

International Online Conference Innovative Technologies and Competence in Construction

March 25, 2021

Transmitted from Riga Construction College, Riga, Gaiziņa street 3

9:30 – 10:00	Registration
Opening speeches by organizers	
10:00 – 10:15	<p>Edmunds Valantis, State Secretary of the Ministry of Economics Normunds Grinbergs, President of the Latvian Constructors Association Renārs Griškevičs, Chairman of the Board by SJSC “State Real Estate”</p>
1. Innovative Technologies in Construction	
10:15 – 10:35	<p>Surface Finish Quality Criteria by Tikkurila Arnis Pastars, Manager of <i>Tikkurila Academy</i> in Latvia The construction industry is constantly evolving, but there is still an unanswered question about the quality of surface finish and its criteria. What are the basic principles to follow when doing finishing with putty or decorative paints? What determines the quality of the surface finish? SIA <i>Tikkurila</i>, a distributor of decorative paints and industrial coatings, answers these questions.</p>
10:35 – 10:55	<p>Stone Paving System for the Urban Environment by MAPEI Grazia Signori, <i>Mapei SpA</i> (Italy) <i>Mapestone</i> – a modern type of urban stone paving in accordance with the standard UNI 11714-1:2018. Nowadays, when the flow of traffic in cities is growing every year, the question of how to ensure high load-bearing capacity of the base, resistance to technical salt, as well as air pollution caused by particulate matter of the road, while preserving the historic road surfaces (paving and stone slabs).</p>
10:55 – 11:15	<p>Bauroc Products in Prodlib Digital Catalog Esko Unga, Production Development Manager of JSC <i>Bauroc</i> (Estonia) Nowadays, 3D and BIM design has become very relevant, so we have integrated <i>Bauroc</i> products into 3D design programs. To facilitate the work of designers, drawings of wall structures and assemblies in various formats have been added, which greatly facilitates the design of energy-efficient buildings using <i>Bauroc</i> products.</p>
11:15 – 11:35	<p>Innovative Waterproofing Solutions for Foundations Jens Classen, International Technical Advisor, <i>Saint-Gobain-Weber</i> (Germany) In the presentation you will learn about waterproofing solutions for underground buildings in accordance with DIN 18533 and EN15814, using bituminous thick-layer coatings (PMBC) and flexible cement-based materials.</p>
11:35 – 11:50	<p>Development of Future Construction Technologies from Formwork Providers Viewpoint Egils Misāns, Member of the Board of <i>PERI</i> Ltd. In the presentation you will learn how technology and digitalization are changing the construction market and how <i>PERI</i> formwork providers are technologically prepared for this change.</p>
11:50 – 12:20	Break

2. A Sustainable Building

12:20 – 12:35	PROMAT Three-wall Smoke Extraction Fire Ducts Vigo Leitholds, Firesafety Expert and Consultant of FN Serviss Ltd. (Latvia) 90% of people who die in fires most likely die from poisonous smoke or suffocation. Therefore, smoke extraction systems play a very important role. This novelty created and certified by PROMAT is able to significantly save space, which is very important in construction, and thus also save materials for the construction of canals, reducing the total cost of such canals.
12:35 – 12:50	New Technologies in the Restoration of Cultural and Historical Heritage Krišjānis Silickis, Senior BIM Project Manager of SJSC "State Real Estate" The future use of digital technologies is crucial not only for sustainability of design and construction quality. By using them effectively, it is also possible to achieve significant long-term financial savings. The use of digital tools is of particular importance in the renovation of cultural and historical buildings, which is always technically complicated – there are many unknown factors in the projects; such findings were made during the reconstruction of Riga Castle. In the renovation and reconstruction of such particular buildings BIM, as well as other digital tools, help the involved parties to collaborate more conveniently, quickly and flexibly.
12:50 – 13:10	CLT Structural Solutions for a Sustainable Building Patrik Andersson, Business Development Director, Saint-Gobain Sweden About Saint-Gobain's guide for the design of CLT buildings, which deals with energy-efficient and acoustically comfortable solutions, taking into account moisture protection, fire safety and environmental impact (carbon footprint).
13:10 – 13:30	Raising Wood Construction Competence – an Urgent Task in Design and Construction Site Andrejs Domkins, Member of the Board, and Edvīns Grants, Researcher and Fire Safety Engineer of SIA Forest and Wood Products Research and Development Institute Ltd. In recent decades new technologies and materials, as well as work organization methods and tools have entered both construction and the development of wood products. This development has been detached from the national pace of development in the industry, so now when wood is rapidly returning into construction, very often both in projects and in the construction process there are ill-considered solutions that both degrade this great material and create additional costs.
13:30 – 13:45	Use of Cloud Technologies in Construction Kirils Pogodins, Chairman of the Board of InfoEra Latvia Ltd. During the Covid-19 pandemic, the need to use cloud technologies for remote work has grown rapidly, especially in cases when Latvian companies cooperate with foreign companies within the framework of one construction project.
13:45 – 14:05	CROSSFIX – Flexible Substructure System for Rear Ventilated Facades Marko Kuk, EJOT Estonia/Latvia Sales Manager (Estonia) CROSSFIX® increases energy efficiency. When specifying façade substructures, it is recommended to use materials with low thermal conductivity in order to prevent the formation of thermal bridges. By using stainless steel, CROSSFIX® reduces the thermal conductivity compared to aluminium constructions. Therefore, EJOT can achieve strongly improved U-values with the same insulation thickness.
14:05 – 14:30	Break

3. Competence in Construction

14:30 – 14:50	<p>Emerging Risk Vectors in the Construction Industry Richard Krammer, Group Practice Leader Construction & Real Estate, <i>GrECo</i> – Europe's largest insurance and risk consultant</p> <p>New materials technologies pave their way into the construction & real estate industry, in an effort to boost productivity and make processes safer and more efficient while increasing the resilience and sustainability of products and works. The session will shed light on the impact on the insurance industry and mid-term consequences to expect.</p>
14:50 – 15:10	<p>Development, Update of Standards for Construction Professions, their Role in Education Normunds Grinbergs, President of the Latvian Constructors Association Mārtiņš Vilnītis, Director of the Construction Technology Institute, Riga Technical University</p> <p>In the presentation you will learn about development processes in construction vocational education at all qualification levels, with an emphasis on professional standards, their development and progress.</p>
15:10 – 15:25	<p>Building Constructors' Competence and Safety Issues on the Construction Site Jānis Ivanovskis-Pigits, Project Director at Real Estate Development Division of <i>SJSC State Real Estate</i></p> <p>Safe work environment is an integral part of construction sites, given that work involves increased risks. Currently, the main focus is on raising the competence of builders and improving the level of work safety on the construction site, within which the principle of construction site design has been changed, performing the necessary safety instructions and inspections before starting work, as well as new requirements in construction contracts.</p>
15:25 – 15:40	<p>The Ability of the Education System to Respond to Innovation Jānis Gaigals, Vocational Education Expert, Ministry of Education</p> <p>In the presentation you will learn how to immediately integrate the acquisition of new innovative technology competencies into existing vocational education programs – for both young people and adults.</p>
15:40 – 16:30	<p>Panel discussion</p> <p><i>What Measures shall be Taken to Enable New Technologies Enter Construction Education?</i></p> <p><i>The above-mentioned speakers of the 3rd session are participating.</i></p>