10:00 OPENING OF THE CONFERENCE
Pekka Huovila, Chair of the International Scientific Committee, Finland

10:05 PRINCIPAL PARTNER SAINT GOBAIN

10:10 SBE SERIES INTRODUCTION
Anders Persson, FIDIC

10:20 KEYNOTE PRESENTATION
Chaired by: Anders Persson, FIDIC
Paving the future for Circular Built Environments
Harri Hakaste, Ministry of the Environment, Finland
Usha Iyer-Raniga, RMIT University, Australia
Jonathan Duwyn, UNEP, France

12:00 NETWORKING BREAK

STREAM 1
12:15 SESSION 1 CIRCULAR NEIGHBOURHOODS
Chaired by: Jesús Salcedo, UN-Habitat Headquarters, Land Housing and Shelter
Towards solutions and infrastructure for circular neighbourhoods in rural areas
Dr. Wendy Wuyts, Norwegian University of Science and Technology, Norway

12:30 The equitable housing workshop. Mapping and improving stakeholders’ decision-making process for circular equitable housing projects.
Margarita Lempaynard, Vrije Universiteit Brussel, Belgium

12:45 Combining BIM & GIS Information to Simulate Circularity of Building Stocks in City—A Case Study of Taipei City
Yun-Tsui Chang, National Taiwan University, Taiwan

13:00 Sustainable development goals and indicators for circular built environment. Regional comparison based on a global survey.
Pekka Huovila, Green Building Council Finland

13:15 Dynamic Life Cycle Assessment - Parameters for scenario development in prospective environmental modelling of building stocks
Dr. Katarina Stankovic, Université Catholique de Louvain, Belgium

13:30 Nested Phoenix: a bottom-up Python model for the life cycle environmental performance of urban built stocks
Prof. André Stephan, Université Catholique de Louvain, Belgium

13:45 NETWORKING BREAK

STREAM 2
12:15 SESSION 2 RESPONSIBLY SOURCED MATERIALS 1
Chaired by: Venkata Gandikota, Innofrugal
Improving the life cycle greenhouse gas emissions of transport infrastructure assets — a case study in Brussels, Belgium
Soroosh Ataee, Université Catholique de Louvain, Belgium

Assessing material and embodied flows related to building services in office buildings — the case of Brussels, Belgium
Sébastien Loréau, Université Catholique de Louvain, Belgium

A review of embodied life cycle assessment tools used to support the building design process
Fabian Prideaux, KU Leuven, The University of Melbourne, Australia

Developing a ‘Design with Reuse’ guide: A case study analysis from a design procedural perspective for the integration of reclaimed wood in façade architecture.
Gabrielle Kawa, Vrije Universiteit Brussel, Belgium

Value network mapping applied to the flat glass sector: constraints and leverage points for circularity
Esther Gobbo, Vrije Universiteit Brussel, Belgium

Emissions at a crossroad — a crossroad NZE design method
Søren Dietz, Bjerg Arkitektur - Green Lab, Nuie

13:45 NETWORKING BREAK
14:30  
**SESSION 3**  
**NEW SKILLS AND NEW BUSINESSES**  
Chaired by: Margherita Finamore, Pesaro Municipality

14:45  
How Frugal Innovation can empower citizens to make their life simpler and more sustainable. Insights from two ongoing initiatives  
Prof. Tomonari Yashiro, The University of Tokyo, Japan

15:00  
Successful social entrepreneurship and its potential contribution to more sustainable cities and built environments  
Carmen Antuña Rozado, VTT Technical Research Centre of Finland Ltd., Finland

15:15  
Architectural Practice Supporting Sustainability Transitions in the Built Environment  
Alice Flarezi, NTNU Norwegian University of Science and Technology, Norway

15:30  
Building data models and data sharing. Purpose, approaches and a case study on explainable demand response  
Prof. Nikos Sakkas, Aprentech Ltd., Cyprus

15:45  
Designing and implementing solar photovoltaic system in secondary residence  
Dr. Kari Lilja, Satakunta University of Applied Sciences, Finland

16:00  
**NETWORKING BREAK**

16:15  
**SESSION 5**  
**CONSTRUCTION VALUE CHAIN 1**  
Chaired by: Ella Lahtinen, Green Building Council Finland

16:15  
A comparative analysis of sustainable construction tools and their applicability to the housing sector in two countries; Burkina Faso and Sri Lanka.  
Alicia Regodon & Jesus Salcedo, UN-Habitat Headquarters, Land Housing and Shelter

16:30  
A new method combining BIM and GIS data to optimize the sustainability of new construction projects in Switzerland  
Heinz J. Bernegger, ZHAW Zurich University of Applied Sciences, Switzerland

16:45  
Towards understanding disruption in the market for professional services in construction  
Abbas Delgahi Tafti, Lulea University of Technology, Sweden

17:00  
Green Public Procurement and the circularity of the built environment  
Dr. Margherita Finamore, Pesaro Municipality, Italy

17:15  
Circularity in Built Environment - The case of Rwanda  
Dheeq Arrabothu, Global Green Growth Institute (GGGI)

17:30  
**NETWORKING BREAK**

17:45  
**KEYNOTE PRESENTATION**  
Chaired by: Jonathan Duwyn, UNEP

17:45  
Whole Life Cycle Considerations in the Development of Building-Integrated Clean Energy Systems  
Anna Dyson, Yale Center for Ecosystems in Architecture, United States

18:00  
**NETWORKING BREAK**

18:15  
**SESSION 6**  
**RESPONSIBLY SOURCED MATERIALS 3**  
Chaired by: Anders-Johan Almås, Western Norway University of Applied Sciences

18:15  
Circularity and LCA - material pathways: cascade potential and cascade environmental impact of an in-use building product  
Simon Schaumbroeck, IU Leuven, Belgium

18:30  
Embody Carbon: a call to the building industry  
Daniel Bondreit, McGill University, Canada

18:45  
Towards understanding disruption in the market for professional services in construction  
Abbas Delgahi Tafti, Lulea University of Technology, Sweden

19:00  
Green Public Procurement and the circularity of the built environment  
Dr. Margherita Finamore, Pesaro Municipality, Italy

19:15  
Circularity in Built Environment - The case of Rwanda  
Dheeq Arrabothu, Global Green Growth Institute (GGGI)
10:00 KEYNOTE PRESENTATIONS
Chaired by: Dr Akvan Gajanayake, RMIT University
10:00 Building wellbeing within planetary boundaries
Matti Kuittinen, Ministry of the Environment of Finland, Finland
10:45 Designing Circular Neighbourhoods
Tjeerd Haccou, Space&Matter, The Netherlands

11:30 NETWORKING BREAK

11:45 SESSION 7
INDUSTRY
Chaired by: Lauri Tähtinen, Green Building Council Finland
11:45 Partnering with Nature - In search of regenerative approaches in urban environments
Kari Einola, Ramboll Finland, Finland
12:00 Maptionnaire - Insights that enable cities to change
Dr. Maant Kahlia, Maptionnaire, Finland
12:15 Evolution of recycling in infra structure and green area construction
Elina Regardt, WSP, Finland
12:30 Timber-Hybrid Makes the Breakthrough: Natural Principles Take Hold in Large Scale Projects
Elif Istanbululluoglu, CHEE Buildings, Austria
12:45 Conceptual and circular procurement is key to overcome actual crises!
ThaNi Hurjelm, Altrei, The Netherlands
13:00 from universal science to global INDUSTRY
Prof. Hendrik Hendrickx, Free University Brussels, Belgium

13:15 NETWORKING BREAK

14:00 SESSION 9
CONSTRUCTION VALUE CHAIN 2
Chaired by: Elna Samia, Green Building Council Finland
14:00 WVDM Living Lab: Sustainable renovation strategies for the VUB student residences of Willy Van Der Meerst
Prof. Waldo Looze, VUB Architectural Engineering, Belgium
14:15 Long-term renovation strategy for 2020-2050: assessment from a low-carbon perspective—case Finland
Terttu Vainio, VTT, Finland
14:30 Incorporation of sustainable development goals into built environments-related business management concepts
Filika Haselnitz, Business Management FH, Finland
14:45 IoT-based architecture for efficient energy monitoring in existing building structures
Prof. Alexander Redlin, Vienna University of Technology, Austria
15:00 Circular Economy Design towards Zero Waste: Laying the foundation for constructive stakeholder engagement on improving construction, renovation and demolition (CRD) waste management
Daniel Rondinell, McGill University, Canada

15:15 NETWORKING BREAK

14:00 SESSION 10
INCLUSIVE AND RESILIENT CITIES 2
Chaired by: Heikki Moilanen, Green Building Council Finland
14:00 WVDM Living Lab: Sustainable renovation strategies for the VUB student residences of Willy Van Der Meerst
Prof. Waldo Looze, VUB Architectural Engineering, Belgium
14:15 Long-term renovation strategy for 2020-2050: assessment from a low-carbon perspective—case Finland
Terttu Vainio, VTT, Finland
14:30 Incorporation of sustainable development goals into built environments-related business management concepts
Filika Haselnitz, Business Management FH, Finland
14:45 IoT-based architecture for efficient energy monitoring in existing building structures
Prof. Alexander Redlin, Vienna University of Technology, Austria
15:00 Circular Economy Design towards Zero Waste: Laying the foundation for constructive stakeholder engagement on improving construction, renovation and demolition (CRD) waste management
Daniel Rondinell, McGill University, Canada
15:15 NETWORKING BREAK
15:45  **SESSION 11**  
**RESPONSIBLY SOURCED MATERIALS 4**  
Chaired by: Jeremy Gibberd, GAUGE

15:45  First steps in the development of standardised processes for life cycle assessments of geotechnical works  
Dr. Loretta von der Tann, Norwegian Geotechnical Institute, Norway

16:00  Barriers for data management as an enabler of circular economy: an exploratory study of the Norwegian AEC-industry  
Alessia Brolin, NTNU Norwegian University of Science and Technology, Norway

16:15  Demolish, recycle, build new or renovate? Energy use throughout the life cycle.  
Dr. Ulla Janson, Lund University, Sweden

16:30  Circular material passports for buildings – Providing a robust methodology for promoting circular buildings  
Dr. Verena Guswehr, Sadores – Engenharia, Inovação e Ambiente, Lda., Portugal

16:45  Responsible sourcing of concrete and CO2 reduction certification  
Cynthia Imesch, The Concrete Sustainability Council, Switzerland

17:00  Demolish, recycle, build new or renovate? Energy use throughout the life cycle.  
Dr. Ulla Janson, Lund University, Sweden

17:15  NETWORKING BREAK

17:30  **SESSION 13**  
**CONSTRUCTION VALUE CHAIN 3 & INCLUSIVE AND RESILIENT CITIES 4**  
Chaired by: Margherita Finamore, Pesaro Municipality

17:30  Business models for rolling out Positive Energy Buildings  
Mia Kiira-2oonta, VTT, Finland

17:45  Process-specific digital recording of construction-site LCA-inventory to identify de-carbonisation pathways  
Anna Wagner, Technical University Munich, Germany

18:00  Area Neutrality: safeguarding urban biodiversity with a new land management framework in Trondheim, Norway  
Amy McComack, NTNU Norwegian University of Science and Technology, Norway

18:15  Renaissance of villages for the revitalization of marginal areas  
Maurizio Pignatelli, Politecnico di Torino, Italy

18:30  Towards integration of smart and resilient city: literature review  
Mustafa Shahrabani, Kaunas Technology University, Lithuania

18:45  **CLOSING THE CONFERENCE FOR SCIENTIFIC AND INDUSTRY SESSIONS INTRODUCTION OF THE WORKSHOPS**  
Pekka Huovila, Chair of the Scientific Committee

18:45  SESSION 12  
**INCLUSIVE AND RESILIENT CITIES 3**  
Chaired by: Miisa Tahkänen, Green Building Council Finland

15:45  Socially and culturally sustainable public participation in urban development: Map questionnaire as a bridge-building tool in Kontula shopping mall  
Dr. Pilvi Nummi, Aalto University, Finland

16:00  Growth target as a barrier to knowledge integration and provision of alternative scenarios in urban planning  
Dr. Tiina Merikoski, Aalto University, Finland

16:15  Services for sustainable future lifestyle in smart blocks – empowering people to make a difference  
Dr. Maria Naustien, VTT Technical Research Centre of Finland Ltd., Finland

16:30  Obligatory Municipal Energy Reporting – Experiences from Southern Germany  
Andreas Immendörfer, AE-BAW, Germany

16:45  HARMONIA: strategy of an integrated resilience assessment platform (IRAP) with available tools and geospatial services  
Prof. Julia Nerantzia Tzortzi, Politecnico di Milano, Italy

17:00  Process-specific digital recording of construction-site LCA-inventory to identify de-carbonisation pathways  
Anna Wagner, Technical University Munich, Germany

17:15  The modern tropical architecture and social-environmental classification - An analysis of the Prefeito Mendes de Moraes Housing Complex  
Marina Calazães, Universidade Federal do Rio de Janeiro, Brazil

17:30  Technical upgrade in factory to reduce energy consumption and increase employee wellbeing  
Janne Porkka, VTT Technical Research Centre of Finland

17:45  Responsible sourcing for concrete as a construction material in Latin America  
Manuel Lascarro, Colombian Chamber of Cement and Concrete PROCEMCO, Colombia

18:00  Area Neutrality: safeguarding urban biodiversity with a new land management framework in Trondheim, Norway  
Amy McComack, NTNU Norwegian University of Science and Technology, Norway

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Mustafa Shahrabani, Kaunas Technology University, Lithuania

18:45  CLOSING THE CONFERENCE FOR SCIENTIFIC AND INDUSTRY SESSIONS INTRODUCTION OF THE WORKSHOPS  
Pekka Huovila, Chair of the Scientific Committee
09:00  WORKSHOP 1
Circular solutions for sustainable material economy in urbanizing Africa
Harri Hakaste, Ministry of the Environment Finland, Nina Westerholm, Tampere University, Finland, Jeremy Gibbard, GAUGE, South Africa, Jonathan Duwyn, UNEP, France, Dheeraj Arrabothu, Global Green Growth Institute, Rwanda, Usha Iyer-Raniga, RMIT University, Australia, Pekka Huovila, Green Building Council Finland

10:30  WORKSHOP 2
Municipalities Leadership in Neighbourhood Renovation Planning
Prof. Targo Kalamees, Tallinn University of Technology, Estonia

12:00  WORKSHOP 3
Urban Nature Labs: Sharing the Knowledge on Co-creation of NBS
Annika Kettunen, Ramboll Finland, Maarit Särkilahti, City of Tampere, Finland, Salla Leppänen, City of Tampere, Finland

13:30  WORKSHOP 4
Sustainable housing in Africa
Helena Sandman, Leapfrog projects ab, Finland

10:30  WORKSHOP 5
Compact modelling for Smart Cities
Carmen Antuña Rozado, Henri Wiman & Dr. Markos Xenakis, VTT Technical Research Centre of Finland Ltd

12:00  WORKSHOP 6
Design of Global and General Applicable Systems
Hedwig Vanwalleghem, Belgium

13:30  WORKSHOP 8
To Zero and Beyond! Toward the Next Generation of EU Building Performance Assessments and Energy Certificates
Ahmed Khoja, Munich University of Applied Sciences, Germany, Dr. Marina Malinovec Puček, Energy Institute Hrvije Podar, Croatia, Dr. Gyuri Gyuris, Gernardo Environmental Technologies, Hungary, Dr. Lilia Gala Dol, Scientific and Technical Building Centre (ICTB), France, Dr. Sylviane Nibel, Scientific and Technical Building Centre (ICTB), France