

Sep. 28 - Oct. 1, 2021 | Rome, Italy www.sustainableplaces.eu



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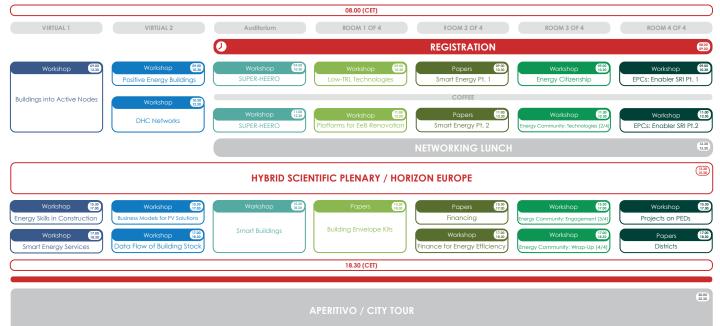




# Agenda Day 1 Tuesday, 28 September Virtual only

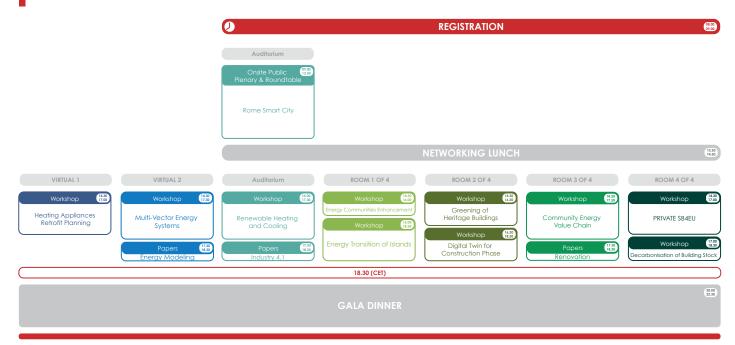


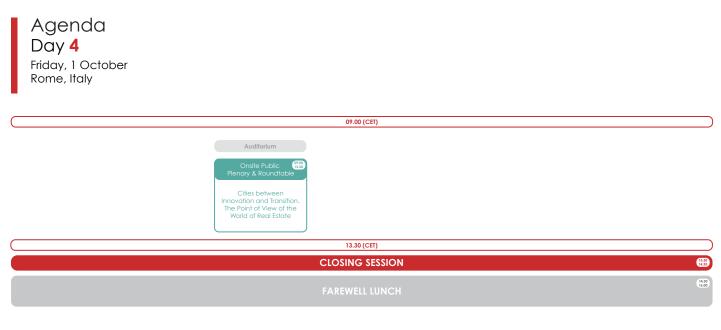




Agenda Day **3** Thursday, 30 September Rome, Italy









# 15.30 - 17.30

"European Energy Community: Business Models (1/4)" - workshop

This 120-minute virtual workshop will involve the following six EU projects, and present innovative business models for energy communities: DECIDE, DRIMPAC, WHY, NEWCOMERS, PARITY, and SocialRES.

# 15.30 - 18.30

#### "Pathways to Energy Efficient Manufacturing" - workshop

This 180-minute virtual workshop will facilitate cross project collaboration for FoF-09-2020 projects (DENiM, ENERMAN, ECOFACT, E2COMATION) to support the development of a more sustainable and energy efficient manufacturing industry.

# 15.30 - 18.00

"Innovative Solutions Towards Building Renovations" - workshop

This 180-minute virtual workshop brings together five H2020 projects (RenoZEB, ReCO2ST, Rezbuild, Plug-n-Harvest, and Heart) developing modular facade retrofit solutions that integrate on-site renewable energy technologies.

# 15.30 - 17.00



Session
2

Session

#### "Positive Energy Buildings and Neighborhoods in Europe: From Policies to Implementation" - workshop

This 90-minute virtual workshop will explore synergies between several sustainable plus energy buildings and neighborhoods (SPEN) projects and identify best practices of local implementation of SPENs across Europe.

# 17.30 - 19.30

Session 1 "From Technical to Regulatory Innovation: The Set-Up and Management of **Renewable Energy Communities** from POCITYF and Other Initiatives" - workshop

This 120-minute virtual workshop will share lessons learnt from interactions held between POCITYF partners and system operators and regulators in order to create renewable energy communities in a regulatory sandbox environment that enables the implementation of innovative features (e.g. dynamic sharing coefficients or P2P energy trading schemes).

# 18.30 - 19.30



# "Future Smart Cities" - paper session

- "IoT Security in the context of Smart Cities" (Virtual delivery: Vanessa Clemente, Worldline Iberia S.A.U)
- "Positive Energy Balance calculations for city districts; two smart city case studies" (Virtual delivery: Andrea Gabaldón, CARTIF; Selma Causevic, George Huitema; TNO)
- "Sustainable cities: A KPI-driven sustainable evaluation framework for Smart Cities" (Virtual delivery: Ana Quijano, CARTIF)

# 17.00 - 19.30



#### "Renovation Cases and Tools Part 1" - paper session

- "Plug and Play Market Solutions for Renovation" (Virtual delivery: Anna Batallé, Fundació Eurecat; Giulia Barbano , IES; Michele Scotton, UniSmart)
- "Decision-making aid tool to support renovation of buildings with industrialised all-in-one technology solutions" (Virtual delivery: Cristina Jareño Escudero, Instituto Valenciano de la Edificación)
- "Influencing decision-making processes in public energy efficiency projects: wider benefits as a driver for deep building renovation" (Virtual delivery: Sebastian Botzler, Technical University of Munich)
- "Long term monitoring strategies for increasing EPCs reliability" (Virtual delivery: Graziano Salvalai, Politecnico di Milano)



- "Tools for Data Driven Renovation Design the BIM4REN solutions" (Virtual delivery: Giulia Barbano, IES)
- "Framework for evaluating financial impacts of technical risks related to energy efficient renovation of commercial office buildings" (Virtual delivery: Cristian Pozza, Eurac Research)
- "Energy Poverty and its policy implications in Central and Eastern Europe and the former Soviet Union republics" (Virtual delivery: Senta Schmatzberger, Buildings Performance Institute Europe)
- "Rehabilitation of the Citadel of Cascais- Presidential Summer Palace" (Virtual delivery: Pedro Vaz, Presidência da República)
- "BIM-based holistic tools for Energy-driven Renovation of existing Residences" (Virtual delivery: Giorgos Giannakis, Hypertech)





# 09.00 - 12.30

"Data and Intelligence Sharing for Transforming **Buildings into Active Nodes** in the Future Energy System" - workshop

This 180-minute virtual workshop will explore how buildings are no longer perceived merely as depreciating assets but are transforming themselves into smart buildings which are associated with the generation of vast amounts of data.

## 09.00 - 10.30

#### "Positive Energy Buildings - Definition" - workshop

This 90-minute hybrid workshop defines Positive Energy Buildings (PEB) which have been discussed among three sister projects, funded under the H2020-EU.2.1.5.2/Call (Cultural-E, EXCESS, syn.ikia). To arrive at a wider agreement on the terminology and boundaries for PEBs, the three projects will discuss their findings with a bigger group of stakeholders working on PEBs or related fields.



VIRTUAL

2

09.00 - 12.30

"SUPER-HEERO" - workshop



# 09.00 - 10.30

пом 1/4

#### "Low-TRL Renewable Energy Technologies" - workshop

This 90-minute hybrid workshop will bring together seven low-TRL EU-funded research & innovation projects (REGEN-BY-2, SELECTCO2, CITYSOLAR, PRODIGIO, X-ROTOR, TELEGRAM, and NextGenRoadFuels) developing the next generation of renewable energy technologies that will form the backbone of the energy system by 2030 and 2050.

# 09.00 - 10.30



#### "Smart Energy Management Part 1" - paper session

- "Distribution grid energy flexibility: the Ebalance-Plus technologies developed for the University of Calabria Demo Site" (Hybrid delivery: Anna Pinnarelli, University of Calabria)
- "ModSCO. An online tool based on grey-box model to estimate energy savings in buildings" (Hybrid delivery: Alessandro Piccinini, Federico Seri, Letizia D'Angelo; NUIG)
- "Promoting co-creation as intermediation for household demand response solutions" (Hybrid delivery: Aggeliki Aggeli, Aalborg University Copenhagen; Marten Boekelo, Duneworks)
- "Data Security in Smart Grids" (Hybrid delivery: Bushra Cannan, University of Haute Alsace France)
- "Advances in distributed generation sources digital twins design" (Hybrid delivery: Ivan Todorović, Ivana Isakov; Faculty of Technical Sciences)

# 09.00 - 10.30



#### "Energy Citizenship in New Energy Concepts" - workshop

The 90-minute hybrid workshop aims at presenting and discussing the methods, strategies and expected impacts for citizen engagement applied in six different research and innovation projects (ATELIER, +CityxChange, ENERGE, MakingCity, mySmartLife, Pocityf) on positive energy districts.

# 09.00 - 12.30



# "Building Energy Performance Certificates (EPCs): The Enabler Smart Readiness Indicator (SRI)" - workshop

This 90-minute hybrid workshop is set against the backdrop of the ongoing SRI implementation and further development (futureproofing) at both EU and national levels. The members of the Next Gen EPCerts H2020 cluster join forces with the SmartBuilt4EU team with the main scope of providing support to the European Commission services (& contractors) and the EU's Member States in the upcoming SRI national testing and the ongoing development of the SRI.

# 10.30 - 12.30

# "DHC Networks in European Innovation Projects" - workshop

The objective of this 120-minute virtual workshop is to share experiences and lessons learnt among different district heating and cooling (DHC) demo sites involved in European innovation projects (WEDISTRICT, REWARDHEAT, RELATED, and MATCHUP) joined to interested stakeholders who could exchange new ideas, lessons learnt, proposals, etc.

# 11.00 - 12.30



2

#### "Eco-Systems and Platforms for EeB Renovation" - workshop

This 90-minute hybrid workshop is led by BIM-SPEED project which is an acronym for "Harmonized Building Information Speedway for Energy-Efficient Renovation". 'BIM for renovation of existing residential building stock' has been proven viable in innovative pilot projects by the members of BIM-SPEED consortium, among others in H2020 Smart Cities.

# 11.00 - 12.30



# "Smart Energy Management Part 2" - paper session

- "ECOQUBE Al driven smart data centers" (Hybrid delivery: Mohan Gandhi, Razi Ahmadi Khordkeili; SDIA; Cagatay Yilmaz, Lande)
- "Smart Meter Inclusive (SMI): Artificial intelligence for proactive energy management by end users" (Hybrid delivery: Djaffar Ould Abdeslam, University of Haute Alsace France)
- "Practical security analysis of German smart metering systems" (Virtual delivery: Ivan Rigoev, ivESK, Offenburg University)
- "Smart5Grid Demonstration of 5G solutions for SMART energy GRIDs of the future" (Hybrid delivery: Milena Tsoleva, Krasimir Vlachkov, Daniel Shangov; ESO EAD)

# 11.00 - 12.30

# "European Energy Community: Technologies (2/4)" - workshop

This workshop will involve the following seven EU projects presenting innovative technologies for energy communities: ELAND, IFLEX, LOCAL RES, MUSE GRIDS, SMARTBUILT4EU, ENEURON, and ACCEPT.

# 17.00 - 18.30

коом 4/4

ROOM **3**/4

# "Districts of tomorrow" - paper session

- "The impact of e-mobility in Positive Energy Districts" (Hybrid delivery: Tony Castillo-Calzadilla, University of Deusto)
- "The Positive Energy District ATELIER project, 2 years of intense experience" (Virtual delivery: Rudy A. Rooth, Municipality of Amsterdam; Mark van Wees, Amsterdam University of Applied Sciences)
- "Towards positive energy districts in smart cities: A data-driven approach using aggregation and disaggregation of energy balance calculations" (Virtual delivery: Selma Causevic, George Huitema; TNO)



- "Online EnergyMatching Platform to support the Renewable Energy Sources harvesting in buildings and districts" (Hybrid delivery: Jennifer Adami, Eurac Research)
- "Direct current microgrid to enhance sustainable local energy generation and storage in a Finnish residential district Tigon project" (Hybrid delivery: Alessandra Cuneo, RINA Consulting)
- "Technology selection assistance tool for Positive Energy Districts" (Virtual delivery: Andrea Gabaldón, CARTIF)



# 15.30 - 17.00

#### "Sustainable Energy Skills in the Construction Sector 2.0" - workshop

This 90-minute virtual workshop joins together ten EU projects (INSTRUCT, BUSLeague, TRAIN4SUSTAIN, HP4AII, The nZEB Roadshow, PRO-Heritage, CraftEdu, BIMzeED, ARISE and SEEtheSkills) to expose their approach (and / or results) and discuss potential synergies to stimulate future public and private investments in energy-based habitat renovation. The specific focus is to accelerate the training and certification of craftsmen in the construction and fitters' industries and allow these sectors to fully embrace innovative technologies, products, and systems in the energy for buildings field.

# 15.30 - 17.00



# "Innovative Business Models for European PV Solutions" - workshop

This 90-minute virtual workshop will demonstrate how innovative European produced PV/PV related products are becoming financially competitive on the global market, particularly the solutions coming from three projects (SUPER PV, BIPVBOOST & EnergyMatching).



# 15.30 - 18.30



This 180-minute hybrid workshop explores smart technologies in buildings as a cost-effective means to assist in creating healthier and more comfortable buildings with a lower energy use and carbon impact. Smart technologies can also facilitate the integration of renewable energy sources in future energy systems. They can also digitalize the construction phase and enhance health & safety, optimize workflow management and quality control while lowering the overall energy use.

# 15.30 - 18.30



"Modularity and Industrialization of **Building Envelope Kits**: Challenges, Propositions and Barriers Towards Deep Renovation" - workshop

This workshop elaborates a conceptual framework to assess the preconditions and KPIs that need to be met to benefit from a modular product strategy in the deep-renovation market to which industrialization and modularity are relative new concepts. Five H2020 projects (DRIVE 0, STEP UP, ProGETonE, INFINITE, PLURAL, ENSNARE) will explore these new strategies for deep renovation as a contribution to the EU Renovation Wave.

# 15.30 - 17.00

коом 2/4

#### "Financing the Energy Transition" - paper session

"Smart Buildings: Defining R&I Priorities" - workshop

• "Data collection to support energy efficiency finance in the building sector" (Hybrid delivery: Eddie Streng, Joule Assets Europe)

• "The EN-TRACK energy efficiency performance tracking platform for benchmarking savings and investments in buildings. Data model development" (Hybrid delivery: Edgar Martínez S., Stoyan Danov; CIMNE Beegroup)



• "Extended Public-Private Partnership for Investment in Smart Energy Efficiency Projects in a Social Housing context" (Hybrid delivery: Paola Zerilli, University of York; Angelo Giordano, Alessandra Cassisi; CiviESCo; Juergen Ritzek, EEIP; Chiara Pocaterra, Apre)

• "Smart governance: an investigation into participatory budgeting models" (Hybrid delivery: Sandra Treija, Uģis Bratuškins, Alisa Koroļova; Faculty of Architecture, Riga Technical University; Arnis Lektauers, Department of Modelling and Simulation, Faculty of Architecture, Riga Technical University)

# 15.30 - 17.00

#### "European Energy Community: Social Engagement (3/4)" - workshop

This workshop will involve the following seven EU projects presenting social engagement strategies for energy communities: RENAISSANCE, COMPILE, SENDER, ECREW, LIGHTNESS, REDREAM, HESTIA.

# 15.30 - 17.00

"Evaluation and Learning in Complex Interdisciplinary Research and Innovation Projects – The Example of Horizon 2020 Innovation Action **Projects on Positive Energy Districts**" - workshop

This is a 90-minute hybrid workshop is led by the ATELIER project. In R&I projects, evaluation frameworks and processes (including impact assessments) are closely related to learning frameworks and processes. Currently, in the H2020 Smart Cities and Communities programs, 6 projects deal with PEDs with in total 12 Light House Cities, involvement of more than 100 other cities, and in total a few hundred partners.



3/4



# 17.00 - 18.30

"frESCO and SENSEI Explore the Opportunities for **Smart Energy Services** Leading to New Business Models that can Unlock the Potential of Residential Consumers and Domestic Building Stock to Contribute to Future Energy Efficiency and Flexibility" - workshop

This 90-minute virtual workshop will commence with a review of P4P (Pay-for-Performance) schemes put in place by regulators and utilities, mostly in North America, to promote energy efficiency and reduce the costs of the energy transition.

#### 17.00 - 18.30



#### "Building a Sustainable and Meaningful Data Flow of the EU Building Stock" - workshop

This 90-minute virtual workshop will spotlight the potential, status, and possible pitfalls of large-scale and systematic building data collection in Europe for promoting a cost- and energy-effective transformation of the EU's building stock. BuiltHub, along with its H2020 sister projects MATRYCS, BIGG and BEYOND, are innovating to tackle this challenge from building to EU level.

# 17.00 - 18.30



#### "Integration of Finance for Energy Efficiency" - workshop

This 90-minute hybrid workshop explores how investing in energy efficiency directly affects reducing energy consumption, while also improving industrial competitiveness and driving economic growth. The lack of best practices and statistical data on the actual energy and cost savings achieved by implemented energy efficiency projects and payment default rates, causes financial institutions to attribute high-risk premiums to energy efficiency investments. EEnvest, Triple-A, Quest, Launch and Citizee are the H2020 sister projects participating in this workshop.



# 17.00 - 18.30

**3**/4

# "European Energy Community: Wrap-Up (4/4)" - workshop

This workshop will provide conclusions from the previous three 90-minute sessions (i.e. business models, technologies, and social engagement) on energy communities involving various EU projects.





# 14.30 - 17.00

"Heating Appliances Retrofit Planning: Motivating Consumers to Use More Efficient Heating Systems" - workshop

This virtual 180-minute workshop aims at raising consumers awareness to the opportunities underlying the planned replacement of their old and inefficient heating appliance. This is done by supporting the consumer in the identification of the energy (in)efficiency of their current heating equipment and the saving opportunities deriving from its replacement with a more energy efficient solution.

# 14.30 - 17.30

VIRTUAL

2

Auditorium

# "Facilitating Local Multi-Vector Energy Systems with the E-LAND Toolbox" - workshop

This 180-minute virtual workshop explores how Local Energy Systems (LES) pose important challenges in their operation due to their weak interconnection with the bulk power system. One of the goals of the European-funded H2020 project E-LAND is to provide a synergistic solution for optimal planning and operation of multi-vector LES and isolated communities (considering electricity, gas and heat networks), through a set of advanced tools.

# 14.30 - 17.30

# "Renewable Heating and Cooling Solutions for Buildings and Industry" - workshop

This 180-minute hybrid workshop involves experts from the biomass, geothermal, solar thermal and heat pump sectors to discuss a common strategy for increasing the use of renewable energy technologies for heating and cooling in buildings and industry. Following an introductory presentation of the RHC Projects Database by Dan Stefanica of EHPA, five clusters of EU projects shall be presented. Specifically, (i) RHC for industrial applications: HYCOOL, SHIP2FAIR, ASTEP; (ii) Storage solutions for RHC support in buildings: HYBUILD, SWS Heating, SCORES, Ministor; (iii) Innovative solutions for RHC deployment in buildings: InnovaMicroSolar, SolBio-Rev, TriHP, RES4BUILD; (iv)



Demonstration actions for RHC in buildings: GEOFIT, SunHorizon, HybridBioVGE; and (v) Towards NZEB deep renovation with RHC technologies: barriers or challenges: ENSNARE, INFINITE, POWERSKIN, PLURAL, ENVISION.

#### 14.30 - 16.00

#### "Energy Communities: How Tools Can Facilitate their Enhancement" - workshop

This 90-minute hybrid workshop has the aim to facilitate the interaction between the speakers and the audience to discuss how the set-up, design and management of energy communities could be facilitate by the adoption of tools from different perspectives (municipalities/users/aggregator/DSO etc..). The discussion will provide suggestions and ideas on how to improve the current set of tools already available and identified the skills each tool must have to support energy communities all over Europe.

# 14.30 - 16.30

коом 2/4

1/4

#### "Training Craftsmen on the Greening of Heritage Buildings" - paper session

This 90-minute hybrid workshop is led by the PRO-Heritage project which stands for "Training craftsmen on the greening of heritage buildings." There are many historical buildings in Europe that need frequent quality conservation. Unfortunately, today, there are few craftsmen with appropriate skills and competences. To solve this, the EU-funded PRO-Heritage project will establish a permanent education resource for professionals and craftsmen providing excellent competences and skills for built heritage and support the exchange of those competences and skills across Europe.



# 14.30 - 17.30

#### "Community Energy Systems from the Full Value Chain Perspective" - workshop

The aim of this workshop is to address community energy systems (CES) from different perspectives within the commercial sector, sharing the perspectives from AECOO (Architecture, Engineering, Construction, Owner Operators) companies, businesses, and owners. This full overview of CES will have a non-technical approach focusing on financial models and regulation, and a technical approach focusing on energy management platforms, cloud aggregation and digital twinning as enabling technologies for CES projects. business models, technologies, and social engagement) on energy communities involving various EU projects.

### 16.00 - 18.30



ROOM 3/4

#### "Clean Energy Transition of the Islands in H2020-Funded Projects: Present and Future Trends" - workshop

This workshop will present the point of view of the principal H2020 funded projects in the framework of clean energy transition on islands, thus consolidating their collaborative approaches and presenting new perspectives. This collaboration among all the projects aims at a cross fertilization to scale up the impact of the initiative, creating synergies and involving the different communities to take advantage of lessons learnt and already tackled issues. Hence, this workshop will involve projects for an overall of 180 partners from all over Europe and 95 million of Euros of funding. The scope of the workshop is to present the results and the future approaches among the different areas faced during the previous webinars, increasing the awareness, and focusing on strategies and practical solutions for decarbonization and energy efficiency on islands. In parallel, information on NESOI funding opportunities and advancements will be introduced: given the innovative focus of the second call for projects, interested parties will be encouraged to acknowledge the latest advancements in term of island energy transition in Europe.



# 16.30 - 18.30

#### "The Challenges of Creating Digital Twin for the Construction Phase" - workshop

This 120-minute hybrid workshop will consist of several presentations on the chosen topic, specifically the challenges recognized by 4 EU projects: COGITO, BIMprove, BIM2TWIN and ASHVIN. Additionally, a small-scale sensor technology called SEMS (Simplified Emissions Measurement System) capable of rapidly measuring emission data will be presented by Professor Jochen Teizer from Aarhus University, Denmark. Overall challenges to be addressed during the workshop are sensing, data, people, security and privacy, process, project time overruns, project efficiency, etc.

# 17.00 - 18.30

**4**/4

2/4

"Decarbonization of the EU Building Stock: Innovative Approaches and Affordable Solutions Changing the Market for Building Renovation" - workshop

This workshop will bring together a selection of H2020 EU-funded projects that are promoting holistic consumer-centered building renovation solutions that involve the whole value chain, ensuring high levels of comfort and a high quality of the indoor environment. The workshop will be divided in two sections: (i) allowing first to present progress and intermediate results from more advanced projects (TURNKEY RETROFIT, TripleA-reno, HIROSS4all); (ii) and then those introducing some new projects that have recently started, allowing them to present their objectives and expected impacts, and potentially to identify synergies with the above group (re-Modulees, Save the Homes, Superhomes2030).

# PLACES 2021

# 17.30 - 18.30



# "Renewable Energy Modeling" - paper session

- "MPC for a single-family house with a heat pump and PV installation" (Virtual delivery: Laura Zabala Urrutia, Tekniker)
- "An innovative modelling approach based on building physics and machine learning for the prediction of indoor thermal comfort in an office building" (Virtual delivery: Dimitris Ntimos, IES)
- "Assessing and Mapping the Technical Generation Potentials from Renewable Energy Sources in the Tri-national Upper Rhine Region" (Virtual delivery: Barbara Koch, Zeina Najjar; University of Freiburg, Chair of Remote Sensing and Landscape Information Systems)
- "Citizen energy cooperatives in the Upper Rhine Region: Commoning issues in the transition towards a decarbonised and decentralised future" (Virtual delivery: Philippe Hamman, University of Strasbourg; Societies, Actors and Government in Europe)

# 17.30 - 18.30

# "Industry 4.1" - paper session

- "The development of a digital counterpart to aid decision support on energy consumption of an active manufacturing process" (Hybrid delivery: Liam Morris, University College Cork)
  - "Alliance 4 Energy Cooperation in European Industries" (Hybrid delivery: Francesco Peccianti, Fabrizio Guarrasi; RINA Consulting)
  - "IoTwins- Distributed Digital Twins for industrial SMEs: a big-data platform" (Virtual delivery: Daniele Sangiorgi, ART-ER S. Cons. p. A.)
  - "The benefit of Energy Cooperation across Europe: R-ACES project" (Virtual delivery: Agata van Oosten, Institute for Sustainable Process Technology)



# 17.30 - 18.30

**3**/4

# "Renovation Cases and Tools Part 2" - paper session

- "Potential for a reduction of the carbon dioxide emissions of Czechia by renovating the national building stock" (Hybrid delivery: Antonín Lupíšek, Czech Technical University in Prague, University Centre for Energy Efficient Buildings)
- "The development of an information-exchange framework to address the communication and coordination bottlenecks in the zero-energy renovation process" (Hybrid delivery: Thaleia Konstantinou, Delft University of Technology)
- "Prefabricated plug&play façade unitized for deep retrofitting: the RenoZEB case study" (Virtual delivery: Laura Vandi, Focchi)
- "Rehabilitation of the Sacramento Convent- former president's office" (Hybrid delivery: Pedro Vaz, Presidência da República)