# **SUSTAINABLE** PLACES **2022** Sep. 6 - Sep. 9, 2022 | Nice, France

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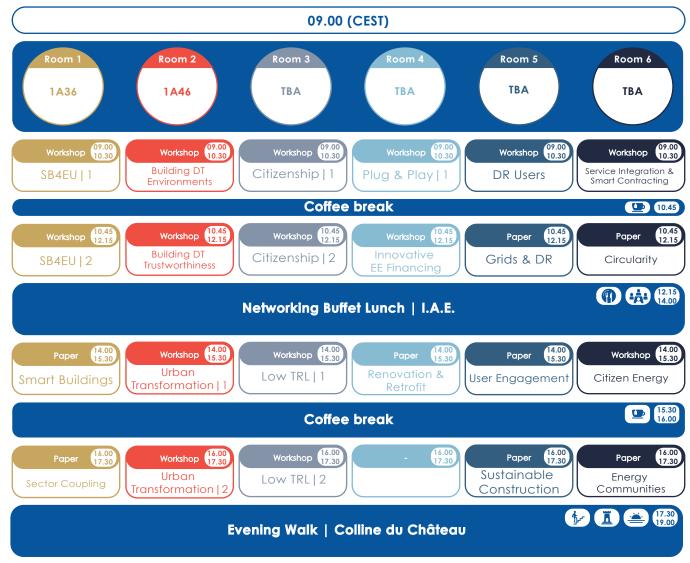
	09.00 (CEST)	
		07.00
	Potential pre-event private meetings	
	Registration & welcome coffee	(13.00)
	14.00 (CEST)	
Room 1 Auditorium		
	Plenary Opening	
	Innovate with France	
	Break	16.15
	Parallel sessions & EU Info Day	16.15
	Welcome cocktail	17.00



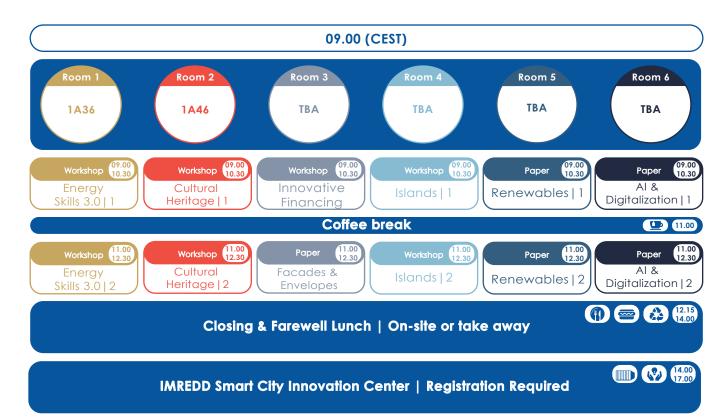














# Detailed Agenda Day 2 Wednesday, 7 Septémber Centre Universitaire Méditerranéen (C.U.M.)

# 08.30 - 11.45



"Renewable Heating and Cooling for Buildings and Industry Workshop 3rd Edition" – workshop (hybrid)

This workshop is a continuation of the two previous RHC for Buildings and Industry Workshop at SP2020 and SP2021. Focused on the same topic which brought together a selection of H2020 EU-funded projects involving 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 for buildings and industry. Projects are again invited to pitch their progress and achievements to date. Interactive discussion slots will allow for opportunities to identify possible synergies, cooperation on horizontal issues or potential joint dissemination activities to maximise expected impacts.

# 08.30 - 10.00

Room 2 Salon Rouge

#### "BIM-SPEED - Final Project Insights" – workshop (hybrid)

The mission of BIM-SPEED was to take 'BIM for renovation' to a deep renovation level for at least 60% energy saving, and to accelerate the market uptake across the EU. Within the workshop we will present the final project results with a focus on the BIMSpeed platform, innovative tools to accelerate renovation, the BIM-Speed standardized use cases, the BIMSpeed ontologies, and examples from demonstration projects that illustrates the utility of implementing BIM to support renovations. During the workshop we will also announce and honor the winners of the BIM-Speed competition.

# 08.30 - 11.45



"Al and Ethics in manufacturing: how Al can be accepted by humans in manufacturing" – workshop (hybrid) Artificial Intelligence (AI) is entering many different sectors, not last the manufacturing one. Due to the need of collecting large quantity of data and to the powerful outcomes that can be generated, AI can affect not only processes and products, but also how persons work and interact each other. Furthermore, AI could acquire sensible data but also influence people's behaviour by implementing logics and decisional processes that are not fully transparents to people. These aspects are generating debates and requests for regulations, code of conducts, standards and, more in general, trustworthiness request for any AI-driven service. Scope of the workshop is to share experience from developers, end users, standardisation, and legal experts.

# 08.30 - 10.00

Room 4

#### Virtual

#### "Smart Meter Rollup: Learnings from across the EU" – workshop (online)

This workshop will aim to promote and disseminate learnings about the pros and cons of various approaches to rolling out smart meters across the EU, taking Spain, Bulgaria, and the UK as case studies. The objective of this dissemination is to provide cross-border insight to policymakers who may be operating in national "silos", with the final desired outcome of



Detailed Agenda Day 2 Wednesday, 7 September Centre Universitaire Méditerranéen (C.U.M.)

improving the effectiveness of smart metering across Europe, particularly where metering has not yet been rolled-out en masse. The output of the workshop will result in a set of policy recommendations, addressing the needs and barriers from a cross-national perspective.

# 10.15 - 11.45

#### "Digitalization of the Building Sector: A Key Enabler for the Renovation Wave" - workshop (hybrid)

During the workshop, digital construction experts and representatives of four different EU-funded projects focusing on the application of BIM and circular methods to energy-efficient renovations will discuss the ever-present topic of digitisation of the construction sector. Each project will offer a testimony of the high potential of digitisation to achieve the goals set by the EU Renovation Wave. The workshop will be closed by a round table discussion on current trends and future perspectives of digitisation in energy-efficient renovations as well as the main concrete benefits of using digital tools in renovation processes and how BIM can have an impact not only on large companies, but also on construction SMEs, which are the main players in the renovation market.

# 10.15 - 11.45

Virtual

Room 2

Salon

Rouge

#### "Integrating tried-and-tested solutions for deep renovation of the EU building stock" – workshop (online)

Complex problems call for innovative, holistic solutions. Improving energy efficiency of European buildings requires interventions across the whole value chain, and the mobilisation of all sectors –government, private enterprises, research/academia and civic society. Technical solutions and best practices are already available. The workshop aims to highlight the common and complementary insights and solutions contributed by the four projects, effectively and reliably leading to high performance, deep renovations. A high degree of interactivity is foreseen, with the audience being able to set questions in advance and during the live event.

# 14.45 - 18.00

#### "Ontologies in Digital Twin" - workshop (hybrid)

Salon Rouge

Room 2

This workshop gathers EU-funded projects which develop a construction-phase digital-twin data model, and their ontological representation, capable of capturing all data requirements for the digital representation of building and/or infrastructure construction sites. Each project representative will share the knowledge and experience regarding the main topic, presenting lessons learned and recent results relevant to each project phase.



#### 14.45 - 18.00

Room 3 Salon Gris

#### "EU Construction Open Innovation Test Beds as drivers for SME product development" - workshop (hybrid)

Open Innovation Test Bed (OITBs) are clusters of laboratories, testing infrastructure and innovation service providers that work collectively under a single-entry point to facilitate SMEs in the development, TRL advancement and commercial scale up of innovation products and technologies. This workshop will bring together three OITBs funded under the Horizon call topic: DT-NMBP-05-2020 - Open Innovation Test Beds for materials for building envelopes collectively representing €45 million euro of R&D funding. Each project is creating an ecosystem to drive sustainability, innovation and SME competitiveness.

## 14.45 - 18.00

#### "Measuring Building Performance and Operational Rating" – workshop (hybrid)

Auditorium

Room 1

The goal of this workshop is to ensure an open co-creation process maximizing quality, relevance, utility, and effectiveness while avoiding reinventing the wheel and ensure a coordinated and convergent approach. Such an approach would greatly support the digital transformation of the EU's building stock which in turn will enable and facilitate to arrive by 2050 at healthy, safe, efficient, flexible, and zero-emission buildings for the people. The main expected outcome is to leverage to the benefit of EU's climate and energy goals the ongoing coordination, support, and innovation actions in the next steps of the EPBD's revision and its subsequent transposition, implementation and monitoring and the way the package of policy instruments will be meaningfully weaved together.

#### Room 1

#### 09.00 - 12.15

# 1A36

#### "Innovations for upgrading smartness of buildings" – workshop (hybrid)

This workshop will first propose a status update on the testing and implementation of the SRI indicator across Europe, with an outline of the supporting framework and activities provided by the SmartBuilt4EU project. This will then be followed by presentations from several EU-supported Innovation projects (Auto-DAN, Smart2B, COLLECTIEF, PRECEPT, SATO and iBECOME) which will pitch the value proposition of their expected smart buildings innovations and associated impacts.

## 09.00 - 10.30

# Room 2 1A46

Room 3

**TBA** 

The Simulation workgroup of the Building Digital Twin Association (BDTA) is promoting several simulation standards and SIMBOTS to be used in building digital twins. These standards are needed to get better interoperability between software platforms and to reduce the cost of the implementation. Mathematical Simulation is oriented to real-time and software in the loop, but it can be used for all the phases of the building: design, commissioning or life cycle exploitation. A presentation of a previous workshop at BDTIC2022 can be found here: https://youtu.be/Z6LVrWMNVvw. BDTA is looking for partners to implement and support future standards.

"Simulation for real-time/AI enabled by Building Digital Twin Environments" – workshop (hybrid)

# 09.00 - 12.15

#### "Energy citizenship: Must or myth? The impact of citizen participation on local energy systems" – workshop (hybrid)

The workshop aims at presenting and discussing the methods, strategies and expected impacts for citizen engagement applied in seven different research and innovation projects about Positive Energy Districts. The workshop presents the different citizen engagement frameworks, models and strategies, their impact and lessons learned, and explores how important citizen engagement really is for the success of new energy concepts. Also discussed will be the question of how to assess and compare the impact of citizen engagement strategies across projects.

# 09.00 - 12.15

**TBA** 

#### "Off-site 'Plug-and-Play' prefabricated opaque and transparent multifunctional envelop systems: Lessons learnt and Visions" – workshop (hybrid)

The six projects that take part in the workshop develop such hybrid Plug-and-Play systems. They come together to exchange experiences and map the technological challenges for the adoption of the developed technologies.



The Workshop is structured around three topics: a) Overview of the technological developments achieved in each project; b) based on the project developments group active-passive-hybrid technologies in terms of their technical characteristics; c) use the technology mapping to assess the technology potential to contribute towards NZEB and positive energy targets.

## 09.00 - 10.30

# "Fostering user engagement for innovative demand response for effective flexibility" – workshop (hybrid)

The workshop deals with user research and engagement as the key driver for innovation of digital & technology-based demand response solutions, with the aim to frame a good user experience and an effective energy & flexibility performance, which will help customers engage more in new energy services. The workshop will offer an overview on experiences from user engagement activities at the pilot sites of the 5 sister projects and will focus on knowledge exchange to improve implemented strategies, tools, and platforms. The workshop will offer a unique opportunity for sharing findings and results when implementing the project activities at the corresponding pilot sites.

# 09.00 - 10.30

Room 6 **TBA** 

Room 5

**TBA** 

#### "Service integration, financing and smart contracting in the energy transition mechanisms" – workshop (hybrid)

This workshop will talk about the following topics: integration of services in smart grids, CECs & Commercial sites; financing and contracting of those services; and methodologies to perform those integrations.

# 10.45 - 12.15

# Room 2 1A46

#### "Privacy Metrics Tool for Building Digital Twins Trustworthiness" – workshop (hybrid)

This workshop is oriented to explain the PRIVACY METRIC TOOL developed under the SPHERE project for home monitoring and AI advanced control based on mathematical models. This tool was presented at BDTIC2022 in Barcelona in June, and will be one of the standards presented at CEN442 WG9 during this year. This tool would provide an objective evaluation of the level of privacy, and it could be used whether as a mandatory standard in the future or as a design tool for developers and manufacturers of sensors and home devices. A video presentation of BDTIC can be found in this link: https://youtu.be/phnj7QYpTUE. Future works and development of this standard proposal will be supported by DIGICHECKS H2020 project (GA 101058541).

# 10.45 - 12.15

#### "Innovative financing for energy efficiency investments" – workshop (hybrid)

**TBA** 

Room 4

Room 5

**TBA** 

This workshop will bring together several H2020 projects addressing the development, replication and implementation of innovative financing schemes for energy efficiency investments. In line with the "Smart Finance for Smart Buildings" initiative that aims at using public funds more effectively, there is a need to set up innovative financing schemes at regional or national level in order to create the conditions for adequate supply of private finance for energy efficiency investments that progressively maximise the leverage ratio of public funds to private finance. These schemes often complement already available funding and are addressing the provision of finance as well as the structuring of demand, in particular at regional/national level, and target specific areas (e.g. energy-intensive industries, buildings etc.).

# 10.45 - 12.15

#### "Grids and Demand Response" – paper session (hybrid)

"Hybrid AC/DC architecture in the CEDER-CIEMAT microgrid. Demonstration of TIGON project" (Paula Peña-Carro and Oscar Izquierdo-Monge, CIEMAT)

"Potential 5G Solutions for TSO Grid Observability and Manageability of Massive RES Penetration ٠

Environment in the Smart5Grid Context" (Daniel Shangov and Krasimir Vlachkov, ESO EAD)

- "Measuring the gap: a statistical approach for online evaluation and forecasting of human participation in Demand Response programmes" (Tracey Crosbie and Michael Short, Teesside University)
- "Configuring the user in the design and testing of demand response: Implications for user engagement with smart arid solutions" (Dana Abi Ghanem and Mina Najafi, Teesside University)

# 10.45 - 12.15

Room 6 TBA

## "Circularity" - paper session (hybrid)

- "Macroeconomic modelling of a circular economy: application from shifting towards the INITIATE symbiotic system from 2020 to 2050 on a European level" (Ahmed Esam, Radboud University)
  - "ISOPREP A solvent-based recycling of polypropylene from waste carpets" (George Theodosopoulos, TWI Ltd.)
- "Meta-materials and the Built Environment: A review into their perspectives for the enhancement of resiliency" (Miltiadis Kontogeorgos, RINA Consulting S.p.A.)

# 14.00 - 15.30

"Smart Buildings" – paper session (hybrid)

- "A better way to build and commission smart buildings" (Elizabeth Nelson, Smart Building Certification)
- "domOS: an "Operating System for Smart Buildings" (Dominique Gabioud, University of Applied Sciences Western
- Switzerland)

• "Semantic Interoperability Framework – enabling cross-sector services in smart buildings" (David Rua and Fábio Coelho, INESC TEC; Laura Daniele, TNO; Milenko Tosic, Viziore; Josef Baumeister, Bosch Siemens)

# 14.00 - 15.30

# Room 2

1A36

#### "Urban Transformation part 1" - paper session (hybrid)

• "Deciphering the spatial and temporal evolution of urban resilience within Yangtze River Delta urban agglomeration" (Yuhan Zheng, Tours University)

• "Socio-spatial dynamics and changes in urban mobility practices in a pandemic context: a mixed method case study in Mulhouse, France" (Philippe Hamman and Sophie Henck, University of Strasbourg; Andreea Grigorovschi and Marie Fruiquière, Strasbourg National School of Architecture)

• "Urban mobilities in French intermediary cities: the impact of 'tactical' urban installations in the context of the Covid-19 pandemic" Laure Michaud, University of Reims Champagne Ardenne)

• "Sustainable luxury pop-up store dimensions: A brand strategy approach" (Ghalia Boustani, Université Paris 1 Panthéon Sorbonne; Hiba Zielinski, University of Nice Cote D'Azur)

# 14.00 - 17.30

# Room 3 TBA

#### "Low-TRL Renewable Technologies - 2nd Edition" - workshop (hybrid)

This workshop is a continuation of the previous "Low-TRL Renewable Energy Technologies" collaborative workshop at SP2021. Focused on the same topic, this workshop brings together a selection of H2020 EU-funded research & innovation projects dealing with the challenge of researching, developing, and demonstrating innovative, efficient, flexible, cost-competitive, and environmentally safe technologies, which are still at a low Technological Readiness Level (TRL 3-4).

# 14.00 - 15.30

#### "Renovation and Retrofit" - paper session (hybrid)

• "Early-stage optimization for urban district renovation in Germany" (Andre Müller, Institute for Housing and Environment)

- "CASA DO REGALO Retrofit" (Pedro Vaz, Secretaria Geral da Presidência da República)
- "ELENA Support for Scaling up energy efficiency retrofits" (Louise White, European Investment Bank)

• "Innovative Financing of Supermarket EE Retrofitting Measures Engaging Shoppers via Crowdlending in the Super Heero Project" (Thomas Messervey, R2M Solution)

## 14.00 - 15.30



Room 4

**TBA** 

#### "User Engagement" - paper session (hybrid)

• "A European project that is changing the way energy is consumed" (Jean-Philippe Pierre, ISEN Yncréa Méditerranée)

• "Energy Gamification: development of a user interface tool to upgrade the social experience and energy literacy" (João Cravinho, EDP NEW)

• "Flexible users, where are you? Recruitment strategies to flexibility experiments" (Carmen Valor, Universidad Pontifica Comillas)

• "Informing an equitable transition to clean energy: results from a resident survey on three islands" (Dana Abi Ghanem and Tracey Crosbie, Teesside University)

# 14.00 - 15.30

Room 6 TBA

# "People and technologies for the future of energy: Approaching Citizen Energy Communities" – workshop (hybrid)

This workshop intends to shed light on the importance of engaging people and unlocking the potential of technologies to promote Energy Communities and meet the EU's ambition of a joint net zero emission of greenhouse gases by the year 2050. To ensure a people-centred, sustainable, just and innovative energy future, citizens and experts must be brought into dialogue to codesign new ways of organising around energy. To approach these challenges, four Horizon 2020 sister projects (Creators, LocalRES, Hestia, and Lightness) will illustrate approaches, strategies and solutions being tested in different typologies of Energy Communities.

**SUSTAINABLE** PLACES 2022



16.00 - 17.30

"Sector Coupling" - paper session (hybrid)

#### 16.00 - 17.30

Room 2 1A46

1A36

#### "Urban Transformation part 2" – paper session (hybrid)

- "Building Performance Simulators software for industrial regeneration projects: presentation of the Ex-SIR case study" (Luca Morganti, University of Ferrara)
- "Environmental sustainability and urban / rural ecosystems safety increase by DRYADS" (Maria Foteinou, Accelligence)
- "Articulating a sustainable future for India's energy system and the role of smart meters: a qualitative exploration" (Dana Abi Ghanem and Tracey Crosbie, Teesside University)
- "Exploring Insights into Indoor Air Quality Using IoT Sensors & the Links to Health, Energy Usage & Wellbeing Practices" (Iman Hussain, Lancaster University)

# 16.00 - 17.30

Room 5

#### "Sustainable Construction" – paper session (hybrid)

• "Dig\_IT – A human-centred Internet of Things platform for the sustainable digital mine of the future" (Damiano Vallocchia and Diego Grimani and Amal Alrish, Ro Technology)

• "Energy skills as a driver to sustainable construction: current status, needs and proposed actions" (Lihnida Stojanovska-Georgievska, University Ss Cyril)

• "Upcycling Wastes Originating from Construction and Demolition Practices to Manufacture Geopolymeric Construction Materials" (Gurkan Yildirim, University of Bradford)

• "TCQiGMA environmental software" (Licinio Alfaro, IteC)

# 16.00 - 17.30



#### "Energy Communities" - paper session (hybrid)

- "COMPILE maturity scale" (Tomi Medved, University of Ljubljana)
- "Peer-to-peer Energy Communities: regulatory barriers in the EU context" (Ilaria Pigliautile, University of Perugia)

• "A case study of European small-town Renewable Energy Communities - Participatory design of supporting tools as a vehicle to engage and understand local communities and their energy related concerns" (Julia Blanke, Munster Technological University)

• "Results and lessons learned from the IElectrix H2020 project" (Pierre-Jacques Le Quellec, Enedis; Sven Tischer, E.ON Group Innovation)





# 09.00 - 12.15



#### "Sustainable Energy Skills in the Construction Sector Workshop 3rd Edition" – workshop (hybrid)

This workshop is a continuation of two previous Sustainable Energy Skills in the Construction Sector Workshop at SP2020 and SP2021. The objective of this workshop is to share expertise, lessons learned, and developed methodologies on energy efficiency competencies, and qualifications across the building design, operation, and maintenance value chain.

## 09.00 - 12.15

# Room 2 1A46

"Bridging the Gap – Offering innovative Education for Experts in Cultural Heritage of the European Union" – workshop (hybrid)

Cultural Heritage has moved into focus of the European Union as motor for employment, economic drive, and development. Closing the existing gap on further education of professionals working in the field is the main reason for Burghauptmannschaft Oesterreich (BHOe) to apply for and successfully conduct EU projects in several EU funding programmes.

# 09.00 - 10.30

Room 3 Salon Gris "Innovative financing for energy efficiency investments" - workshop (hybrid)

# 09.00 - 12.15

# "European Actions towards Geographical Islands Decarbonisation" – workshop (hybrid)

TBA

Room 4

European islands due to their geographical and natural limitations, have the potential to become frontier innovation leaders of the clean energy transition, especially when it comes to efficient use sources. Several projects dealing with the clean energy transition of islands have been funded within the EU's H2020 research and innovation programme. This workshop will bring together a selection of sister projects coping with islands decarbonisation and clean energy transition by presenting their experience with the EU bodies, the financial schemes, and the main outcomes.



# 09.00 - 12.15

Room 5 TBA

#### "Renewable Energy Technologies part 1" - paper session (hybrid)

- "Design of a district heating/cooling plant coupled with waste-heat recovery from a data centre in a University Campus in Spain" (Ahmed Esam, Radboud University)
  - "Electric energy utilization in modern industrial environments" (Ivan Todorovic, Faculty of Technical Sciences)
  - "Jet fuel production from biobased molecules via catalytic condensation" (Karla Dussan, TNO)
- "Reversible Solid Oxide Electrolysis integrations to wastewater treatment plants for green gas and power balancing services" (Robert Weiss, VTT)

# 09.00 - 10.30

Room 6 TBA

#### "Al and Digitalization 1" - paper session (hybrid)

• "A Data-driven approach for asset maintenance and management in power systems" (Andre Müller, Institute for Housing and Environment)

• "An extension of Thing Descriptions from the Web of Things for Digital Twins" (Salvador González Gerpe and Andrea Cimmino Arriaga, Universidad Politécnica de Madrid)

• "Transforming the server room into a sustainable micro cloud" (Julie Chenadec, Sustainable Digital Infrastructure Alliance)

• "Automation of building energy model calibration for improving operational efficiency in buildings" (Dimitrios Ntimos, Integrated Environmental Solutions R&D)

# 10.45 - 12.30

Room 3 Salon Gris

#### "Facades and Envelopes" - paper session (hybrid)

- "Implementation the Plug&Play protocol and Integration of the Plug&Play technologies with TPC" (David Masip Vilà, Eurecat)
- "Biobased components for curtain wall façade: preliminary insight of Basajaun project" (Laura Vandi, Focchi Spa)



# 11.00 - 12.30



#### "Renewable Energy Technologies part 2" - paper session (hybrid)

- "Simulation of Operation of Geothermal Heat Pump using a Sea-Water Heat Exchanger. Case Study: Elderly Facility Home at Alexandroupoli, Greece" (Adamantios Papatsounis, Democritus University of Thrace)
- "Potential business models for Positive Energy Buildings" (Mia Ala-Juusela, VTT; Andreas Tuerk, Joanneum Research)
  - "Tidal energy ready to take-off" (Mario Iglesias, Magallanes Renovables)
- "An innovative energy storage system based on compressed heat: from design to experimental validation" (Jose Luis Corrales, TECNALIA)

# 11.00 - 12.30



- "Al and Digitalization 2" paper session (hybrid)
- "iPredict. A predictive maintenance tool of heating, ventilation, and air conditioning equipment using artificial intelligence" (Jose Luis Castro Aguilar, Eurecat)
- "Understanding the role of energy informatics and social media on energy citizenship" (Lurian Pires Klein, Cleanwatts Digital S.A.)
- "Smart metering and low voltage network digitization solutions in Ouagadougou, Burkina Faso" (Richaud Luc, Odit-e)
  - "ECOFACT: ECO-innovative Energy FACTory Management System" (Andrea Perego, One Team)