INIVE

International Energy Agency
Energy Conservation in Buildings and Community Systems Programme

INTERNATIONAL WORKSHOP

FULL SCALE TEST FACILITIES FOR EVALUATION OF ENERGY AND HYGROTHERMAL PERFORMANCES

BBRI offices
Boulevard Poincaré 79, 1060 Brussels

Brussels, Belgium
30-31 March 2011

An initiative of DYNASTEE network and INIVE EEIG

ENBRI

ECTP E2B
Energy Efficient Buildings

DESCRIPTION OF THE WORKSHOP

Ambitious targets on transforming the building stock into a highly energy efficient and low carbon environment demand also very performing scientific tools for the evaluation of the energy performance of improved building envelopes and construction techniques. Full scale testing becomes –again- more relevant, in combination with dynamic analysis and numerical simulation tools.

Many test facilities of different scale are available at universities, research institutes and industrial R&D departments. New ones are under development. The capabilities of these facilities are not always well known or understood by the building industry and the broader research community. Moreover, a good operation of such facilities is challenging.

For these reasons, the network organizations DYNASTEE (www.dynastee.info) and INIVE (www.inive.org) have taken the initiative to organize a series of workshops on test and assessment methods for building energy performance.

This is a second workshop, focussing on full scale test facilities: Experiences with running such test facilities for the evaluation of the energy performance and hygrothermal characteristics of building components and full buildings will be exchanged and the targets for developing new facilities will be set.

The workshop will be followed by a 1 day brainstorming meeting on a new annex project of the IEA ECBCS (www.ecbcs.org) on *full scale testing, data analysis and modeling* .

A third workshop will be organised in Copenhagen on May 18 and 19, on *Whole Building Testing, Evaluation and Modelling for Energy Assessment.*

For more information about the IEA annex proposal, contact Staf Roels (staf.roels@bwk.kuleuven.be.

VENUE OF THE WORKSHOP

The workshop will take place in the offices of the Belgian Building Research Institute (CSTC-WTCB) Boulevard Poincaré 79, 1060 Brussels. It is within walking distance of Brussels South train station.

LANGUAGE

The workshop will be held in English. No translation is foreseen.

FEE

The workshop fee is 302.50 € (or 250 €, but only if you have a VAT number). This fee includes participation to the workshop, documentation, lunch on March 30, walking dinner (on 30/03 evening) and coffee breaks.

REGISTRATION

Participants should enrol by returning the registration form and pay the registration fee before March 20, 2011.

SECRETARIAT

For any information, please contact Stéphane Degauquier at INIVE EEIG (Belgian Building Research Institute - BBRI):
Avenue P. Holoffe 21, B-1342 Limelette, Belgium
☎+32.2.655.77.11 - 🖷+32.2.653.07.29
e-mail: sd@bbri.be

SPONSORING

The organization of the workshop is financially sponsored by KNAUF Insulation (www.knaufinsulation.com) and Permasteelisa Group (www.permasteelisa.com). ENBRI (www.enbri.org) and E2B (www.e2b-ei.eu) are also supporting this workshop.

The workshop is also supported by the Technological Support for Sustainable Building and Sustainable Development in the Brussels Capital Region (www.bbri.be\go\td-duurzaambouwen)".

Wednesday 30 March 2011

9.00 Opening of registration

9.30 Session 1: Context, challenges and opportunities

INIVE welcome: objectives and link to this topic — *P. Wouters, INIVE EEIG*
DYNASTEE welcome: objectives of Dynastee and of this meeting — *H. Bloem, JRC Ispra*
Possibilities for IEA collaboration on full scale testing — *S. Roels, KULeuven*
Activities of CEN on full scale testing — *CEN speaker*
Energy-efficient buildings roadmap and the role of full scale testing — *L. Bourdeau, E2B*
RIEEB: European network of research infrastructures on energy efficiency in buildings — *J.M. Campos, Tecnalia*

11.15 Session 2: Building envelope testing for evaluation of hygrothermal performances

The VLIET test building — *S. Roels, KU Leuven (Belgium)*
Building science research and test unit — *C. Buxbaum, FH Kaernten (Austria)*
Testing facility for residential equipments efficiency and renovated envelope performance — *H. Miura, NILIM (Japan)*
NRC-IRC Full-scale facilities for hygrothermal and whole house performance assessment — *M. Swinton, NRC-IRC (Canada)*
Outdoor testing site Holzkirchen — *I. Heusler, IBP-Fraunhofer (Germany)*

13.00 Lunch

14.00 Session 3: the Paslink network for evaluation of energy performances

D. Van Dijk (TNO, the Netherlands)
M.J. Jimenez (CIEMAT, Spain)
A. Erkoreka (Engineering School of Bilbao, Spain)
R. Pfluger (Univ. Innsbruck, Austria)
V. Renzi (INES, France)

Overview of experimental investigations based on a quality-assured test cell environment

15.30 Break

16:00 Session 4: Testing: challenges for the industry

S. Wise (Knauf Insulation), G. Houvenaghel (Lafarge), E. Rasker (Reynaers)
H. De Bleecker (Permasteelisa)

17.00 End of the first day

19.00 Walking dinner in Brussels (participants must confirm their participation) **-** More information will follow

Thursday 31 March 2011

9:00 Session 5: From façade systems to whole house testing

Active facades and indoor environment test chamber — *M. Woloszyn, CETHIL (Lyon, France)*
Full scale and realistic test facility for improving energy performance in buildings — *J.M. Campos, Tecnalia (Spain)*
Research on double skin facades in test facility Cube — *O. Larsen, Aalborg University (Denmark)*
Experiences with test huts in different climates — *J. Straube, University of Waterloo (Canada)*
Salford energy house — *N. Mellors & W. Swan, University of Salford (UK)*

10:45 Break

11:15 Session 6: Test facilities for Zero Energy Solutions

Platforms for testing geothermal and solar systems — *V. Parteney, CSTB (France)*
Testing energy technologies in EnergyFlexHouse — *S. Jensen, DTI (Denmark)*
Centre for Zero Emission Buildings — *T. Jacobsen, SINTEF (Norway)*

12:15 Conclusion, A. Janssens & S. Roels, programme coordinators

12:30 End of the workshop

The workshop will be followed in the afternoon and on Friday by a brainstorming session on a new annex project of the IEA ECBCS on *full scale testing, data analysis and modeling.*

KNAUF INSULATION it's time to save energy

PERMASTEELISA GROUP