8th Nordic Conference on Construction Economics and Organization

28-29 May, 2015, Tampere, Finland



Leadership for Targeted Change and Proven Advancements

Final program

Wednesd	ay, May 27, 2015	
13:00 - 16:00	PhD Workshop	Tampere University of Technology
Chairperson: S	Stephen Fox	
18:30 - 20:30	City Reception	Vapriikki
Thursday	, May 28, 2015	
09:00 - 10:10	Opening session Thursday	Room 1
Chairperson: k	Kalle Kähkönen	
09:10	SMARTer Construction - The Internet Of Buildings Seppo Junnila	
09:40	Aalto University, Finland Research, Development & Innovation: Global State Of The Art In Real Estate And Construction Sector	
	Keith Hampson Sustainable Built Environment National Research Centre, Australia	
10:10 - 10:30	Coffee	Conference Lobby

10:30 - 12:15 Chairperson: G	Session 1 Reshaping construction management for improved and resource efficiency öran Lindahl	Room 1
10:35	Barriers And Challenges In Employing Of Concurrent Engineering Within The Norwegian Construction Projects Johansen Agnar ¹ ; Youcef Zidane ² ; Kjersti Bjørkeng Stordal ³ ; Susanne Van Raalte ³ ¹SINTEF, Norway; ²NTNU, Norway; ³REINERTSEN, Norway	
10:55	Understanding Construction Contractors And Their Operations Strategies Helena Lidelöw; Kajsa Simu Luleå University of Technology, Sweden	
11:10	Stirring The Construction Project Management With Co-creation And Continuous Improvement <u>Jussi Savolainen</u> ¹ ; Kalle Kähkönen ¹ ; Elisa Varis ¹ ; Olli Niemi ¹ ; Jenni Poutanen ² ¹ Tampere University of Technology / RTT, Finland; ² Tampere University on Technology / Architecture, Finland	
11:25	A Motherless Child? Why Construction Projects Fail Hallgrim Hjelmbrekke ¹ ; Jardar Lohne ¹ ; Geir Karsten Hansen ² ¹NTNU, Norway; ²Faculty of Architecture and Fine Art, Norwegian University of Science and Technology, Norway	
11:40	Generalization In Case Studies And Adaptability Of Concepts In Project Execution From The Oil And Gas To The Construction Industry <u>Øystein Mejlænder-Larsen</u> Norwegian University of Science and Technology, Norway	
11:55	Safety, Space And Structure Quality Requirements In Construction Scheduling Marco Alvise Bragadin ¹ ; Kalle Kähkönen ² ¹ University of Bologna, Italy; ² Tampere University of Technology, Finland	

10:30 - 12:15 Chairperson: E		om 2
10:35	A BIM Collaboration Lab For Improved Through Life Support	
	<u>Väino Tarandi</u> KTH, Sweden	
10:55	An Innovative Approach To E-Public Tendering Based On Model Checking	
	Marzia Bolpagni ¹ ; Angelo Luigi Camillo Ciribini ² ; Elisabetta Oliveri ³ ¹ ITC-CNR and Politecnico di Milano, Italy; ² University of Brescia, Italy; ³ ITC-CNR, Italy	
11:10	Design Management In The Building Process: A Review Of Current Literature	
	<u>Vegard Knotten</u> ; Fredrik Svalestuen; Ola Lædre; Geir K. Hansen Norwegian University of Science & Technology, Norway	
11:25	BIM Implementation And Organisational Change: A Case Study Of A Large Swedish Public Client	
	Susanna Vass; <u>Hannes Lindblad</u> KTH The Royal Institute of Technology, Sweden	
11:40	Visual Management In Mid-Sized Construction Design Projects	
	Petra Bosch-Sijtsema; <u>Janni Tjell</u> Sweden	
11:55	BIM-based Collaboration Across Organizational And Disciplinary Boundaries Through Knotworking	
	Hannele Kerosuo Institute of Behavioural Sciences, University of Helsinki, Finland	

10:30 - 12:15	Session 3 Understanding the value of spaces, buildings and built environment	Room 3
Chairperson: J	lukka Heinonen	
10:35	Sustainable Facilities Management And Green Leasing: The Company Strategic Approach	
	Antje Junghans; <u>David Collins</u> Norwegian University of Science and Technolgoy, Norway	
10:55	Life Cycle Costing As An Early Stage Feasibility Analysis: The Adaptable Transformation Of Willy Van Der Meeren's Student Residences	
	<u>Waldo Galle</u> ; Mieke Vandenbroucke; Niels De Temmerman Vrije Universiteit Brussel, Belgium	
11:10	Proposed Aspects For Evaluation Of The Value Of Spaces In Historic Buildings	
	Mari Oline Giske Stendebakken; Eir Ragna Grytli; Nils O. E. Olsson Norwegian University of Science and Technology, Norway	
11:25	Challenges Of Recent Participatory Urban Design Practices In Riga	
	<u>Viktorija Prilenska</u> ; Roode Liias Tallinn University of Technology, Estonia	
11:40	Setting The Carbon Footprint Criteria For Public Construction Projects	
	Matti Kuittinen Aalto University, Finland	
11:55	From The Pilot Project To A Main Stream Practice? Learning Explored In Planning And Design Of A Low-Energy Quarter	
	Susanne Engström; Sofia Lidelöw Luleå University of Technology, Sweden	
12:15 - 13:00	Lunch	Restaurar Käpy

Session 4 Reshaping construction management for improved and resource 13:00 - 15:15 Room 1 efficiency Chairperson: Suvi Nenonen 13:05 Management And Planning Under Complexities Of Metro Constructions Mahdi Khosravi; Kalle Kähkönen Tampere University of Technology, Finland 13:20 Advancement Of Platform Development In Industrialised Building Emma Viklund; Gustav Jansson Luleå University of Technology, Sweden 13:35 Time-Thieves And Bottlenecks In The Norwegian Construction Projects Youcef Zidane¹; Johansen Agnar²; Bjørn Andersen¹; Erfan Hoseini¹ ¹NTNU, Norway; ²SINTEF, Norway 13:50 Managing Cost And Time In A Large Portfolio Of Projects Petter Eik-Andresen¹; Andreas D. Landmark²; Agnar Johansen² ¹Norwegian Defence Logistics Organisation, Norway; ²SINTEF Technology & Society, Norway 14:05 Evaluation And Learning -- Experiences From A Construction Project In Norway Anette Østbø Sørensen1; Anandasivakumar Ekambaram2; Nils O. E. Olsson1 ¹Norwegian University of Science and Technology (NTNU), Norway; ²SINTEF, Norway On The Need For Iterative Real Estate Projects Models - Applying Agile Methods In 14:20 **Real Estate Developments** Nils O. E. Olsson; Anette Østbø Sørensen; Gunnar Leikvam Norwegian University of Science and Technology, Norway 14:35 Take A Chance On Me? Construction Clients' Perspectives On Risk Management Göran Lindahl; Abderisak Adam; Per-Erik Josephson Chalmers University of Technology, Sweden 14:50 The Experience Curve In Bridge Construction Christian Brockmann¹; Horst Brezinski² ¹University of Applied Sciences Bremen, Germany; ²TU Bergakademie Freiberg, Germany

13:00 - 15:15 Chairperson: 0	Session 5 Digitalised construction and real estate management practices Chris Harty	Room 2
13:05	Architectural Competitions And BIM	
	Nils Lykke Sørensen; Anne Kathrine Frandsen; Turid Borgenstrand Øien Statens Byggeforskningsinstitut, AAU CPH, Denmark	
13:20	Circumventing Obstacles In Digital Construction Design A Workaround Theory Perspective	
	<u>Christoph Merschbrock;</u> Alejandro Figueres-Munoz HiOA, Norway	
13:35	Strategies For Representation And Analyzes Of 4D Modeling Applied To Construction Project Management	
	Douglas M. Brito¹; Emerson A. M. Ferreira² ¹SEDUR/BA, Brazil; ²Universidade Federal da Bahia, Brazil	
13:35	The Contemporaneous Use Of Building Information Modeling And Relational Project Delivery Arrangements	ct
	Heikki Halttula ¹ ; Aki Aapaoja ² ; Harri Haapasalo ³ ¹ Vianova Systems Finland Oy, Finland; ² VTT Technical Research Centre of Finland, Finland; ³ University of Oulu, Finland	
13:50	Collaboration With BIM: Learning From The Front Runners In The Norwegian Industry	
	Ketil Bråthen Fafo Institute for Labour and Social Research/The Norwegian University of Science and Technology (NTNU), Norway	
14:05	Challenges Of Implementing New Technologies In The World Of BIM - Case Study From Construction Engineering Industry In Finland	
	Risto Tulenheimo A-Insinöörit Suunnittelu Oy, Finland	
14:20	The Role Of VDC-professionals in The Construction Industry	
	Mathias Gustafsson ¹ ; Pernilla Gluch ¹ ; Sigrid Gunnemark ¹ ; Katharina Heinke ¹ ; Dan Engström ² ¹ Chalmers University of Technology, Sweden; ² Swerea IVF, Swedish Research, Sweden	
14:50	ViBR Conceptualising A Virtual Big Room Through The Framework Of People, Process, And Technology	
	<u>Bharqav Dave</u> ¹ ; Tarja Mäki ² ; Pikas Ergo ³ ; Kerosuo Hannele ³ ¹ Aalto University, Finland; ² University of Helsinki, Finland; ³ Finland	

13:00 - 15:05 Chairperson: N	Session 6 Understanding the value of spaces, buildings and built environment	Room 3
13:05	Analysis Of On-site Construction Processes For Effective External Thermal Insulation Composite System (ETICS) Installation Virgo Sulakatko; Irene Lill; Eneli Liisma Tallinn University of Technology, Estonia	
13:20	Evaluating Sustainability Of Building Projects In Urban Planning Rolf Andre Bohne; Ole Jonny Klakegg; Ola Lædre NTNU, Norway	
13:35	Comparative Analysis Of Current Guidance For The Evaluation Of Building Retrofit Investments <u>Emlyn Witt;</u> Irene Lill; Tiina Nuuter Tallinn University of Technology, Estonia	
13:50	Urban Development Practices As Anticipatory Action LearningCase Arctic Smart City Living Laboratory Sari Hirvonen-Kantola ¹ ; Petri Ahokangas ² ; Marika livari ² ; Merja Heikkilä ² ; Helka-Liisa Hentilä ¹ ¹ University of Oulu, Oulu School of Architecture, Finland; ² University of Oulu, Oulu Business School, Finland	
14:05	Embodied And Construction Phase Greenhouse Gas Emissions Of A Low-energy Residential Building Jukka Heinonen ¹ ; Amalia Pöyry ² ; Antti Säynäjoki ² ; Seppo Junnila ² ; Juha-Matti Junnonen ² ¹ University of Iceland, Iceland; ² Aalto University, Finland	
14:20	Performance Benchmarking In Nordic Water Utilities And The Way Forward Toward Intelligent Utility Leadership Through Smart Water Solutions Osmo Seppälä Finnish Water Utilities Association (FIWA), Finland	s
14:35	Economic Appraisal Of Energy Efficiency In Buildings Using Cost-Effectiveness Assessment Pekka Tuominen ¹ ; Francesco Reda ¹ ; Waled Dawoud ² ; Bahaa Elboshy ² ; Ghada Elshafei ² ; Abdelazim Negm ² ¹VTT Technical Research Centre of Finland, Finland; ²Egypt-Japan University of Science and Technology, Egypt	

15:05 - 15:45	Coffee	Conference Lobby
15:30 - 17:20	Session 7 Innovations for improved construction quality and performance	Room 1
Chairperson: \	/äinö Tarandi	
15:35	The Extent Of Integration Along The Front-end Of The Project Lifecycle: A Marketin Perspective On Two Major Contractors	ng
	Hedley Smyth ¹ ; <u>Illona Kusuma</u> ² ¹ The Bartlett School of Construction and Project Management, UCL, United Kingdom; ² University College London, United Kingdom	
15:55	Theoretical 71-Concept Platform For Advancing Construction-Related Business Management	
	Pekka Huovinen Tampere University of Technology, Finland	
16:10	Social Motivations For Knowledge Sharing In Construction Companies	
	Mary Lundberg; Helena Lidelöw Luleå University of Technology, Sweden	
16:25	The Changing Role Of The Client In Driving Innovation For Design-Build Projects: Stakeholders' Perspective	
	Nida Kilinc ¹ ; Ibrahim Yitmen ² ; <u>Gozde Basak Ozturk</u> ³ ¹ European University of Lefke, Department of Civil Engineering, Gemikonagi, Lefke, Kibri Mersin 10, Turkey; ² Eastern Mediterranean University, Department of Civil Engineering, Gazimagusa, Kibris, Mersin 10, Turkey; ³ Adnan Menderes University, Department of Civil Engineering, Aytepe Mevkii, Aydin, Turkey	
16:40	Towards Business Potential Of Workplace Services In Finland	
	Tuuli Jylhä¹; Mikko Virtaneva¹; Maiju Vuolle²; <u>Suvi Nenonen</u> ¹ ¹Aalto University, Finland; ²Tampere University of Technology, Finland	
16:55	Competitive Dialogue: Driving Innovation Through Procurement?	
	Kim Haugbølle ¹ ; Daniel Pihl ² ; Stefan Christoffer Gottlieb ² ¹ DTU Technical University of Denmark, Denmark; ² Danish Building Research Institute, Aalborg University, Denmark	

Session 8 Other research-based or business-based results having linkage to the 15:45 - 17:05 Room 2 overall conference theme Chairperson: Antti Peltokorpi 15:50 A Framework For Managing Post-disaster Housing Reconstruction Abdulquadri Ade Bilau; Emlyn Witt; Irene Lill Tallinn University of Technology, Estonia 16:10 A Novel Approach On Assessing Daylight Access In Schools Leif D. Houck University of Life Sciences, Norway 16:25 The Balance Of Unbalanced Bidding Johan Nyström VTI, Sweden Stakeholders' Views And Experiences Of Leadership Education In Construction: 16:40 Suggestions For Improvements Christine Räisänen; Josephson Per-Erik; Bert Luvö Chalmers, Sweden 15:30 - 16:45 Session 9 Understanding the value of spaces, buildings and built environment Room 3 Chairperson: Ole Jonny Klakegg The Development Path Of An Academic Co-working Space On Campus - Case 15:35 **Energy Garage** Riikka Kyrö; Karlos Artto Aalto University School of Science, Finland 15:50 Creating Shared Value In A Construction Project - A Case Study Mia Andelin; Jessica Karhu; Seppo Junnila Aalto University, Finland Introduction Of Sustainable Low-cost Housing In Ethiopia -- An Innovation Diffusion 16:05 Perspective Bengt Hjort1; Kristian Widén2 ¹Halmstad University, Sweden; ²Halmstad University, Sweden

Heat Loss Rate Of The Finnish Building Stock

<u>Jaakko Vihola</u>; Jaakko Sorri; Juhani Heljo; Paavo Kero
Tampere University of Technology, Finland

16:20

19:00 - 22:00	Dinner	Näsinneula
Friday, Ma	ay 29, 2015	
09:00 - 10:10 Chairperson: B	Opening session Friday Irian Atkin	Room 1
09:10	Continuous Improvement of Operational Efficiency – The Skanska Way of Leading Change <u>Tuomas Särkilahti</u> Skanska Oy, Finland, Finland	
09:40	Innovative Contract And Project Models In Infrastructure Projects Bjørn Andersen Norwegian University of Science and Technology, Norway	
10:10 - 10:30	Coffee	Conference Lobby

Session 10 Different stakeholders in the real estate and construction sector -10:30 - 12:15 Room 1 Solutions for their integration and management Chairperson: Kim Haugbølle 10:35 Managing End User Experience In Office Fit-Out Projects Liisa Lehtiranta A-Insinöörit Rakennuttaminen Oy, Finland 10:55 Stakeholder Participation For Sustainable Property Development Carlos Martinez; Stefan Olander Construction Management, Lund University, Sweden 11:10 Complex Decision-making Process Of The Public Sector Case Tampere Rantaväylä Terttu Vainio VTT - Technical Research Centre of Finalnd, Finland A Co-creation Centre For University--industry Collaboration -- A Framework For 11:25 **Concept Development** Mervi Huhtelin; Suvi Nenonen Tampere University of Technology, Finland New Boundary Spanners: Emerging Management Roles In Collaborative 11:40 **Construction Projects** Tina Karrbom Gustavsson KTH Royal Institute of Technology, Sweden 11:55 The Struggle Of Multiple Supply Chain Structures: Theoretical Overview

¹Stora Enso OY, Finland; ²Luleå University of Technology, Sweden

Petri Uusitalo¹; Helena Lidelöw²

10:30 - 12:15 Chairperson: C	Session 11 New procurement models and approaches Christian Brockmann	Room 2
10:35	The Beauty Of An Incentivized Capability-and-fee Competition Based Target-cost Contracting	
	Pertti Lahdenperä VTT Technical Research Centre of Finland, Finland	
10:55	Critical Review Of Procurement Method Research In Construction Journals	
	Shamil Naoum; Charles Egbu London South Bank University, United Kingdom	
11:10	Project Delivery Systems In Finnish New Building Construction A Review Of The Last Quarter Century	
	Pertti Lahdenperä VTT Technical Research Centre of Finland, Finland	
11:25	Ethics In Commissioning	
	<u>Lohne Jardar</u> ; Ola Lædre; Iman Shirkavand; Kim Schneider; Martine Firing Norwegian University of Science and Technology (NTNU), Norway	
11:40	Procurement In The Real Estate And Construction Sector (RECS) Preliminary Context-specific Attributes	
	Marika Tuomela-Pyykkönen ¹ ; Kirsi Aaltonen ² ; Harri Haapasalo ¹ ¹ University of Oulu, Finland; ² University of Oulu, Department of Industrial Engineering and Management, Finland	t
11:55	Constructing Health Care Spaces: The Complex Role Of Visualizations In Negotiating Hospital Designs And Practices Chris Harty¹; Kjell Tryggestad²; Peter Holm Jacobsen²	
	¹ University of Reading, United Kingdom; ² Copenhagen Business School, Denmark	

10:30 - 12:35	Session 12	Room 3						
Chairperson: F	ledley Smyth							
10:35	Social And Economic Importance Of Water Services In The Built Environment: Need For More Structured Thinking							
	<u>Tapio Katko</u> ; Jarmo J. Hukka Tampere University of Technology, Finland							
10:55	Resilient Asset Management And Governance For Deteriorating Water Services Infrastructure							
	<u>Jarmo Hukka¹;</u> Tapio Katko² ¹CADWES Research Group, Tampere University of Technology, Finland; ²CADWES Research Team, Tampere University of Technology, Finland							
11:10	Modelling Industrial Projects: Barriers To Innovation							
	<u>Tassia Silva</u> ; Karina Coelho; Silvio Melhado University of Sao Paulo, Brazil							
11:25	A synthesis of studies on renovation profitability							
	Karin Farsäter; Dennis Johansson; Åsa Wahlström; Kristina Mjörnell LTH, Sweden							
11:40	Upgrading Small And Micro Size Companies Business Know-how							
	Eero Nippala ¹ ; Terttu Vainio ² ¹TAMK, Finland; ²VTT Technical Research Centre of Finland Ltd, Finland							
11:55	Advanced Information Management For Finnish Water Utilities							
	<u>Jyrki Laitinen</u> Finnish Environment Institute SYKE, Finland							
12:10	Conflicts And Collaboration In Inter-Municipal Water Planning And Management							
	<u>Vuokko Kurki;</u> Tapio Katko Tampere University of Technology, Finland							
12:15 - 13:00	Lunch	Restaurar Käpy						

13:00 - 14:00 Chairperson: E	Session 13 Different stakeholders in the real estate and construction sector - Solutions for their integration and management Emlyn Witt	Room 1
13:05	Significance Of Knotworking From The Client's Point Of View <u>Jenni Korpela</u> Finland	
13:20	Multi-Disciplinary Discourse On Design Related Issues In Construction Site Meetings Tarja Mäki University of Helsinki, Finland	
13:35	Nordic Campus Retrofitting Concepts Scalable Practices Robert Eriksson ¹ ; Suvi Nenonen ¹ ; Göran Lindahl ² ; Antje Junghans ³ ; Susanne Balslev Nielsen ⁴ ¹ Aalto University, Finland; ² Chalmers University of Technology, Sweden; ³ NTNU, Norway; ⁴ DTU, Denmark	
13:00 - 14:00 Chairperson: \$	Session 14 Stefan Gottlieb	Room 2
13:05	Purchasing Strategies In Industrialized Building: A Comparison Of Australian And Swedish Companies <u>Louise Bildsten</u> Lund University, Sweden	
13:20	Urban Vision A Static Destination Or A Dynamic Process? <u>Eelis Rytkönen</u> ¹ ; Suvi Nenonen ¹ ; Suvi Tuiskunen ² ¹ Aalto University, Finland; ² University of Tampere, Finland	
13:35	Behind The Scenes Of Public Construction Clients Collecting Data On Commissioning Activities And Organizational Approach Pieter Eisma; Marleen Hermans TU Delft, Netherlands	
14:00 - 14:30	Coffee	Conference Lobby

19.00	18.30	13.00 14.10 14.30 15.00 15.05 15.15 15.30						12.15	ב ב ב	10.30	10.10	9.00		
CITY RECEPTION	PhD WORKSHOP												27 May	Wednesday
		Session 7 Chair Väinö Tarandi				Chair Suvi Nenonen	Session 4			Session 1 Chair Göran Lindahl		SMART Se R Global State C Keith Hampson, Sustain		
CONFERENCE DINNER		Session 8 Chair Antti Peltokorpi	COFFEE			Chair Chris Harty	Session 5	LUNCH		Session 2 Chair Bhargav Dave	COFFEE	Opening session Chair Kalle Kähkönen SMARTer Construction - The Internet Of Buildings Seppo Junnila, Aalto University, Finland Seppo Junnila, Palto University, Finland Research, Development & Innovation: Global State Of The Art in Real Estate And Construction Sector Global State Of The Built Environment National Research Centre, Australia	28 May	Thursday
		Session 9 Chair Ole Jonny Klakegg	Session 9 Chair Ole Jonny Klakegg			Cital Malicel licilians	Session 6			Session 3 Chair Jukka Heinonen		and nn: nn: truction Sector esearch Centre, Australia		
				Ω			Session 13 Chair Emlyn Witt	-FU		Session 10 Chair Kim Haugbølle		Continu Tu Innovative Con		
			CREON GENERAL ASSEMBLY	CLOSING SESSION	COFFEE	Session 14 Chair Stefan Gottlieb	LUNCH		Session 11 Chair Christian Brockmann	COFFEE	Plenary session Chair Brian Atkin Continuous Improvement of Operational Efficiency — The Skanska Way of Leading Change Tuomas Särklaht, Skanska Oy, Finland Innovative Contract And Project Models In Infrastructure Projects Bjørn Andersen, Norwegian University of Science and Technology, Norway	29 May	Friday	
			LY						Session 12 Chair Hedley Smyth		ifficiency ge nd ructure Projects Technology, Norway			