

TUESDAY, SEPTEMBER 24



WDBE 2019

WORLD SUMMIT ON
DIGITAL BUILT ENVIRONMENT

24-25 SEPT 2019 HELSINKI, FINLAND

8.45 OPENING WORDS

Session Chaired by Mr. Janne Saarikko
Venue: Congress Hall

9.00 KEYNOTE 1 JAAN SAAR

Defragmenting the construction industry
with a digital platform

9.15 KEYNOTE 2 ERIC BACZUK

Gardeners in the City of the Future

9.45 KEYNOTE 3 TONI LUHTI

Why it's time to start using that data
you have been collecting



**JAAN
SAAR**

Head of Digital Construction,
Ministry of Economic Affairs
and Communications, Estonia



**ERIC
BACZUK**

User Experience Lead,
Google / Sidewalk Labs,
USA



**TONI
LUHTI**

Chief Executive Officer,
Platform of Trust,
Finland

10.15 BREAK

10.30 USER EXPERIENCE & URBAN PLANNING

Session Chaired by Mr. Andrew Brahney
(Ramboll Singapore)
Venue: Congress Hall

AUTOMATION IN DESIGN & MANUFACTURING

Session Chaired by Mr. Janne Liuttu (Ramboll)
Venue: Sirkus

COUNTRY REPORTS

Session Chaired by Ms. Minna Perähuhta
(Ministry of the Environment)
Venue: Siltasaari Hall

WORKSHOP

Venue: Karuselli

10.30 UX in the Built Environment Mr. Andrew Brahney (Ramboll Singapore)

Information age in the AEC Industry Mr. Ricardo Farinha (Sweco)

Country report: The Smart Built Environment Strategic Innovation Programme in Sweden Dr. Amy Olsson (IQ Samhällsbyggnad)

PropTech Fund - Nordic focused built environment tech fund, is it possible? Mr. Mikael Långström (PropTech Finland)

10.45 Urban Sense - Designing urban user experience Dr. Eelis Rytönen (NCC)

The importance of Human Thinking in the era of Algorithm Aided Structural Engineering Mr. Eki Lehtimäki (Mörkö Engineering Oy)

Country report. Build4.0 in Denmark. Dr. Mette Glavind (Danish Technological Institute)

11.00 Knowledge Management between Designers' Expertise and End-users' Experience in the Digital Ecosystems Building Process Dr. Mervi Himanen (Digital Living International Oy/Relate partnership)

Programming structural engineering process Mr. Matias Hirvikoski (A-Insinöörit Oy), Mr. Petteri Karjalainen (A-Insinöörit Oy)

Digital ecosystems: how a public administration can act as a key driver within the digital transformation? Ms. Giada Malacarne (Fraunhofer Italia research scarl)

11.15 What do knowledge workers expect from business campuses? Dr. Marja Turunen (University of Turku)

A Look Into Parametrized Bridge BIM Mr. Rasmus Sainmaa (Sweco)

Country Report Finland Ms. Minna Perähuhta (Ministry of the Environment)

11.30 Steel Fabrication with BIM Mr. Jyri Tuori (Sweco)

Artificial intelligence and the future of the workforce Mr. Janne Liuttu (Ramboll)

11.45

12.00 LUNCH, EXHIBITION & NETWORKING

12.00 DEMO AREA

Urban data platforms transforming #ConTech , Ms. Natalia Rincon (CHAOS)
Data-based approach to developing and investing in properties, Ms. Karolina Mosiadz (Mapple)

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13.00 INNOVATION ECOSYSTEMS

Session Chaired by Ms. Gulnaz Aksenova (The University of Liverpool)
Venue: Congress Hall

13.00

Orchestrating ecosystem for the industry platform. Empirical investigation of Finnish and Californian construction industries

Ms. Gulnaz Aksenova (The University of Liverpool)

13.15

Digitalization of Business Management Concepts with Contexts Embedded in Built Environments Across the Globe

Mr. Pekka Huovinen (Business Management PJH, Light Entrepreneur with SLP Group Oy/ UKKO.fi Service)

13.30

How business ecosystems can learn from nature

Ms. Niina Kuusanniemi-Abbotts (Biomimita Ltd)

13.45

Living Lab 2.0: Business models for multi-actor research platforms: Case Flavoria

Prof. Jukka Heikkilä (University of Turku),
Mrs. Pauliina Ojansivu (University of Turku)

14.00

Maria 01 Startup Campus - We're Building Europe's Largest Startup Campus

Mr. Mikko Kuusakoski (YIT)

14.15

Greater Helsinki as a platform for innovative digital solutions

Ms. Sonja Malin (Helsinki Business Hub),
Ms. Irma Ylikangas (Helsinki Business Hub)

14.30

PropTech Finland - building an innovation network around real estate and construction innovation

Ms. Tasha Tolmacheva (PropTech Finland),
Mr. Mikael Långström (PropTech Finland)

GAME ENGINES & DATA PLATFORMS

Session Chaired by Mr. Brett Young (BUILDINGSP)
Venue: Sirkus

Rethinking Advanced Computation for the Built Environment – How Game Engines Support Machine Learning and Artificial Intelligence in AEC

Mr. Brett Young (BUILDINGSP)

Automated BIM publishing for social media and web sharing

Mr. Juha Alanen (Tridify)

Plantabib - Next generation plantlife planning for construction and designers

Mr. Lauri Lemmenlehti (Plehat Oy)

Unlocking BIM's potential for Portfolio Showcase and O&M

Mr. Raphael Bausch (Zoan Oy)

Bygg X: the next disruption for the building industry

Dr. Nathalie Labonnote (SINTEF AS)

Flowing data is a faster and smarter way to better indoor conditions

Mr. Vesa Ilmarinen (Platform of Trust),
Mr. Esa Halmetoja (Senate Properties)

PUBLIC SECTOR AS ENABLING PARTNER

Session Chaired by Dr. Wafa Alsakini (Solibri)
Venue: Siltasaari Hall

User-centric legislation for the built environment

Mr. Aleksi Lunden (Lexia Attorneys)

Building a national 3D-building data repository

Mr. Joonas Jokela (National Land Survey of Finland)

ePermitting System - Solution for Code compliance Checking

Dr. Wafa Alsakini (Solibri)

Using BIM to ensure the fire safety of buildings

Mr. Timo Lehtoviita (Saimaa University of Applied Sciences)

CapaCity, an innovative digital tool for capacity management of public service networks

Dr. Emilia Rönkkö (Locia Solutions Oy)

Spaces as a service - opening up underused resources

Dr. Vitalija Danivska (Aalto University)

The economic value of the use spatial data in the built environment in Finland

Dr. Jaana Mäkelä (Spatineo)

WORKSHOP

Venue: Karuselli

Twinning the City (ESRI Finland)

Mr. Ilkka Suojanen (Esri Finland Oy),
Mr. Marko Saastamoinen (Esri Finland Oy)

14.45 COFFEE, EXHIBITION & NETWORKING

14.45 DEMO AREA

From point clouds to active shared 3D city models – Mr. Petri Kokko (Sova3D Oy)
AURA service makes digital twins alive – Mr. Jarkko Männistö (Sitowise Oy)

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15:15 USER EXPERIENCE & HOUSING

Session Chaired by Dr. Renee Puusepp
(Creatomus Solutions)
Venue: Congress Hall

15:15 User experience in mass-customised housing
Dr. Renee Puusepp (Creatomus Solutions)

15:30 Not just a passive consumer but an active participant
Dr. Agnieszka Zalejska Jonsson (KTH Royal Institute of Technology, Department of Real Estate and Construction Management)

15:45 The social (digital) citizenship dimension of the district through three key concepts: the shuttle, the home manager and the behavioural contract
Prof. Lavinia Chiara Tagliabue (University of Brescia)

16:00 AIDOMUS - AI Living Services
Dr. David Hästbacka (Tampere University)

16:15 Smart heating of apartment building - defined by residents
Mr. Janne Heinonen (Enermix Oy)

16:30 Hippa – Wellbeing and better service housing through digitalisation
Mr. Harri Hahkala (Metropolia University of Applied Sciences),
Ms. Toini Harra (Metropolia University of Applied Sciences)

16:45 Democratizing the housing market by increasing home ownership in Germany
Mr. Martti Mela (Asumma Capital)

17:00

CONSTRUCTIONS INFORMATION MANAGEMENT

Session Chaired by Mr. Sami Kalliokoski
(Aiforsite Oy)
Venue: Sirkus

Improving Construction Productivity with IoT data and Artificial Intelligence
Mr. Sami Kalliokoski (Aiforsite Oy)

A New Way to Manage Projects by AINS Group - The new process, command center and VisualLeader portal for digital, visual and virtual project work
Mr. Jyry Kuokkanen (A-Insinööri Oy),
Mr. Jaakko Jauhiainen (A-Insinööri Oy)

Digital platform for production system and supply chain management
Mr. Ari Viitanen (Carinafour)

A new chapter in the web-based collaborative production planning: Lets get the project started!
Mr. Mark Novinsky (Refine Projects AG),
Mr. Stefan Gaa (Robert Bosch Power Tools GmbH)

Correlating BIM and Value Engineering to be Implemented in the Design Phase as a Lean Construction Solution
Ms. Vibhuti Mistry (Heriot-Watt University)

How digital task management improves situational awareness in projects.
Mr. Eelon Lappalainen (Aalto University)

Jokeri Light Rail - Information Management in Alliance Model
Ms. Liisa Kempainen (Sitowise Oy)

SUSTAINABLE CITIES & CIRCULAR ECONOMY

Session Chaired by Mr. Aapo Huovila (VTT Technical Research Centre of Finland Ltd)
Venue: Siltasaari Hall

How to stop built environment to kill our planet?
Mr. Aapo Huovila (VTT Technical Research Centre of Finland Ltd)

How to build a new urban district - a carbon sink with open and interactive energy system
Mr. Tuomas Vanhanen (Energy Wise Cities project - City of Tampere)

How to build a new urban district – carbon smart and cost-efficient solutions for buildings and blocks
Mrs. Ann-Sofi Österberg-Aikio (Energy Wise Cities project - City of Turku)

Virtual Power Plants connecting buildings into the smart infrastructure / CASE Shopping Center Sello
Mr. Jaano Juhmen (Smart Infrastructure, Siemens Osakeyhtiö)

BIM for energy knowledge management
Ms. Tarja Mäkeläinen (VTT Technical Research Centre of Finland Ltd)

Reuse your building parts: how we could predict the damage before it happens?
Ms. Katja Rodionova (Sweco Structures / HAMK)

Financing the built environment of tomorrow sustainably
Mr. Veikko Eeva (Lumoin Oy)

Building a carbon negative everyday life
Ms. Katri Kallio-Koski (Compensate), Mr. Niklas Kaskeala (Compensate)

WORKSHOP

Venue: Karuselli

Smart Spaces – focusing on the user in the PropTech 4.0 age

Ms. Elisa Rönkä (Siemens - Smart Infrastructure),
Mr. Santeri Sillanpää (KONE Corporation)

17:15 END OF THE SESSIONS

WEDNESDAY, SEPTEMBER 25



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Session Chaired by Mr. Janne Saarikko
Venue: Congress Hall

- 9.00 KEYNOTE 4 MARTIN BISHOP**
Driving Successful Digital Transformation in the Public Sector
- 9.30 KEYNOTE 5 SALLA PALOS**
Empowering people with inclusive environment
- 10.00 KEYNOTE 6 LU YING**
Urban Innovation Pockets - and their role in enabling innovation for future ecosystems



**MARTIN
BISHOP**

TechBD Manager EMEA,
Amazon Web Services,
UK



**SALLA
PALOS**

Director of Transforma-
tion Services, Microsoft,
USA



**LU
YING**

Co-founder & Chief
Executive Officer, Future
Urban Living, China/
Finland

10.30 BREAK

10.45 LEADING TRANSFORMATION

Session Chaired by Mr. Olli Kytomäki (KTH Royal Institute of Technology, Department of Real Estate and Construction Management)
Venue: Congress Hall

DIGITAL TWINS

Session Chaired by Mr. Steve Holzer (BIMobject)
Venue: Sirkus

CITY MODELS & URBAN PLANNING

Session Chaired by Mr. Juha Saarentaus (Geowise Oy)
Venue: Siltasaari Hall

WORKSHOP

Venue: Karuselli

10.45 How do real estate owners lead digital transformation? Mr. Olli Kytomäki (KTH Royal Institute of Technology, Department of Real Estate and Construction Management), Dr. Agnieszka Zalejska Jonsson (KTH Royal Institute of Technology) 11.00 One step forward, two steps back – development of digital user services Dr. Marja Turunen (University of Turku) 11.15 How to make the use of BIM more efficient Mr. Heikki Halttula (MAGNET Systems) 11.30 End user perspective to enabling OpenBIM workflows in Finnish Infrastructure Construction Mr. Miika Kostamo (Novatron Oy (part of MOBA Group)) 11.45 The value of digitalised documentation Dr. Taina Eriksson (University of Turku), Mr. Timo Makkonen (Congrid Oy) 12.00 YIT Urban Experience Dr. Juha Kostiainen (YIT) 12.15	How technology is transforming retail real estate Mr. Markus Porvari (HyperIn Inc.) Digital Twins: Does one size fit all? Mr. Francisco Forns-Samso (Granlund) BIM integration for Optimized Building Energy System Operation and Maintenance Mr. Hervé Pruvost (Fraunhofer IIS EAS) Digital Building Content as the Currency of the Built Environment Mr. Steve Holzer (BIMobject) First steps towards a Digital Twin – Spatial Information Management from the Client side Mr. Karl Fitzpatrick (Auckland Airport Limited) As-Built Model in Practice – Cooperation Between Owner and Contractor Ms. Hele-Mai Metsal (Port of Tallinn) Digital work environment redefines our physical environment Dr. Ursula Hyrkkänen (Turku University of Applied Sciences)	Geospatial data - from Maps to Digital Twins in Urban Areas Mr. Juha Saarentaus (Geowise Oy) BIM + GIS: the key ingredients for Digital Twin Mr. Jere Metsävuori (Sitowise Oy), Mr. Jarkko Männistö (Sitowise Oy) CityGML with BIM: The Building Blocks of Smart City Digital Twin Mr. Timo Ruohomäki (Forum Virium Helsinki Oy) Smart City Model with BIM visualization Mr. Tapio Ahomäki (Trimble Solutions Corporation) Developing interactive city model – a learning process Mr. Mauri Huttunen (Saimaa University of Applied Sciences) Exploring the pros and cons of using public participation GIS in urban and regional planning practices Dr. Maarit Kahila (Mapita Oy)	Transparency, collaboration and resilience across the building value chain Mrs. Julia Ahvenainen (Stora Enso), Mrs. Jutta Menestrina (TRÄ Group)
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12.15 LUNCH, EXHIBITION & NETWORKING

12.15 DEMO AREA

Automated sustainable design from BIM with Model Checker – Mr. Panu Pasanen (Bionova Ltd)
Infrakit - The open BIM Cloud – Mr. Visa Hokkanen (Infrakit)

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13.15 USER EXPERIENCE & SERVICES

Session Chaired by Mr. Teemu Suila (Kojamo Oyj)
Venue: Congress Hall

13.15 Urban Living as a Service and Innovation platform – Case Kojamo
Mr. Teemu Suila (Kojamo Oyj)

13.30 Transformative way to resource use - case TRACTR
Dr. Anssi Salonen (TRACTR)

13.45 Sopia empowers the rental housing market with AI
Mrs. Tea Jarma-Vartiainen (Sopia Oy)

14.00 Gamified Cohousing
Mr. Pedro Aibeo (Gamified Cohousing Oy)

14.15 Trigoni Helsinki High Rise
Mr. Aleksa Pesic (YIT)

DIGITAL LIFECYCLE

Session Chaired by Mr. Teemu Nivell (Buildpoint Oy)
Venue: Sirkus

Intelligent information management for construction industry
Mr. Teemu Nivell (Buildpoint Oy)

The Just Transition as a catalyst for increasing the rate of renovation in Europe
Mr. Conor Shaw (Shaw Architectural Solutions)

Quality is built on common purpose - software approach
Mr. Timo Makkonen (Congrid Oy)

IoT for better indoors airquality and living comfort
Mrs. Merja Taipaleenmäki (Citynomadi)

Breaking the data barriers between systems - Customer case
Mr. Timo Makkonen (Congrid Oy)

SMART MOBILITY & INFRASTRUCTURE

Venue: Siltasaari Hall

Helsinki Stream City and NYC People Flow Master Plan
Mr. Olli Hakanen (Respace Oy)

EV Readiness for Every Parking Space
Heikki Suonsivu (Parking Energy Ltd.)

Computer Vision Enables Automated Road Defect Monitoring and Supports Rehabilitation Planning
Mr. Markus Melander (Vaisala Oy)

Using Photogrammetry as a Tool for Asset Monitoring and Management
Ms. Aimee McCabe (Queen's University Belfast)

WORKSHOP

Venue: Karuselli

5G: New technology revving up the cities

Juha-Pekka Piuva (Sitowise),
Eva-Lisa Karlsson (City of Helsinki),
Päivi Ahlroos (City of Helsinki),
Hannu Tuomisaari (Sitowise)

14.30 BUBBLES

14.30 DEMO AREA

Changing the way proposals are made and managed – Ms. Paula Viinamäki (Duers)
Enchancing user experience with self-service online platform using digital twins – Mr. Harri Majala (GBuilder)

AFTERNOON KEYNOTE SESSION

Venue: Congress Hall

15.00 OPENING OF THE AFTERNOON KEYNOTE SESSION

15.20 KEYNOTE 7 RANDY DEUTSCH
Learning from Superusers: What to expect in the next year and beyond

15.45 KEYNOTE 8 SHAJAY BHOOSHAN
Home, communities and games

16.10 KEYNOTE 9 ULRİK BRANNER
What does the wave hitting the construction industry look like?

16.35 KEYNOTE 10 CRISTINA SAVIAN
Digital Twin – A launchpad to inform the user experience of today's and tomorrow's generations

17.00 KEYNOTE 11 MINNA PERÄHUHTA
Open, fair and agile, challenges for public-private partnership

17.15 - 19.00 COCKTAILS AND BUFFET



RANDY DEUTSCH

AIA, LEED AP



SHAJAY BHOOSHAN

Zaha Hadid Architects, UK



ULRIK BRANNER

Board & Executive, Lets-Build (formerly GenieBelt), Denmark



CRISTINA SAVIAN

Managing director, BE-WISE, UK



MINNA PERÄHUHTA

Ministerial Adviser, Ministry of the Environment, Finland