

IMPACT

IMproving energy Performance Assessment and Certification schemes by Tests

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ABSTRACT

As from 2006, in all EU countries, energy performance certification for residential and non-residential buildings will become obliged. In all countries the EU directive on the energy performance of buildings (EPBD) is currently translated to national legislation and tools for the implementation are developed.

The international IMPACT project aims to support National stakeholders with the implementation of the directive and to contribute to the preparation of market actors for the introduction of energy performance certification in 2006. For an effective implementation of energy performance certification, aspects like quality control systems, tools and communication aspects need to be prepared and thoroughly tested. Within the Impact project energy performance certification 6 National will be executed The Netherlands, Germany, Denmark, France, Belgium and Spain.

The project aims at realizing the following results:

- Recommendations contributing to the improvement of tools, expert training and communication in EPBD schemes and to the preparation of market actors for EPBD introduction in 6 EU countries.
- A model / guidelines for implementation of the EPBD, based on European best practice, as a basis for dissemination.
- EU wide dissemination aiming at informing and preparing relevant stakeholders for the introduction of the EPBD, including targeted activities in 5 new member states.

KEYWORDS

EPBD, energy performance certification, tests, buildings directive, dissemination

BACKGROUND

Currently, the EU Directive on the Energy Performance of Buildings (EPBD) is being translated to national laws, which will become effective as from January 2006. As part of these national translation processes, energy performance assessments (EPA) and certificate systems for existing buildings are being adapted and developed within EU member states.

The goal of energy performance certification is to have an impact on and to contribute to the reduction on the energy consumption of buildings. In order to reach this goal all elements in the certification process needs to meet certain quality demands. Important elements in this process are shown in table 1.

TABLE 1
Energy performance certification process

Process step	Actor	Quality aspect
Promotion	Energy agencies Municipalities Housing companies	Effective promotional schemes
Building inspection	Expert	Qualified consultants/reasonable price Consultant training / certification
Calculation energy performance	Expert	Certified tool Qualified consultant
Report / certificate	Expert	Clear report, challenging to take measures Qualified consultant
Presentation to building owner	Expert	Communicational skills consultant Communicational value report
Action to implement measures	Building owner	Additional incentives for building owner

All elements in the process need to be addressed properly in order to realize an effective stimulus for energy saving in existing buildings.

In the conception phase of the IMPACT project the national EPBD translation processes focused on the development of national laws, and methods and tools used for energy performance certification.

In countries here energy performance assessment and labelling schemes exist, barriers have been reported regarding:

- Varying, some times poor, quality of the issuing experts and resulting report/certificate (NL)
- Communication aspects of certification process (process, report) can be improved (NL, DK)
- Low interest of apartment building owners, special approaches required (DK, NL)
- Lack of qualified experts infrastructure and capacity (FR, DE)
- Lack of national harmonisation of certification and communication approaches (DE, ES)
- Energy Advice tools need to be transformed to certification tools and tested (FR, BE, NL)

These barriers focus on: implementation in practice, quality control, promotion and communication to building owners.

OBJECTIVE

In order to tackle barriers observed during the implementation of energy performance certification in practice the main objective of the project is to support relevant stakeholders during the national translation of the EPBD for existing buildings in developing and improving energy performance certification schemes en to embed these improvements in national EPBD implementation

EXPECTED RESULTS

- Recommendations contributing to the improvement of tools, expert training and communication in EPBD schemes and to the preparation of market actors for EPBD introduction in 6 countries.
- A model / guidelines for implementation of the EPBD, based on European best practice, as a basis for dissemination activities.
- EU wide dissemination aiming at preparing relevant national stakeholders and market actors for the introduction of the EPBD as from 2006.

WORK PROGRAMME

In order to realize the objectives and the expected results, the project aims to tie in closely on the ongoing national translation processes of the EPBD and the building of national implementation frameworks. Therefore the project will be executed in close cooperation with national stakeholders and relevant market actors like expert organisations, intermediary organisations and large building owners.

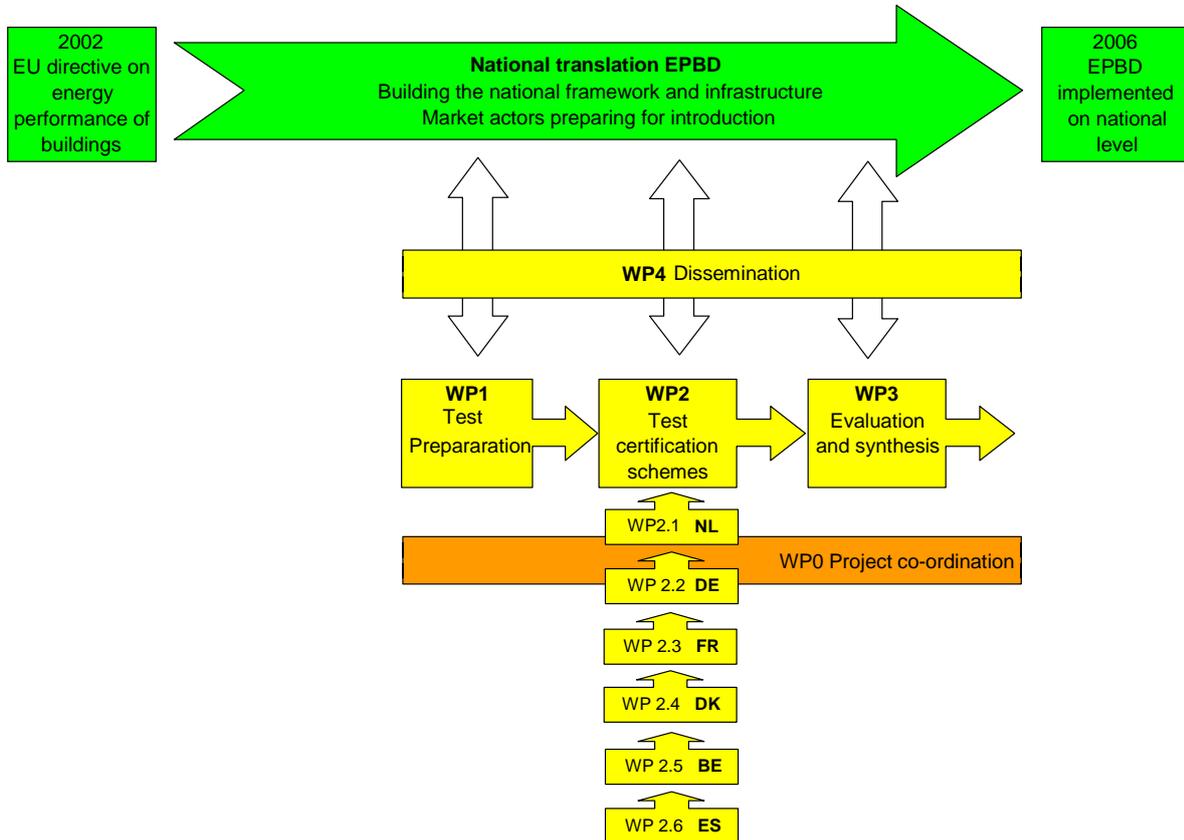


Figure 1: Overview IMPACT work programme

The work plan is divided into 5 work packages (Figure 1). Work package 2 consists of 6 national tests.

In all work packages relevant stakeholders will be involved for the exchange of information, market actor feed-back, discussing the set-up of national tests in order to maximise value for national infrastructure build-up, etc. In this way (interactive) dissemination is integrated, from start, during the course of the whole project. Most project partners are actually involved in the actual EPBD translation processes as member of the national steering committees. They use the project as test pilot and the results as input for these processes.

Work package 1 forms the preparatory step for the execution of the national implementation tests (WP2) and the development of a Best Practice Model in work package 3. The available information regarding existing certification schemes, barriers and success factors reported (sources: Concerted Action, partners inputs, previous projects), is translated to test approaches for best practice certification schemes. These certification scheme tests cover all essential elements in the certification process and infrastructure ranging from tools usage, quality control (training, certification), communication to building owners, incentive schemes, etc.

National stakeholders and market actors responsible in the consequent steps in the certification process will be actively involved in this work package.

Result of this work package is a draft model for implementation of the EPBD for existing buildings, based on European best practice and covering all essential elements for implementation.

In work package 2 national implementation test are conducted. The focus of these tests varies according to the specific needs and barriers that need to be addressed in the different countries. I.e. in Denmark an important focus will be testing approaches for multi-owner apartment buildings. In The Netherlands testing and optimising the communicational quality of the process (report and presentation) and labelling approaches for large multi-apartment building owners are focal areas.

Market actors will be involved during the work package to contribute to improving test set-ups from market actor perspective. The tests will include end-user (building owner) surveys in order to assess the effectiveness of the approaches applied.

In work package 3 the test results are analysed and evaluated. Recommendations are formulated for improvement of tools, certification, training of consultants and communication. This work package includes the involvement of actors responsible for the development of national schemes, as well as market actors preparing for the introduction of the EPBD. National stakeholders will be invited to contribute to this evaluation in order to have a direct feedback to national implementation planning (tool development, building the infrastructure). Market actors are welcomed to provide feedback from the practical implementation perspective. A synthesis is made on a European level as basis for international dissemination of best practice approaches.

Work package 4 is a dissemination work package, with a Europe wide focus, which runs from the start of the project with a twofold focus:

- Disseminate recommendations for improvements on national energy performance certification tools and schemes for existing buildings to actors (ministries, national energy agencies, building research institutes) responsible for EPBD roll-out, with the goal to improve energy performance certification schemes and embed these improvements in national EPBD implementation.
- Disseminate best practice implementation models to other actors like: end users (large building owners), scheme promoters (municipalities, energy agencies), consultant companies and NAC countries to support in their preparation for the EPBD introduction in 2006.

PROJECT PARTNERS

- Ecofys, The Netherlands (project co-ordination)
- SenterNovem, The Netherlands
- Deutsche Energie Agentur GmbH (DENA) Germany
- Tribu-energie, France
- Danish Building Research Institute (SBI), Denmark
- Belgium Building Research Institute (BBRI), Belgium
- 3E N.V., Belgium
- Ecofys S.L., Spain

PROJECT PLANNING

Jan 2005 – Feb 2007 (25 months)

WEBSITE

Project information, news, newsletter subscription and downloading of deliverables at the project website: www.e-impact.org



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