



3rd CIB International
Conference on
Smart and Sustainable
Built Environments
June 15-19 2009 Delft

FROM PROBLEM TO PROMISE BUILDING SMARTLY IN A CHANGING CLIMATE

SASBE2009 FOR CHANGE

The past years will be remembered as a period in which we were confronted with images of the unprecedented environmental problems that are threatening humankind. Now it's time for solutions.

Striving for efficiency has delivered performances close to 100%, but no sustainability. We need to do things differently. Effectiveness before efficiency, creativity before directives.

The emphasis at SASBE conferences is on an integrated approach via different disciplines and different scales. SASBE2009 focuses on smart solutions for the built environment in a changing climate. It supports a positive approach that uses climate change and limited resources as a stimulus for better planning, design and construction, and the development of smart, clean and effective technologies, cradle to cradle.

Present the world with your own solutions at SASBE2009, following the example of a succession of great people who put sustainability on the political agenda. Submit your paper, come to Delft in June 2009 and join us in making the built environment a pleasant place for everyone.

Are climate change and the depletion of natural resources a problem? Perhaps.
We prefer to see them as the ultimate opportunity to do things right, the lever to propel sustainable development.

We invite everyone to join us in presenting solutions rather than problems at SASBE2009.



KEYDATES

- Deadline for submission of abstracts:
30 June 2008
- Acceptance of abstracts: 31 August 2008
- Deadline for submission of papers:
31 October 2008
- Notification of paper reviews: January 2009
- Deadline for submission of revised papers:
28 February 2009
- Final acceptance of papers: April 2009
- Conference: 14-19 June 2009
- Publication of collection of best SASBE2009
papers: December 2009

CALL FOR PAPERS

SASBE2009 is intended for politicians, public officials, real estate investors, project developers, planners, architects, building engineers, climate designers, structural engineers, housing association officials and academics. Special arrangements are available for students and for people from developing countries.

We kindly request that abstracts be submitted by the end of June 2008.

Please comply with the abstract requirements and use the form on our website: www.sasbe2009.com.
Submit your abstract to abstracts@sasbe2009.com.

For all enquiries contact info@sasbe2009.com.

VENUE

TU Delft is world-famous for its cutting-edge research and first-class graduate and postgraduate education. In the Netherlands, TU Delft is the oldest and largest state university that specialises in engineering sciences. The TU Delft Aula Conference Centre is a world-class, imaginatively designed facility, capable of hosting national and international congresses, large-scale public and trade exhibitions, corporate meetings and specialised events.

With 12 meeting rooms, TU Delft Aula Conference Centre can accommodate 10 to 1,200 people. The available, purpose-built exhibition facilities comprise the multiple floor foyer, with several 'vides' and the entrance hall and reception area. This spatially attractive area comes with break-out meeting facilities, catering and registration services.



SASBE2009 organisation

International Advisory Committee, SASBE2009 is recommended by: • Prof. Dr Jacob Fokkema Rector Magnificus, TU Delft • Prof. Dr Michael Braungart co-author of *Cradle to Cradle*, McDonough Braungart Design Chemistry, USA, EPEA and University of Lüneburg, Germany • Prof. Dr Wubbo J. Ockels the first Dutch astronaut, initiator of the Nuna solar cars and four-time winner of the World Solar Challenge, Faculty of Aerospace Technology, TU Delft • Prof. Dr Peter Barrett FRICS President of CIB, Pro-Vice-Chancellor for Research and Graduate Studies, University of Salford • Dr. Ken Yeang TR Hamzah & Yeang, Kuala Lumpur / Llewelyn Davies Yeang, London • others to be confirmed.

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Conference organisation: • Chair: Dr Andy van den Dobbelsteen • Co-chairs: Dr Arjan van Timmeren, Dr Machiel van Dorst, Dr Elma Durmisevic • Assistance: Michiel Fremouw, Jolanda Dijkshoorn • Conference secretariat: Aula Congress Centre, (Corry van der Drift, Els Bakker) • Graphic design: Ruderger Smits



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CONFERENCE THEMES

CLIMATE CHANGE

Climate change will affect the built environment. New planning strategies will be needed on various scales. Wet areas in the world need to think about new concepts for building in water, arid areas about how to retain and produce water. Buildings need to become climate-robust and CO₂-balanced. A tremendous challenge!

- Climate change effects on the built environment
- Planning for climate change
- Building in water
- Climate-robust building design
- CO₂-balanced building

POLICY AND PROCESS

Sustainable development needs a multi-player environment. The design process may be participatory or a form of trans-disciplinary learning. At the same time, a policy of shared knowledge may generate shared understanding. The emphasis in both policy and process is on the dynamic nature of a sustainable development where goals and means are moving constantly.

- Politics and sustainability
- Real estate management and sustainability
- Community involvement
- Environment-behaviour interaction
- Economics of urban sustainability
- Impact Assessment

DEVELOPING REGIONS

In the developing regions the debate does not revolve around the needs of the next generation. There are too many environmental problems which are affecting primary living conditions right now. Climate changes are threatening the lives of people on small islands, the edges of deserts and elsewhere. But sustainable solutions can be found in bottom-up strategies and low-tech design.

- Sustainability for developing countries
- Rural developments
- Informal settlements
- Low-cost building
- Design for calamities

SUSTAINABLE DESIGN

We have only two primary sources of wealth: what we get from the earth and what we get from our own creative imagination. Unless we start relying less on the former and much more on the latter, we may not be able to sustain the growing population of the world and the changing climate with anything approaching decent, civilised and broadly comparable standards of living.

- Urban planning and redevelopment
- Low-exergy planning and design
- Vernacular architecture
- Smart and bioclimatic architecture
- Sustainable renovation and refurbishment
- Green buildings (case studies)



BUILDING FOR TRANSFORMATION

Buildings are frequently transformed. But neither buildings nor their systems are designed for transformation. This is leading to user dissatisfaction (adaptability at high costs), more demolition and waste and an increase in the consumption of materials. The quality of a building will be measured by its potential to be transformed from a spatial to a material concept without negatively impacting on the environment, the economy or society.

- Functionally neutral buildings
- Design for reconfiguration
- Industrial, flexible and demountable buildings
- Integrated life cycle design methodologies
- Users and transformable buildings
- Business models for transformable buildings

SMART TECHNOLOGY

In technology in particular a shift is needed from efficiency to effectiveness. The aim is to produce healthy and comfortable environments by applying sustainable techniques and infrastructures. Innovation must be sought in techniques that interact with users and the surroundings and that make use of the physical, natural and technical features of this local environment.

- Innovative (energy) technologies
- Smart systems and products
- Adaptive and responsive building skins
- Healthy indoor environments
- User-system interaction
- Use of IT in design
- Infrastructures and transport

CLOSING CYCLES

This theme focuses on flows of energy, water, materials, nutrients and waste. The starting point is the latest interpretation of process-integrated technology, the cradle-to-cradle approach, and the nearest alternative: the cascading use of resources in which high-grade flows are used in high-grade processes and residual waste flows are used in lower-grade processes, thus utilising the initial value of a resource in the most efficient way.

- Interconnection strategies and technologies
- Centralised versus decentralised solutions
- Cradle to cradle: closing material cycles
- Self-provision of energy & exergy-based concepts
- Decentralised concepts for water and sanitation
- Urban agriculture
- Waste management in the built environment

GREEN MANUFACTURING AND CONSTRUCTION

Conventional construction methods result in materially inefficient structures that rely on the consumption of natural resources without feedback loops. Construction that closes material flows is key to green building engineering. Building systems and building-related processes should be designed in such a way that each building can be used as a pool of material resources for new construction.

- Dematerialisation in structural engineering
- Reuse of building elements in construction
- Disassembly strategies and technologies
- Remanufacturing strategies and technologies
- Green process innovations
- Zero waste in manufacturing and construction
- Business models for implementation of reusable materials