

sb13 sb13 munich munich

Implementing Sustainability – Barriers and Chances

Sustainable Building Conference

April 24-26, 2013

Conference Guide



Imprint

Conference Organisers

Prof. Dr.-Ing. Gerd Hauser
Technische Universität München, Fraunhofer Institute for
Building Physics IBP
Prof. Dr.-Ing. habil. Thomas Lützkendorf
Karlsruhe Institute of Technology, iiSBE
Prof. Dr.-Ing. Natalie Essig
Munich University of Applied Sciences, Fraunhofer Institute for
Building Physics

In Cooperation with

Federal Ministry of Transport, Building and Urban
Development, Hans-Dieter Hegner
Deutsche Bundesstiftung Umwelt DBU, Sabine Djahanschah

Organising Committee

Lukas Ackermann, Franz-Josef Balmert, Robert Burkhard,
Sabine Djahanschah, Janis Eitner, Annette von Hagel,
Hans-Dieter Hegner, Oliver Heiss, Prof. Dr. Roland Krippner,
Dr. Johanna Leissner, Nicole Schneider, Nadja Schuh,
Prof. Dr. Klaus Sedlbauer, Dr. Heinrich Schroeter,
Wolfgang Stoermer, Jan Struck

Editorial Team

Prof. Dr. Natalie Essig, Matthias Heinrich M.Sc.,
Ahmed Khoja B.Sc, Simone Magdolen B.Sc,
Paul Mittermeier M.Sc., Sebastian Eberl M.Sc.

Title: Implementing Sustainability - Barriers and Chances -
Conference Guide

Edited by: Hauser, G.; Lützkendorf, T.; Essig, N.;
Copyright © 2013

All rights reserved. No part of this book may be reproduced,
restored in a retrieval system or transmitted, in any form or by
any mean, without prior written permission from the publisher
and the author.

The publisher is not responsible for the use which might be
made of the following information.

Printed on acid-free and chlorine-free bleached paper.

Table of Contents

Organisation	4
Sponsors	5
General Information	6
Foreword	14
About the sb13 munich	16
Topics of the sb13 munich	17
Keynote Speakers	18
Speakers in Special Forums	21
Conference Program	23
Excursions	108
Social Program	113
Notes	116

Conference Organisers



In Cooperation with



Organising Committee



Partners



International Co-Sponsors



Gold Sponsor



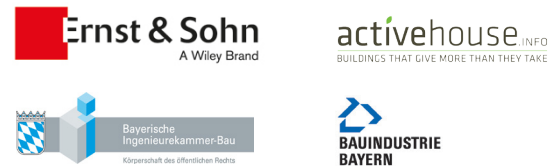
Silver Sponsors



Bronze Sponsors



Theme Sponsors



Media Partners



General Information

Conference Venue

AUDI Dome
Grasweg 74
81373 Munich, Germany



Opening Hours

23.4.2013 from 17:15 to 21:30
24.4.2013 from 08:00 to 17:30
25.4.2013 from 08:00 to 17:30
26.4.2013 from 08:00 to 16:00

To reach the Audi Dome

The Audi Dome is located southwest of Munich's city centre. It is conveniently located on the main ring road (B2R) near the highway entrance to the A96 towards Lindau.

Travelling by car

Only a few minutes away from the venue a parking garage and an outdoor parking area can be found. The parking spaces are located directly on the ring road Siegenburger Straße 65.

Arrival by public transport

The venue is in walking distance from the Underground station West Park (U6/ 1.1 km), the Underground and S-Train station Heimeranplatz (U4, U5, S7, S20, S27/ 0.8 km) and the tram stop Fachnerstrasse (Tramway 18 / approx 0.8 km). The bus stop Siegenburger Straße (Bus 133/ 0.3 km) is in the immediate vicinity of the venue. Shuttle buses will be available for pick up of conference guests from Heimeranplatz station. For further information please visit www.mvv-muenchen.de

Audi Dome

Rooms

- 1 Exhibition Hall
- 2 Business Center
- 3 Meeting Room
- 4 Main Dining Hall
- 5 Plenum
- 6 Hall A
- 7 Hall B
- 8 Hall C

Exhibition

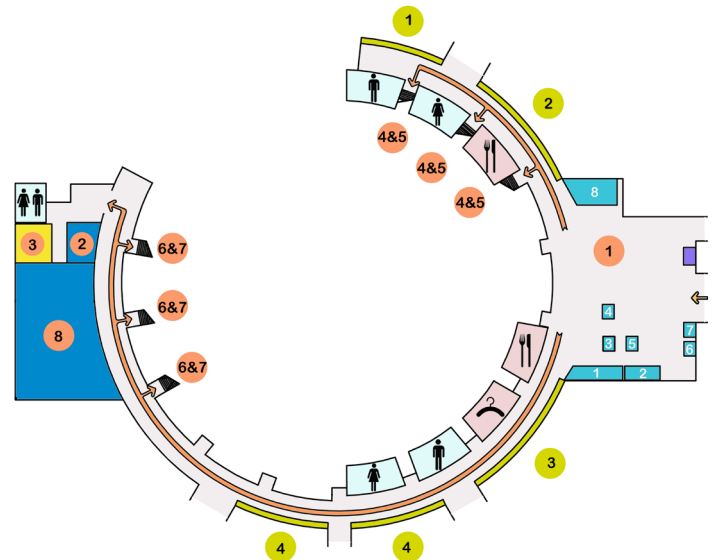
- 1 DBU
- 2 Xella
- 3 Active House
- 4 Rehau
- 5 OPEN HOUSE
- 6 PREUSS
- 7 Faunhofer
- 8 BMVBS

Poster Exhibition

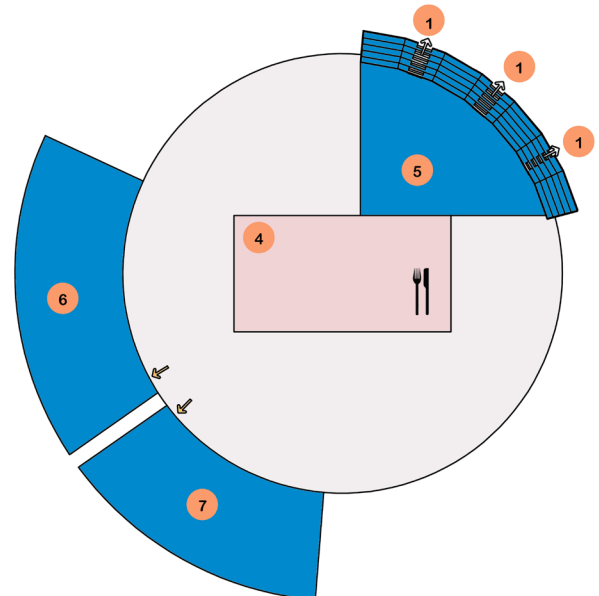
- 1 Young Researchers
- 2 sb13 Posters
- 3 Fraunhofer IBP
- 4 Bavarian Association for the Promotion of Solar Energy - Solarenergieförderverein Bayern e.V.
- Information Desk



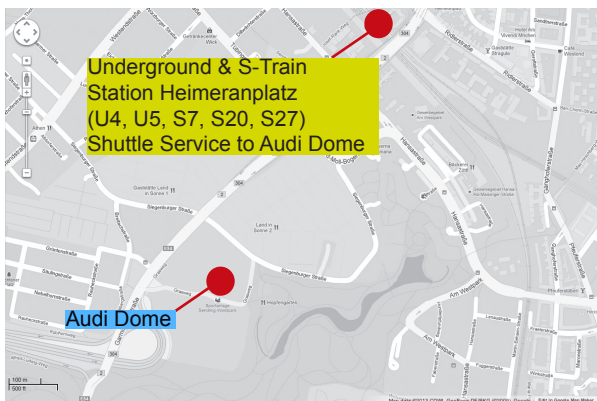
Ground Floor Map



Underground Floor Map



Venue Map



Facilities at the Venue

Registration and Information desk

- Business Center
- Cloakroom
- Snack bar
- free Wifi
- Shuttle Bus

For more information please refer to the conference plan (page 10) or ask at our information desk.

Young Researchers Day

The Young Researchers Session is going to take place April 23 at the Oskar-von-Miller-Forum.

Oskar-von-Miller-Forum is situated at:
Oskar-von-Miller-Ring 25
80333 Munich

For more information please visit
www.sb13-munich.com/young-researchers

Social Program

23 April 2013: Welcome Gathering - Audi Dome

The conference will be opened in the evening with a small-scale gathering in the AUDI Dome. On this occasion, it is possible to pre-register for the conference and collect the conference documentation.

Start: 18:30

24 April 2013: Conference Dinner - Bavarian Evening

The conference dinner will be held as a Bavarian evening at the Löwenbräukeller.

Löwenbräukeller, Nymphenburgerstrasse 2,
Am Stigmaierplatz, 80335 München
Public transport: Station Stigmaierplatz
(Underground U1, Tramway 20/21)
Start: 19:00

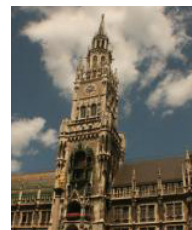
25 April 2013: Reception by the City of Munich

A reception will be held by the City of Munich in the Old Town Hall

Old Town Hall Munich, Marienplatz 15,
80331 München
Public transport: Station Marienplatz
(Underground U3/U6, S-Train S1-S4, S6-S8)
Start: 19:30



@Löwenbräukeller



City Map



Foreword



Ladies and Gentlemen, Dear Colleagues, Dear Guests,

It is our pleasure to welcome you on behalf of the organisers, hosts and co-operation partners of the European Regional Conference “Implementing Sustainability – Barriers and Chances”, which constitutes an essential stage as SB 13 Munich in preparation for the World Conference “Sustainable Building 2014” in Barcelona. We are also pleased to be able to welcome you for the first time to an event that is part of the cycle of “Sustainable Building” conferences in Germany.

For more than 10 years now, the economy, politics and science in Germany have been striving in a common endeavor towards the implementation of the principles of a sustainable development in the sectors of building, housing and real estate, together with the other interested parties. In this way, it has been possible not only to develop a common understanding of sustainability but also to work out and establish a basis for the assessment of sustainability. Sustainable urban design and city development will become a topic as well as the question of innovative building products.

New topics are being focused on questions such as the adaptation of the built environment to the climate change, the contribution of the building and real estate industries to the turnaround in energy policy in Germany or the creation of affordable living space for families.

Now it is time, to analyze the experiences gained, to formulate new objectives and realize the possibilities for action as chances. The aim here is also to overcome identifiable obstacles. This is the theme of the Regional Conference for Central Europe, which focuses on the obstacles which have to be overcome as well as on the possible chances for more sustainability in the building sector. It thus provides an ideal framework for sharing experiences, providing suggestions to young scientists, reconsidering and specifying goals anew as well as for making new friends.

We are looking forward to your active participation in the sessions and workshops and wish you a pleasant stay in Munich.

Prof. Dr. Gerd Hauser
Technische Universität München, Fraunhofer IBP

Prof. Dr. habil. Thomas Lützkendorf
Karlsruhe Institute of Technology KIT

Prof. Dr. Natalie Essig
Munich University of Applied Sciences, Fraunhofer IBP

About the sb13 munich

As part of a series of international sustainable building conferences, the sb13 munich conference will take place from April 24 to 26, 2013. Over 300 applicants from more than 30 countries have submitted scientific papers for the Munich conference.

The construction and property sector is a key driver of sustainability – from the development of energy-saving buildings to the planning of urban spaces. These topics will be examined in depth during the sb13 munich sustainability conference. Through talks, workshops, excursions and an exhibition, participants will discover how politics and business are influencing the energy transition, the support available for sustainable building, the latest trends in planning and energy supply for sustainable regional and urban planning and ultra-low energy and energy-plus housing concepts for new builds and existing developments. Methods for planning and rating sustainable buildings over the full life-cycle will be discussed, and innovative materials and technologies for the building sector will be presented.

On April 24 and 25 special workshops for municipalities and towns will be organized by the City of Munich, the German Federal Ministry of Transport, Building and Urban Development (BMVBS) and the German Environmental Foundation (DBU). On April 23, 2013, in a dedicated “Young Researchers’ Session”, young scientists will have an opportunity to present their sustainable building research work and projects.

Website:

www.sb13-munich.com

sb13 munich Organizing Office:

kongress@bptum.de

Topics of the sb13 munich

Examples of building practice and research are presented in the form of lectures, workshops, field trips and an exhibition on the following topics:

- Topic 1: Political Frameworks for a Sustainable Built Environment
- Topic 2: Sustainable Urban and Regional Planning
- Topic 3: Design, Architecture and Education
- Topic 4: Methodologies and Tools for Planning, Operation & Deconstruction Processes of Buildings
- Topic 5: Technologies, Material and Product Innovation

sb13 munich Keynote Speakers



Wim Bakens
CIB Secretary General



Jan Buck-Emden
CEO Xella International
GmbH



Prof. Manfred Hegger
Technical University of
Darmstadt, DGNB President



Hans-Dieter Hegner
Federal Ministry of
Transportation, Building and
Urban Development



Sabine Djahanschah
DBU



Prof. Dr. Greg Foliente
CSIRO Ecosystem Sciences



**Prof. Dr. Dr. h.c. mult.
Wolfgang A. Herrmann**
President Technische
Universität München TUM



Prof. Peter Höpfe
Munich Re, Head of Geo
Risks Research / Corporate
Climate Centre



Lykke Friis
Former Minister for
Climate and Energy,
Member of Danish
Parliament



Friedrich Geiger
Bavarian Ministry of the
Interior, Building Construction
Department



Nils Larsson
Director, International
Initiative for a Sustainable
Built Environment, iSBE



Günther Hoffmann
Federal Ministry of
Transportation, Building and
Urban Development



Prof. Emilio Miguel Mitre
Green Building Council
España (GBCE)



Prof. Matthias Schuler
transolar



Ob Naturstein, Glas, Keramik oder individuelle Putzbeschichtung – Sto bietet eine traumhafte Vielfalt an einzigartigen Oberflächen. Auch über die 800 Farböne des StoColor Systems hinaus sind Ihrer Phantasie keine Grenzen gesetzt. Wie individuell Ihre Farb- oder Formwünsche auch sind – wir erfüllen sie garantiert. www.sto.com/wow

Speakers in Special Forums (German)

Kommumentage

Stadt München

- Dr. Florian Bieberbach CEO SWM Group
- Rosemarie Hingerl Governing member of the City Council and Head of the Department of Public Construction, City of Munich
- Prof. Dr. Detlef Kurth HfT Stuttgart
- Prof. Dr (I). Elisabeth Merk Head of the Municipal Planning and Building Control Office, City of Munich

Deutsche Bundesstiftung Umwelt (DBU)

- Winfried Brenne Brenne Architekten
- Prof. Hermann Kaufmann Technische Universität München
- Hanns-Peter Kirchmann kplan AG
- Holger König ASCONA
- Stefan Plessner Institute of Building Services and Energy Design Technische Universität Braunschweig
- Prof. Ludwig Rongen RoA Rongen Architekten GmbH
- Arthur Schankula Schankula Architekten
- Dr. Jürgen Schnieders Passivhaus Institut
- Dr. Burkhard Schulze-Darup Darup & Partner Architekten
- Prof. Martin Wollensak Hochschule Wismar

Conference Program

Bundesministerium für Verkehr, Bau und Stadtentwicklung BMVBS

- Nicolas Kerz BBSR
- Dr. Günter Löhnert sol i dar planungswerkstatt berlin
- Til Bolland Umweltbundesamt (UBA) Deutschland
- Sabine Erber Beratungsstelle für Energieeffizientes und ökologisches Bauen Energieinstitut Vorarlberg, Österreich

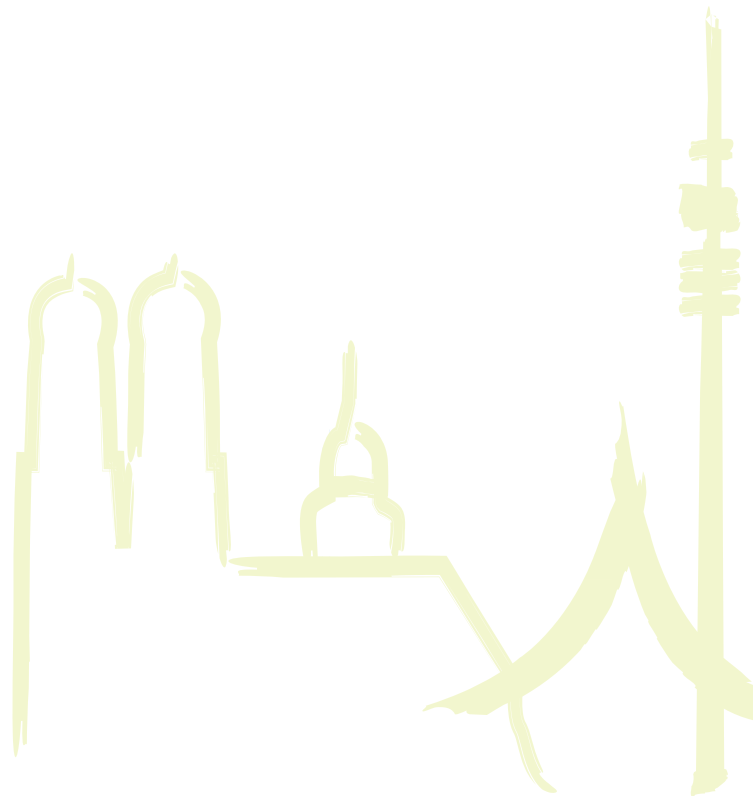
Further Special Forums

Fraunhofer - Allianz Bau

- Prof. Dr. Klaus Sedlbauer Fraunhofer Institute for Building Physics IBP
- Prof. Dr. Dr. E.h. Werner Sobek Werner Sobek Gruppe, Universität Stuttgart
- Dr. Eike Messow Sto AG
- Mag. Dr. Heimo Scheuch Wienerberger AG
- Daniel Georg Keppel HOCHTIEF Solutions AG

Young Researchers Day

- Niels Klabunde Project Manager, Internationalization & Diversity, TUM Graduate School & Zizheng Zhang TUM Graduate School
- Nils Larsson Director, International Initiative for a Sustainable Built Environment, iisBE
- Alexander Schwab Architect, Board member, Bavarian chamber of architects



Tuesday 23.4.

Oskar-von-Miller-Forum

9:30-17:00

Young Researchers Day

Audi Dome

17:15-21:00

Welcome Gathering & Poster Exhibition



PREUSS

-  Topic 1: Political Frameworks for a Sustainable Built Environment
-  Topic 2: Sustainable Urban and Regional Planning
-  Topic 3: Design, Architecture and Education
-  Topic 4: Methodologies and Tools for Planning, Operation & Deconstruction Processes of Buildings
-  Topic 5: Technologies, Material and Product innovation
-  Special Forums (German)

Wednesday 24.4.

Audi Dome	Hall A	Hall B	Hall C	Plenum	Foyer
8:45-10:30	Welcome and Keynote Session (Plenum)				Poster Session Exhibition
10:30-11:00	Coffee Break				
11:00-12:30	Keynote Session (Plenum)				
12:30-14:00	Lunch		Press Conference		
12:45-13:30	Oral Poster Session (Plenum)				
14:00-15:30	Session 3.1 Design Strategies	Session 1.1 Policies and Strategies	Session 2.1 Sustainable Urban and Regional Development	Special Forum City of Munich 1 (German)	
15:30-16:00	Coffee Break				
16:00-17:30	Session 4.1 Assessment Systems and Tools 1	Session 4.2 Cost Optimal Solutions for Energy Efficient Buildings - Theory and Practise	Session 5.1 Products and Structures	Special Forum DBU 1 (German)	

Löwenbräukeller

19:00-22:30	Conference Dinner (Bavarian Evening)
-------------	--------------------------------------

Thursday 25.4.

Audi Dome	Hall A	Hall B	Hall C	Plenum	Foyer
8:45-10:30	Keynote Session (Plenum)				Poster Session Exhibition
10:30-11:00	Coffee Break				
11:00-12:30	Special Forum City of Munich 2 (German)	Session 3.2 Energy Efficient Buildings 1	Session 4.3 Sustainability Assessment of Buildings - Methods and Tools	Special Forum DBU 2 (German)	
12:30-14:00	Lunch				
12:45-13:30	Oral Poster Session (Plenum)				
14:00-15:30	Special Forum BMVBS (German)	Session 3.4 Energy Efficient Buildings 2	Session 4.4 Sustainability - The Economic Dimension	Session 3.3 Timber Construction	
15:30-16:00	Coffee Break				
16:00-17:30	Session 1.2 Strategies and Concepts	Session 3.5 Design for Sustainability	Session 4.5 Integration of Susta- inability Aspects into Decision Making During Life Cycle of Buildings	Special Forum DBU 3 (German)	
17:30-19:00	City Tour / Technical Visits				
Old Town Hall Munich					
20:00-22:30	Reception by the City of Munich in the Old Town Hall				

Friday 26.4.

Audi Dome	Hall A	Hall B	Hall C	Plenum	Foyer
8:45-10:30	Session 2.2 Urban Planning 1 - Topics and Trends	Session 5.2 Products and Technologies 1	Session 4.7 The Importance of Construction Products for Sustainable Buildings	Session 4.6 Life Cycle Analysis	Poster Session Exhibition
10:30-11:00	Coffee Break				
11:00-12:30	Session 2.3 Urban Planning 2 - Energy related Aspects	Session 3.6 Concepts and Solutions for Historic Buildings	Session 5.3 Products and Technologies 2	Special Forum Fraunhofer - Allianz Bau (German)	
12:30-14:00	Lunch				
14:00-16:00	Keynote and Closing Session (Plenum)				
from 16:00	Allianz Arena Tour / City Bike Tour				

Tuesday 23.4.

Oskar-von-Miller-Forum

09:30
-
10:30**Welcome and Keynote Session**

Entry and Welcoming

Young Researchers Session Organising Team
Prof. Dr. Essig & Prof. Dr. Wolfgang Rid | NSE
Network Sustainable Urban Development | DE

Keynote

Nils Larson | International Initiative for a
Sustainable Built Environment iiSBE | CA10:30
-
12:00**Presentations Block 1**The risks associated with the
implementation of green construction
practices in Kuwait

Shaikha AISanad | University of Manchester | GB

Life-Cycle Assessment of Induced
Impacts in the Built EnvironmentJohn Anderson | Technische Universität München
TUM | DESolar potential and interactive design
in the urban contextEmiliy Nault | Ecole Polytechnique Fédérale de
Lausanne | CHAnalysis of Potential Biomimetic
Applications of Skin Analogies on the
Building ShellLeopoldo Saavedra | Technische Universität
München TUM | DE12:00
-
13:00**Lunch**

Tuesday 23.4.

Oskar-von-Miller-Forum

13:00
-
14:00**Keynotes (German)**Alexander Schwab | Bavarian Chamber of
Architects | DENils Klabunde & Zizheng Zhang | TUM Graduate
School | DE14:00
-
15:30**Presentations Block 2 (German)**Angemessen sanieren? Die Suche
nach Antworten an einem 50er-Jahre-
Bau in München-HaidhausenJulia Botzenhardt, Benedikt Matjeschk & Juha
Päätaalo | Hochschule München | DE

Flissade: Der wandelbare Raum

Lisbeth Fischbacher & Daniel Hoheneder | flissade
GmbH | DEDie adaptive Fassade - The adaptable
facadeDominik Ganterer & Philipp Heinz Kölsch |
Hochschule Augsburg | DEErarbeitung eines Modells der
gesamtenergetischen Entwicklung in
Wohngebieten unter Berücksichtigung
verschiedener SanierungsszenarienAmelie Lesser | Technische Universität München
TUM | DELebenswerte Stadtquartiere –
Untersuchung von Nichtwohngebäu-
den der Nürnberger Weststadt für
einen zukunftsorientierten StadtumbauMaria Sideri, Michael Vollmer, Florian Grindinger |
Technische Universität München TUM | DE15:30
-
16:00**Coffee Break**16:00
-
17:00**Final Discussion**

Wednesday 24.4.

Plenum

08:45
-
10:30**Welcome and Keynote Session**

Chair: Prof. Dr. Gerd Hauser

Words of Welcome

Prof. Dr. Gerd Hauser | Technische Universität München TUM, Fraunhofer Institute for Building Physics IBP | DE

Sustainability of Buildings - Status Quo in Germany

Günther Hoffmann | Head of Dept. for Buildings, the Construction Industry and Federal Buildings, Federal Ministry of Transport, Building and Urban Development BMVBS | DE

Integration of Sustainable Buildings and the Energy Transition in Bavaria

Friedrich Geiger | Assistant State Secretary, Bavarian Ministry of the Interior, Building Construction Department | DE

Welcome Address

Prof. Dr. Dr. h.c. mult. Wolfgang A. Herrmann | President Technische Universität München TUM | DE

Sustainability of Buildings – Chances for Germany

Sabine Djahanschah | Deutsche Bundesstiftung Umwelt DBU | DE

SB Conferences - A Promotor for a Better and More Sustainable World?

Nils Larsson | International Initiative for a Sustainable Built Environment iiSBE | CA

10:30
-
11:00**Coffee Break**

Wednesday 24.4.

Plenum

11:00
-
12:30**Keynote Session**

Chair: Prof. Dr. Natalie Essig

Sustainability and Urban Concepts

Prof. Matthias Schuler | transolar | DE

Sustainability in the Building Industry

Jan Buck-Emden | CEO Xella International GmbH
| DEClimate Change - Risk and Chances
for the IndustryProf. Peter Höppe | Munich Re, Head of Geo
Risks Research / Corporate Climate Centre | DEStructure and Main Topics of the
Scientific Programme of sb13Prof. Dr. Thomas Lützkendorf | Karlsruhe Institute
of Technology KIT | DE

12:30

13:30

Lunch

Wednesday 26.4.

Plenum

12:45

Oral Poster Session

13:30

Life-Cycle Assessment of Induced Impacts in the Built Environment

John Anderson, Prof. Dr. Gebhard Wulfhorst, Prof. Dr. Werner Lang | Technische Universität München TUM | München | DE

Sustainable Building Specifier (SBS) in European Research Projects

Johannes Gantner, Bastian Wittstock | Fraunhofer Institute for Building Physics IBP | Stuttgart | DE
 Katrin Lenz | University of Stuttgart, Dept. Life Cycle Engineering ife Cycle Engineering | Stuttgart | DE
 Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for Building Physics IBP | Holzkirchen | DE

Carbon Footprint in Construction Product Life Cycle

Dominik Bekierski | Building Research Institute (ITB) | Warsaw | PL

Improving Thermal Insulation of Façades through optimized Anchorages, here: Brickwork Support Brackets

Dr. Matthias Roik, Caroline Piesker, Dr. Michael Stegemann | HALFEN GmbH | Langenfeld | DE

Analysis of Zoning Strategies of Dynamic Thermal Simulations on an Existing Structure

Dr. Neslihan Türkmenoğlu BAYRAKTAR, Dr. Emre Kishalı | Kocaeli University | Kocaeli | TR
 Samuel Omondi | Mombasa Polytechnic University College | G.p.o. Mombasa | KE

Lightweight Envelopes for Energy Efficient Buildings: Energy Saving by Covering Courtyards with Membrane Systems

Dr. Jochen Manara, Mariacarla Arduini-Schuster, Dr. Hans-Peter Ebert | Bavarian Center for Applied Energy Research (ZAE Bayern) | Würzburg | DE
 Prof. Dr. Andreas Beck | HfT Stuttgart | Stuttgart | DE
 Prof. Dr. Jan Cremers | Hightex GmbH | Bernau | DE
 Prof. Dr. Werner Lang | Technische Universität München TUM | München | DE
 Thomas Rampp, Klaus Puchta | Lang Hugger Rampp GmbH | München | DE

A Cross-Sectional Analysis of Using the Ground as Heat Source and Heat Sink

Annika Radermacher | Department of Building Physics, University of Kassel | Kassel | DE

Wednesday 26.4.

Plenum

12:45

13:30

Oral Poster Session

Simulation Study of a New Type of Solar Combi System with a Sorption Heat Pump for Solar Heating and Cooling of Residential Buildings

Christian Glueck, Dr. rer. nat. Ferdinand P. Schmidt, Florian Schreiner | Karlsruhe Institute of Technology, Dept. of Fluid Machinery | Karlsruhe | DE

Energy Optimization in Ice Hockey Halls I. The System COP as a Multivariable Function, Brine and Design Choices.

Dr. Andrea Ferrantelli | Aalto University | Espoo | FI

Towards Climate-based Irradiation Recommendations for Optimal Solar Design: Insights from a Parametric Study

Emilie Nault, Prof. Marilyne Andersen | EPFL | Lausanne | CH
Prof. Emmanuel Rey | EPFL | Lausanne | CH

Hi-tech low-tech: An Experimental Sustainable House

Alberto Raimondi | Dipartimento di architettura - uniroma tre | roma | IT

Compact Habit: Sustainable mass modular building construction

Paco Conde | CompactHabit | Manresa | ES

Towards a Sustainable Youth Housing in Egypt

Dr. Manal El Shahat | Ain Shams University | Stuttgart | DE

Partial System Simulation for Long-term Sustainable Urban Development

Dr. Philipp Geyer | Technische Universität München TUM ENPB | München | DE

A Roadmap for the Future Energy Infrastructure in Salzburg Approaches to Optimize an Urban Energy System

Florian Botzenhart | Energie- und Umweltzentrum Allgäu | Kempten | DE

An Interdisciplinary Research Approach for Sustainable Urban Development

Isabell Nemeth, Judith Schinabeck, Agnes Foerster | Technische Universität München | München | DE

Wednesday 24.4.

Hall A

14:00
-
15:30**Session 3.1**Chair: Prof. Dr. Thomas Hamacher
Design, Architecture and Education**Design Strategies**

Three Strategies for Holistic Housing

Hans Drexler | Drexler Guinand Jauslin Architects,
Münster School of Architecture | DE
Sebastian El khouli | Bob Gysin + Partner BGP
Architekten ETH SIA BSA | CHUser-Centered Design in Certified
Office BuildingsMaike Buttler | Karlsruhe Institute of Technology /
Umweltbundesamt | DE
Prof. Dr. phil. nat. Riklef Rambow | Karlsruhe
Institute of Technology | DEInfluence of Sustainable Building
Attributes on Customer SatisfactionUniv.-Prof. Dr. Josef Zimmermann | Technische
Universität München TUM | DE
Matthias Schaule | Technische Universität
München TUM | DEEvaluation of Criteria for Sustainable
Housing Development: Results from
a preference analysis among different
stakeholders in housing development
and occupancyProf. Dr. Wolfgang Rid | University of Applied
Sciences Erfurt | DE
Jörg Lammers | DEBlock of Flats from 1958, Rejuvenated
with WoodFlorian Lichtblau | Kaufmann.Lichtblau.Architekten
| Muenchen | DEEnergy Positive Buildings – Impact of
the Building Envelope

Dr. Werner Jager | ai3 | Weißenhorn | DE

15:30
-
16:00**Coffee Break**

Wednesday 24.4.

Hall B

14:00
-
15:30**Session 1.1**Chair: Prof. Dr. Josef Zimmermann
Political Frameworks for a Sustainable Built Environment**Policies and Strategies**

A strategic Package Approach to Energy Efficiency in Buildings

Dr. Stefan Thomas | Wuppertal Institut GmbH | DE

Market Barriers for Energy Efficient City Systems in five European Countries

Hannele Ahvenniemi | VTT Technical Research Centre of Finland | Espoo | FI
Nusrat Jung | Aalto University and VTT Technical Research Centre of Finland | FI
Pekka Tuominen, Ala-Juusela Mia | Espoo | FI

Policies to overcome the Barriers for Implementing CO2 Reduction in the Built Environment of Neighbourhoods in Europe

Volker Stelzer | Karlsruhe Institute of Technology KIT, ITAS | DE

A framework to establish Suitable Sustainable Refurbishment Strategies for Residential Buildings

Prof. Dr. S. Thomas Ng | The University of Hong Kong | Pokfulam | HK

Increasing Resource Efficiency within the Building Industry

Nicole Becker | VDI Zentrum Ressourceneffizienz GmbH | Berlin | DE

Developing Sustainable 'Liveable' Buildings, Cities and Communities for a Sub-Tropical Context: Residents' Perspectives

Evonne Miller, Prof Laurie Buys, Prof Rosemary Kennedy | Queensland University of Technology | Brisbane | AU

15:30
-
16:00**Coffee Break**

Wednesday 24.4.

Hall C

14:00
-
15:30**Session 2.1**Chair:
Sustainable Urban and Regional Planning**Sustainable Urban and Regional Development**Sustainable Urban Development –
Report on Research for PracticeDr. Lamia Messari-Becker | Bollinger + Grohmann
Consulting GmbH | DESustainable Neighbourhoods.
Challenges for Research, Policy and
PlanningMaria Balouktsi, Prof. Thomas Lützkendorf | Karls-
ruhe Institute of Technology KIT | Karlsruhe | DE
Jürgen Kopfmüller, Dr. Oliver Parodi | Karlsruhe
Institute of Technology KIT - ITAS | DEAnalysis, Evaluation and Optimization
of Sustainable Urban DistrictsStephan Anders | German Sustainable Building
Council DGNB e.V. | Stuttgart | DEA Comparative Analysis of Emerging
Contextual Sustainability Assessment
Tools (SATs); Focus on the MENA
region

Dr. Fodil Fadli | Qatar University | Doha | QA

Site Development for the
2000-Watt-SocietyDaniel Kellenberger | Intep – Integrale Planung
GmbH | Zürich | CHEstimation of Energy Saving Potentials
of NeighbourhoodsNorbert Krauß | Leibniz-Institute of Ecological
Urban and Regional Development | Dresden | DE15:30
-
16:00**Coffee Break**

Wednesday 24.4.

Plenum

14:00
-
15:30

Special Forum (German)

Chair: Prof. Christian Schiebel

**City of Munich 1
Nachhaltige Stadtentwicklung**

Nachhaltige Stadtentwicklung

Prof. Dr.(I) Elisabeth Merk | City of Munich | DE

Integrierte Energiestadtplanung am
Beispiel des NSP

Prof. Dr. Detlef Kurth | University of Applied
Sciences Stuttgart | DE

Diskussionsrunde

15:30
-
16:00

Coffee Break

Wednesday 24.4.

Hall A

16:00
-
17:30**Session 4.1**

Chair: Prof. Dr. Essig

Methodologies and Tools for Planning, Operation
& Deconstruction Processes of Buildings**Assessment Systems and Tools 1**Introduction to the European Project
OPEN HOUSEVincent Peyramale | Fraunhofer Institute for
Building Physics IBP | DEDevelopment of an European LCA
Rating Methodology for OPEN
HOUSEJohannes Gantner | Fraunhofer Institute for
Building Physics IBP | Stuttgart | DE
Michael Jäger, Katrin Lenz | University of Stuttgart
LBP | Stuttgart | DE
Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for
Building Physics IBP | Holzkirchen | DEInvestigation on the Differences
between LEED, BREEAM and OPEN
HOUSE Assessment Systems by
Means of two Hungarian Case StudiesZsofia Belafi, Adrienn Gelesz | ABUD Ltd. |
Budapest | HU
Dr. András Reith | University of Pécs, ABUD Ltd.
HU | DETesting OPEN HOUSE Methodology
in Former YU CountriesMarjana Šijanec Zavrl | Building and Civil
engineering institute ZRMK | SILife Cycle Costing - Proposal for
Organisation of Information Based on
the Feedback of the European Project
OPEN HOUSEBruno Ziegler | EDF | Moret sur Moing | FR
Nosperger Stanilas | EDF | Moret sur Loing | FRSuPerBuildings: Validity of
Sustainability Indicators and
Recommendations for Sustainable
Building Projects

Dr. Tarja Hakkinen | Finland VTT | FI

Wednesday 24.4.

Hall B

16:00
-
17:30**Session 4.2**Chair: Prof. Dr. David Lorenz
Methodologies and Tools for Planning, Operation
& Deconstruction Processes of Buildings

Advantages and Disadvantages of
Cost Optimal Methodology to
Determine Energy Performance
Requirements for Buildings.

Towards Cost Optimal Net Zero Ener-
gy Building Concept for Nordic Urban
Areas

Which Way Does it Cost Less to Build
Net Zero Energy Buildings?

Assessment of Economically Feasible
Net Zero Energy Building Concepts
Using the Example of an Office
Building in Germany

Guidelines for Low-Cost Energy-
Efficient House in Iraq

Economic Viability in Thermal Retrofit
Policies: What can we learn from ten
Years of Experience in Germany?

**Cost Optimal Solutions for Energy Efficient
Buildings - Theory and Practice**

Dr. Jerzy Kwiatkowski | Warsaw University of
Technology | Warsaw | PL

Dr. Juho-Kusti Kajander, Matti Sivunen, Jussi
Vimpari | Boost Brothers Oy Ltd | Helsinki | FI
Pekka Helin, Tomi Mäkipelto | YIT Group | Helsinki
| FI

Adrienn Gelesz, Zsofia Belafi | ABUD Ltd. |
Budapest | HU
Dr. András Reith | University of Pécs, ABUD Ltd.
HU | DE

Johannes Schrade, Hans Erhorn, Michael Beckert
| Fraunhofer Institute for Building Physics IBP |
Stuttgart | DE

Saif Rashid, Prof. Dr. Udo Dietrich, Prof. Dr. habil.
Wolfgang Willkomm | HafenCity University-
Hamburg | DE

Dr. Minna Sunikka-Blank | University of
Cambridge, Department of Architecture | GB
Dr. Ray Galvin | Energy Research Centre,
RWTH-Aachen University | DE

Wednesday 24.4.

Hall C

16:00
-
17:30**Session 5.1**Chair: Dr. Alexander Passer
Technologies, Material and Product innovations**Products and Structures**

Sustainable Concrete for Sustainable Buildings

Prof. Dr. Petr Hajek | Czech Technical University in Prague | CZ

Bamboocrete – Prototypes for Reinforcement of Structural Building Parts with Bamboo

Prof. Susanne Gampfer | University of Applied Science Augsburg | DE

Recycling of Autoclaved Aerated Concrete

Dr. Oliver Kreft | Xella Technologie- und Forschungsgesellschaft mbH | Brück | DE

Sustainability Performance of Lightweight Aggregate Concrete Masonry

Carl-Alexander Graubner | Technische Universität Darmstadt | DE
Sebastian Pohl | LCEE Life Cycle Engineering Experts GmbH | Darmstadt | DE

Recycling Options for Masonry – Identifying Sustainable Solutions

Sarah Schneider, Bastian Wittstock, Ulrike Bos | Fraunhofer Institute for Building Physics IBP | Stuttgart | DE
Tristan Herbst | Federal Institute for Materials Research and Testing | Berlin | DE
Katrin Lenz | University of Stuttgart | DE
Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for Building Physics IBP | Holzkirchen | DE

Energy Issues and Environmental Impact of Membrane and Foil Materials and Structures - Status Quo and Future Outlook

Prof. Dr. Jan Cremers | Hochschule für Technik Stuttgart | Stuttgart | DE

Wednesday 24.4.

Plenum

16:00
17:30

Special Forum (German)

Chair: Sabine Djahanschah

Strategien für Klimaneutralität im
Bausektor bis 2050

Passivhäuser für unterschiedliche
Klimazonen

Qualitätsmanagement und
Evaluierung von nachhaltigen
Gebäuden in Deutschland

Diskussionsrunde

DBU 1**Planning Resources and Strategies for Supporting Optimal Energy Efficiency during the Planning, Operation and Completion of Buildings and Urban Structures**

Dr. Burkhard Schulze Darup | schulze darup &
partner architekten | Nürnberg | DE

Dr. Jürgen Schnieders | Passivhaus Institut |
Darmstadt | DE

Stefan Plesser | Braunschweig | DE

Thursday 25.4.

Plenum

08:45
-
10:30**Keynote Session**

Chair: Prof. Dr. Natalie Essig

Educating and Assessing Sustainable
ArchitectureProf. Manfred Hegger | Technical University of
Darmstadt, DGNB President | DESustainability of Buildings and the
Public SectorHans-Dieter Hegner | Federal Ministry of
Transportation, Building and Urban Development
BMVBS | DEThe Political Role in the Development
of Sustainable BuildingsLykke Friis | Former Minister for Climate and
Energy, Member of Danish Parliament | DK10:30
-
11:00**Coffee Break**

Thursday 25.4.

Hall A

08:45
-
10:30**Special Forum (German)**

Chair: Prof. Dr. Natalie Essig

City of Munich 2**Pilot Projects for Sustainable Urban Buildings**Klimaschutzstrategien und
-maßnahmen für städtische GebäudeRosemarie Hingerl | Member of the City Council,
Head of Munich's Department of Public
Construction | DEAusbauoffensive Erneuerbare
EnergienDr. Florian Bieberbach | Chief Executive Officer
Stadtwerke München GmbH | DE

Diskussionsrunde

10:30
-
11:00**CoffeeBreak**

Thursday 25.4.

Hall B

11:00
-
12:30**Session 3.2**Chair: Prof. Dr. Gerhard Hausladen
Design, Architecture and Education**Energy Efficient Buildings 1**The Age of Positive Energy Buildings
has comeHans Erhorn | Fraunhofer Institute for Building
Physics IBP | DEACTIVE HOUSE a Vision of Future
Sustainable Buildings
Buildings that give more than they take

Kurt Emil Eriksen | Active House Alliance | NL

E80/3 - a Plus-Energy Building
Concept for Existing BuildingsProf. Dr. Alexander Passer | Graz University of
Technology | Graz | AT
Helmuth Kreiner | Institute of Technology and
Testing of Building Materials | Graz | ATPractical Experiences with
Refurbishing seven Apartment
Buildings to Zero-Emission LevelMarc Großklos, Margrit Schaede | Institut Wohnen
und Umwelt GmbH | Darmstadt | DENew Construction of an Energy-
Surplus Day Care Center for Children
to Experience Energy-EfficiencyAnna Hoier | Fraunhofer Institute for Building
Physics IBP | DE

Energy Efficient Factories

Timm Rössel , Hana Riemer | Technische
Universität München TUM | DE
Philipp Vohlidka, Klaus Klimke | DE

12:30

13:30

Lunch

Thursday 25.4.

Hall C

11:00
-
12:30**Session 4.3**Chair: Prof. Dr. Vanessa Gomes
Methodologies and Tools for Planning, Operation
& Deconstruction Processes of Buildings**Sustainability Assessment of Buildings -
Methods and Tools**SBToolCZ – Sustainability Certification
for Buildings in the Czech RepublicAntonín Lupíšek, Prof. Dr. Petr Hajek | Czech
Technical University in Prague | CZ
Martin Vonka | National platform SBToolCZ |
Prague | CZSchools Go Green - Extension of the
BNB-Certification Methodology for
Educational BuildingsSebastian Pohl, Dr. Carmen Schneider | LCEE
Life Cycle Engineering Experts GmbH |
Darmstadt | DESustainable Laboratories -
Development and Piloting a new
Assessment MethodAndreas Rietz | Federal Institute for Research on
Building, Urban Affairs and Spatial Development |
Berlin | DE
Andrea Georgi-Tomas, Laura Rechert |
ee concept gmbh | Darmstadt | DENaWoh: Sustainable Quality for
Housing - a Compendium and a new
Certification System for new Multiple
Dwelling BuildingsIngrid Vogler | GdW Bundesverband deutscher
Wohnungs- und Immobilienunternehmen | Berlin
| DEOne Goal two Paths - Practical
Experience and Findings in Applying
the DGNB System in Hungary and
BulgariaJan Zak | ikl Ingenieurbüro Prof. Dr. Kunibert
Lennerts GmbH | Karlsruhe | DEPilot Applications of the German
Rating System for Sustainable
Building in China

Dr. Dirk Schwede | ILEK Universität Stuttgart | DE

12:30
-
13:30**Lunch**

Thursday 25.4.

Plenum

11:00
-
12:30**Special Forum (German)**

Chair: Sabine Djahanschah

DBU 2**Sustainable Construction of Schools – two Pilot Projects in Energy Efficiency, a Healthy Indoor Climate and the Role of Optimal Material Selection in the Life Cycle**

Integrale Entwicklung – Monitoring von nachhaltigen Niedrigstenergieschulen

Hanns-Peter Kirchmann | kplan AG | DE
Dr. Jens Kuckelkorn | ZAE Bayern | DE

Integraler Planungsprozess – Erziehung, Holzkonstruktionen und gesunde Baumaterialien für das Plusenergiegymnasium Diedorf

Prof. Dr. Hermann Kaufmann | Technische Universität München TUM | DE

Die Bedeutung von erneuerbaren Materialien im Bausektor und in der Lebenszyklusanalyse von Gebäuden

Holger König | ASCONA | DE

Diskussionsrunde

12:30
-
13:30**Lunch**

Thursday 25.4.

Plenum

12:45

13:30

Oral Poster Session

Optimization Geopolymer Binder for Sustainable Concrete Design

Siska Valcke | TNO | Delft | NL Panagiota Pipilikaki | Delft | NL
Hartmut Fischer | Eindhoven | NL
Ernst van Eck, Margriet Verkuijlen | Radboud University Nijmegen | Nijmegen | NL

Insulation Versus Installation – an Exploration Towards Maximization

Michiel Ritzen | Zuyd University / RiBuiT | Heerlen | NL

A Multilevel and Multiscale Method to Optimize the Sustainable Construction Works

Carmen Gargiulo | Politecnico di Milano | Milano | IT

Good, Better, Certified? - How Green Building Labels help Planning Sustainable Buildings

Kay Killmann, Christina Welzel, Ralf Lehmann | Alpha Energy & Environment | München | DE

Energy Efficiency Refurbishments of Residential Buildings from View of the Users

Sandra Wille | Leibniz Institute of Ecological Urban and Regional Development (IOER) | Dresden | DE

GINGER – The Influence of Gender on User Behavior in Highly Energy Efficient Buildings

Edeltraud Haselsteiner, Dr. Susanne Geissler | u.s.e. Institut f. nachhaltige Energienutzung | Wien | AT
Dr. Siegrun Klug | u.s.e Institut für nachhaltige Energienutzung | Zwentendorf | AT
Dr. Sabine Steinbacher, Gabriele Bargehr | Im Kontext. Institut für Organisationsberatung, Gesellschaftsforschung, Supervision und Coaching | Wien | AT

A Review of Research on the Impact of Wind-driven Rain on Scottish Traditional Wall Construction and its Internal Insulation Retrofit

Carsten Hermann | Historic Scotland | Edinburgh | GB

A case study of retrofitting a non-domestic building in Scotland

Mohamed Abdel-Wahab, Dr. David Jenkins | Heriot-Watt University | Edinburgh | GB
Dr. Dallia Ali | Robert Gordon University | Aberdeen

Thursday 25.4.

Plenum

12:45
-
13:30**Oral Poster Session**

Toward Nearly zero-energy
Building-Example from Montenegro

Nebojsa Adzic | Engineers Chamber of Montenegro | Niksic | ME
Prof. Aleksandar Rajcic | Faculty of architecture Belgrade | Belgrade | RS
Dragan Vukovic | Engineers Chamber of Montenegro | Podgorica | ME

Passive House Bruck

Peter Ruge | Peter Ruge Architekten | Berlin | DE

Towards the Industrialization and
Sustainability of Social Housing
Projects in Colombia

Alejandro Resrepo Montoya | (1) Pontificia Bolivariana University UPB, Medellín, Colombia (2) Technische Universität München TUM | München | DE

Green Spa/ +Green Hotels EHTTA
The Way to the Green Tourism

Mladenka Dabac | +green concept | Zagreb | HR

Plus Energy High-Rise Buildings in the
Subtropical Climate Region, Method
for Optimising Solar and Wind Energy
Harvesting in the Conceptual Planning
Stage

Mohannad Bayoumi | Department of Integrated Design - Prof. Fink, Member of TUM Graduate School | München | DE

Biomimetic Architecture. The building
as an Organism. Biomimetic
Approaches for Build Systems

Leopoldo Saavedra Arévalo | Technische Universität München | Kassel | DE

Embodied Energy and Embodied CO2
Associated with Building Industry in
Japan

Dr. Noriyoshi Yokoo, Prof. Dr. Tatsuo Oka | Utsunomiya University | Utsunomiya | JP
Hiromi Numata | Obayashi Corporation | Minato-ku Tokyo | JP
PhD Keizo Yokoyama | Hibiya Engineering | Minato-ku Tokyo | JP

Thursday 25.4.

Hall A

14:00
-
15:30**Special Forum (German)**

Chair: Prof. Dr. Thomas Lützkendorf

BMVBS**Nachhaltige Beschaffung von Gebäuden durch die öffentliche Hand**

Einführung

Prof. Dr. Thomas Lützkendorf | Karlsruhe Institute of Technology KIT | Karlsruhe | DE

Leitfaden und Bewertungssystem Nachhaltiges Bauen als Instrument zur nachhaltigen Beschaffung öffentlicher Gebäude

Nicolas Kerz | Leiter der Geschäftsstelle nachhaltiges Bauen im Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) | DE

Auf die Prozessqualität kommt es an: Planungsbegleitung mit dem Bewertungssystem BNB zur Optimierung des Planungs- und Bauprozesses

Dr. Günter Löhnert | sol i dar planungswerkstatt berlin Deutschland | DE

Auswahl und Bewertung von Bauprodukten im Sinne einer nachhaltigen Beschaffung

Til Bolland | Umweltbundesamt (UBA) | DE

Servicepaket Nachhaltiges Bauen in Gemeinden

Sabine Erber | Beratungsservice für Energieeffizientes und ökologisches Bauen Energieinstitut Vorarlberg | AT

Diskussionsrunde

15:30
-
16:00**Coffee Break**

Thursday 25.4.

Hall B

14:00
-
15:30**Session 3.4**Chair: Prof. Dr. Gerd Hauser
Design, Architecture and Education**Energy Efficient Buildings 2**Stochastic Approach for Useful Energy
Performance CalculationsProf. Jan Tywoniak | Czech Technical University in
Prague | CZ

Energy Development Planning

Tobias Wagner | Technische Universität München
TUM | DEA Systematic Approach to Energy
Efficiency Improvements in Buildings
Based on Enterprise Modeling MethodYunming Shao | Technische Universität München
TUM | DEInvestigations on the Impact of
Constructional and Technical
Measures on the Energy Consumption
of six Comparable BuildingsDr. Ingo Heusler, Thomas Strobl, Herbert
Sinnesbichler | Fraunhofer Institute for Building
Physics IBP | DEMonitoring of "Efficiency House Plus
Standard" PilotsAntje Bergmann | Fraunhofer Institute for Building
Physics IBP | DEPotential of Lighting Retrofit for Energy
Saving in Existing Institutional BuildingMD Armin Amirazar | University Teknologi
Malaysia | MY15:30
-
16:00**Coffee Break**

Thursday 25.4.

Hall C

14:00
-
15:30**Session 4.4**Chair: Prof. Dr. Anton Maas
Methodologies and Tools for Planning, Operation
& Deconstruction Processes of Buildings**Sustainability - The Economic Dimension**ecobim - Value driven Life Cycle
based Sustainable Business ModelsMD Carmen Antuña Rozado, Pekka Huovila | VTT
Technical Research Centre of Finland | VTT | FI
Souheil Soubra | Sophia Antipolis | FR
Dr. Wolfram Trinius | Ingenieurbüro Trinius GmbH
| Hamburg | DE

The Green Arbitrage Pricing Game

Prof. Dr. Juerg R. Bernet | EURO Institute of Real
Estate Management | Zug | CHIntegration of Sustainability Aspects
into Property Valuation Practice in
GermanyProf. Dr. David Lorenz, Peter Michl, Prof. Dr.
Thomas Lützkendorf | Karlsruhe Institute of
Technology | DEIncluding Fuel Price Elasticity of De-
mand in Net Present Value and Pay-
back Time Calculations of Thermal
Retrofits: Case Study of German
DwellingsDr. Ray Galvin | Energy Research Centre, RWTH-
Aachen University | DE
Dr. Minna Sunikka-Blank | University of
Cambridge | GBDemand Side Management in
Non-Residential BuildingsJakob Schneegans | Technische Universität
München TUM | DEDemand-Side-Management with Heat
Pumps for Single Family HousesYoung Jae Yu | Fraunhofer Institute for Building
Physics IBP | DE15:30
-
16:00**Coffee Break**

Thursday 25.4.

Plenum

14:00
-
15:30**Session 3.3**Chair: Prof. Dr. Stefan Winter
Design, Architecture and Education**Timber Construction**Governing Carbon Efficiency. The
Regime of Standards in Wooden
ConstructionDr. Alice Ludvig, Dr. Gerhard Weiss | EFICEEC
and BOKU Vienna | ATA Case Study to Investigate the Life
Cycle Carbon Emissions and Carbon
Storage Capacity of a Cross
Laminated Timber, Multi-Storey
Residential Building

Howard Darby | University of Reading, UK | GB

Höllentalangerhütte – A Case Study for
End of Life Reuse and Recycling
MethodologiesDr. Annette Hafner, Stephan Ott, Eva Bodemer |
Technische Universität München TUM | München
| DE

TES EnergyFacade – Proven Practice

Frank Lattke | Technische Universität München
TUM | DELifeCycle Tower – The Natural Change
in Urban ArchitectureChristina Mathis, Ulrich Forster, Niklas Gfrerer |
Cree GmbH | AT15:30
-
16:00**Coffee Break**

Thursday 25.4.

Hall A

16:00
-
17:30**Session 1.2**Chair: Nils Larsson
Political Frameworks for a Sustainable Built Environment**Strategies and Concepts**

'Building Up Research & Innovation Roadmap' Addressing rtd Priorities for Improving Energy

Dr. Jadwiga Fangrat | Building Research Institute ITB | PL

Towards Improved Uptake of Smart Sustainable Building Implementation

Anna Kuehlen | Institute for Industrial Production / Karlsruhe Institute of Technology KIT | DE

Building Culture and Ressource Efficiency

Patricia Schneider | Technische Universität München TUM | DE

Scientific Research Support for Construction Waste Management for National Muniplities

Dr. eng. Michał Piasecki | Building Research Institute (ITB) | Warsaw | PL

Learning and Community Life: Educational and Cultural Buildings to improve the Quality of Life in Medellín, Colombia

Alejandro Restrepo Montoya | (1) Pontificia Bolivariana University UPB, Medellín, Colombia
(2) Technische Universität München TUM | DE

The District Energy Concept Adviser: A Software Tool from IEA ECBCS Annex 51 to support Urban Decision Makers in Planning District Energy Supply Schemes

Heike Erhorn-Kluttig | Fraunhofer Institute for Building Physics IBP | DE

Thursday 25.4.

Hall B

16:00
-
17:30**Session 3.5**Chair: Matthias Heinrich
Design, Architecture and Education**Design for Sustainability**

A paradox of choice in Green Building Labels – is more really more?

Camill Marciniak | Intep | Zürich | CH

New Office Building Allianz Deutschland Campus Uunterföhring

Michael Fuchs | Allianz Deutschland AG | DE

Sustainable Building Laboratory in Africa

Stefan Krötsch | Technische Universität München TUM | DE
Prof. Susanne Gampfer | University of Applied Science Augsburg | DE

Case Study: Sustainable Icons for Mega Events: FIFA WC 2010, UEFA UERO 2012, FIFA WC 2014.

Markus Pfisterer | gmp · Architects von Gerkan, Marg and Partners | DE

The Energy Efficiency Center: Smart Building / Lightweight Construction with Smart Technology

Dr. Hans-Peter Ebert | Bavarian Center for Applied Energy Research (ZAE Bayern) | DE Thomas Rampp | Lang Hugger Rampp GmbH | DE

The Pareto Principle for the Energy Assessment of Heterogeneous and Complex University Buildings - A Comparison

Rene Regel | University of Applied Sciences Munich | DE
Prof. Dr. Werner Jensch | University of Applied Sciences Munich | DE
Prof. Dr. Werner Lang | Technische Universität München TUM | DE

Thursday 25.4.

Hall C

16:00
-
17:30

Session 4.5

Chair: Prof. Dr. Thomas Lützkendorf
Methodologies and Tools for Planning, Operation
& Deconstruction Processes of Buildings

Integration of Sustainability Aspects into Decision Making During the Life Cycle of Buildings

Climadesign Competition – Methodological Principles for Implementing Sustainable Issues in Architecture Competitions

Hana Riemer, Julia Drittenpreis | Technische Universität München TUM | DE

Management of the Criteria for Sustainable Planning Processes as Part of the Building Project Controlling Services

Norbert Preuß | PREUSS PROJEKTMANAGEMENT GMBH | DE

“Greener” Procurement of Construction Works for Contracting Authorities

Jan-Simon Schmidt, Univ. Prof. Dr. Rainard Osebold | RWTH Aachen University | DE

The Impact of Procurement Processes on the Sustainability of School Buildings

Dr. Alice Moncaster | University of Cambridge | GB

Sustainability in FM

Prof. Dr. Andrea Pelzeter | Berlin School of Economics and Law | DE

Sustainable Management of Existing Building and Portfolios

Dr. Kati Herzog, Alice Wildhack | bauperformance GmbH | DE

Thursday 25.4.

Plenum

16:00
-
17:30

Special Forum (German)

Chair: Sabine Djahanschah

DBU 3

Pilot Projects for Sustainable Renovation Strategies for (listed) post-war Buildings and Innovative System Solutions for Timber Construction

Sanierung von denkmalgeschützten Gebäuden der Nachkriegszeit am Beispiel der Berliner Siedlung am Schillerpark

Winfried Brenne, Manuel Vitt | WINFRIED BRENNE ARCHITEKTEN | Berlin | DE

Hochhäuser aus Holz

Arthur Schankula | Schankula Architekten | München | DE

Gymnasium Bäsweiler – Energieeffiziente Sanierung im Passivhausstandard

Ludwig Rongen | RoA Rongen Architekten GmbH | DE

Möglichkeiten der Sanierung von Bestandsgebäuden in der ehemaligen DDR

Prof. Martin Wollensak | Hochschule Wismar | Wismar | DE

Diskussionsrunde

Friday 26.4.

Hall A

08:45
-
10:30**Session 2.2**Chair: Prof. Dr. Greg Foliente
Sustainable Urban and Regional Planning**Urban Planning 1 - Topics and Trends**

Municipalities as First Movers for Sustainable Local Planning – Experiences From the EU-concerto project Class 1

Ove Christen Mørck | Cenergia Energy Consultants | DK
Dr. Maj-Britt Quitzau | Aalborg University | Copenhagen SV | DK
Kirsten Engelund Thomsen | Copenhagen SV | DK

Appreciated Living: Future-Oriented and Sustainable Refurbishing of Buildings and Districts

Beate Schneider | Initiative Wohnen mit Werten, iwmmw | Ludwigshafen | DE

Infill Development land-use Potentials and Strategies German Municipalities – First Survey Results

Andreas Blum, Holger Oertel, Dr. Georg Schiller | Leibniz-Institut für ökologische Raumentwicklung | Dresden | DE

Geo-referenced Modeling of an Urban Quarter for the Development of Refurbishment Potentials and Energy Supply Strategies

Dr. Isabell Nemeth, Manuel Lindauer, Philipp Ahlhaus | Technische Universität München TUM | München | DE

Green Infrastructure – Demands, Opportunities and Constraints of Green Space Development for Future Urban Development

Dr. Stefanie Rößler | Leibniz Institute of Ecological Urban and Regional Development | DE

Sustainable urban development considerations at the scale of the city-quarter: The usefulness of future alternatives for interdisciplinary research

Nadia Alaily-Mattar, Agnes Foerster, Dr. Isabell Nemeth, Prof. Dr. Alain Thierstein | Technische Universität München TUM | DE

10:30
-
11:00**Coffee Break**

Friday 26.4.

Hall B

08:45
-
10:30**Session 5.2**Chair:
Technologies, Material and Product innovations**Products and Technologies 1**Building RetroFit with Multifunctional
and Prefabricated Window ElementsDr. Michael Krause, Horst Stiegel | Fraunhofer
Institute for Building Physics IBP | DE
Beate Schneider | Initiative Wohnen mit Werten,
iwmw | Ludwigshafen | DEElastomeric Reflective Maintenance
Coatings Longevity and Energy
Savings of Asphalt RoofingJoseph Rokowski | Dow Chemical | Spring House,
Pennsylvania | USRelevance of Thermal Fluxes through
Building's Interior PartitionsRoger Llorens Viader | Laboratori d'Innovació
i Tecnologia de l'Arquitectura [LiTA] Universitat
Politécnica de Catalunya. UPC. | ES
Prof. Joan-LLuís Zamora i Mestre | Laboratori
d'innovació i Tecnologia a l'Arquitectura. LiTA.
Universitat Politècnica de Catalunya. UPC | ESEffect of Moisture on the Sound
Insulation of Building ComponentsMarcus Hermes, Lutz Weber |
Fraunhofer Institute for Building Physics IBP |
Stuttgart | DE
Prof. Dr. Schew-Ram Mehra | University of
Stuttgart | Stuttgart | DE
Dr. Hartwig M. Künzel | Fraunhofer Institute for
Building Physics IBP | Holzkirchen | DEFIEMSER – An Innovative Controller
for Residential BuildingsGeorg Haag, Matthias Kersken | Fraunhofer
Institute for Building Physics IBP | Holzkirchen |
DE
Jean-Christian Marcel | Sunpower | La Tour De
Salvagny | FRCan you produce a higher Quality of
Construction with less Cost and
greater Speed through Prefabrication?Jutta Albus, Prof. Stefan Behling | Universität
Stuttgart | Stuttgart | DE10:30
-
11:00**Coffee Break**

Friday 26.4.

Hall C

08:45
-
10:30**Session 4.7**Chair: Prof. Petr Hájek
Methodologies and Tools for Planning, Operation
& Deconstruction Processes of Buildings**The Importance of Construction Products for Sustainable Buildings**Health and Environment-Friendly
Constructional Products for Improving
Quality of LifeDr. Mateja Dovjak, Asist. Prof. Živa Kristl, Prof.
Aleš Krainer | University of Ljubljana | Ljubljana | SI

Sustainable Building Materials

Franz Loderer | Xella Technologie- und
Forschungsgesellschaft | Kloster Lehnin | DEEcological Aspects of Building
Materials within BNB (assessment
System for Sustainable Buildings for
Federal Buildings)Dr. Tanja Brockmann | Bundesinstitut für Bau-,
Stadt- und Raumforschung | Berlin | DEWECOBIS – Web-based System for
Information on Building Material with
Focus on Health and Environmental
Issues.Stefan Haas | BBSR, Division II 6 Construction
and Environment | Berlin | DEEmbodied Carbon through Building
Products' Supply Chain

Dr. Seongwon Seo | CSIRO | Highett | AU

Identifying the Relevance of
Construction Products for Building
CertificationBastian Wittstock | Fraunhofer Institute for Building
Physics IBP | Stuttgart | DE
Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for
Building Physics IBP | Holzkirchen | DE
Holger Wallbaum | Chalmers University of
Technology | SE10:30
-
11:00**Coffee Break**

Friday 26.4.

Plenum

08:45
-
10:30**Session 4.6**Chair: Prof. Dr. Thomas Lützkendorf
Methodologies and Tools for Planning, Operation & Deconstruction Processes of Buildings**Life Cycle Analysis**The Role of Eco-Efficiency
Indicators and Service Life
Consideration in Structural Frames
SelectionAdjunct. Prof. Flavia Oliveira | UFES/UNICAMP |
Vitoria | BR
Prof. Dr. Vanessa Gomes da Silva | University of
Campinas | Campinas | BR
Prof. Dr. Maristela Silva | Federal University of
Espirito Santo | Vitoria | BRLife Cycle Assessment of Store
ConceptsSarah Homolka, Johannes Gantner, Bastian
Wittstock | Fraunhofer Institute for Building
Physics IBP | Stuttgart | DE
Michael Jäger | University of Stuttgart LBP | DE
Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for
Building Physics IBP | Holzkirchen| DEDynamic Life Cycle Assessment
Applied to Buildings and Urban
DistrictsDr. Bruno Peuportier | MINES ParisTech | FR
Charlotte Roux | MINES Paristech | FRLife Cycle Costing of Energy Storage
Technologies for Building IntegrationMichael Jäger, Julia Böttge | University of Stuttgart
LBP | DE
Katrin Lenz, Sarah Schneider, Johannes Gantner
Fraunhofer Institute for Building Physics IBP |
Stuttgart | DE
Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for
Building Physics IBP | Holzkirchen| DEThe Decision Support for Facilities
Managers about Sustainability: Life
Cycle Performance Costing

Wim Zeiler | TU Eindhoven | Eindhoven | NL

LifeCycle Benchmarking – a
Fundamental Tool for Planning
Sustainable Buildings

Henning Balck | BALCK + PARTNER | DE

10:30
-
11:00**Coffee Break**

Friday 26.4.

Hall A

11:00
-
12:30**Session 2.3**Chair: Prof. Dr. Gerd Hauser
Sustainable Urban and Regional Planning**Urban Planning 2 - Energy Related Aspects**Method for Developing and Assessing
Holistic Energy Renovation of
Multi-storey BuildingsPhD Marlene Hagen Eriksen, Prof. Dr. Carsten
Rode, Prof. Søren Peter Bjarløv | Technical Uni-
versity of Denmark | Lyngby | DKTransition of Energy Systems in Small
and Medium Sized CommunitiesChristina Sager | Fraunhofer Institute of Building
Physics | Kassel | DEEnergy Atlas Berlin – A strategic tool
for Urban Energy PlanningDr. Michael Prytula | TU Berlin | DE
Andreas Krüger | TU Berlin | DEAnalyzing the Errors of Heat
Consumption Estimations at High
Spatial ResolutionPeter Böhme | Max-Planck-Institut für
Plasmaphysik | Garching | DE
Prof. Thomas Hamacher | Technische Universität
München TUM | DERefurbishment of a Historical City
Center with a Quarter based Approach
– a Part of the Project „100% EE
Wolfhagen“

Swen Klauß | University of Kassel | DE

A framework for the Evaluation of
Urban Heat Island Mitigation
MeasuresProf. Dr. Ardeshir Mahdavi | Vienna University of
Technology | AT
Kristina Kiesel | Dept. of Building Physics and
Building Ecology | AT12:30
-
13:30**Lunch**

Friday 26.4.

Hall B

11:00
-
12:30**Session 3.6**Chair: Prof. Markus Neppi
Design, Architecture and Education**Concepts and Solutions for Historic Buildings**Cultural Heritage and Sustainability:
Innovation, Lessons Learnt and
BehaviourJan Van 't Hof | Cultural Heritage Agency, the
Netherlands | AMERSFOORT | NLEnergy Efficient Historic Stone Houses
– a Case Study Highlighting
Possibilities and RisksPetra Petra Eriksson, Anna Donarelli, Endrik
Arumagi | Gotland University | VISBY | SE
PhD Fredrik Ståhl | SP Technical research institute
of Sweden | Borås | SEImproving the Energy Performance of
Museum Buildings Development and
Evaluation of Sustainable
Refurbishment StrategiesMichaela Hoppe | Technische Universität
München TUM | DEImpact of Climate Change on Historic
Buildings and Future Energy Demand
by Using Whole Building Simulation
ToolsDr. Johanna Leissner | Fraunhofer Gesellschaft |
Bruxelles | BEChallenges in the Sustainability
Assessment of Historic BuildingsUlrike Bos, Dr. Briana Niblick, Stefan Albrecht,
Sarah Schneider | Fraunhofer Institute for Building
Physics IBP | Stuttgart | DE
Dr. Johanna Leissner | Fraunhofer Gesellschaft |
Bruxelles | BE
Christine Milch, Ralf Kilian, Dr. Britta von Rettberg,
Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for
Building Physics IBP | Holzkirchen | DEWhich is the Task of the Historic Build
Environment within the Development
of a Smart City

PhD Valentina Marino | Politecnico di Torino | IT

12:30

13:30

Lunch

Friday 26.4.

Hall C

11:00
-
12:30**Session 5.3**Chair: Prof. Tywoniak
Technologies, Material and Product innovations**Products and Technologies 2**

A New Dawn Rising. New Options for Windows, Facades & Walls with Vacuum Glass and other Integrated Building Innovations

Dr. Helmut Hohenstein | Dr. Hohenstein Consultancy | DE

Fluid Glass Façade Elements: Energy Balance of an Office Space with a Fluid Glass Façade.

Jochen Marc Stopper | Technische Universität München TUM | München | DE
Dr. Daniel Gstöhl | Universität Liechtenstein | Vaduz | LI
Felix Böing | Technische Universität München TUM | Garching | DE

Renewable Façade Retrofit for Existing High-Rise Buildings in Central and South Europe

Katrin Lenz, Sarah Schneider | University of Stuttgart | DE
Johannes Gantner | Fraunhofer Institute for Building Physics IBP | Stuttgart | DE

Innovative Façade Refurbishment with Integrated Air ducting for the Existing Building Stock

Matthias Ziegler | Fraunhofer Institute for Building Physics IBP | Kassel | DE

Hygrothermal and Biohygrothermal Studies on Walls with Insulation from Straw

Marc Klatecki, Anton Maas | Universität Kassel | DE

Acoustic Comfort and Energetic Efficiency of Air Transport Systems

Dr. Peter Brandstät, Prof. Dr. Philip Leistner | Fraunhofer Institute for Building Physics IBP | Stuttgart | DE

Efficiency of Electric Local Heating of Thermal Bridges

Dr. Martin Krus | Fraunhofer Institute for Building Physics IBP | Holzkirchen | DE

12:30
-
13:30**Lunch**

Friday 26.4.

Plenum

11:00
-
12:30**Special Forum (German)**

Chair: Prof. Dr. Klaus Sedlbauer

**Fraunhofer - Allianz Bau
Nachhaltigkeit von der Theorie auf die
Baustelle - geht das heute schon?**

Nachhaltige Perspektiven am Bau

Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for
Building Physics IBP | DEZertifizierung als Motor für
NachhaltigkeitProf. Dr. Dr. E.h. Werner Sobek | Universität
Stuttgart | DEBauqualität als wesentliche Säule der
Nachhaltigkeit

Dr. Eike Messow | Sto AG | DE

Nachhaltigkeit – Vergesst den
Menschen nicht!

Dr. Heimo Scheuch | Wienerberger AG | DE

Kommt die Nachhaltigkeit auf der
Baustelle an?Daniel Georg Keppel | HOCHTIEF Solutions AG |
DE

Diskussionsrunde

12:30

-
13:30**Lunch**

Friday 26.4.

Plenum

14:00
-
16:00**Keynote and Closing Session**Sustainable Built Environment in
Europe - a 360° ViewProf. Dr. Greg Foliente | CSIRO Ecosystem
Sciences | AU

Construction and Society

Wim Bakens | CIB Secretary General | NL

Best Paper and Poster Award

Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for
Building Physics IBP | DE

World SB14 Barcelona

Prof. Emilio Miguel Mitre | Green Building Council
Spain | ES

Statement Young Researchers

Simone Magdolen, Ahmed Khoja, Paul
Mittermeier | Technische Universität München
TUM | DE

Closing

Prof. Dr. Gerd Hauser | TUM, Fraunhofer Institute
for Building Physics IBP | DE
Prof. Dr. Thomas Lützkendorf | Karlsruhe Institute
of Technology KIT | DE

Thursday 25.4.

Renaturation of the River Isar Guided Walk (free of charge)

The tour offers a walk through one of the most favoured recreation areas in Munich and comprehensive introduction to the development of a more natural river landscape of the river Isar. This tour is free of charge for a maximum of 25 people.

Waterproof clothing and footwear is recommended. The excursion will take place outdoors in all weather conditions

Start of excursion

18:15

Meeting point

Baldeplatz / Wittelsbacherbrücke (Western side)

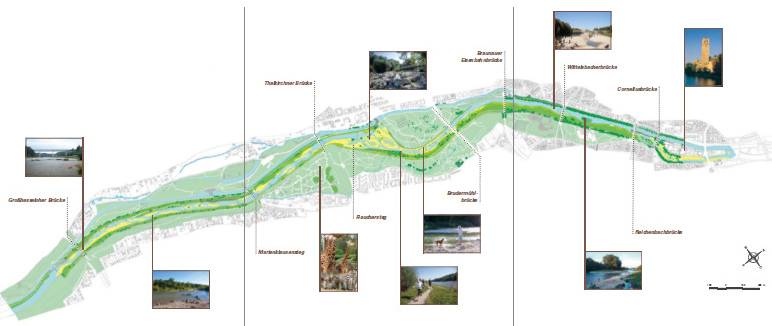
Duration

about 1 hour

Organisation

City of Munich

For further information please contact the Information desk.



108

Thursday 25.4.

2nd Arts and Recreation Area on the Petuertunnel - the Petuelpark (free of charge)

Just above the Petuertunnel, a part of Munichs transport axis (main ring road or "Mittlerer Ring"), the Petuelpark is situated. It was the wish of the citizens to create this 7,4 ha green space which now combines the quarters Schwabing-Nord with Milbertshofen and complements the green space between the Olympic Park, Luitpoldpark and Englischer Garten. The tour offers a guided walk through the recreation area and comprehensive introduction to the landscape concept. This tour is free of charge for a maximum of 25 people.

Waterproof clothing and footwear is recommended. The excursion will take place outdoors in all weather conditions

Start of excursion

18:00

Meeting point

Cafe im Petuelpark

Duration

about 1.5 hour

Organisation

City of Munich

For further information please contact the Information desk.



109

Friday 26.4.

Allianz Arena Tour (fee 33€, 20 Participants maximum)

The tours offers a fascinating and comprehensive introduction to one of the world's finest football stadia, the Allianz Arena in München.

Tour highlights are

- Middle tier
- Main stand lower tier
- Press conference area
- Dressing rooms
- Players' tunnel
- Mixed Zone/media area
- Promenade/stadium exterior
- Technical parts of the arena

Start of excursion 17:30

Meeting point South Entrance Allianz Arena
(on the way from the metro)

Duration about 1 hour

Organisation event exklusiv

For further information please contact the Information desk.



Friday 26.4.

Cycling + Architecture Bike Tour (fee 75€ - registration ends at 12.4.)

This is a guided cycling tour with focus on energyefficient and sustainable architecture, best-practice buildings and the topography of the cyclist.

- ADAC Headquarters
- Quartier Theresienhöhe
- Quartier Ackermannbogen
- Olympic Park
- Petuelpark
- Munich Re
- English Garden
- Downtown Munich
(subject to change)

Equipment + Safety:

bike-helmet, gloves, resistant footwear and weatherproof clothing are recommended. Helmet + light rain poncho will be handed out. Participation according to the German Road Traffic Act (StVO) and on own risk.

Start of excursion 16:30

Meeting point AUDI Dome, Main Entrance

Duration approx. 4 h, distance 25-35 km, flat terrain, moderate speed

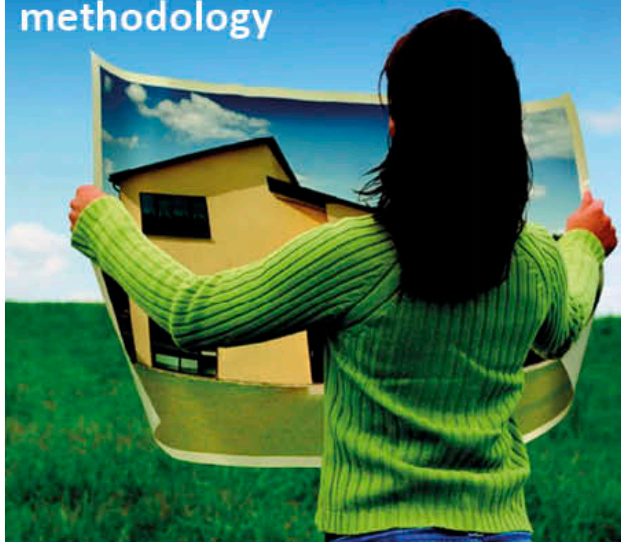
Organisation Bavarian Chambers of Architects

Guiding by Thomas Traub architekt and team



www.openhouse-fp7.eu

...to develop and to implement
a common European
transparent
building assessment
methodology



PROJECT IS PARTLY FINANCED BY THE EUROPEAN UNION



Thursday 23.4.

Welcome Gathering and Exhibition Opening

Start Registration: 17:15

Opening: 18:30

Speakers:

- Words of Welcome**
 Prof. Dr. Gerd Hauser | Technische Universität München TUM, Fraunhofer Institute for Building Physics IBP
 Prof. Dr. habil. Thomas Lützkendorf | Karlsruhe Institute of Technology KIT
 Host - FC Bayern München
- Exhibition Opening**
 Sabine Djahanschah | Deutsche Bundesstiftung Umwelt DBU
 Hans Dieter Hegner | Federal Ministry of Transportation, Building and Urban Development BMVBS
 Prof. Dr. Roland Krippner | German Confederation of Architects BDA
 Prof. Dr. Natalie Essig | NSE Network Sustainable Urban Development

Music, small dishes and drinks

Wednesday 24.4.

Bavarian Evening - Congress Dinner

Opening 19:00

Speakers:

- **Words of Welcome**
Prof. Dr. Gerd Hauser | Technische Universität München TUM, Fraunhofer Institute for Building Physics IBP
Dr. Heinrich Schröter | Bavarian Chamber of Civil Engineers
Prof. Luis Braganza | International Initiative for a Sustainable Built Environment, iiSBE
- **Sponsor`s Happening**
- **Special**
Prof. Dr. Klaus Sedlbauer | Fraunhofer Institute for Building Physics IBP, Universität Stuttgart

Bavarian food and drinks

Music: The Hausener Big Band will cater for musical entertainment.



Thursday 25.4.

Reception by the City of Munich in the Old Town Hall

Opening 19:30

Speakers:

- **Words of Welcome**
Rosemarie Hingerl | City of Munich
Alexander Schwab | Bavarian Chamber of Architects
Karlheinz Beer | German Confederation of Architects BDA
Kurt Emil Erikson | Active House

Flying dinner and drinks

Music: The TUM Student Orchestra will cater for musical entertainment.







Fraunhofer
IBP



KIT
Karlsruher Institut für Technologie

TUM