















Sustainable Places 2019 Contribution Overview



#### **15 Workshops**

#### 1. "Interactive Workshop on Barriers and Progress for Demand Response in Europe"

This workshop will facilitate discussions moderated by international DR researchers to asses technological, regulatory, economic, and environmental challenges of Demand Response market uptake.

- **DR-BoB:** Tracey Crosbie, Teesside University; Sylvia Breukers, Duneworks
- Sim4Blocks: Sam Davis, Insight Publishers; Malcolm Yadack, HfT Stuttgart
- NOVICE: Jo Southernwood, Solintel
- HOLISDER: Dawid Krysiński, ASM-Market Research and Analysis Centre; Laura Morcillo, Grupo Etra

#### 2. "Smart cities recipes, a cookbook for the implementation"

Presenting key aspects, lessons learned, and challenges related to the emergence of smart cities and their indicators for status awareness – relevant to all SCC01 and future cities projects.

- **GrowSmarter:** Federico Noris, IREC
- +CityxChange: Giulia Carbonari, R2M Solution
- **REACT**: Dana Abi Ghanem, Teesside University
- MAKING-CITY: Emilio Miguel Mitre, GBC Spain
- SINFONIA: Marie-Louise Lemgart Hoje, EURAC
- SmartEnCity: Koldo Urrutia Azcona, Tecnalia Research & Innovation

# 3. *"Sun and thermal energy:* Europe's precious energy sources for efficient industries and buildings"

An interactive session about social acceptance renewable energy technologies such as solar panels and heat pumps for both the residential and the industrial sectors.

- HYBUILD: Régis Decorme, R2M Solution, Andrea Frazzica, CNR ITAE;
- SunHorizon: Alessandra Cuneo, RINA Spa, Stefano Barberis, RINA Spa
- **HYCOOL**: Sergio Valentino Costa, COMSA
- SHIP2FAIR: Serena Scotton, European heat Pump Association
- THERMOSS: Federica Fuligni, Exergy

#### 4. "Added value of *clean energy storage* in distribution systems"

Hosted by the STORY H2020 project, this workshop will deliver insights into technology integration and interoperability; market and regulatory barriers; and the importance of social acceptance and customer engagement in rolling out energy storage innovation.

- Martin Watson, Dimitri Weibel; Prospex Institute
- Jernej Zupancic, University of Ljubljana
- Mia Ala-Juusela, VTT
- Francisco Javier Diez, Ignacio Lazaro; IK4-Tekniker

#### 5. "Nature-Based Solutions": Marketing and implementing the tools and services"

Demonstrating actions that cities are developing to reduce energy consumption and renovate the building stock, to face climate change, to manage resources and materials and to assess the related impacts.

- Nature4Cities: Domenico Perfido, R2M Solution
- Unalab: Nicola Pisani, Colouree
- Operandum: Enrico Benetto, LIST; Ana Paraboschi, Rina Consulting

### 6. "Exploitation of Business Models for Deep Renovation"

Characterizing deep renovation practices. Moderated by Alessia Melasecche Germini, Maddalena Lukasik, and Michael Laubenheimer, of EC SSERR a service of the European Commission that supports research and innovation exploitation management.

- Triple A Reno: Roberta Pernetti, EURAC
- P2Endure: Peter Opt Veld, Simona D'Oca, Ana Tisov Huygen Engineers
- 4RinEU: Annarita Ferrante Christoph Peters LIMA Association
- Stunning: Nicolas Peraudeau; DOWEL Management
- 7. *"District and Building Energy Systems:* A collaborative exchange of results on optimal system operation for energy efficiency"

3rd edition of this clustering workshop, organized by INDIGO, among EU funded projects to exchange results of work done in optimisation for District heating and Cooling as well as for Building Systems.

- INDIGO: Raymond Sterling, R2M Solution; Jesus Febres, IK4-Tekniker
- THERMOSS: Federica Fuligni, Exergy
- E2District: Martin Klepal, Cork Institute of Technology
- **RESPOND:** Federico Seri, NUIG
- **REACT:** Nikola Tomasevic, Pupin
- **OPTi:** Khalid Atta, Lulea Technical University
- 8. *"How to achieve a behavioural change for energy saving through innovative IT solutions"* Four new innovative user-friendly solutions that focus on empowering consumers to engage and collaborate in achieving energy savings and allowing them to explore different

means and measures to manage their energy needs over the longer term.

- MOBISTYLE: Peter Op t Veldand Ana Tisov, Huygen Engineers
- UtilitEE: Evangelos Zacharis, Hypertech SA
- **BENEFFICE:** Dena Arabsolgar, HOLONIX
- Encompass: Ksenia Koroleva, European Institute for Participatory Media

#### 9. "Construction Skills" workshop, exploring the market demand on upskilling"

This workshop stimulates the demand for energy skills in the market, both from the supply side (construction sector) as demands side (building and homeowners)

- **BIMplement:** Ana Tisov, Peter Opt' Veld; Huygen Engineers
- BIMeet: Sylvain Kubicki, LIST
- **CraftEdu:** Jiri Karasek, SEVEn The Energy Efficiency Center, z.ú.
- Fit-to-NZEB: Dragomor Tzanev
- NET-UBIEP: Giovanni Addamo
- **BIMcert:** Paul McCormack
- **BIM4Ren:** Thomas Messervey, R2M Solution
- 10. "*Distributed Schemes*: Innovative solutions for smart grids. P2P, Blockchain, Multi-Agent Systems"

Clustering workshop of low TRL projects working on Smart Grids and Storage with focus on distributed schemes, such as P2P, blockchain, multi-agent systems, etc.

- DRIvE: Juan Manuel Espeche, R2M Solution; Meritxell Vinyals, CEA
- **DELTA:** Dimosthenis Ioannidis, Centre for Research & Technology Hellas
- FHP: Davy Geysen, VITO
- SHAR-Q: Ugo Stecchi, ATOS

#### 11. "New generation of Concentrated Solar Power Technologies"

Hosted by NexTower H2020 project, this clustering workshop brings together market leaders in the field of CSP to share innovations and interact with the audience.

- NexTower, Raymond Sterling, R2M Spain, Claudio Testani, CALEF
- In Power: Elena Torralba-Calleja, Leitat
- **PolyPhem:** Manuel Jesus Blanco Muriel, The Cyprus Institute; Alain Ferriere, CNRS
- **RESLAG:** Luca Turchetti, ENEA
- CySTEM: Manuel Blanco, Cyprus Institute
- MOSAIC: Fabrizio Perrotta, AMIRES

#### 12. *"Modular facade retrofit* with integrated renewable energy technologies"

Hosted by the Plug-n-Harvest H2020 project, this workshop targets the construction sector regarding the implementation of circular design in new buildings as well as in retrofitting.

- Hu Du, Phil Jones; Cardiff University
- Tanja Osterhage, RWTH Aachen University
- Verena Dannapfel
- Laura Morcillo, Grupo Etra
- Rita Streblow, RWTH Aachen Univ
- Cristina Sendra, Eco Intelligent Growth

# 13. "Making sense of **monitoring data**: hands on demo on the Sensible Building Data Handler (powered by IES iSCAN)

Hosted by the 4RinEU H2020 project, this workshop addresses the need to gather, organise and prepare for analysis the large amount of data that is needed in the various phases of a deep renovation project. This 2-part workshop will provide attendees with an introduction to the Sensible Building

- Giulia Barbano, Adalberto Guerra Cabrera; Integrated Environmental Solutions Ltd (IES)
- Roberta Pernetti, EURAC
- 14. "Build Upon<sup>2</sup>": launches the Italian cluster for building renovation initiatives in cities" (90') The Build Upon<sup>2</sup> workshop demonstrates experiences from the Build Upon EU project related to building renovation actions in cities, and assesses economic, environmental, and social impacts of initiatives at district and urban scale.

- Thomas Messervey, Consigliere GBC Italia e
- Roberto Barracu, Segretario del Chapter Sardegna di GBC Italia
- Valentina Marino Attività Internazionali
- Emilio Miguel Mitre, coordinatore del progetto Build
- Audrey Nugent, World Green Building Council
- Daniela Luise, Città di Padova

### 15. "*Financing Clean Energy on Islands / Buildings energy renovation on islands and in the coastal regions*" (6<sup>th</sup> June)

- Clean Energy for EU Island initiative: Margot Pinault, Feilim O'Connor; European Commission
- **SMILE:** Stefano Barberis, RINA
- DAFNI: Kostas Komminos,
- Sinloc Sistema Iniziative Locali SpA: Andrea Martinez
- **REACT:** Raymond Sterling, R2M Solution
- INNOVATE: Panayiotis Michael, Data Center Cyprus; Reinhard Six, European Investment Bank
- **MEDNICE**: Bernard Massabo, Euromed Cities Network
- INSULAE: Alfonso Damiano, Sardegna Ricerche

#### NATURE-BASED SOLUTIONS session (6th June, 9h-10:30h)

"Subterranean to Skyline - Street trees as potent boundary objects in transforming street section design. Findings from the Hug the Streets, Idelab Project, Oslo." (Idelab) Deborah Davies, Kiit Consultancy, Norway

"Transformation of green areas in large housing estates: public participation and urban gardening. Examples from Riga and Tallinn." Alisa Korolova, Riga Technical University

URBAN PLANNING session (6th June, 11h-12:30h)

"Urban Land Parcelization Based on Energy Efficiency Approach: The Case Study of Mahmoudabad City" Asareh Rashidi, Tarbiat Modares University

*"Geodesign: Applications Towards Smarter Planning and Urban Design Solutions" Nadia Amoroso, The University of Guelph - School of Environmental Design and Rural Development* 

"Methodology for the advanced integrated urban energy planning" (mySMARTLife) Eneko Arrizabalaga, Tecnalia Research & Innovation

"Opportunities for community-based Virtual Power Plants and the need for institutional innovation" (cVPP) Sylvia Breukers, Duneworks

SMART CITIES session (7<sup>th</sup> June, 11h-12:30h)

"The ZeEUS demonstration in Cagliari" (ZeEUS) Roberto Murru, CTM Spa

"Lighthouse MAKING CITY, PED, Positive Energy District development methodology and its replication potential" (MAKING-CITY) Emilio Miguel Mitre, GBC Spain

*"Use of simulation tools for the analysis of energy concepts based on renewables and heat recovery for buildings and districts" (Thermoss & ReUseHeat) Peter Riederer, CSTB* 

"Towards Positive Energy Districts – The +CityxChange Approach" (+CxC) Giulia Carbonari, R2M Solution

DEMAND RESPONSE session (6<sup>th</sup> June, 16h-17:30h)

"Behaviour Demand Response in District Heating – A simulation-based assessment of potential energy savings" (E2District) Christian Beder, Martin Klepal; Cork Institute of Technology, Ireland

Demand Responses: moving beyond the technical and physical context of buildings. (DR-BoB) Tracey Crosbie, Teesside University; Sylvia Breukers, Duneworks

Integrated Demand Response solution for residential buildings: an adaptive Performance Measurement and Verification methodology. (RESPOND) Federico Seri, NUIG; Andreu Pages, DEXMA Sensors SL

Short-term Prediction of Energy Consumption in Demand Response for Blocks of Buildings: Dr-BoB approach (DR-BoB) Nashwan Dawood, Teesside University

BEYOND THE GRID session (5th June, 14:30h-16:30h)

"New combined solution to harness wave energy - full renewable potential for sustainable electricity and fresh-water production" (W2EW) Michael Henriksen, Wavepiston; Massimo Lai, Simon Davide Piccioni, Ener.Med.

"Smart Grid fleet Charging EV Facilities, Demand Side Response & Energy Storage" (inteGRIDy) Justice Agbo, Siemens Plc.

*"Improving power grid stability through a power to methane plant"* (STORE&GO) Diego Arnone, Engineering Ingegneria Informatica S.p.A.)

"Combined-Heat-and-Compute – A Conceptual Approach to Sustainable Digital Infrastructure" Max Schulze, Lasse Schneppenheim; Sustainable Digital Infrastructure Alliance e.V.

"Life cycle cost reduction and market acceleration for new nearly zero-energy buildings" (CRAVEzero) Roberta Pernetti, EURAC

RENOVATION STRATEGIES session (5th June, 14:30h-16:30h)

"An ICT-enabled Renovation 4.0 toolkit comprising tools for Architecture, Engineering & Construction" (BIMERR) Theodoros Kakardakos, Merit Consulting House

*"Accelerating Energy renovation solution for Zero Energy buildings and Neighbourhoods" (RenoZEB) Michele Vavallo, SOLINTEL; Marco Arnesano, Università Politecnica delle Marche* 

"GEOFIT: Integrated design and delivery methods and digitalization as enablers to cost-effective and efficient geothermal retrofitting" Thomas Messervey, R2M Solution

"Major Renovations of Historical Building and GBRS (LEED, BREAM. WELL) application for sustainable improvements: the case of Milan" Mario Pinoli, Greenwich Srl

"Review of human-based Inclusive approach for residential buildings retrofit, strategies and technologies" Ke Qu, University of Nottingham

"The barriers and constraints of BIM implementation during the renovation process in the Italian market" (BIM4Ren) Carlotta Cocco, R2M Solution

END-USERS session (5<sup>th</sup> June, 14:30h-16:30h)

"BENEFFICE H2020 research project presentation: Affordable, Voluntarily Energy Efficiency at Home" (BENEFFICE) Anna Malamou, European Dynamics SA

*"Energy efficiency in early design of healthcare buildings. The result of the Streamer project from research to commercial market" (STREAMER) Andre van Delft, Oana Schippers Trifan, Rosamaria; DEMO Consultants* 

*"Investigating the Effect of Air Pollution on Cardiovascular Hospital Admissions in Ahvaz" (Azin Kianzad, National Iranian Drilling Company, Mina Nouri, National Iranian South Oil Company)* 

"Homes4Life – Certification for Ageing in place" (Homes4Life) Regis Decorme, R2M Solution

"Transforming energy efficiency into an entirely new customer experience - An effective way to engage consumers" (UtilitEE) Evangelos Zacharis, HYPERTECH; Hanna Launonen, VaasaETT

CONSTRUCTION TOOLS session (6th June, 14h-15:30h)

*"IT platform to support information exchange about recycled materials for construction" (FiberEUse)* Dena Arabsolgar, Holonix

*"BIM-based Digital Twin Platform to optimise the building lifecycle" (SPHERE) Thomas Messervey, R2M Solution* 

"ModSCO. Online Reduced Order Models (ROM) to address the performance gap" (HIT2GAP) Alessandro Piccinini, Federico Seri, Letizia D'Angelo; NUIG

*"Hit2gap: BEMServer – open source software as a market disruptor in energy management platforms" (Hit2Gap) Thomas Messervey, R2M Solution*