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**Intelligent Energy - Europe**  
Programme



# EPA-NR

## Energy Performance Assessment for Non-Residential Buildings in Europe

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# Content

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- The EPBD as a starting point
- Key issues in development of assessment methods
- Accuracy of the assessment process
- EPA-NR (EPA-ED)

visit:

**[www.epa-nr.org](http://www.epa-nr.org)**  
**[www.epa-ed.org](http://www.epa-ed.org)**



# Project Partners

## AUSTRIA

- Arsenal Research
- Österreichisches Ökologie Institut (ÖÖI)

## DENMARK

Danish Building Research Institut (SBI)

## FRANCE

Centre Scientifique et Technique du Bâtiment (CSTB)

## GERMANY

Fraunhofer-IBP

## GREECE

National Observatory of Athens (NOA)

## ITALY

National Agency for New Technology, Energy and the Environment (ENEA)

## The NETHERLANDS

- Netherlands Organisation for Applied Scientific Research (TNO)
- EBM-consult (project co-ordinator)

# Key issues

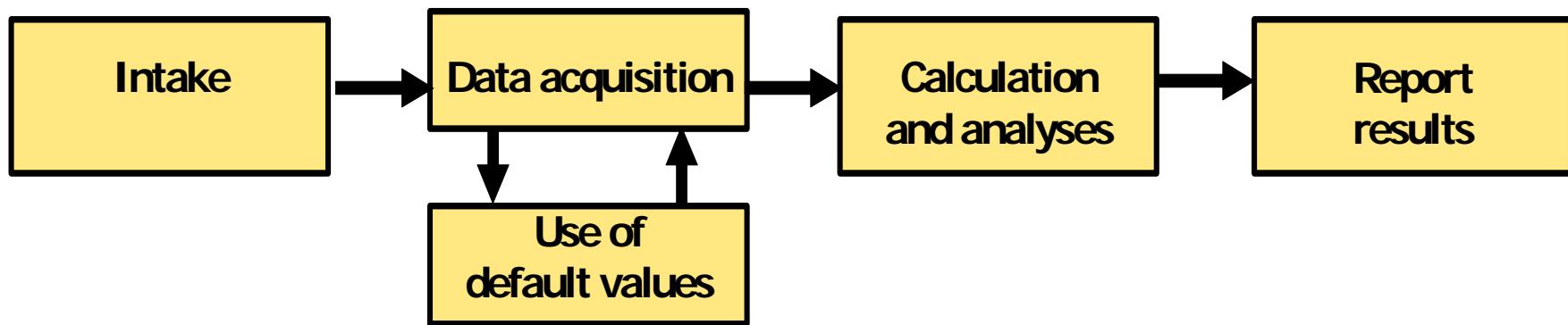
**Balance the trade-off's in the assessment process**

- **Effective and efficient process**  
**(accuracy/reproducibility ~ cost)**  
**(data acquisition/inspection ~ defaults)**
- **Harmonisation~flexibility in practice**  
**(European - national - regional)**

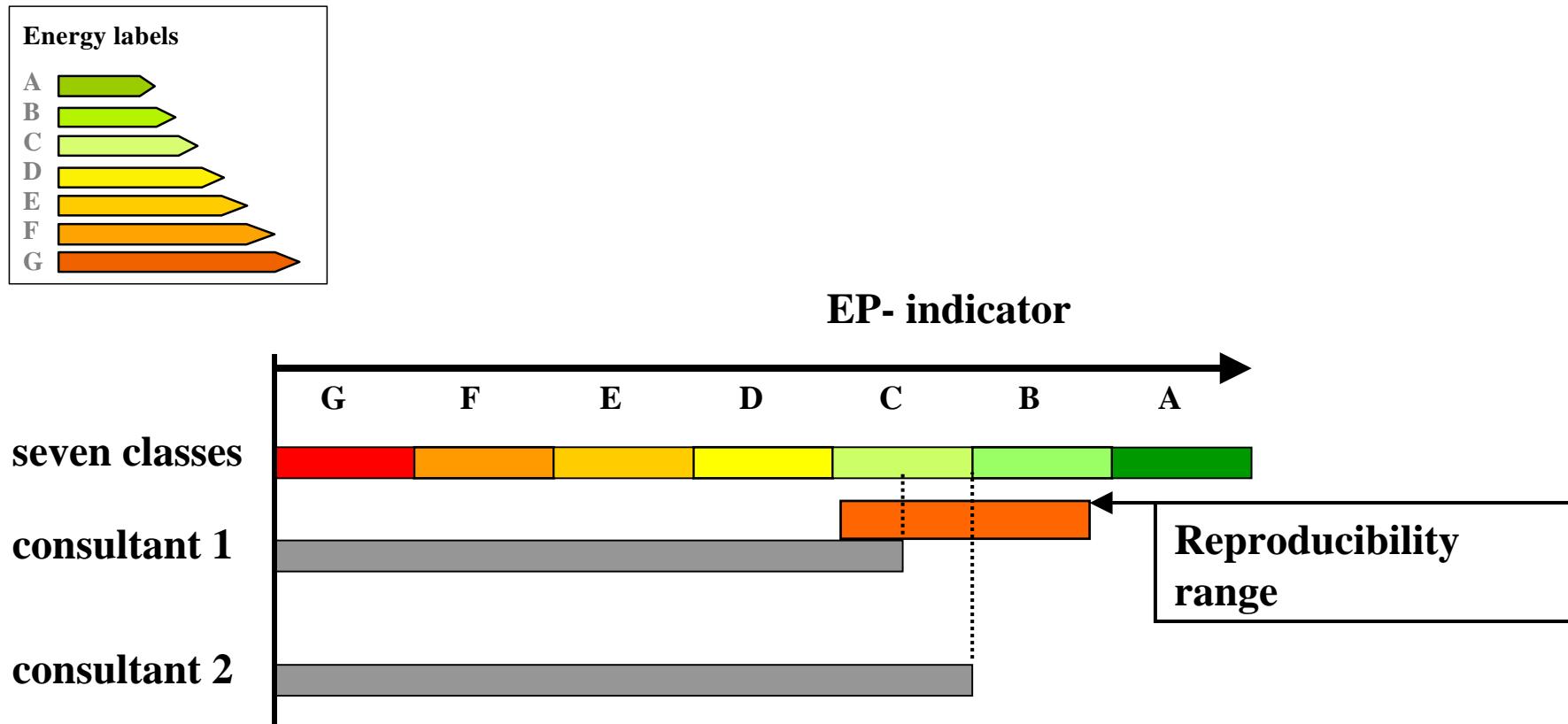
# Assessment process

*Stages are dependent on building type, type of client, number of buildings*

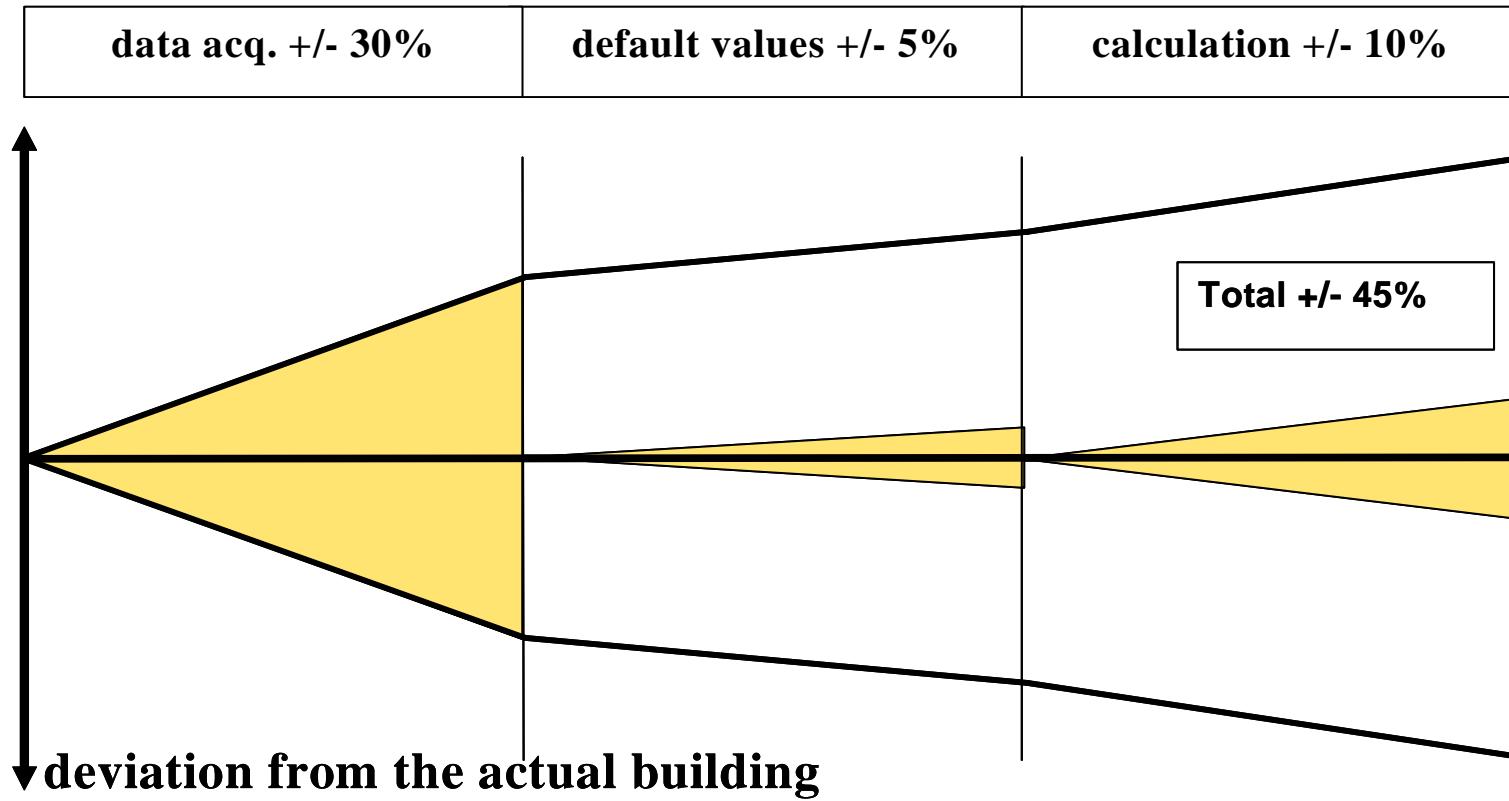
## Typical stages



# Reproducibility in certification

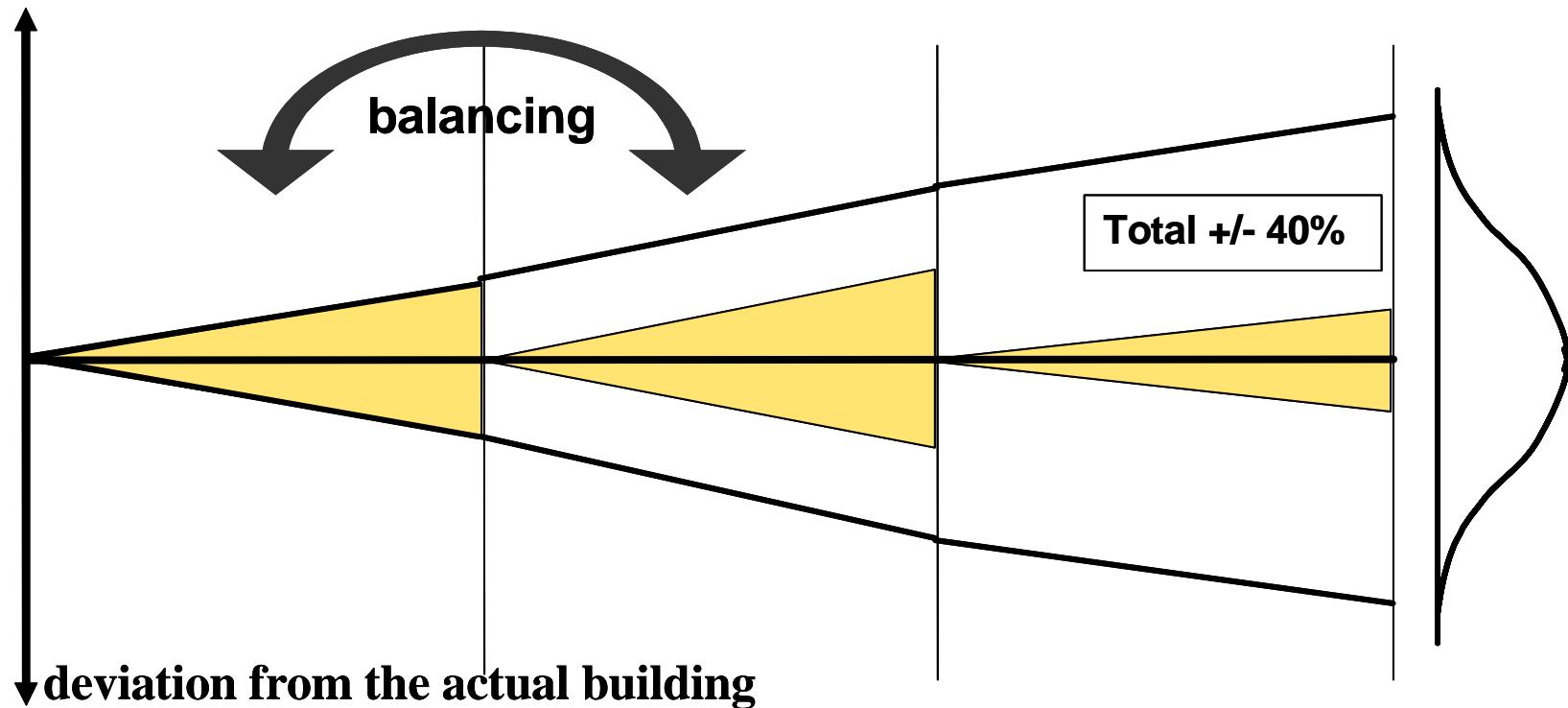


# Accuracy of the assessment



# Balancing accuracies

<b>data acq. +/- 15%</b>	<b>default values +/- 15%</b>	<b>Calculation +/- 10%</b>
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# Objectives EPA-NR

To support Member States in the EPBD implementation by:

- producing a general method for the assessment of the energy performance of existing non residential buildings that can easily be applied in practice. (practitioners)
- provide guidance for those implementation aspects that are related to the method. (policy makers)

More specifically:

- benefit from experiences in the MS
- provide a method and instruments (including software)
- test and show the functioning in practice
- provide guidance to end-users and policy makers
- exchange knowledge and ideas

# Deliverables EPA-NR (EPA-ED)

## Policy makers

Survey of the context in MS

National reports on pilot projects

Overall report on pilot projects

Application strategies for the EPA-NR method

Brochures (general and thematic)

## Practitioners

Description of the EPA-NR method and tools

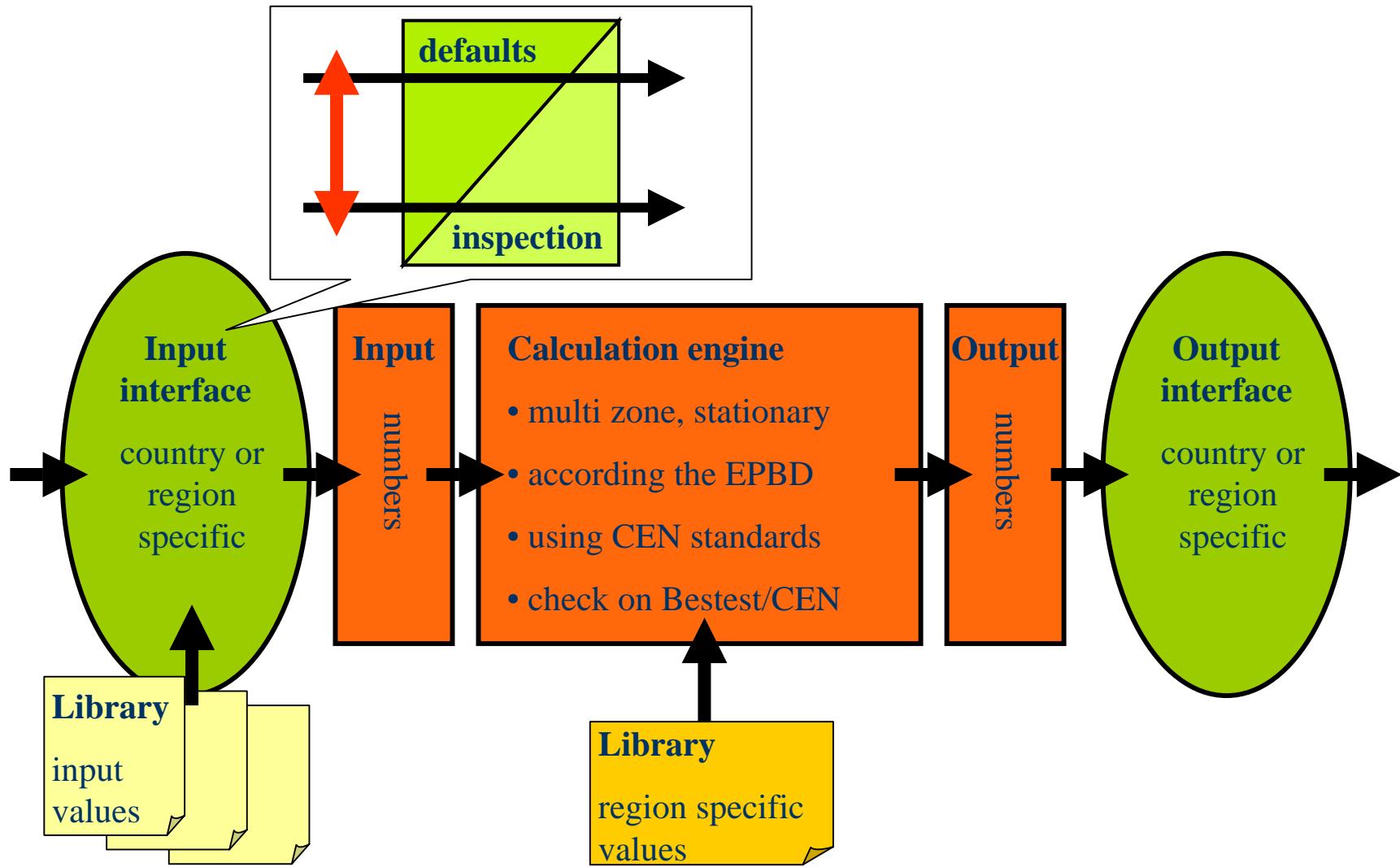
Checklist for an intake interview

Building inspection protocol

EPA-NR software

Report on functionalities of the instruments

# EPA-NR software



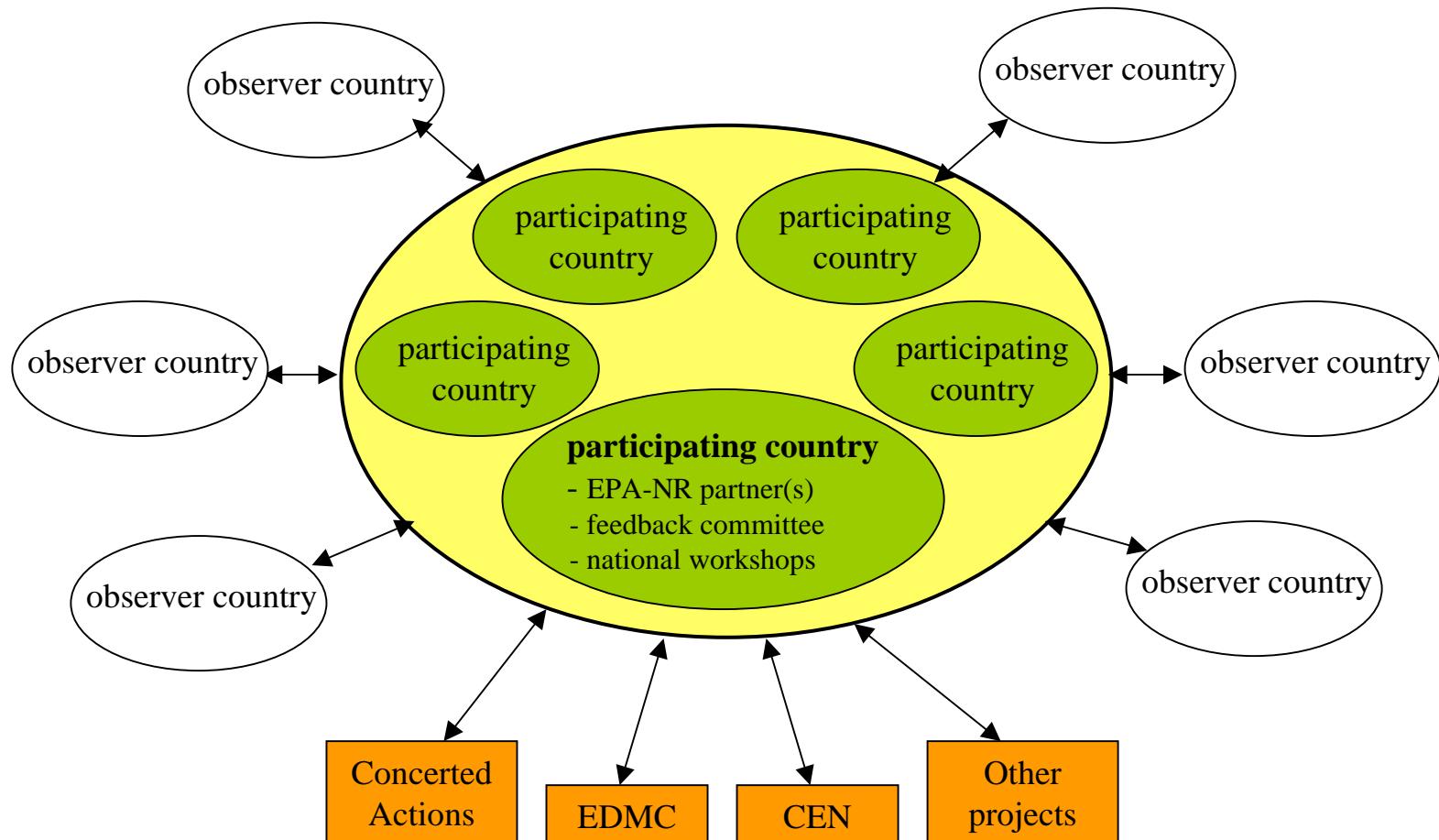
# Pilots EPA-NR

To evaluate the method and tools and provide examples:

- building sectors: education, offices, health care
- each sector represented in 7 countries: 21 projects
- building ages vary from 2 to 70 years
- sizes range from 780 to 30,000 square meters



# Interactions



# Interactions



May 2006

Budapest Congress - Workshop EPA-  
NR / EPLabel / EnperExist

14

# Interactions



May 2006

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15

# Work packages

