

SB11 HELSINKI WORLD SUSTAINABLE BUILDING CONFERENCE

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1. MAKING SUSTAINABLE BUILDING A KEY TO THE FUTURE WORLDWIDE

The 6th World Sustainable Building (SB) Conference¹, took place in Helsinki from 18th to 21st October 2011 organized by VTT Technical Research Centre of Finland and RIL (Finnish Association of Civil Engineers). SB11 Helsinki addressed new opportunities for improving quality of life, mitigating the effects of climate change and making new business. President Tarja Halonen acted as benefactor of this outstanding event. In Helsinki it was announced that the next World Sustainable Building Conference will be held in Barcelona in October 2014.

SB11 Helsinki builds on a tradition started by CIB² organising international conferences on environmental assessment and sustainable construction in 1994 and 1997 that were followed by iisBE's³ Green Building Challenge in 1998. It was then determined to arrange a World Sustainable Building Conference in Maastricht in 2000. The SB World Conference series continued first every second year, and after SB02 in Oslo every three years: SB05 in Tokyo, SB08 in Melbourne and SB11 in Helsinki. When changing the interval from two to three years, regional conferences were held one year before the World Conference: five conferences in 2004, twelve in 2007 and ten in 2010. In a similar way, eight SB13 conferences are foreseen to precede SB14 World Conference in Spain.

Strongly committed to carry even further the standards set by the previous World Sustainable Building conferences, and based on the feedback received from the previous one: SB08 held in Melbourne, the organization of SB11 Helsinki made a conscious decision to scale down the conference to around 1.000 seats, to increase the scientific quality of the conference content and to get more countries involved, particularly developing countries!

Therefore, to improve our current understanding on sustainable building and to develop new solutions for the present and future, SB11 Helsinki has provided a vivid forum for discussion and networking between all stakeholders. 51 Scientific Sessions and 10 Special Forums covering all the themes of the conference have showcased the valuable contribution of experts from all over the world.

As a result of these efforts, 1.020 experts and decision-makers from 52 countries, including many developing countries, gathered in Helsinki during four intense days in which 310 oral presentations were delivered and 200 posters shown. The global aspect was particularly emphasized, both in terms of conference themes and conference organization. As an example, more than 70 countries have been represented within the International Scientific Committee, about three times the number reached in previous events!

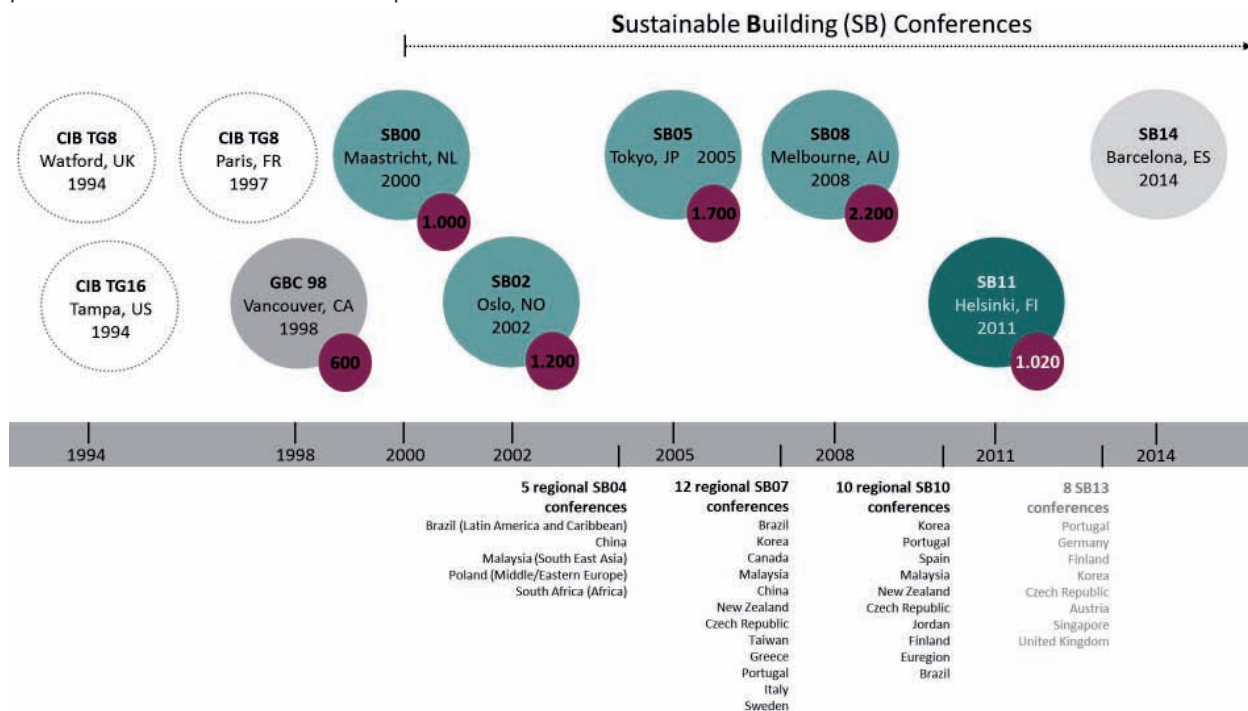


Image showing the history and evolution of the SB conference series. (©Pekka Huovila & Carmen Antuña)

¹ SB11 Helsinki World Sustainable Building Conference full report can be downloaded from www.sb11.org

² International Council for Research and Innovation in Building and Innovation www.cibworld.nl

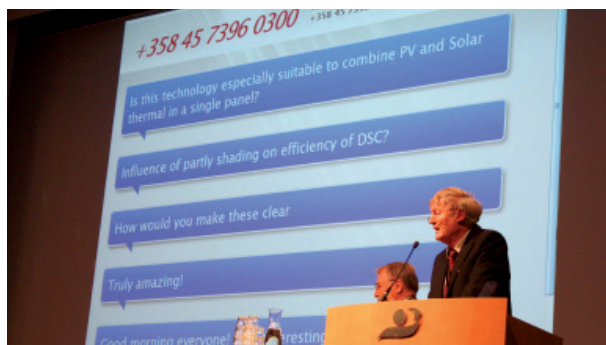
³ International Initiative for a Sustainable Built Environment www.iisbe.org

2. COMMUNICATION: ONE OF SB11 HELSINKI'S MAIN FEATURES

In an attempt to reach further than usual, SB11 Helsinki devoted a big effort to reinforce communication and dissemination through a very active website that housed promo-videos, interviews, permanently updated news and a special section featuring brief reports on recent initiatives worldwide towards a more sustainable built environment. SuvelaSURGE international Student Competition also had its own website along with a blog and email address that facilitated the exchange of information between the organizers and the students.

Live Webcasting and Message Wall

This far-reaching spirit was also brought into the conference itself through live webcasting of all sessions taking place in the Main Hall on Monday and Tuesday. Thus, keynote speeches and special forums were followed live in different countries and it was also possible to send comments and questions using SMS based technology. Finally, for those who were not able to watch it live, the videolinks are available at the conference website www.sb11.org.



SMS sent for Message Wall during keynote lecture (©Pekka Huovila) and video of keynote session 1 on the internet (©SB11 Helsinki).

3. KEYNOTE SESSIONS

"I really enjoyed the keynote speeches, this balanced the flashlights in the sessions very well. And it is great to have the speeches on YouTube; I already sent the link to my students". (Comment sent by a delegate after the conference).

Opening Day:

Sustainability 40:40, Looking back and looking forward

The conference contents were showed by a multiplicity of voices and viewpoints from different regions. The key

theme was time: to look back 40 years, consider the present and look ahead 40 years. 80 years constitutes an average lifespan and is a good way to frame how context, understanding, expectations and behaviours change as well as how much/how little change can occur in this amount of time. The session included presentations from Raymond Cole from Canada, Alfred Ngowi from Botswana, Baizhan Li from China and Bill Bordass from Great Britain, chaired by Richard Lorch. After the presentations, Ilari Aho from Finland and Thomas Lützkendorf from Germany responded to the keynote speakers and posed some questions for discussion.

Industry Day:

Mitigating climate change and making new business

The second day was opened by Ger Maas who presented ENCORD's Sustainability Charter and explained what's important for the industry. He stressed the importance to innovation as a key factor to support the clients' needs and to contribute to a more sustainable world.

Michael Grätzel, father of dye-sensitized solar cells showed how flexible light-weight cells on the megawatt scale have been developed and already mass produced of flexible light-weight cells on the megawatt scale in the form of transparent electricity producing glass panels which capture light from all angles. The use of these electric power producing windows in glass facades or skylights of buildings will create new markets for photovoltaic cells. The colour and transparency of these panels can be varied by the choice of the sensitizer and the thickness of the nanocrystalline oxide film used to support the sensitizer molecules. The low cost and ease of production of the new cell will benefit large-scale applications. Professor Grätzel's work clearly proves that sustainability can be a profitable business through innovative solutions able to push technology and industry forward.



Keynote speakers of Sustainability 40:40 and Prof. Michael Grätzel, from EPFL (©Pekka Huovila).

Day 3:***Sustainability and quality of life***

In the third day, Christophe Lalande from UN-HABITAT's Housing Policy Section shared their experiences from urban poverty, green buildings and climate change towards housing sustainability. He explained their activities trying to respond to the global challenges of housing, slum upgrading and climate change from the perspective of the environmental and socio-cultural sustainability of affordable housing solutions.

Cameron Sinclair, co-founder and CEO of Architecture for Humanity, a non-profit that helps architects to apply their skills to humanitarian efforts, presented their innovative solutions to humanitarian crises in all corners of the globe. He explained through a selection of recently completed or undergoing projects the role played by thoughtful, inclusive design to create lasting change in communities. The colourful cases showed examples of poverty alleviation, disaster mitigation and reconstruction, post-conflict community building design for at-risk populations and addressing climate change.

Both keynote speeches raised an enormous interest among the audience and a spontaneous flood of volunteers wanting to contribute to both programmes presented. Many questions were posed to the speakers, either directly or through Message Wall, during the panel discussion at the end of the session.

Closing Day:***Challenges of global sustainability at all levels***

Pekka Haavisto, Finnish Member of Parliament, former Minister of the Environment and Development, and candidate for the Finnish presidential election 2012, is also an expert in international evaluations, particularly post-conflict environmental assessment. He drew an exhaustive



Cameron Sinclair during his keynote speech (©Pekka Huovila) and Pekka Haavisto answering questions from the audience (©Pekka Huovila)

panorama of the present situation around the world and the challenges that our societies will be facing in the near future in terms of global sustainability. His talk together with his valuable experience in peace processes, mainly in Africa, raised many more questions in the Message Wall that could be taken.

4. SCIENTIFIC STREAMS

During the conference, the Smart and Sustainable Built Environment (SASBE) Journal selected Performance Indicators for Comfort, Health and Safety of the Indoor Environment – Main achievements of the European PERFECTION Coordination Action as the best SB11 Helsinki paper. The lead author is Jan Desmyter from BBRI Belgium.

After the conference, the Best Scientific papers submitted to SB11 Helsinki will be published by number of international scientific journals following their own review process. The journals have been chosen to provide a big diversity both in terms of content/scope and geographic coverage in order to reach as wide an audience as possible.

The SB11 Helsinki World Sustainable Building Conference organizers are thankful for the interest of SASBE to enable access to the latest findings and initiatives related to sustainable building for those who didn't have the chance or the means to attend the conference, therefore broadening the sustainable community worldwide.

5. SPECIAL FORUMS

Ten Special Forums related to the main themes of the conference were held in the Main Hall:

- Toward Rio+20 and beyond
- Zero Energy Building
- SuvelaSURGE
- Industry Panel
- Sustainable public procurement - how does the public sector build?
- Valuing Sustainability
- Core Indicators
- Cross-scale performance assessment
- Property investors need sustainability indicators and tools
- Sustainable Built Environments with High Performance Energy Systems.

Engaging the young generations, one of SB11 Helsinki's biggest concerns

The main objectives of SB11 Helsinki Conference were: getting more countries involved, particularly developing countries, and increasing the technical quality of the conference contents. In hand with these objectives was also the desire to engage the young generations in SB11 Helsinki by contributing their fresh ideas and proposals to a more sustainable city of the future and linking them with the main themes of the conference.

So, as part of the programme of activities attached to the conference, the organization of SB11 Helsinki launched, in collaboration with the City of Espoo, an International Student Idea&Design Competition aimed at the sustainable urban regeneration and development of the Suvela area in Espoo, Finland. The competition was for multidisciplinary working teams: at least one had to be a student in Architec-

ture and at least one in Civil or Environmental Engineering. Other team members could be selected freely from other university disciplines.

Trying to reach even further and engage also the children, the competition organizers invited ARKKI School of Architecture for Children and Youth to join and work on the sustainable regeneration of Suvela!

The SuvelaSURGE International Student Competition forum, organized and chaired by Carmen Antuña from VTT Technical Research Centre of Finland, was live webcasted and followed in different countries. The forum was structured in two parts: the first part included a set of presentations around the topics raised by the competition. During the second half of the forum, the winners of SuvelaSURGE International Student Competition were announced and, after Pekka Huovila, the Chair of SB11 Helsinki International Scientific Committee and President of the Jury, gave them their awards, the teams presented their proposals for the sustainable regeneration of Suvela to the audience.

Industry Day

The Industry Panel forum aimed at sharing ideas on how sustainable building solutions and services will be implemented, further developed and researched by the industry. Views were presented by the World Business Council for Sustainable Development (WBCSD), the European Commission (EC) and Qatar Environment and Energy Research Institute (QEERI). The new Sustainable Construction Glossary, launched jointly by the European Economic and Social Committee (EESC), the Architects' Council of Europe (ACE) and the European Concrete Platform (ECP), was presented also during this forum.



Mari Jaakonaho explaining ARKKI's contribution to SuvelaSURGE competition (©Pekka Huovila) and Constant van Aerschot from WBCSD during the Industry Panel SF4 (©Pekka Huovila).

6. SB REGIONALS, SB URBAN AND SB CHALLENGE

The SB Regionals' first session looked at sustainable building policies and practices being put into place in Europe and the United States, with an emphasis on the development of reporting and the challenges of establishing base-lines to measure progress. The second session focused on the efforts to promote and implement sustainable building policies and practices at all levels, with special attention to the "state of play" in Latin America and the Caribbean and Southeast Asia regions, and the practices and policies being implemented in Canada and China.

Co-organized by iiSBE (International Initiative for a Sustainable Built Environment) and UNEP-SBCI (United Nations Environment Programme: Sustainable Buildings and Climate Initiative), SB Urban session offered an overview of various approaches at the issue of sustainability at the urban level.

The Sustainable Building Challenge is a process focusing on the existing tools for the assessment of sustainability, the development of new ones, and innovative sustainable building design concepts and techniques. Also organized by iiSBE, it has been part of the SB conference series since the beginning. The 2011 edition collected over 40 projects from 14 countries, from individual to national teams. The sessions focused on education (offices, research centres and public (accommodation, commercial, social utility).

7. PARALLEL SESSIONS AND POSTERS

51 Scientific Sessions covering all the themes of the conference showcased the valuable contribution of 310 papers from 52 countries according to the following themes:

- World resources
- Well-being in cities and urban environment
- Sustainability in developing countries
- Sustainable processes and eco-efficient technologies
- Sustainable business models
- Social sustainability and environmental ethics.

In addition to the orally presented papers, 200 posters were shown, also related to the main themes of the conference.

8. EXHIBITION

The exhibition area in SB11 Helsinki Conference was located close to the lecture halls and meeting rooms, as well as to the restaurant, becoming a central place for delegates to network and exchange ideas in a relaxed atmosphere. The list of exhibitors includes:

- UPONOR - Platinum Sponsor
- Hong Kong Green Building Council (HKGBC) - Silver Sponsor
- PÖYRY - Silver Sponsor
- Tiles & Bricks Europe (TBE) - Silver Sponsor
- ENERGATE® / Ludwig Häußler GmbH
- European Concrete Platform (ECP)
- Green Building Council Finland
- Green Building Council Spain
- Japan Sustainable Building Consortium (JSBC)
- SB11 Team Canada
- SB11 Team Finland: Sitra, Tekes and VTT
- SB11 Team Germany
- SB11 Team Sweden
- Perfection Project
- Taylor & Francis / Earthscan.

9. PARALLEL PROGRAMME

To complement the scientific content of the conference and to raise awareness among a wider public, a Parallel Programme was designed that included a special SB film stream organized in collaboration with KAVA, the National Audiovisual Archive, and a seminar at Haaga-Helia University, very close to the conference venue at Messukeskus.



KAVA SB Stream advertising image (©Pekka Huovila & Carmen Antuña).

Both the film stream and the seminar were focused on Africa, clearly and despite all efforts, the most under-represented continent in the conference. Considering humanity and defending life in the core of sustainability, KAVA SB Stream portrayed, from a human perspective, the present problems in developing Africa (post civil war life, the fragility of peace, women's role, rapid urbanization, etc.). African Star showed a panorama of different initiatives around the African continent towards a more sustainable development covering social, economic and environmental aspects. A discussion followed on how to raise awareness of the main challenges Africa will face in the coming years and on possible ways to address them.

10. TECHNICAL AND TOURIST EXCURSIONS

The Passive House technical excursion took place on Wednesday 19 October. The tour was fully booked and the group visited Viikki Environmental House, Paroc Passive House, Järvenpää Zero Energy House and Riihimäen Kotikulma Oy, Talo 10.

In addition to this, a couple of tourist excursions were organized. During the Helsinki City Tour, the participants were shown the main sights around Helsinki city centre. The participants in the Design and Shopping Tour visited Arabia factory and museum, the Finnish Design Museum, Marimekko and Artek.

11. EMBASSIES' COLLABORATION

Also, as part of this effort, embassies were informed about the event and some of them collaborated to the organization of the conference in the dissemination of the information about the event and also providing support to the participants coming from their countries in different ways.

12. TRANSPORT

Free travel cards for public transport inside the Helsinki area sponsored by Helsinki Region Transport (HSL) were provided for all the conference delegates.

13. CLOSING

During the Closing Ceremony, Nils Larsson, from iiSBE, and Wim Bakens, from CIB, announced the SB conferences that will take place in 2013 (Portugal, Germany, Finland, Korea, Czech Republic, United Kingdom, Austria and Singapore) and the next World Sustainable Building Conference that will be held in Barcelona, Spain, in 2014 <http://www.cibworld.nl/site/sb13-14conferences.html>.

After the announcements, Pekka Huovila, the Chair of SB11 Helsinki International Scientific Committee, reminded the main characteristics of the SB11 Helsinki Conference, built on the tradition of the previous SB conferences. The main issues emphasized in Helsinki were:

- Re-scaling of the event to around 1.000 delegates (still from over 50 countries)
- Clear focus with only six main topics
- High scientific content in collaboration with seven journals and with the help of over 300 reviewers from more than 70 countries

- Interactive communication through webcasting and Message Wall
- Developing countries' participation
- Student Competition: SuvelaSURGE and children participation: ARKKI
- Parallel activities: KAVA and African Star.

1.020 participants from 52 countries in the conference, and 332 experts from 73 countries in our International Scientific Committee, made SB11 Helsinki a truly global

event where voices from all corners of the world have been heard. Different generations, including students and children, shared their visions towards more sustainable built environments. All stakeholders involved had the chance to discuss in a relaxed atmosphere about the challenges of sustainable development and the possible ways to address them. Plenty of breaks and adequate gathering areas allowed the delegates to network and discuss further the content of the sessions.

Countries represented in SB11 Helsinki

1	Algeria	1	19	Greece	6	37	Poland	8
2	Australia	35	20	Hungary	2	38	Portugal	12
3	Austria	10	21	Iceland	3	39	Qatar	1
4	Belgium	22	22	India	1	40	Romania	9
5	Botswana	1	23	Ireland	4	41	Saudi Arabia	3
6	Brazil	28	24	Israel	3	42	Singapore	7
7	Canada	20	25	Italy	23	43	South Africa	5
8	Chile	2	26	Japan	47	44	Spain	15
9	China	66	27	Republic of Korea	14	45	Sweden	68
10	Colombia	3	28	Lithuania	4	46	Switzerland	11
11	Croatia	1	29	Malaysia	1	47	Taiwan	29
12	Cyprus	1	30	Mexico	8	48	Turkey	5
13	Czech Republic	4	31	Mozambique	1	49	United Arab Emirates	2
14	Denmark	11	32	the Netherlands	30	50	United Kingdom	45
15	Egypt	1	33	New Zealand	11	51	United States	19
16	Finland	268	34	Nigeria	1	52	Venezuela	1
17	France	61	35	Norway	39			
18	Germany	46	36	Pakistan	1			

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