IBPSA world

toelatingsorganisatie
kwaliteitsborging
opdrachtgever
aannemer
instrument
bouwwerk
bouwwerken
stelsel
voorschriften
kwaliteitsborger
bouwen
wetsvoorstel
instrumenten
instrumentaanbieder
bouwtechnische
partijen
gezag
bevoegd
toepassing
oplevering
moeten
omgevingsvergunning
toezicht
artikel
regels
gemeenten
gevolgklasse
toelating
zullen
gebreken
algemene
nieuwe
belang
kosten

inhoud

- Kwaliteitsborging
  - Gereedschap
  - Vakman

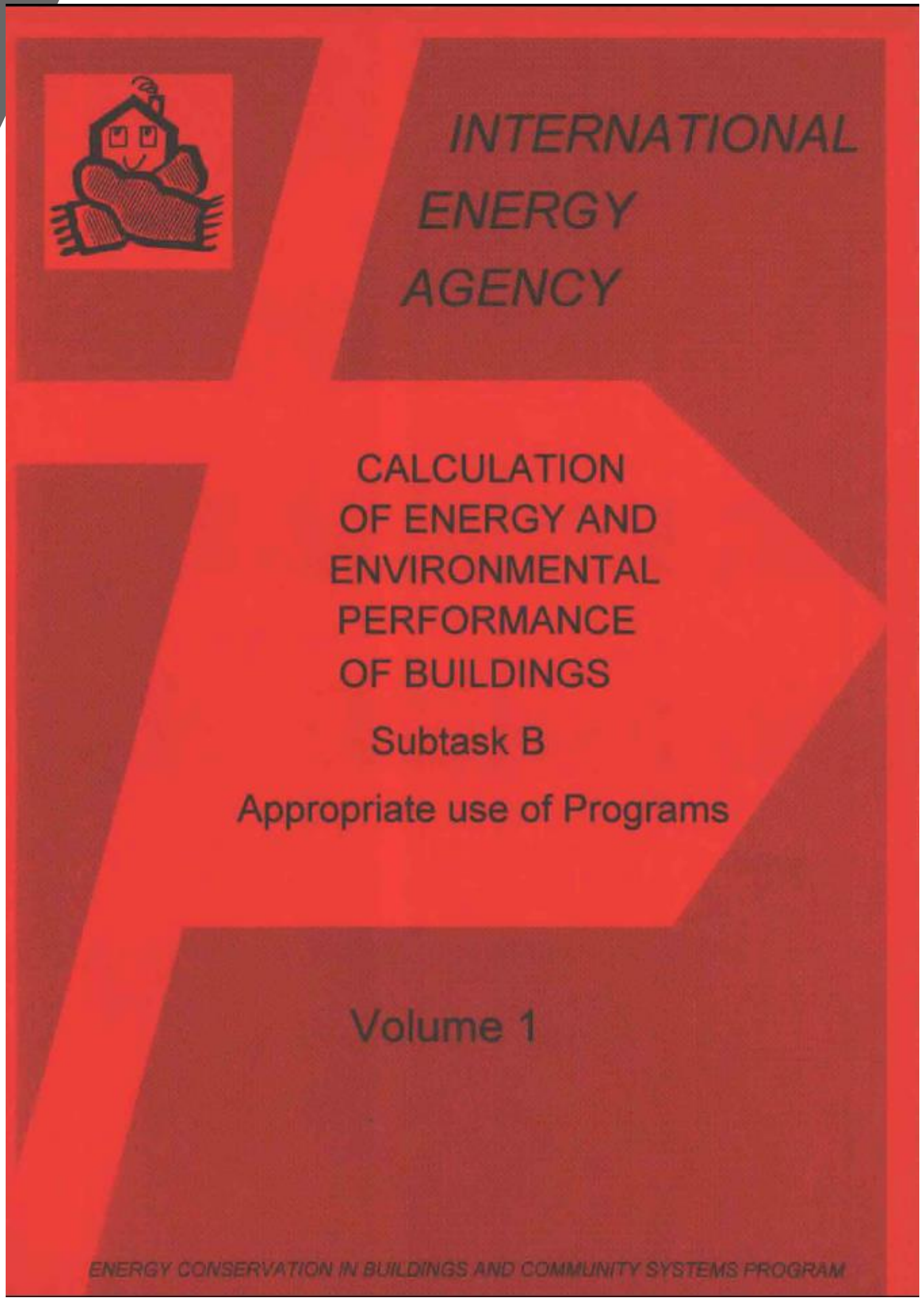
- Vakman
  - IEA
  - NL EPA
  - ASHRAE
  - IBPSA project 2

- Discussie
  - Hebben we hier behoefte aan.

Gereedschap

- IEA BESTEST
- ASHRAE Standard 140
- CIBSE TM11
- EDR (BRL 9501)
    - Dynamische simulatie
    - EPA label
    - EPA maatwerk

IEA


INTERNATIONAL
ENERGY
AGENCY
CALCULATION
OF ENERGY AND
ENVIRONMENTAL
PERFORMANCE
OF BUILDINGS
Subtask B
Appropriate use of Programs
Volume 1
ENERGY CONSERVATION IN BUILDINGS AND COMMUNITY SYSTEMS PROGRAM

IEA

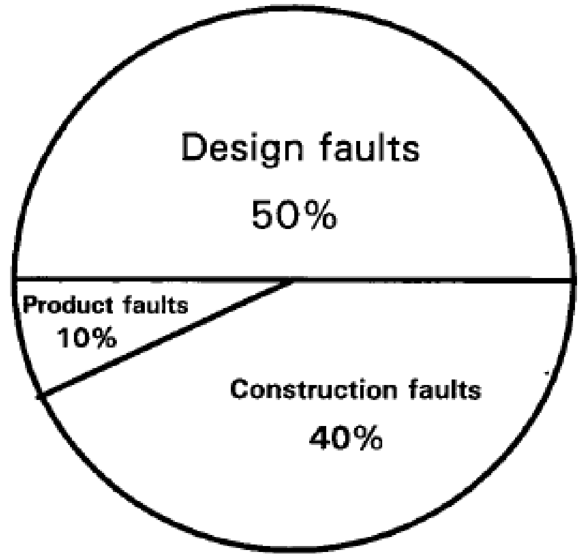


Fig. 2.1- Breakdown of building failures on basis of their origin

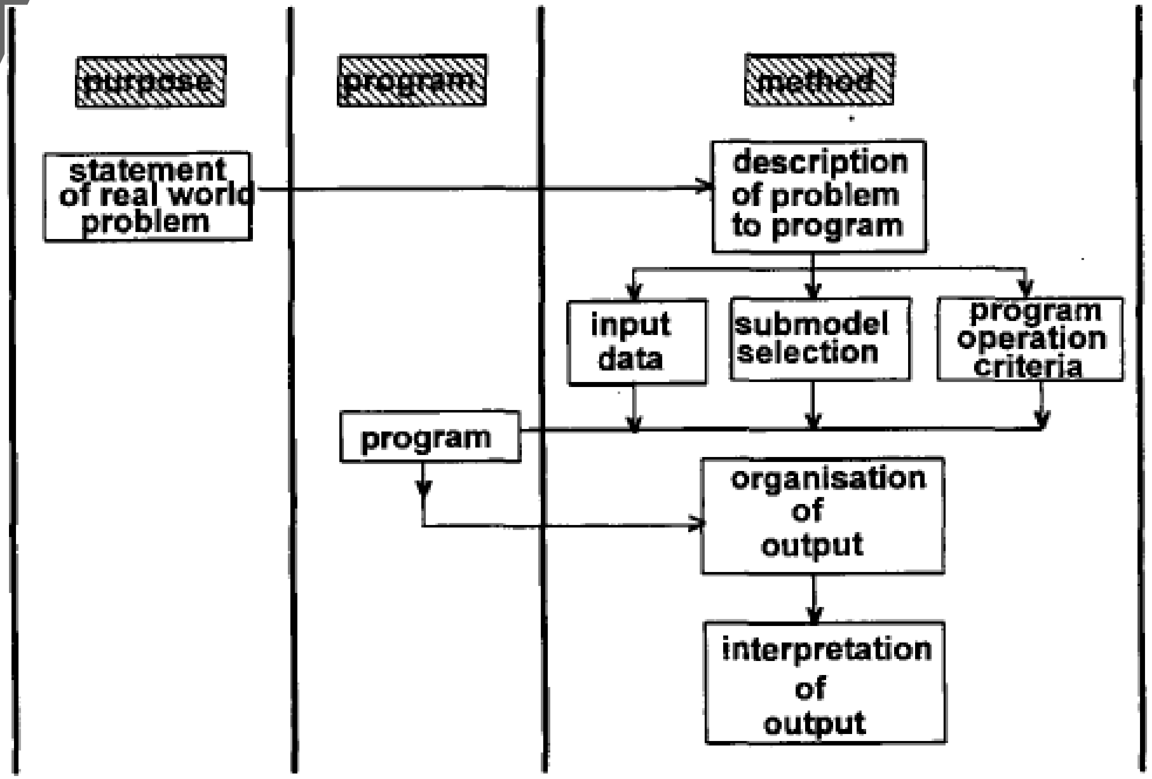


Fig.1.1 The basic components of a Performance Assessment Method

IEA

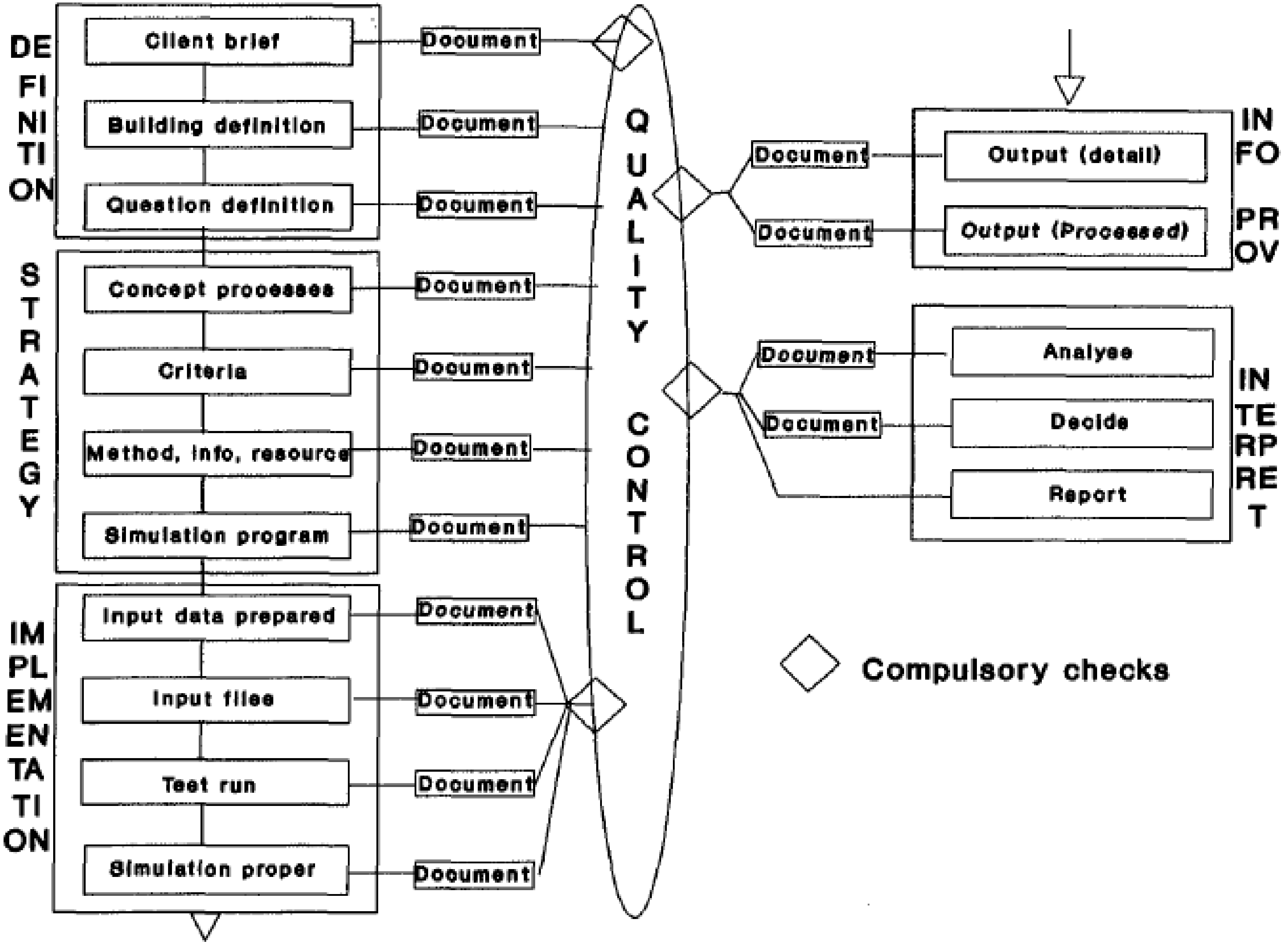
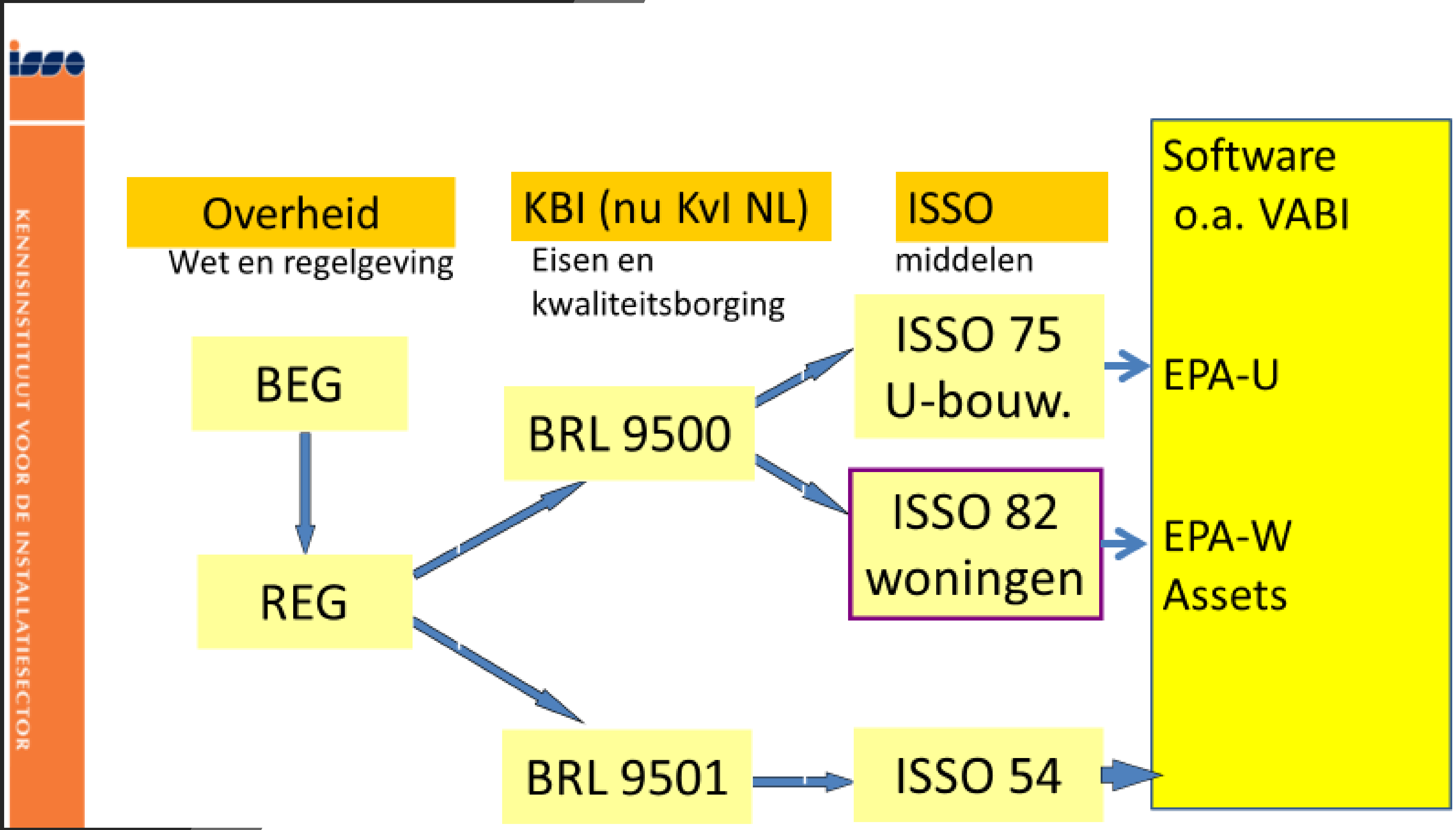


Fig. 2.6- Quality Loop in environmental performance assessment.

IEA

- check areas, volumes, etc.,
- check that the shut down over the weekend has actually been modelled,
- check that the intended climate data has been used by the program,
- check plant size and set points,
- check the version of the program used and the date of its modifications,
- check that the input files and databases used are the intended ones (e.g. check the directory and the date of modification of files when using a computer)

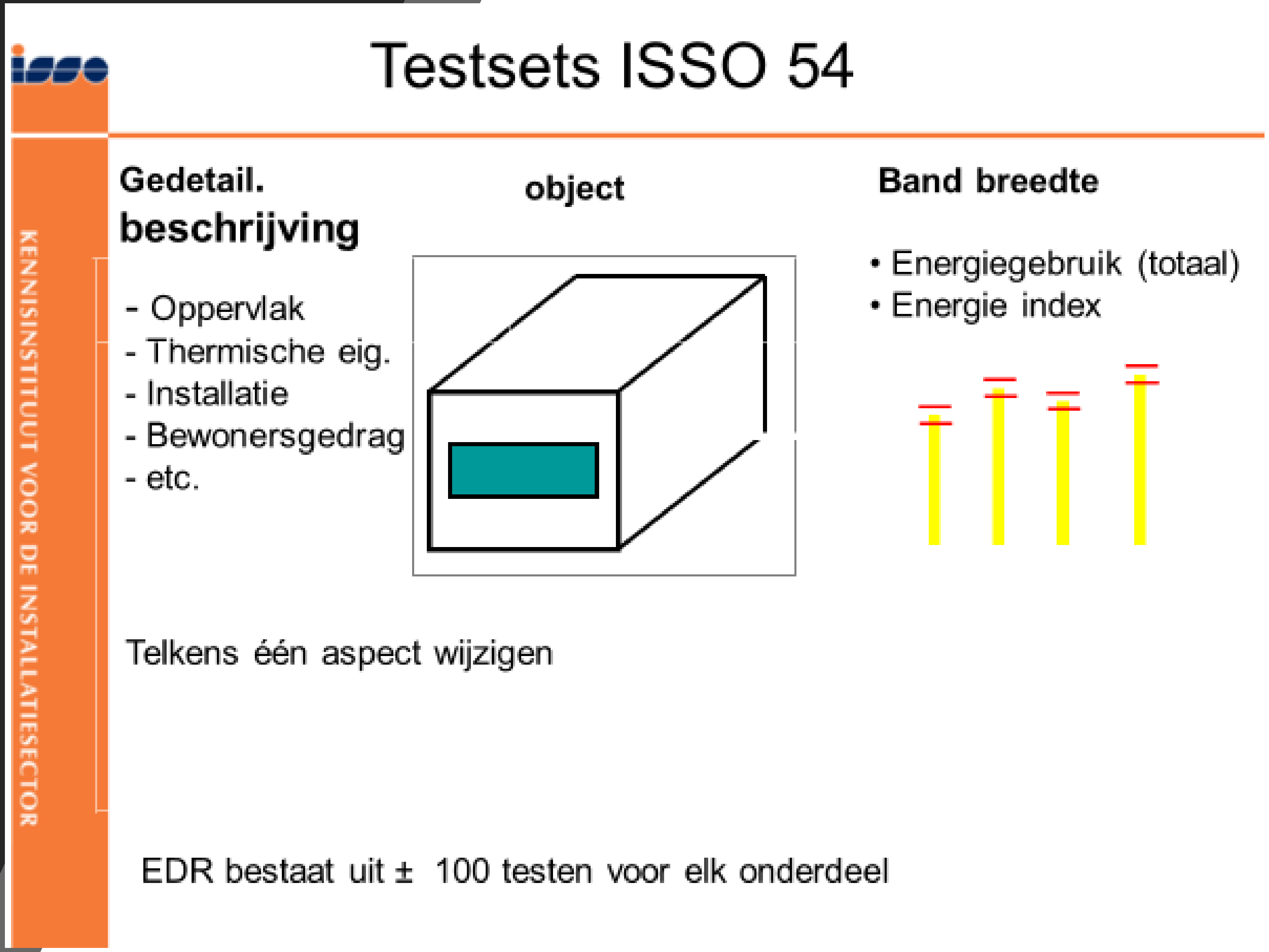
EDR



KENNISINSTITUUT VOOR DE INSTALLATIESECTOR
Overheid
Wet en regelgeving
KBI (nu KvI NL)
Eisen en kwaliteitsborging
ISSO
middelen
Software o.a. VABI
BEG
REG
BRL 9500
BRL 9501
ISSO 75 U-bouw.
ISSO 82 woningen
ISSO 54
EPA-U
EPA-W Assets

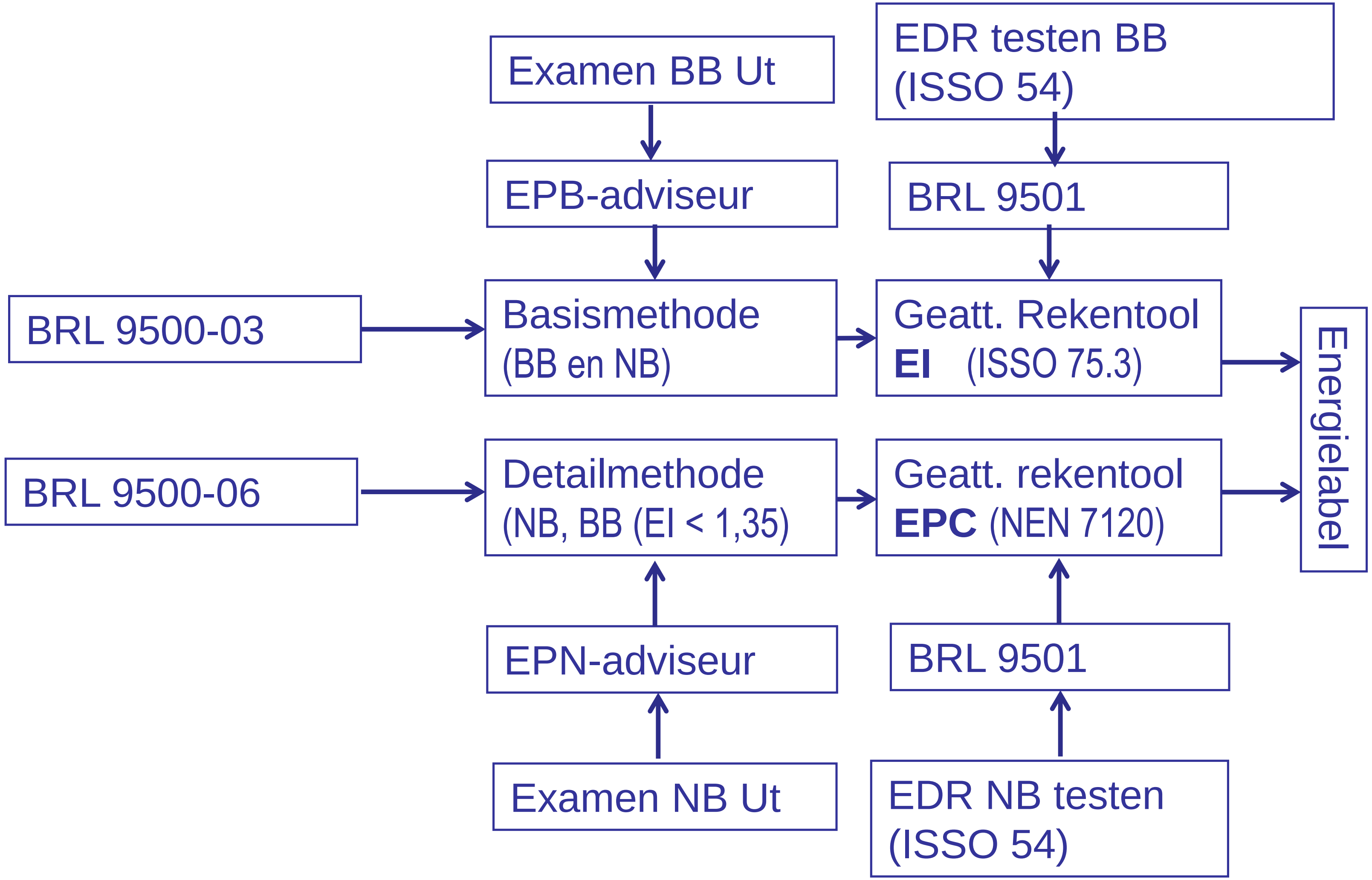
EDR

- Dynamische simulatie
- EPA label
- EPA maatwerk



U-bouw (1-07-2014)

Wettelijke aanwijzing BEG en REG



ASHRAE

- BEMP Building Energy Modelling Professional
- HBDP High Performance Building Design Professional
- HFDP Healthcare Facility Design Professional
- OPMP Operations & Performance management Professional

Mix of education and experiance

I Establishing modelling scope
II Components of buildings and energy systems
III Application of energy models for buildings
IV Interpretation of energy model results

Appendix A: Detailed Content Outline-Redline

The American Society of Heating, Refrigerating and Air-Conditioning Engineers Building Energy Modeling Professional Examination Detailed Content Outline Open cells show an examination could include items from indicated cognitive levels. Shaded cells prevent appearance of items on examinations.	Items			
	Cognitive Level			
	Recall	Application	Analysis	Totals
I. ESTABLISHING THE MODELING SCOPE	**3**	**7**	**7**	**17**
A. Modeling Objectives	**0**	**1**	**2**	**3**
1. Define the purpose of the modeling study				
2. Interpret the design intent of the building project				
3. Evaluate the suitability of available design and operational information. **Edited**				
4. Link required project deliverables to goals of the modeling study				
B. Analysis Methodologies	**2**	**3**	**3**	**8**
1. Differentiate among calculation methods within available software and tools e.g.,				
a. time-neutral e.g., • bin method • degree day				
b. time-sequencing e.g., • heat balance • weighting factor • thermal network • parametric				
2. Evaluate mathematical modeling methods for building components (e.g.): **Edited** • empirical • first-principle				
3. Translate a building project into an energy model				
a. simplify building physics to a mathematical model				
b. anticipate the impact of simplification and model deficiencies				
c. translate BIM data into an energy model **New Subtask**				
C. Software and Tool Selection	**1**	**2**	**1**	**4**
1. Evaluate the appropriateness of the methodology by characteristics of the project e.g., • project phase • building type • climate				
2. Select the optimal software and tools to meet output data needs of the project e.g., • life-cycle cost analysis • energy use and demand • individual component performance				

IBPSA project 2

- **IBPSA Accredited Building Energy Modeller**
- Enorme groei in gebruik simulatie wereldwijd
- Desondanks geen (werldwijd) erekende manier voor QA voor het toepassen van simulatie.
- Meer behoefte vanwege
  - Wet en regelgeving
- Missing link tussen compliance en echt ontwerp
- IBPSA is daarvoor het aangewezen platform
  - ASHRAE
  - CIBSE TM 11

IBPSA project 2

- Approved Certifier of Design
  - SAP and SBEM vergelijkbaar met NL EPA en EPG.

- IBPSA stelt in dit project voor om schema van SAP te volgen te volgen.

  - Generiek schema

    - Goedgekeurd training materiaal
    - Modelleurs kunnen worden geaccrediteerd in een of meer modellen
      - Basic, Intermediate or Expert
    - Training door aanbieders
    - ASHRAE BEMP
      - Gedetailleerde systeem modellering
  - Richt zich op wet en regelgeving

IBPSA project 2

- Scope
    - Ontwikkeling generieke en specifieke trainingsmodules
    - Assessment van individuele competenties
    - Ondersteunen gebruik van simulatie in praktijk en onderzoek
    - Examens
    - Accrediteren
    - Materiaal voor opfriscursussen

IBPSA project 2

WP1

- Team (BRE, SINTEF, CEPT University)

WP2

- Review ASHRE, BRE and CIBSE schemes
- Workshop with software vendors
- Conclusies verdere aanpak
- Identify key modules

WP3

- Draft structuur
- Bestaande Elementen identificeren

WP4

- Herbruikbare elementen updaten
- PILOT 1 Software pakket , 1 Competentie
- Ontwikkeling training module

WP5

- Workshop trials in UK
- Feed back etc
- Uitrol

- Willen we dit als IBPSA-NVL?
- Is er behoefte aan vanuit de markt?
- Lost dit wat op?