

PROGRAMME

TUESDAY, 12 MAY	
15.00 - 18.00	Climate Excellence Afternoon at CONECT 2026!

Kick off the conference on May 12, 2026 with inspiring, real-world experiences: Discover how Satekles Biznesa Centrs and its owner, Linstow, achieve near-zero energy consumption with top-level comfort. Enjoy a guided tour through Riga city center.

WEDNESDAY, 13 MAY	
8.15 - 9.00	Registration and coffee

CONFERENCE OPENING		Moderator – Gatis Bazbauers	
9.00 - 9.25	Jana Simanovska	Chair of the Environmental, Climate and Energy Subcommittee of the Saeima (Parliament of Latvia)	
	Maira Indrikova	Vice-Rector for Research, RTU, Latvia	
	Maris Turks	Dean of the Faculty of Natural Sciences and Technology, RTU, Latvia	

PLENARY SESSION I		Moderator – Gatis Bazbauers	
9.25 - 09.55	Peter Lund	Finland	Towards a new generation of energy technologies and systems
9.55 - 10.25	Halliki Harro-Loit	Estonia	The Preconditions and Problems of Dialogic Communication Between People with Divergent Opinions
10.25 - 10.55	Dagnija Blumberga	Latvia	Research Results' Effect on the Economy: What Are the Costs of Delay
10.55 - 11.25	Break		

PANEL SESSION I - ENERGY SYSTEMS TRANSFORMATION AND DECARBONIZATION		Moderator – Anna Volkova	
11.25 - 11.45	Ingo Weidlich	Germany	The Energy Transition of Hamburg - a Case Study for Metropolitan Cities
11.45 - 12.00	Elisa Ghirardi	Italy	Full Decarbonization pathway of Latvian power plant
12.00 - 12.15	Vivita Priedniece	Latvia	The role of energy security in district heating resilience: insights from case studies
12.15 - 12.30	Alois Resch	Austria	Development of a hybrid bidirectional heat transfer station for decentralized feeding of solar energy into district heating networks
12.30 - 12.45	Andrzej Grzebielec	Poland	High-Temperature Fuel Cell Heat Utilization for Cold Storage in Air Conditioning System
12.45 - 13.00	Hesham Ali	Estonia	Comparison of pre-insulated steel and PEX pipes in district heating networks: A life cycle assessment
13.00 - 14.00	Lunch break		

PANEL SESSION II - CIRCULAR ECONOMY AND SUSTAINABILITY		Moderator – Francesco Romagnoli	
14.00 - 14.15	Noman Shabbir	Estonia	Second Life for EV Batteries: Unlocking Estonia's Energy Storage Potential
14.15 - 14.30	Silvia Cardini	Italy	Linking Environmental Impacts and Nutritional Value in a Life Cycle Perspective for Different Dairy Products
14.30 - 14.45	Riina Kärki	Finland	Creating circular economy markets, business models and biobased value chains while boosting the urban-rural symbiosis
14.45 - 15.00	Marielis Haljasorg	Estonia	Exploring Circularity Potential in the East African Textile Sector: A Case Study of Kenya's Leading Textile Factory
15.00 - 15.15	Valerija Kostevica	Latvia	Microwave-Assisted Hydrothermal Carbonization Of Selected Biomasses
15.15 - 15.45	Break		

PANEL SESSION III - WASTE TO PRODUCT, VALUE ADDED PRODUCT		Moderator – Jelena Pubule	
15.45 - 16.00	Andrea Franzetti	Italy	When Bioremediation Meets Circular Economy: Valorization of Organic Wastes for Enhanced Remediation of Hydrocarbon-Contaminated Soils
16.00 - 16.15	Ilze Vamza	Latvia	Valorisation of Mixed Post-Consumer Textile Waste through Mycelium-Based Materials
16.15 - 16.30	Elena Collina	Italy	Valorisation of wire drawing lubricant waste: life cycle assessment of material and energy recovery scenarios
16.30 - 16.45	Julija Gusca	Latvia	Environmental Taxes vs. Beverage Packaging: Are We Doing Enough for the Environment?
16.45 - 17.00	Break		

17.00 - 18.30	POSTER SESSION I	Moderator - Maksims Feofilovs
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19.30	SOCIAL DINNER
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THURSDAY, 14 MAY	
8.15 - 9.00	Registration and coffee

OPENING		Moderator – Julija Gusca	
9.00 - 9.20	Dagnija Blumberga	Professor at Riga Technical University, Latvia	
	Dace Lauka	Professor at Riga Technical University, Latvia	

PLENARY SESSION II		Moderator – Julija Gusca	
9.20 - 9.50	Andra Blumberga	Latvia	Rethinking Climate Policy Design: The Role of Simulation Tools
9.50 - 10.20	Yagut Allahverdiyeva Rinne	Finland	Advancing Photosynthetic Biotechnologies for Fuel and Chemicals Production
10.20 - 11.00	Christian A. Klöckner	Norway	Conflicts about energy transition technology - some psychological approaches
11.00 - 11.30	Break		

PANEL SESSION IV - ENERGY AND ENVIRONMENTAL MODELING		Moderator – Claudio Rochas	
11.30 - 11.45	Anna Trubetskaya	Norway	Sustainable Agriculture products from the Sea: Environmental Assessment of Seaweed Based Fertilizer Encapsulates in Northern Europe
11.45 - 12.00	Gerald Steinmaurer	Austria	Modelling and Energy Efficiency Improvement in Chemical Batch Operations Using Data Driven System Identification
12.00 - 12.15	Azlin Mohd Azmi	Malaysia	Modelling the Economic Viability of Aggregated Building Retrofits in Carbon Markets: Evidence from Malaysia
12.15 - 12.30	Nayrana Dabore-Prado	Austria	Dynamic Modeling and Experimental Validation of a PEM-Based System Integrated with Renewable Power sources
12.30 - 12.45	Ada Castellucci	Italy	Comparative Life Cycle Assessment and Cost Analysis of Bio-hazardous Waste Management Systems: Ulaanbaatar Case Study
12.45 - 13.00	Ruta Vanaga	Latvia	Envisioning Urban Transitions – Creative methods and Virtual imaginative futures for building Sustainable Cities
13.00 - 14.00	Lunch break		

PANEL SESSION V - RENEWABLE ENERGY TECHNOLOGIES		Moderator – Dace Lauka	
14.00 - 14.15	Vladimirs Kirisanovs	Latvia	Alternative biomass for pellet production: be or not to be?
14.15 - 14.30	Youngje Woo	Republic of Korea	Crossover Impact of Moisture and Hydrogen on Net Calorific Value
14.30 - 14.45	Sreenath Sukumaran	Estonia	Evaluating Solar PV Glare near Transport Infrastructure: Implications for Airport and Highway Safety
14.45 - 15.00	Andrew Saleeb	Egypt	Risk assessment frameworks for integrating renewable energy technologies into existing infrastructure: a structured review
15.00 - 15.15	Mohd Basit Wani	Estonia	Design and Optimization of an Off-grid Hybrid Energy System for a Small Island in Estonia
15.15 - 15.45	Break		

PANEL SESSION VI - CIRCULAR BIOECONOMY AND CLIMATE POLICY		Moderator – Ilze Vamza	
15.45 - 16.00	Maarit Kallio	Norway	Costs of meeting the EU's LULUCF target through harvest restrictions
16.00 - 16.15	Zane Kusnere	Latvia	Optimization of Phaffia rhodozyma single-cell protein production by response surface methodology
16.15 - 16.30	Patrick Brandes	Germany	Lineum as Adsorbent for the Recovery of Medium-Chain Carboxylic Acids Produced by Anaerobic Fermentation
16.30 - 16.45	Krista Laktuka	Latvia	Aligning Policy and Practice in Carbon Farming Certification: CarbPol's Experience in Modelling Latvia's Potential
16.45 - 17.00	Break		

17.00 - 19.00	POSTER SESSION II	Moderator - Maksims Feofilovs
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FRIDAY, 15 MAY	
8.30 - 9.00	Registration and coffee

WORKSHOP - DESIGNING POSITIVE ENERGY DISTRICTS: EXPLORING DIGITAL TWINS FOR CLIMATE-NEUTRAL CITIES		Moderator – Ruta Vanaga	
9.00 - 9.20	Janis Kampars	Latvia	Introduction to ExPEDite project and PED Vision Overview of the project and how digital twins support sustainable, climate-neutral urban development.
	Ondrej Kabot	Czech Republic	
9.20 - 9.40	Maris Kalinka	Latvia	Design & Runtime Digital Twin Platform Explore a 3D environment for real-time visualization and analysis of district energy flows and performance.
9.40 - 9.50	Aris Bananos	Greece	Decision Support System (DSS) Learn how planners can evaluate scenarios and make evidence-based investment and planning decisions.
9.50 - 10.10	Kostas Flokas	Cyprus	Citizen Engagement & Mobile Application Discover how gamification and co-creation tools empower citizens to participate in the energy transition.
10.10 - 10.30	Jelena Pubule	Latvia	Energy Modeling & Simulation Tools Test tools that simulate heating and storage solutions at the district level.
10.30 - 10.45	Ivy Yang	Belgium	Related EU Initiatives & Replication Potential Gain insights into BIPED project.
10.45 - 11.00	Coffee break		
11.00 - 12.00	Emilia Risu Kaisla Saastamoinen	Finland	Interactive Session (Co-creation Workshop) Social Impact Assessment of PED: Provide feedback, share ideas, and actively contribute to shaping future urban energy solutions.
	Ondrej Kabot	Czech Republic	
12.00 - 12.45	Hands-on Demonstration & Networking Try out the tools, interact with experts, and explore collaboration opportunities.		
12.45 - 13.00	Janis Kampars	Latvia	Conclusion & Discussion Wrap-up of key insights and open discussion with participants.
	Ondrej Kabot	Czech Republic	
13.00	Lunch		

POSTER SESSIONS

WEDNESDAY, 13 MAY

POSTER SESSION I	
Zane PIKALEJA, Jelena PUBULE, Dace LAUKA	Experimentation and collaboration toward systemic change: development of Bioregion through Transition Arena method
Nidhiben PATEL, Chiara LEGGERINI, Francesco ROMAGNOLI	Implementing Safe and Sustainable by Design: A Life Cycle Costing Approach for Fire Retardant Chemicals in Wood Products
Amrutha RAJAMANI, Giulia BAISSINI, Nidhiben PATEL, Francesco ROMAGNOLI	LCA of Micromobility NCM batteries: Cradle-to-Grave approach
Aivars RUBENIS, Aigars LAIZANS, Raimonds SELEGOVSKIS	Thermal Comfort, Clothing Insulation, and Behavioural Adaptation in Winter Urban Bus Travel
Aiise AVOTINA, Ilze LUKSTA, Jelena PUBULE, Ilze VAMZA	Development of Result-Based Payment Schemes for Carbon Farming
Ance ERDMANE, Dace LAUKA, Julija GUSCA	An Indicator Based Social Life Cycle Assessment Framework for CO ₂ Marine Transport within CCUS Value Chains
Anete KALNINA, Pauls SONDORS, Maksims FEOFILOVS, Agris KAMENDERS, Francesco ROMAGNOLI	Data Specificity in Scope 2 Accounting for Carbon Reporting: A Case Study Using IoT-supported Electricity Measurements
Arturs PALCIKOVSKIS, Inga DABOLINA, Valerij DESHKO, Ilja BORODINECS, Anna PETERMANE	Challenges in Improving Thermal Comfort in Tents
Andreas MUGRA, Olga LIIVAPUU, Yevhen IHNATIEV, Tormi LILLERAND	A Proof-of-Concept Energy Model for an Unmanned Agricultural Robot
Magnus HIJE, Tormi LILLERAND	Passive CAN-Based Energy Monitoring for Low-Voltage Electric UGVs
Linda ANSONE-BERTINA, Linards KLAUVINS, Jarens KVIESIS, Evelina NIEDRITE, Aiise ZOMMERE, Maris KLAUVINS	Polyphenols from three invasive Reynoutria species: extraction, characterization, application
Evelina Petruskaitė, Raimondas Grubliauskas, Vladimir Kirsanovs	Investigation and Evaluation of the Soundscape of the Bernardine garden in Vilnius
Beatrice Benetti, Fosca Conti, Simon Vandeloek, Eveline Peeters, Giulia Maria Caranfa	Effect of Bio-Based Post-Treatments on Water Contact Angle of Mycelium Sheets
Lyudmyla KIRICHENKO, Sergiy YAKOVLEV, Olga MATSYI	SLIDING FRACTAL ANALYSIS OF AIR POLLUTION TIME SERIES FOR ANOMALY DETECTION AND ENVIRONMENTAL MONITORING
Olga LIIVAPUU, Yevhen IHNATIEV, Juri OLT	Mobile Autonomous Energy Station with Battery Swapping for Agricultural Robotics: Design and Commercialization Prospect
Rasa IKSTENA, Erika LAGZDIŅA, Jānis BRIZGA, Raimonds ERNSTEINS, Ivars KUDRENICKIS	ENERGY CITIZENSHIP IN LATVIA: POLICY- PRACTICE GAP
Oleksandr RIABENKO, Petr NOWAK, Eva BILKOVA, Oksana HALYCH	The role of pumped storage power plants in Ukrainian energy market under conditions of military conflict
Yurii SKOB, Oksana PICHUGINA, Sergiy YAKOVLEV, Oleksii KARTASHOV	Computational Modeling of Forest Firebreak Formation by Controlled Hydrogen Explosions
Tautvydas Juknevičius, Aleksandras CHLEBNIKOVAS	Newly Developed Apparatus for Acoustic Agglomeration Research
Megjia VALTERE, Akrysa Akhetova, Tereza BEZRUCKO, Ilze VAMZA, Dagnija BLUMBERGA	Assessment of various lignocellulosic residues for mycelium cultivation
Artis JAUNKLAUVIŅŠ, Francesco ROMAGNOLI, Maksims FEOFILOVS	Comparative Life Cycle Assessment of Alternative Valorisation Pathways for Phragmites australis Biomass
Beate ZLAUGOTNE, Julija GUSCA	Development in Multi-Criteria Decision Analysis research
Karolina Majewska	MCFC as electrochemical devices for CO ₂ capture and production of synthetic fuels

ONLINE – VIRTUAL POSTER EXHIBITION

Gabriele RIGATO, Nihesh MOJHAN, Gordon ELDER, Lorenzo FAVARO, Ameya Pankaj GUPTA, Fosca CONTI	Polyhydroxyalkanoates for Biodegradable Printed Circuit Boards (PCBs): A Review for Bio-Microelectronics
Bernardette Soust-Vedaguer, Daniel Cagigas, Isidro Cortés, Rocio Quiñones, Alicia Vázquez-Cabrera, José Antonio Gutierrez Moreno, María Victoria Montes, Luis Angel Castro, María Dolores Fernández Galvéz, Xabart Oregi, Elisabetta Palumbo, Encarnación Abajo, Francisco Esposandín, Teresa Rojo, Carmen Llatas	Evaluating future embodied and operational carbon emissions of the new building stock in Spain
Bernardette Soust-Vedaguer, Daniel Cagigas, Luis Angel Castro, María Dolores Fernández Galvéz, Isidro Cortés, Rocio Quiñones, Alicia Vázquez-Cabrera, José Antonio Gutierrez Moreno, María Victoria Montes, Elisabetta Palumbo, Carmen Llatas	GeoRecicla: a tool to bridge design and waste management to enable circular construction in Andalusia, Spain

THURSDAY, 14 MAY

POSTER SESSION II	
Santa Zelca, Kristine Rolle, Ilze Vamza	ASSESSING NON-INDUSTRIAL FOREST OWNERS' AWARENESS AND PRACTICES IN MANAGING IPS TYPOGRAPHUS
Olga KRUMPANE	Application of the Spanish Method for Wind Park visual impact assessment
Marita Agate ZIRNE, Vivita PRIEDNIECE	Use of Waste Heat from a Wastewater Treatment Plant in a District Heating Network: A Case Study from Latvia
Anatolij PAVLENKO	Optimizing Energy Consumption in Buildings
Hanna KOSHLAK	PV-Powered Active Glazing for NZEB
Jana CERNEJA, Vivita PRIEDNIECE, Vladimirs KIRSANOVŠ	Assessment Of Air Pollution Potential From Non-Traditional Biomass Fuels
Alina SAFRONOVA, Aiga BARISA, Zane PIKALEJA	Exploring Municipal Decarbonisation Pathways Using a Scenario-Based Decision Support Model
Ritarsis STIVRIŅŠ, Claudio ROCHAS, Agris KAMENDERS	Pillars of Energy Flexibility: Demand-Side Response and Power-to-X
Marta OZOLA, Vladimirs KIRSANOVŠ, Zane KUSNERE	Structuring Biomethane Value Chains As Socio-Technical Systems
Adas Pranckevičius, Aušra Zigmontienė, Ruta Vanaga	Remote Sensing Assessment of Land Surface Temperature and Vegetation Cooling in Vilnius, Kaunas and Klaipėda
Erika ČAPLIKAITE, Raimondas GRUBLIAUSKAS, Karlis VALTERS	Assessment of Quiet areas in Vilnius city and modelling of noise mitigation measures
Sunitha A.P., Yogesh Kumar, Sreekanth Kurungot, Oliver Jarvik	Electrocatalytic Hydrogen Production from Saline Water
Ģirts Bohvalovs, Valerija Kostevica, Andra Blumberga, Dagnija Blumberga	65'536 Emission Reduction Pathways in Latvia's LULUCF Sector
Kristaps Koss, Haralds Siktars, Vladimirs Kirsanovs	Interdisciplinary Laboratory's Operating Principles: Assessment and Prospects
Ilze Luksta, Krista Laktuka, Dagnija Blumberga	Multi-criteria analysis for assessing carbon sequestration practices in agriculture under the EU certification scheme
Hosseini Alimohammadi, Anna Volkova	Energy-Efficient Ventilation Using Hybrid Geothermal Preconditioning and Exhaust-Air Regeneration in AHUs
Rudolfs DREVINSKIS, Taras MIKA, Valerija KOSTEVICA, Ilze VAMZA, Dagnija BLUMBERGA	Microwave-Assisted Hydrothermal Carbonization Of Selected Biomasses With Urea
Lauma Auermane, Maksims FEOFILOVS, Agris Kamenders	Towards Carbon Limit Values for Residential Buildings in Latvia
Marta VIEGLINA, Haralds SIKTARS, Vladimirs KIRSANOVŠ, Ivars VEIDENBERGS	Energy Hub Framework Integration Possibilities in Latvia Based on Examples in Europe
Lelde VISTARTE, Jelena PUBULE	Biogenic Carbon Utilization Potential in the Central Baltic via Agricultural Bio-CCU Value Chains
Aleksandrs ŠČEDROVS, Pauls SONDORS, Maksims FEOFILOVS, Agris KAMENDERS, Francesco ROMAGNOLI	Time-Resolved Energy Attribution Platform For Enterprise Carbon Reporting
Renāte KURME, Aivis KĻAVIŅŠ, Vladimirs KIRSANOVŠ	Integrated Assessment of Sustainable Methanol Production Processes
Giulia Datola, Marta Dell'Ovo, Alessandra Oppio, Maksims Feofilovs, Francesco Romagnoli	Operationalising urban resilience assessment through Nature-Based Solutions: a methodological approach
Sara Allahverdiyeva, Valeria Mezzanotte, Elena Collina, Marco Mantovani, Francesco Romagnoli	Life Cycle Assessment of Euglena gracilis Cultivation under Purple LED Strips Lights
Pablo MORENO-PESTAÑA, Alba ARIAS, Mikel BARRENA-HERRÁN, Olatz IRULEGI	VIP-based interior façade system & digital workflow for energy retrofit
Murad A. Yaghi, Huthaifa Al-Omari, Salem AlEmaishat, Raghad Abu Wadi	Deep Learning for PM _{2.5} Forecasting: An Empirical Comparison of LSTM, GRU, and N-BEATS
Amanda Stürmann	Key Factors Influencing Renewable Hydrogen Development in Latvia
Daniela PUTERE, Terēza BEZRŪČKO, Veronika LIBEROVA, Dagnija BLUMBERGA	Streams Towards Glass Sustainability
Ilze Balcerbule	Blind spots in bioeconomy policy planning in Latvia: the fisheries and aquaculture sector
Undine Gabranova, Andra Blumberga, Zane Pīpkaleja	Evaluating Sustainable Mobility Solutions: A Case Study of a University Campus
Samira SHOKOUHI, Ingo WEIDLICH	Towards a Framework for Exergy-Based Life Cycle Assessment
Jelizaveta Palevska, Anija Loce, Ilze Vamza, Dagnija Blumberga	Towards Sustainable Cleaning Products: Development of a Composite Sustainability Index for Biosurfactants
Heino PIHLAP, Heiki LILL, Heor NILO, Allan TOOMING	Household Electricity Consumption and the Energy Classification of Heat Pump-Heated Buildings
Ilze Katrīna LUMPOVA, Madara RIEKSTA, Gatis BAZBAUERS	Decarbonization of district heating through the lens of the "energy trilemma" – review of current system dynamics modelling approaches
Inguna Bremane	Impact of Technical and Behavioural Measures on Energy Savings in School Buildings
Lakmal Kammangoda Mudalige	Carbon footprint assessment in road construction projects: methods for reducing emissions
Dainis BASS, Oskars SVEDOVŠ, Edgars VIGANTS, Vladimirs KIRSANOVŠ, Ivars VEIDENBERGS, Ieva PAKERE	Electrification Pathways for District Heating in Latvia
Wei-Cheng Wang	Process Evaluation for Electrolyzed Sustainable Aviation Fuel (eSAF)
Lauris Arbidans	Municipal Wastewater Sludge Hydrothermal Carbonisation as a Tool for Removal of Emerging Pollutants

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