



SUSTAINABLE PLACES

2017 JUNE 28 – 30, 2017
MIDDLESBROUGH, UK



www.sustainableplaces.eu

Welcome from the Organizers

Thank you for your participation in the 5th annual Sustainable Places international conference on Energy Efficient Buildings (EeB) and smart grids, an official EU Sustainable Energy Week (EUSEW) Energy Day, hosted by Teesside University in Middlesbrough, UK from 28th - 30th June 2017. Sustainable Places 2017 builds a community of stakeholders aimed at ensuring long-term environmental sustainability of ever-growing, densifying urban areas, in a resource-constrained world.

We greatly appreciate the support from contributing authors, technical programme committee and organising committee – CEA (French Alternative Energies and Atomic Energy Commission), CSTB (Centre for Science & Technology in Buildings), TU (Teesside University), R2M (Research To Market Solution) – and to the sponsorship of the PERFORMER (Portable, Exhaustive, Reliable, Flexible and Optimized approach to Monitoring and Evaluation of building energy performance) FP7 project. Also, thank you to Build Up for the media coverage, and MDPI AG (Multidisciplinary Digital Publishing Institute) for partnerships in the Proceedings Journal (ISSN 2504-3900) open access publication, and a Buildings Journal special issue (ISSN 2075-5309) dedicated to selected peer-reviewed papers from SP2017 to be released following the event.

Sincerely,

Zia Lennard, MBA - R2M Solution, srl.

SP2017 Organizing Committee



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Full Programme at a Glance - Day 1 - June 28th

Time	T1.10	T1.01	T1.02	T1.03	T1.04
7:30h	Poster setup, coffee & registration - The Curve 2nd Floor Foyer				
9:00h	Welcoming Remarks Stefan Lodeweyckx Sorcha Edwards Jane Lumb				
9:15h					
9:45h					
10:15h					
11:00h	Coffee Break - The Curve 2nd Floor Foyer				
11:30h		Business cases and technologies for LV flexibility aggregation with prosumers and local energy communities workshop	Innovative data models for the built environment session	Development of future EU district heating and cooling network solutions workshop	Australian low-energy housing research session pt.1
13:00h	Lunch - Students Union Terrace Bar (13:00h - 15:00h)				
14:00h				PERFORMER workshop (private)	
15:00h		Solutions and tools for innovative energy management session	Innovative approaches to public building refurbishment session		Australian low-energy housing research session pt.2
16:30h	Coffee Break - The Curve 2nd Floor Foyer				
17:00h		Social aspects of energy-efficiency technologies session			Australian low-energy housing research session pt.3
18:30h	Evening Gala Dinner - Students Union 2nd Floor (18.30h - 21:00h)				

Full Programme at a Glance - Day 2 - June 29th

Time	T1.10	T1.01	T1.02	T1.03	T1.04	T1.07
7:30h	Coffee & Registration - The Curve 2nd Floor Foyer					
8:30h		Reducing energy consumption and carbon footprint by smart and sustainable use workshop	Four steps closer to a full set of interoperable tools for designing energy efficient buildings workshop		Innovative energy framework methodologies session	
10:00h	Coffee Break - The Curve 2nd Floor Foyer					
10:30h		Innovations to the paradigm shift of energy business models session	Four steps closer to a full set of interoperable tools for designing energy efficient buildings workshop	Innovative district-level retrofitting scenarios session	Testing new solutions for self inspection and quality checks in the real world workshop	Innovative scenarios for energy transition session
12:00h	Lunch - Students Union Terrace Bar (12:00h - 14:00h)					
14:00h		Energy consumer engagement models & load profiling session	Innovations in the assessments of energy performance gap session	Innovative smart grid technologies session	Innovations supporting sustainable growth in the buildings sector session	Energy Efficient Optimised District Heating and Cooling workshop
15:30h	Closing Remarks Margot Pinault Yasmine Assef Allan Thompson					
15:45h						
16:15h						
16:45h						
17:30h	Farewell Reception - The Dickens Inn (17:30h - 19:00h)					

Colour Key: Workshops ■ Paper Sessions ■ Keynotes ■

Sustainable Places 2017

Day One - Wednesday 28th June 2017

Time	Agenda
07:30h - 09:00h	Registration, poster setup, & welcome coffee (2nd floor foyer)
09:00h - 11:00h	Opening keynote speeches (Room T1.10): 09:00h - 09:15h: Welcoming remarks from the host; 09:15h - 09:45h: Stefan Lodeweyckx, Enervalis; 09:45h - 10:15h: Sorcha Edwards, Housing Europe; 10:15h - 10:45h: Jane Lumb, Nottingham Council 10:45h - 11:00h: Venue and agenda overview.
11:00h - 11:30h	Coffee break (2nd floor foyer)
11:30h - 18:30h	Australian low-energy housing research session (Room T1.04): Chaired by Vladimir Vukovic (session 1), Sergio Rodriguez (session 2), and Adamu Abubakar (session 3), Teesside University 11:30h - 11:40h: Session 1 introduction 11:40h - 12:00h: <i>"Design of Experiment for energy performance in residential buildings: A case study of Saudi Arabia"</i> Ahmed Alkanani, Teesside University; 12:00h - 12:20h: <i>"Lifecycle value assessment of prefabricated building integrated photovoltaics: A case study"</i> Rebecca Yang, RMIT University 12:20h - 12:40h: <i>"Techno-economic feasibility of a stand-alone hybrid power generation system for developing economies"</i> Sanjay Mukherjee, Sheffield Hallam University; 12:40h - 13:00h: <i>"Control strategies of domestic electrical storage for reducing electricity peak demand and life cycle cost"</i> Sleiman Farah, University of South Australia 13:00h - 15:00h: Lunch 15:00h - 15:10h: Session 2 introduction 15:10h - 15:30h: <i>"Translating transition: A case study on using transition theory to guide policy action on energy efficient buildings"</i> Chris Reidy, University of Technology Sydney; 15:30h - 15:50h: <i>"Applicability of PCMs (Phase Change Materials) for Peak Load Shifting of Air Conditioning and Mechanical Ventilation (ACMV) Systems of Office Buildings in Tropical Climates"</i> Anusha Wijewardane, University of Moratuwa 15:50h - 16:10h: <i>"Experimental Validation of the Structural Integrity of Modular Horizontal Axis Wind Turbine Blades"</i> Sanjay Mukherjee, Sheffield Hallam University 16:10h - 16:30h: <i>"Do zero energy homes make economic sense in temperate climates?"</i> Stephen Berry, University of South Australia 16:30h - 17:00h: Coffee Break 17:00h - 17:10h: Session 3 introduction 17:10h - 17:30h: <i>"Residential building life cycle cost: A stochastic approach"</i> Sleiman Farah, University of South Australia 17:30h - 17:50h: <i>"The transformation towards low-carbon housing for low-income households in Mexico"</i> Sandra Moye-Holz, RMIT University 17:50h - 18:10h: <i>"Electricity demand profile of heating and cooling appliances in Australian low energy residential buildings"</i> Seung Ho Lee, University of South Australia 18:10h - 18:30h: Discussion
11:30h - 13:00h	Business cases and technologies for low-voltage flexibility aggregation with prosumers and local energy communities workshop (Room T1.01): <i>MAS²TERING is a three-year European project to develop ICT technologies that connect prosumers' flexible assets and generation systems to the grid using multi-agent system optimization techniques with the objective to lower consumer energy bills and facilitate DSO capacity management. The aim of this workshop is to assess the costs and benefits of the innovations on the grid at large.</i> CO-CHAIR BY: Thomas Messervey, Juan Espeche, Mario Sisinni, R2M Solution, srl., Marie-France Robbe, CEA

Time	Agenda
	<p>- The French Alternative Energies and Atomic Energy Commission, Julien Ardeois, Engie, Marie-France Robbe, Meritxell Vinyals, CEA, Jean-Laurent Hippolyte, Cardiff University, James Sharman, David Mundow, Lorraine Caldwell, Vincenzo Cimini, SMS, Plc.</p> <p>Innovative data models for the built environment session (Room T1.02), chaired by Adamu Abubakar, Teesside University 11:30h – 11:40h: Session introduction 11:40h – 12:00h: <i>"Multimodel-based exploration of the building design space and its uncertainty"</i> - Hervé Pruvost, TUD - Technical University of Dresden, CIB (BuildingSMART); 12:00h – 12:20h: <i>"The Open Data initiative on the built environment energy consumptions"</i> Filip Gluszak, Gridpocket (FLEXGRID); 12:20h – 12:40h: <i>"TOPAs, an open BMS IoT driven framework for energy efficiency of buildings"</i> Maxime Louvel, CEA- The French Alternative Energies and Atomic Energy Commission 12:40h – 13:00h: Discussion</p> <p>Efficient District heating and cooling networks workshop (Room T1.03): <i>The aim of this networking workshop will be firstly to introduce shortly each project and secondly to identify potential cooperation and synergies so as to maximize their research impacts.</i> CO-CHAIRER BY: Andrea Costa, R2M Solution, srl. (INDIGO), Dirk Pietruschka, enisyst GmbH (Flexynets); Martin Buchholz, Technische Universität Berlin (H-Disnet); Martin Klepal, CIT - Cork Institute of Technology (E2District); Inés Arias Iglesias, Euroheat & Power (SDHp2m); George Halikias, City University of London (InDeal)</p>
13:00h – 15:00h	Lunch
14:00h – 17:00h	PERFORMER workshop – private entrance only upon invitation (Room T1.03)
15:00h – 16:30h	<p>Solutions and tools for innovative energy management session (Room T1.01), chaired by Mike Downey, Teesside University 15:00h – 15:10h: Session introduction 15:10h – 15:30h: <i>"Innovative business model for the energy renewal of Torrelago district"</i> Alfonso Gordaliza Pastor, VEOLIA (CITYFIED) 15:30h – 15:50h: <i>"A fuzzy-based Building Energy Management System for energy efficiency"</i> José L. Hernández García, Fundación CARTIF (BRESAER) 15:50h – 16:10h: <i>"Energy-related data integration using Semantic data models for energy efficient retrofitting projects"</i> Álvaro Sicilia, Ramon Llull University (OptEEemAL) 16:10h – 16:30h: Discussion</p> <p>Innovative approaches to public building refurbishment session (T1.02): chaired by Huda Dawood, Teesside University 15:00h – 15:10h: Session introduction 15:10h – 15:30h: <i>"Gaming the Refurbishment of Hospital District using EU Streamer methods"</i>. Nicholas Nisbet, AEC3 UK Limited (BuildingSMART); 15:30h – 15:50h: <i>"Presenting the application of A2PBEER results to three virtual public buildings/ districts A2PBEER: Affordable and Adaptable Public Buildings through Energy Efficient Retrofitting"</i> Belen Gomez Uribarri, Acciona (A2PBEER) 15:50h – 16:10h: <i>"Evaluating the role of effective stake-holder engagement in achieving socioeconomic and environmental benefits of low-energy refurbishment of Higher Education Buildings"</i> Abdullahi Ahmed, Monica Mateo Garcia - Coventry University (RESSEEPE) 16:10h – 16:30h: Discussion</p>
16:30h – 17:00h	Coffee break (2nd floor foyer)
17:00h – 18:30h	<p>Social aspects of energy-efficiency technologies session (room T1.01): chaired by Olalekan Odedeyi, Teesside University 17:00h – 17:10h: Session introduction 17:10h – 17:30h: <i>"Social acceptance for energy efficient solutions in renovation processes"</i></p>

Time	Agenda
	<p>Dawid Krysiński ASM-Market Research and Analysis Centre (ZenN, BERTIM); 17:30h - 17:50h: <i>"Methodology of a socio-technical approach to sharing knowledge and promoting dialogue on energy efficiency via use of a Knowledge and Communication Platform across six communities"</i> Michael Oates, IESVE Ltd. (ENTRUST); 17:50h - 18:10h: <i>"Provision of personalized information on energy, IEQ and health leading to energy efficient behaviour and habits in buildings"</i> Ana Tisov, Huygen Installatie Adviseurs (MOBISTYLE) 18:10h - 18: 30h: Discussion</p>
18:30h - 21:00h	Evening Gala Dinner (Students Union 2nd Floor)

Day Two - Thursday 29th June 2017

Time	Agenda
07:30h - 08:30h	Registration & Welcome Coffee (2nd floor foyer)
08:30h - 10:00h	<p>Reducing energy consumption and carbon footprint by smart and sustainable use workshop (Room T1.01): <i>The aim of this networking workshop will be firstly to introduce shortly each project and secondly to identify potential cooperation and synergies so as to maximize their research impacts.</i> CHAIRED BY: Regis Decorme, CSTB - Center for Science & Technology in Buildings, Andrea Costa, R2M Solution, srl. (DR-BoB); Malcolm Yadack (Sim4Blocks), George Halikias, City University of London (InDeal), Martin Klepal, CIT - Cork Institute of Technology (E2District), Mia Ala-Juusela, VTT (STORY); Lena Holzner, Smart City Innovation Lab</p> <p>Innovative energy framework methodologies session (Room T1.04), chaired by John Broderick, Teesside University 08:30h - 08:40h: Session introduction 08:40h - 09:00h: <i>"Interoperability: A data conversion framework to support energy simulation"</i> Luis Paiva - Centre of Technologies and Systems of Institute for the Development of New Technologies; 09:00h - 09:20h: <i>"A novel and rapid nZEB skills mapping and qualification framework methodology"</i> Jan Cromwijk (PROF/TRAC); 09:20h - 09:40h: <i>"Application of a KPI-driven protocol for sustainability assessment"</i> José L. Hernández García, Fundación CARTIF (CITYFIED) 09:40h - 10:00h - Discussion</p>
08:30h - 12:00h	<p>Four steps closer to a full set of interoperable tools for designing energy efficient buildings workshop (Room T1.02): <i>The development of sustainable solutions for energy-efficient buildings properly integrated in their neighbourhood and their corresponding construction processes requires major innovations in the design tools, construction methods and management practices. Latest advances in modelling and optimisation techniques should enable improvements in buildings design and control in order to facilitate decision-making before the construction stage.</i> CO-CHAIRLED BY: Eberhard Michaelis, GEM Team Solutions; Margherita Scotto, D'appolonia (HOLISTEEC), Hervé Pruvost, Technical University of Dresden, CIB (eeEmbedded), Marc Bourdeau, Dirk Van Maercke, CSTB - Center for Science & Technology in Buildings; Andre van Delft, DEMO Consultants (STREAMER), Farid Fouchal, Loughborough University (Design4Energy)</p>
10:00h - 10:30h	Coffee Break (2nd floor foyer)
10:30h - 12:00h	<p>Innovations to the paradigm shift of energy business models session (Room T1.01): chaired by Vladimir Vukovic, Teesside University 10:30h - 10:40h: Session introduction 10:40h - 11:00h: <i>"Identification of value proposition and development of innovative business models for demand response products and services enabled by the DR-BOB solution"</i> - Mario Sisinni; R2M Solution, srl. (DR-BoB) 11:00h - 11:20h: <i>"Analysis of market design barriers for the implementation of innovative</i></p>

Time	Agenda
	<p><i>business models in the energy sector"</i> - Lena Holzner, Smart City Innovation Lab; 11:20h - 11:40h: <i>"The STORY continues: The added value storage can bring to flexible and secure energy networks, second year of work"</i> - Mia Ala-Juusela, VTT (STORY) 11:40h - 12: 00h - Discussion</p> <p>Innovative district-level retrofitting scenarios session (Room T1.03): chaired by Sergio Rodriguez, Teesside University 10:30h - 10:40h: Session introduction 10:40h - 11:00h: <i>"Retrofitting of a residential district under near zero energy buildings criteria"</i> Miguel Ángel García-Fuentes; Fundación CARTIF (REMOURBAN) 11:00h - 11:20h <i>"Model-based simulation and comparative evaluation of district retrofit scenarios"</i> Hassan Ridoaune, United Technologies Research Centre Ireland Ltd. (OptEEmAL) 11:20h - 11:40h: <i>"KPI-driven methodology for urban renovation at district level. Sustainable Strategic Urban Planning"</i> - Miguel Ángel García-Fuentes, Fundación CAR-TIF (CITYFIED) 11:40h - 12:00h - Discussion</p> <p>Innovative scenarios for energy transition session (Room T1.07): chaired by Huda Dawood, Teesside University 10:30h - 10:40h - Session introduction 10:40h - 11:00h: <i>"Residential electricity tariffs in Europe: current situation, evolution and impact on residential flexibility markets"</i> Juan Espeche, R2M Solution, srl. (MAS²TERING); 11:00h - 11:20h <i>"Long term energy transition scenario analysis for the city of Donostia"</i> - Eneko Arrizabalaga, Fundación TECNALIA; 11:20h - 11:40h <i>"Can Energy positive neighbourhoods enable the integration of distributed electricity generation into current electricity networks?"</i> Tracey Crosbie, Teesside University (IDEAS) 11:40h - 12:00h - Discussion</p> <p>Performance as Designed - Testing new solutions for self inspection and quality checks in the real world workshop (T1.04): <i>ACCEPT project develops an innovative approach to ensure that buildings are built as designed and hence perform as design. The project uses innovative approaches and technologies to facilitate a step change in the way in which construction projects are managed through construction site activities.</i> CO-CHAIRER BY: Jason Page, Ingleton Wood; Manon Brancart, Jacques Delens; Javier Sanchez, Answer Tech.</p>
12:00h - 14:00h	Lunch
14:00h - 15:30h	<p>Energy consumer engagement models & load profiling session (Room T1.01): chaired by Mike Downey, Teesside University 14:00h - 14:10h: Session introduction 14:10h - 14:30h: <i>"An integrated behavioural model towards evaluating and influencing energy behaviour. The integration of motivational factors"</i> Christian Beder, Cork Institute of Technology (E2District); 14:30h - 14:50h: <i>"Consumer based market intelligence: behavioral foundations of an energy control platform - end user profile for behavioral change"</i> Lena Holzner, Smart City Innovation Lab 14:50h - 15:10h: <i>"Thermal Control in Buildings using Model Predictive Control under Air Quality Constraints"</i> Suzanne Lesecq, CEA - The French Alternative Energies and Atomic Energy Commission (TOPAs); 15:10h - 15:30h - Discussion</p> <p>Innovations in the assessments of energy performance gap session (T1.02): chaired by Olalekan Odedeyi, Teesside University 14:00h - 14:10h: Discussion 14:10h - 14:30h: <i>"Find the gap: Project MOEEBIUS, a Holistic Energy Performance Optimization Framework"</i> Rui Martins, ISO (MOEEBIUS); 14:30h - 14:50h: <i>"An IFC interoperable framework for self-inspection process in buildings"</i> José L. Hernández García, Fundación CARTIF (INSITER);</p>

Time	Agenda
	<p>14:50h - 15:10h: "Highly innovative building control tools tackling the energy performance gap" Andrea Costa, R2M Solution, srl. (Hit2Gap) 15:10h - 15:30h - Discussion</p> <p>Innovative smart grid technologies session (Room T1.03): chaired by Adamu Bubakar, Teesside University 14:00h - 14:10h: Session introduction 14:10h - 14:30h: <i>"Demand response technology readiness levels for blocks of buildings"</i> Tracey Crosbie, Teesside University (DR-BoB); 14:30h - 14:50h: <i>"Exploring Low Cost Smartphone Infrared Cameras to Reduce the Energy Performance Gap in Buildings"</i> Colin Pearson, BSRIA Ltd.; 14:50h - 15:10h: <i>"Identifying the value of demand response for small and medium scale energy users and building occupants"</i> Sylvia Breukers, DuneWorks B.V. (DR-BoB) 15:10h - 15:30h: Discussion</p> <p>Innovations supporting sustainable growth in the buildings sector session (Room T1.04): chaired by Mario Sisinni, R2M Solution, srl. 14:00h - 14:10h - Session introduction 14:10h - 14:30h: <i>"EU support for innovation and market uptake in smart buildings under the Horizon 2020 framework programme"</i> Philippe Moseley, European Commission, Executive Agency for SME's (EASME); 14:30h - 15:30h: <i>"A platform to support innovative services based on semantic data integration"</i> Leandro Madrazo, ARC Engineering and Architecture La Salle (ENERSI) 15:30h - 15:50h: <i>"BIM-Client Maturity Levels: Review of different EIRs in the AEC sector"</i> Michael Crilly, Studio UrbanArea LLP 15:50h - 16:30h: Discussion</p> <p>Energy-efficient optimised district heating and cooling workshop (T1.07): <i>The expected outcome is to present invited stakeholders with an overview of the E2District project i.e. the objectives of the project, progress of work packages, summary of project results and expected impact of the project.</i> CO-CHAIRER BY: Martin Klepal, CIT - Cork Institute of Technology; Emmanuelle Gaudichet-Maurin, Veolia; Kostas Kouramas; UTRC - United Technologies Research Center; Jose Carlos Esteban, Acciona; Marc Bourdeau, CSTB - Center for Science & Technology in Buildings.</p>
15:30h - 17:00h	<p>Closing keynote speeches (Room T1.10):</p> <p>15:30h - 15:45h: Closing Remarks 15:45h - 16:15h: Margot Pinault, DG Energy; 16:15h - 16:45h: Yasmine Assef, Renault; 16:45h - 17:15h: Allan Thompson, Tolent Living Ltd</p>
17:00h - 19:00h	<p>Farewell Reception, at the Dickens Inn (on-campus, between the Curve building and the Student's Union)</p> <div>    </div>

Keynote Speakers

Opening Ceremony Keynotes - 28th June



09:15h: Stefan Lodeweyckx, - Founder of Enervalis

Stefan is passionate about the mix of technology, larger scale problems and how innovation can bring solutions to make our society a better place. He has a broad international career in diverse companies and roles and is backed with a MSc and MBA and brought his passion to live by means of founding Enervalis in 2013. In that context he devotes much of his time to building the "operating system of the future energy system" and with that Enervalis can truly enable the "Internet Of Energy".



9:45h: Sorcha Edwards - Secretary General, Housing Europe

Convinced of the need for decent housing for all for our societies to function and the role of Housing Europe members in achieving that. Sorcha has a demonstrated history of promoting inclusive Housing policies & a fair energy transition in the EU and across Europe . Skilled in International Project Management, Policy analysis and influence, Social, Cooperative & Public Housing promotion. Strong EU policy professional with a Post Graduate Certificate focused on Advanced Environmental and Energy Studies from the Centre for Alternative Technology/East London University



10:15h: Jane Lumb - Head of Energy and Sustainability Policy, Nottingham City Council

Jane leads the Energy and Sustainability Policy teams at Nottingham City Council. This incorporates the implementation of the city's energy, waste and climate change strategies, energy management of the council estates, management of waste disposal, business and citizen engagement. Jane has worked on a wide range of energy and sustainability policies in both central and local government ranging from low carbon heat and renewable energy, to green financing and barriers to business engagement in carbon reduction initiatives.

Closing Ceremony Keynotes - 29th June



15:45h: Yasmine Assef - Program Manager, Renault Group

Dr Yasmine Assef obtained her electrical engineering MS degree from Ecole Spéciale des Travaux Publics in Paris, France in 1993, and her PhD degree in electrical engineering from University Paris VI, France in 1997. Yasmine joined Alstom in 1998 and held different positions in the domain of power grid energy management systems. In 2011, Yasmine joined the newly funded joint venture between Alstom Grid and Bouygues, EMBIX, specialized in Smart grid consulting services for Smart cities, as Deputy CEO. Since 2016, she joined the Renault Group, as Program Manager and Expert for Energy Services, within the Electric Vehicle Business Unit.



16:15h: Margot Pinault - Policy Officer, European Commission

Margot has a Masters in Economics in Poland (Wroclaw) and Masters in European and International Business Law in France (Orleans). She also has 4 years of experience at the Commission and 7 years of management experience in the French private sector for industrial clients in the field of energy management systems for buildings, smart home systems, automation, heating and cooling regulation and control.



16:45h: Allan Thompson - Development Director at Tolent Living Ltd

Allan is a specialist residential construction company working for both the public and private sector with a turnover of £35M largely created by the acquisition of Gentoo Construction by the Tolent Group. Allan also undertook government sponsored research and development into meeting the higher levels of the Code and has also worked on Gentoo's low carbon retrofit initiatives for existing housing stock including Retrofit for the Future and PAYS (where Gentoo were one of only five national pilots).

Campus Map

UNIVERSITY BUILDINGS

CAMPUS HEART

- | | | |
|---|-----------------|-----|
| 1 | The Curve | (T) |
| 2 | Library | (L) |
| 3 | Students' Union | |

Campus Heart is a designated smoke free zone.

BLUE ZONE

- | | | |
|---|----------|-----------|
| 4 | Greig | (G) |
| 5 | Europa | (IT & OL) |
| 6 | Victoria | (VR) |
| 7 | Mercuria | (MC) |

PURPLE ZONE

- | | | |
|---|----------|-------|
| 8 | Olympia | (OLY) |
| 9 | Centuria | (H) |

GREEN ZONE

- | | | |
|----|----------------|------|
| 10 | Student Centre | (SC) |
| 11 | Clarendon | (CL) |
| 12 | Waterhouse | (W) |

YELLOW ZONE

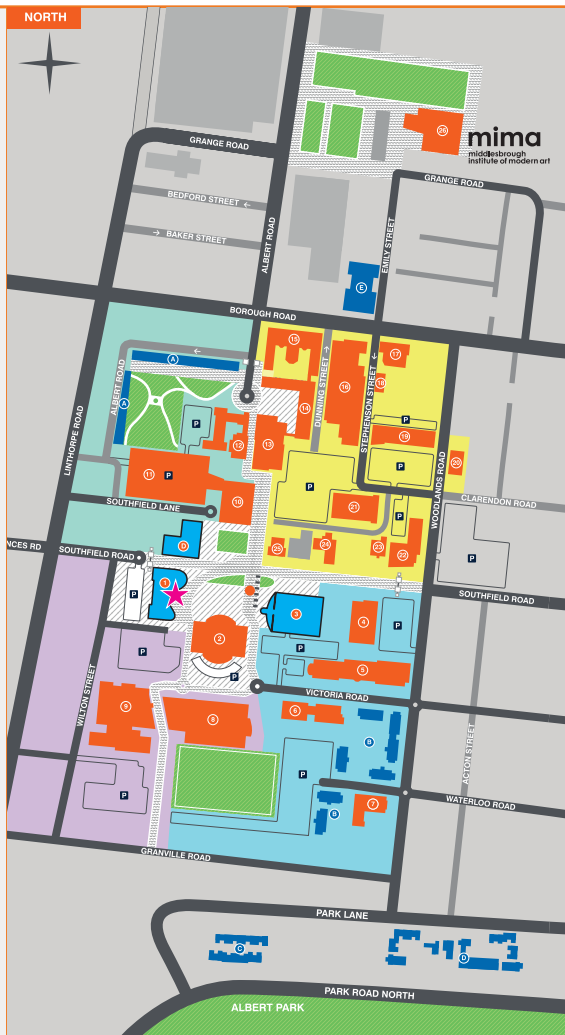
- | | | |
|----|---------------------|-------|
| 13 | Brittan | (BRT) |
| 14 | Middlesbrough Tower | (M) |
| 15 | Constantine | (C) |
| 16 | Stephenson | (IC) |
| 17 | Cook | (CK) |
| 18 | Foster | (F) |
| 19 | Phoenix | (P) |
| 20 | Education House | |
| 21 | Orion | (CE) |
| 22 | Athena | (A) |
| 23 | University House | (UH) |
| 24 | Aurora | (AH) |
| 25 | Centre House | (CH) |

- | | |
|----|---------------------------------------|
| 26 | mima |
| | Middlesbrough Institute of Modern Art |

★ Main Entrance

ACCOMMODATION

- | | |
|---|------------------------|
| A | King Edward's Square |
| B | Woodlands Halls |
| C | West Parkside Village |
| D | East Parkside Village |
| E | Teesside Central Halls |



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The buildings being used for Sustainable Places 2017 are coloured in  and marked 1 3 D

1 is the Curve Building where all the main events will take place.

3 is the Students Union where all the gala dinner will be located.

D is the Dickens where farewell drinks will be held.

Day Three - Friday 30th June 2017

Time	Agenda
09:00h - 14:00h	SP2017 participants are offered a complementary guided visit to local pilot sites demonstrating regeneration projects in the North East of England. First to the Redcar offshore windfarm, and then to the Southbank Gentoo housing developments (Sunderland based housing association) showcasing renewals using energy efficient measures. Guests will be dropped-off in old town Durham at mid-day.



Sustainable Places 2018

We are proud to announce that the upcoming 6th edition of the Sustainable Places international conference will be held in Le Bourget-du-Lac in Chambéry France, at the 22,000m² CEA INES facilities (Technopole Savoie technolac). Organized by CEA INES, CEA LITEN, and R2M Solution, Sustainable Places 2018 will carry forward the advances to the state of the arts in EeB and smart grid innovations.



Innovation
Energy Services & Sustainability
Engineering
ICT & Automation



INES (www.ines-solaire.org) is today the reference center in France, and one of the first in Europe, dedicated to research, innovation and training on solar energy. Initiated by the General Council of Savoie and the Rhône-Alpes Region, it brings together research activity facilitated by the CEA with laboratories of the University of Savoie and works closely with industrialists on its fields of activity: solar photovoltaic, thermal, solar concentrating technologies, electricity, solar mobility and buildings with high energy efficiency. They cover the entire value chain, from material to system connected to the network. They go as close as possible to industrial needs, through prototypes and pilot lines.

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