.45 Open discussion
Moderated by Oliver Kornadt (Bauphysikbüro Kornadt)

16:00 Closure

Annex 3: Questionnaire

Six experts have returned their questionnaire form.

- 1) Prior to testing LEnSE methodology, have you ever been involved with building assessment in the past?
Yes: 6 No: 0

- 2) What were the main difficulties (if any) you had to deal with during the on hands testing exercise of the LEnSE methodology?
 - Some process stages need clarification, as they are difficult to comprehend.
 - Sometimes the question was not clear enough (e.g. public transport), so answers will vary between respondents
 - Sub issues were sometimes vague
 - Not very user friendly
 - Missing important issues (ext. safety, social mixing, etc.)
 - Too much input needed, not a simple tool
 - Ambiguity
 - Non exhaustive list of options in specific criteria, e.g. no chance to exclude the criteria in case of no applicability
 - Both the test and the exemplary documents were very well applicable
 - The provided opportunity of testing by oneself is considered as being very useful
 - The basis and assistance of valuation have not been integrated into the tool. On this account the expenditure of time was quite big.
 - The training-period was to short

- 3) In your opinion, what is the strongest point of assessing a building's sustainable performance using methodology?
 - The attempt to assess sustainability
 - Breadth of assessment
 - The fact that there is being developed a methodology in an European context at all is good. But the methodology itself could be improved greatly.
 - User friendly
 - Includes issues that are not included in other tools
 - That it takes a lot of parameters (environmental, social, economic) under consideration in a much simplified way
 - Ambiguity
 - The development of an assistance of valuation based on excel is a useful approach

- 4) In your opinion, what is the weakest point of assessing a building's sustainable performance using methodology?
 - It cannot address sufficiently some qualitative issues. These issues need further improvement in order to achieve a widely accepted benchmark scale
 - One tool for unequal situations: office vs. domestic, design vs. occupied. Issues are not always relevant, probably a lot of work
 - The methodology is not simple and will require so much input and work that in my opinion it will not often be used, and certainly not in the design phase
 - Ambiguity

- Lack of clear phase separation
 - Lack of clarity to the end user
 - Need better way of adapting to regions
 - Not clear boundaries of assessment (building, site, region). The social and economic categories are not comprehensive
 - The drop-down menus do not contain all possible options for answers
 - The questions and answering options are not comprehensible in all cases without instructions
 - Sources of information (wherefrom information ought to come from) are not named in the tool.
- 5) If you identified any shortcomings in the assessment process or/and in the methodology, could you please provide details?
- Not certain, for what phase of building life assessment is undertaken, who are the stakeholders. It is difficult to encompass the whole life cycle of the building for all the stakeholders
 - Developers wanted wide scope but simplicity in use. This leads to limited ability to be specific. Need intermediary to calibrate
 - Many questions are left regarding the allocation of criteria
 - Qualities of location and object are mixed up
 - Qualities of process and object are mixed up
 - Structure and type of the indicators is not congruent with the current state of discussion on CEN.
- 6) Have you any proposals/suggestions to make regarding the assessment process or/and the methodology itself?
- It should be developed further in order to achieve quicker data collection and inputting
 - Defining profile of the building in the basic information sheet, show only relevant issues
 - Keep it simple
 - Think of how to adapt system (benchmark!) to future changes
 - Drastic simplification! 3,6 days is much too long for 30 issues
 - Clear and verifiable issues and parameters
 - Make the tool more of a design tool which it is not now
 - Establish intermediate step for calibration
 - To revise the methodology and scope according to CEN or ISO. Also look at existing tools, e.g. CASBEE
 - Separate evaluation of the quality of location
 - Separate evaluation of the quality of process
 - Definition of the target audience
 - To pay more attention to the differences between new and existing buildings
 - To pay more attention of specific features of individual types of buildings and utilizations
- 7) Should LEnSE Methodology become publicly and/or commercially available in the future, what modifications and/or amendments (if any) do you think are necessary for such a methodology to be successful (e.g. adopted by stakeholders, market visibility, etc.)?
- The sustainable assessment methodology should be available. I do not have an opinion about commercialisation, as I see a long way to go for it
 - Main issue is not tool, but to think about process steps, who is involved

- LEnSE as it is now should not be put on the market
- A fully developed LEnSE application should go public as a standalone or web based application. After a piloted test period under real circumstances an improved version can be developed. In any case an extensive ready-to-use database should be included in order to promote simplicity and less data entering
- Public availability cannot be recommended at this stage. Too many questions are left.
- Method and indicators are not elaborated