SUSTAINABLE
PLACES
2015 SEPTEMBER 16-18
SAVONA, ITALY

In the framework of:

FP7

RESILIENT   PERFORMER

Organised by:

cea   D'APPOLONIA   SIGMAORIONIS   UNIVERSITÀ DEGLI STUDI DI GENOVA

With the support of:

ECTP   Energy Efficient Buildings e2B

ECTP   e2B Energy Efficient Buildings   EU-Smartcities   IDEAL-IST

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PROGRAMME

RESILIENT & PERFORMER projects - Funded by the 7th Framework Programme of the European Union under grant agreements n° 314671 & 609154.

WEDNESDAY, SEPTEMBER 16

08:30 *Registration*

09:00 OPENING SESSION
Opening address: **Holy Andrianantenaina,** Sigma Orionis
Keynote speakers: **Rajvant Nijjhar,** iVEES, **Thomas Messervey,** R2M Solution SRL, **Germain Adell,** NOBATEK

10:30 *Coffee break*

11:00 FP1: INNOVATIVE DECENTRALIZED ENERGY PRODUCTION
11h00 Off-design analysis of a micro gas turbine under stochastic conditions
Alessio Abrassi, University of Genoa
11h25 Geothermal fed low-exergy 4G DHC grid in Heerlen - **Herman Eijdems,** Mijnwater BV
11h50 Evaluation of energy saving potentials for commercial districts served by distributed m-CHP units - **Emmanouil Malliotakis,** NTUA
12h15 Supply of thermal energy to District Heating networks from industrial waste heat and solar thermal energy coupled with Seasonal Thermal Energy Storage systems - **Patricio Aguirre,** Einstein and Pitagoras European funded projects
12.40 Open discussion

11:00 FP2: DIGITAL TOOLS FOR OPTIMIZED BUILDING DESIGN
11h00 Building a semantic-based decision support system to optimize the energy use in public buildings: the OPTIMUS project - **Álvaro Sicilia,** OPTIMUS
11h25 Semantic BIM - **Marc Koster,** STREAMER
11h50 Ontology-controlled Energy Simulation Workflow - **Ken Baumgärtel,** Technische Universität Dresden
12h15 Open discussion

11:00 SP1: BUSINESS AND ORGANIZATIONAL ENABLERS TO ENERGY EFFICIENCY
11h00 A novel set of KPIs to construct our path towards fully renewable energy systems - **Juan José Vinagre Díaz,** Universidad Politécnica de Madrid
11h15 Crowdfunding as an alternative method of financing renewable energy projects - **Thomas Maidonis,** CrowdFundRES
11h30 Business Model Innovation for High Performance Buildings Supported by Whole Life Optimisation - **Umberto Battista,** UMBRELLA

WEDNESDAY, SEPTEMBER 16

11h45 Facilitating stakeholder interaction in district renovation projects
Stijn Verbeke, ECODISTR-ICT Project
12h00 Auctions for Renewable Energy Support: Effective use and efficient implementation options - **Marie-Christin Haufe,** AURES
12h15 Open discussion

13:00 *Lunch break*

14:30 FP3: ADVANCED DIGITAL SUPPORT FOR EFFECTIVE RENOVATION STRATEGIES
14h30 Decision Support Modules for Key Performance Indicators - building an Integrated Decision Support System - **Carl-Magnus Capener,** ECODISTR-ICT Project
14h55 Cost-effective reconstruction of BIM from 2D scanned plan: experiments on existing buildings - **Lucile Gimenez,** CEA
15h20 Sustainable refurbishment in historic districts through a web-based tool based on 3D City Model - **José Luis Izkara Martinez,** Tecnalia
15h45 Smart management of historical architectural heritage - **Giovanna Franco,** University of Genoa
16h10 Open discussion

14:30 FP4: LARGE-SCALE DEMO OF SMART BUILT ENVIRONMENT TECHNOLOGIES
14h30 Sustainable microgrids interacting with sustainable buildings: the case of the Savona Campus - **Mansueto Rossi,** University of Genoa
14h55 A Pilot for Energy District Management - **Claudio Borean,** INTrEPID
15h20 Living Laboratories: using buildings as test beds of sensor networks and control algorithms - **Therese Peffer,** California Institute for Energy and Environment
15h45 The BIM-GIS model for EeBs integrated in healthcare districts: an Italian case study - **Luca Marzi,** University of Firenze
16h10 Open discussions

14:30 SP2: DISTRICT ENERGY AND SMARTGRIDS SOLUTIONS
14h30 Performance curves of prime movers for smart polygeneration grids
Mario L. Ferrari, University of Genoa
14h45 Demonstration of management and decision support systems for energy positive neighbourhoods - **Kalevi Piira,** EEPOS
15h00 EcoDistrict in the US: Implementing District-wide Opportunities
John Gravelin, Linnean Solutions

WEDNESDAY, SEPTEMBER 16

15h15 Business perspective of smart grid services development
Thomas Messervey, Mas2tering
15h30 Open discussion

16:30 *Coffee break*

17:00 FP5: ENERGY PLANNING AT DISTRICT AND URBAN SCALES
17h00 Interoperable energy systems - research and innovation strategy for ICT
Mari Sepponen, Ready4SmartCities
17h25 Thermo-economic analysis of the storage role in a real polygenerative district - **Stefano Barberis,** University of Genoa
17h50 Open discussion

17:00 FP6: OPEN ARCHITECTURES & INTEROPERABILITY FOR BUILT ENVIRONMENT
17h00 Open-Source Modeling and Simulation of Microgrids and Active Distribution Networks - **Javier Campillo,** Mälardalen University
17h25 Open software-architecture for building monitoring and control
Carl Blumstein, UC-CIEE
17h50 An integrated platform for collaborative performance-efficient building design - **Davide Mazza,** HOLISTEEC
18h15 Open discussion

17:00 SP3: BUILDING AND URBAN-LEVEL ENERGY OPTIMIZATION
17h00 A tool for optimization of energy systems design and operational management - **Alessandra Cuneo,** University of Genoa
17h15 Comfort Urban Places: a proposal for designing unique places that provide
Itziar Aspuru Soloaga, Tecnalia
17h30 STREAMER semantic BIM design approach for hospitals: research case of Rijnstate Hospital in Arnhem, NL - **Marc Koster,** STREAMER
17h45 Smart City performance measurement system - **Isabel Pinto Seppä,** CityKeys
18h00 Open discussion

19:30 *Networking dinner*

08:30 Registration

09:00 WS01: ENERGY PERFORMANCE GAP CLUSTERING (PRIVATE)
Organisers: PERFORMER, Tribute, Direction and Energy in Time

09:00 WS02: WASTE HEAT RECOVERY FOR SMART DHC NETWORKS
Organiser: CELSIUS - Chair: *Stefano Carosio,* D'Appolonia-RINA
09h00 The role of University of Genoa in the Genoa's transformation process towards a Smart City - *Paola Girdinio,* University of Genoa
09h20 The European strategy towards Energy Efficient H&C networks *Eric Lecomte,* Directorate General for Energy Unit C.2 - New energy technologies, innovation and clean coal
09h40 Strengthening the cooperation between The Smart Cities Information System Project and the Celsius monitoring methodology for DHC facilities - joint presentation - *Sebastian Möller,* AIT (Austrian Institute of Technology) and Fabio Sagnelli & Carolina Ferrando, D'Appolonia
10h10 CELSIUS Project, General overview - *Jonas Cognell,* Goteborg Energi
10h45 Cities' vision for Energy Efficient District joining industries, research centers and citizens to improve urban life through sustainable, integrated and nature-based solutions - *Katrina Folland,* Gothenburg, Emanuele Piazza, Genoa and Alessandro Delli Noci, Ecce
11h30 Waste energy recovery from gas expansion in urban NG networks *Roberto Milanesio,* Genova Reti Gas
11h50 SMART dynamic modelling of a DHC network - *Corrado Schenone,* University of Genoa
12h10 Goteborg's experience in waste heat recovery for integration into smart DHC networks - *Jonas Cognell,* Gothenburg
12h30 IREN Experience in smart DH networks - *Enrico Pochettino,* IREN
12h50 Innovative projects for waste heat recovery - *Marco Baresi,* Turboden

09:00 WS03: ADAPTABLE ENVELOPE FOR FACADE RENOVATION
Organisers: E2VENT and BRESAER - Chair: *Antoine Dugué,* Nobatek
09h00 Welcome, general discussion and presentation of the context *Antoine Dugué,* Nobatek
09h15 E2VENT project - *Antoine Dugué,* Nobatek
09h30 BRESAER project - *Stefano Ellero,* Stam

09h45 Perspectives on the topic of adaptable envelope for the renovation of façades - *Antoine Dugué and Germain Adell,* Nobatek
10h00 Open Floor, Summary and Wrap Up - *Antoine Dugué and Germain Adell,* Nobatek

09:00 WS04: INNOVATIVE RETROFITTING ACTIVITIES
Organisers: A2PBEER, BRICKER and RESSEEPE - Chair: *Giulia Barbano,* IES
09h00 Energy reduction in public building stock, The BRICKER concept *Fabrizio Alberti,* FBK
09h15 Retrofitting Solutions and Services for the enhancement of Energy Efficiency in Public Edification - *Pierre Redondo,* Polylogis
09h30 Affordable public building retrofitting, A2PBEER project - *Ciaran Lynch,* Limerick Institute of Technology
09h45 Open discussion

09:00 WS05: RESILIENT PROJECT: WORKSHOP ON STANDARDIZATION
Organiser: RESILIENT - Chair: *Andrea Maria Ferrari*
09h30 Welcome by RESILIENT Project Coordinator *Andrea Maria Ferrari/Anna Paraboschi,* D'Appolonia
09h40 Standardization aspects, Research & Standardization - *Monica Ibido,* CEN and CENELEC Management Centre
10h10 Standardization in EE in buildings - *Henri Obara,* Schneider Electric
11h00 Standardization at district level: RESILIENT Open issues *Jean Laurent Hippolyte,* Cardiff University
11h30 Round Table: *Maria Founti* (University of Athens), *Alberto Traverso* (University of Genoa)

10:30 Coffee break ☕

11:00 WS06: DECISION SUPPORT TOOLS TO OPTIMIZE ENERGY USE IN BUILDINGS
Organiser: UMBRELLA - Chair: *Umberto Battista,* Stam
11h00 Energy efficiency environment and decision-support tools to improve energy efficiency in buildings - *Paolo Musso,* Stam
11h20   New simulation tools for optimizing the efficiency of buildings during their whole life - *Nick Purshouse,* IES

11h40   How Innovative business models can boost the energy efficient buildings market - *Eve Dallamaggiore,* LGI
12h00 Increasing the impact of energy efficient building projects by incorporating external stakeholder perspectives in business model development - *Niall Dunphy,* UCC
12h20 Demonstration of the Re:form tool
12h50 Open discussion

11:00 WS07: ICT FOR HYBRID ENERGY GRIDS IN SMART CITIES
Organisers: OrPHEuS - Chair: *Silvia Caneva,* WIP - Renewable Energies
11h00 Increasing synergies among hybrid energy grids in smart cities. The OrPHEuS project - *Silvia Caneva,* WIP - Renewable Energies
11h30 ICT control strategies for high PV penetration at the demo site in Ulm (Germany) - *Holger Ruf,* Hochschule Ulm
12h00 Decision tool for utilities and distribution system operators - The case study of the City of Skellefteå (Sweden) - *Saguna Saguna,* Luleå University of Technology
12h30 Open discussion

13:00 Lunch break 🍴

14:30 WS08: CLOSING THE ENERGY PERFORMANCE GAP
Organisers: Built2Spec and Hit2Gap - Chair: *Germain Adell,* Nobatek
14h30 Welcome, session motivation, objectives and targeted discussion points *Germain Adell,* Nobatek
14h45 Panel motivations and desired outcomes & Buit2Spec Project *Christophe Cantau,* Nobatek
15h00 INSITER Project - *Ton Damen,* DEMO Consultants
15h10 ACCEPT Project - *Edward Gooden,* Ingeltonwood
15h20 Panel discussion and wrap up - *Christophe Cantau,* Nobatek
15h40 Motivations and desired outcomes - *Andrea Costa,* R2M Solution
15h45 Hit2Gap Project - *Andrea Costa,* R2M Solution
15h55 Panel discussion and wrap up - *Andrea Costa,* R2M Solution
16h05 Summary and open discussion - *Thomas Messervey,* R2M Solution
16h20 Workshop conclusions and next steps - *Germain Adell,* Nobatek

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🟠 AUDITORIUM 🟡 ROOM 1 🟢 ROOM 2 🔵 ROOM 3 🟣 ROOM 4 🟢 ROOM 5   *FP: Full Paper Presentation*   *SP: Short Presentation*   *WS: Workshop*   ☕ *Coffee Break, Exhibition Area*   🍴 *Lunch & Farewell Drink*   ♖ *Networking Dinner*

14:30 WS09:SOCIAL & BUSINESS DIMENSIONS IN ENERGY EFFICIENT DISTRICTS
Organisers: CityOpt, INDICATE, AMBASSADOR, IURBAN, URBGRADE, READY4SMARTCITIES, BESOS, OPTIMUS, and e-balance
Chair: *Valeria Ferrando,* IES
14h30 Introduction & Summary of workshop´s EU projects - *Valeria Ferrando*
15h00 Business models dimension of EU projects - *Silvia Capato,* D'Appolonia
15h30 Open discussion - *Valeria Ferrando* (IES), *Silvia Capato* (D'appolonia), *Noemi Jimenez* (CEMOSA), *Alberto Musetti* (D'Appolonia), *Manuel Serrano* (ETRA I+D), *Bruno Fies* (CSTB), *Alessandro Venturin* (D'Appolonia), *Gabrielle Santinelli* (Experientia)
16h15 Summary - *Bruno Fies,* CSTB

14:30 WS10: ENERGY FLOWS OPTIMIZATION AT DISTRICT LEVEL (PRIVATE)
Organiser: RESILIENT and AMBASSADOR

14:30 WS11: ICT & OPEN DATA FOR BUILDING LIFE CYCLE ENERGY MANAGEMENT
Organisers: EEBERS and Swimming
Chair: *Isabel Pinto Seppä,* Ready4SCities
14h30 Welcome - *Isabel Pinto Seppä,* VTT
14h40 SWIMing project - Linked Data for Building Life Cycle Energy Management *Kris McGlinn,* ADAPT-TCD
15h00 Applications of linked data - Finnish experiences - *Mirkka Rekola,* VTT
15h15 Advances in ifcOWL standardisation: technical overview - *Walter Terkaj,* Italian National Research Council
15h30 Brainstorming Session on drivers and barriers Facing the implementation Open Accessible BIM - *Kris McGlinn,* ADAPT-TCD
16h20 Main outcome and conclusions

16:30 Coffee break

17:00 CLOSING SESSION
Keynote speakers: *Paola Girdinio,* University of Genoa, *Fabio Zanelli,* Siemens, *Stefano Carosio,* D'Appolonia
Closing address: *Holy Andrianantenaina,* Sigma Orionis *Sylvain Robert,* CSTB

18:30 Farewell Drink 🍴

9:00   GUIDED TOUR OF THE SAVONA SMART CAMPUS

The Savona Campus hosts a Smart Polygeneration Microgrid (SPM), which enables to test and demonstrate different control algorithms and to simulate an energy market concept in real conditions.

3 key components of the SPM will be presented during the visit:

The SPM controller: the "brain" of the SPM, hosting the servers that operate the supervision of the electric and of the thermal/mechanical grids

The SPM generator: serving the University campus energy needs, in terms of power, heating and cooling demands.

The "Energy Hub": emulating electrical and thermal loads and including different prime mover technologies.

Duration: approximately 2 hours
Meeting point at the Welcome Desk

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