



SESSION DESCRIPTION

C1 Resilient Building and Construction Forum

Embedding resilience across scales: Climate proofing buildings and critical infrastructure

Panel discussion

Date: Friday, May 30, 2014

Time: 9:00-10:30

Rooms: S25-26

Language: English

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Organized by: ICLEI in cooperation with World Green Building Council

OBJECTIVE

Climate change exposes buildings and infrastructure to increased environmental stress. Natural disasters such as floods, severe storms, and tsunamis place buildings and their infrastructure support systems at risk. This includes energy supply as well as information and communications technology (ICT). To protect against these threats, cities need to be resilient from the ground up. Committing to green, energy efficient, and resilient buildings is the first step. Future proofing neighborhoods and districts through sustainable and adaptive design is the second. Finally, cities should be supported by critical infrastructure that is able to withstand shocks and disruptions through better design, planning, and technology. Connecting these multi-scalar processes requires cooperation between public and private stakeholders, integrated planning approaches, and forward-thinking policy.

The Resilient Building and Construction Forum is the annual platform for exchange of information, experiences, and dialogue on buildings at risk, environmental impact considerations, and green and resilient building and infrastructure design. This panel discussion will examine strategies for safeguarding buildings and critical infrastructure, considering what is currently in place and what needs to be done to anticipate future impacts. Examples from North America, Germany, and the Republic of Korea will be shared, including a look at the role of ICT and energy systems. Perspectives from private sector representatives, international organizations, and national and local governments leading in this field will be included.

OUTCOMES

This panel will be useful for any local-level leader as well as civil society organizations, academia, and public and private sector professionals to gain a better understanding of:

- The important role of buildings and infrastructure in urban resilience and sustainability;
- How to embed resilience into buildings, districts, and urban infrastructure including energy and ICT systems through integrated design and planning techniques; and
- Current examples of successful implementation, barriers and challenges to innovation, and the role of partnerships between the public, private, and research sectors in this field.



METHODOLOGY

- The facilitator will open with a short introduction of the session and speakers. **(5 minutes)**
- The panelists will be given time to describe their work and experiences. **(5 x 7 minutes)**
- A representative from Seoul Metropolitan Government will present the city's experience and respond briefly to questions. **(7 minutes + 5 minutes)**
- The remainder of the session will be organized around the guiding questions, with panelists given time to respond to questions and to comments made by other panelists. **(20 minutes)**
- The facilitator will manage questions and answers from the audience. **(15 minutes)**
- The facilitator will conclude with final remarks. **(3 minutes)**

Guiding questions:

1. What tools, strategies, and technologies are currently in place to protect urban built environments and infrastructure from climate change impacts?
2. How can governments pursue integrated planning approaches in this area in partnership with private sector and community stakeholders?
3. What remains to be done in order to anticipate future impacts? What are the gaps and major challenges for implementation? What new approaches have shown potential for meeting these challenges and how can they be realized?

CONTRIBUTORS

Facilitator *Konrad Otto-Zimmermann, Chairman, Urban Agendas, ICLEI – Local Governments for Sustainability*

Panelist *Jason Hartke, Vice President, National Policy, US Green Building Council, USA*

Stronger together: Buildings at the intersection of sustainability and resilience

Over the last several years, cities around the world have created sophisticated programs to advance and accelerate the uptake of sustainable buildings. In the last few years, many cities are looking to foster a great convergence in building best practices to achieve both resilient and sustainable goals. This presentation focuses on synergistic building strategies that better support mitigation and adaptation in the face of escalating climate impacts

Panelist *Helen Santiago Fink, Buildings and Cities Acting Head, United Nations Environment Programme (UNEP), Paris, France*

The role of buildings in climate change adaptation

Political leadership and partnerships between public and private sector stakeholders are needed to capitalize on the important role of buildings in mitigation and adaptation to climate change at local, national and global levels. The relationship between resilience and resource efficiency is underscored in buildings in the urban context.



Panelist *Rolf Messerschmidt, Architect and Urban Designer, Joachim Eble Architektur, Tübingen, Germany; Member, Technical Committee of DGNB*

The DGNB system for sustainable city districts as a certification and design tool

The German Sustainable Building Council (DGNB) has developed an assessment system for sustainable city districts. This can also be applied as a design tool for multidisciplinary, integrated planning in order to create future-proof and resilient urban environments. Climate protection, climate adaptation, and withstanding natural disasters are looked at within a comprehensive and holistic approach. The practical application of this tool is showcased at the pilot and model project Kaserne Babenhausen.

Panelist *Susanne Krings, Policy Advisor, German Federal Office of Civil Protection and Disaster Assistance, Germany*

Implementation of the German Strategy for Critical Infrastructure Protection

The Strategy for Critical Infrastructure Protection (CIP-Strategy) aims to strengthen risk and crisis management procedures for a diversity of threats including natural disasters. The German government understands CIP as a shared responsibility, working jointly with local governments and public and private stakeholders.

Panelist *Christoph Rat-Fischer, Project Manager, European Institute for Energy Research (EIFER), Karlsruhe, Germany*

What smart grids can tell us about resilient infrastructure design

The dependency on reliable infrastructure planning and layout is crucial for resilient urban areas. In this context, much attention and innovation has been focused on smart systems. Smart grids have been implemented in a variety of ways and the same principles are being applied to smart urban infrastructures. ICT-based design results in interconnections that can lead to both greater risk and greater resilience.

Presenter *Yong-Bok Kim, Director General, Climate Change Bureau, Seoul Metropolitan Government, Republic of Korea*

One Less Nuclear Power Plant: An energy initiative for the future

Responding to rising energy consumption and concerns over nuclear energy following the Fukushima crisis, Seoul Metropolitan Government is moving forward with the “One Less Nuclear Power Plant” initiative. To protect the city from natural disasters and large-scale blackouts, Seoul is partnering with businesses and citizens to create more energy efficient buildings and infrastructure powered by renewable energy sources.



Further recommended reading

German Strategy for Critical Infrastructure Protection

http://www.bmi.bund.de/cae/servlet/contentblob/598732/publicationFile/34423/kritis_englisch.pdf

Buildings and Climate Change: A Summary for Decision-Makers (UNEP 2009)

<http://www.unep.org/sbci/resources/Publications.asp>

German Sustainable Building Council (DGNB)

www.dgnb.de

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www.eble-architektur.de
