



Meeting of:	EAUC Ireland Regional Group	Date:	2 March 2016	Time:	11.08am	Location:	CR08A Crest Centre
In Attendance:	Terence Cosgrove (SWC)	Ben McGonagle (SWC)	Carmel McTernan (minutes)	Shane McBrien (SWC – CREST)	Peter McNamee (SWC)	Matthew Lawson (University of Edinburgh)	Fintan McCann (CAFRE)
	Paul Mooney (CAFRE)	Fiona Dickson (CAFRE)	Sean Conway (University of Ulster)	James Waide (University of Ulster)	Kerri Farrell (SRC)	Niamh McGettrick (UCC)	Abhay Vadher (UCD)
	Barry McCarron (SWC)	Paul Cairns (SWC – Innotech)	Carmel Fyfe (Keep NI Beautiful)	Ruth McAlister (SWC)	Peter Kane (Belfast Met)	John Doran (LYIT)	Mary Daly (LYIT)
	Anthony Schmidt (QUB)	Damian Dalton (Chair)	Peter Archdale (SWC – Board of Governors)				
Apologies:	Malachy McAleer	Fiona Brazil	Carol Viney	Seth Kirby (EAUC)			

Item No	Item Topic	Summary Discussion	Actions
1	<u>Welcome by Chairman</u>	Damian Dalton (Chairman) welcomed the assembled group to the second meeting of the EAUC Ireland Regional Group, he thanked them for travelling and congratulated SWC on receiving the Green Gown Award, as Best Newcomer Winner in November 2015.	

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	<u>Welcome by South West College</u>	<p>Ben McGonagle (Estates Officer) thanked Damian and welcomed all. He explained how the environmentally sustainability agenda is managed within SWC and gave a description of the “Let’s Green SWC” three-pronged holistic approach to sustainability at SWC which had won the College the Green Gown Award in Nov 2015. Ben encouraged the group to submit applications of their own for this year’s competition.</p>	
2	<u>Tour of CREST pavilion and demonstration of CREST lab facilities</u>	<p>Paul Cairns (Research & Development Technician) welcomed everyone to the CREST building. He explained that CREST provides industry R&D, demonstration and testing facilities for new renewable energy products and sustainable technologies. The facilities are available to businesses who have ideas for new products or process developments but who do not have the physical and/or technical capacity to develop, test and commercialise them. The facilities include laboratory space, testing equipment, demonstration technologies and the assistance of technical staff to help bring ideas and concepts to the next stage of development.</p> <p>Barry McCarron (Research & Development Technician) provided details on the CREST pavilion explaining the various techniques and materials used for construction. The CREST centre is one of the most sustainable buildings in UK and Ireland and will be the first commercial building in Northern Ireland that will have the Passive House Certification. In addition with BREEAM excellent in terms of the BRE sustainable benchmark for UK commercial buildings, it is also Passive House Certified for its energy efficient envelope and ventilation system and be zero carbon, with renewable energy providing its own source of heat and lighting. Whilst a combination of two of these sustainable criteria has been carried out in other parts of the UK, this will be the first example of all three used together.</p> <p>Shane McBrien (Research & Development Technician) explained the range of renewable energy technologies incorporated on site. Extensive discussion was given to the 45kWe PV solar system. This system is robotically controlled and is the first of its kind installed in Europe. Shane explained the advantages associated within this type of system in comparison to a conventional static PV system. Shane explained how the PV system was configured to ensure that electricity produced was used on site and surplus was then stored in the battery energy storage system.</p> <p>A summary was given on the battery energy storage system, including its chemical composition and configuration. The advantages of utilising energy storage were discussed in detail.</p>	

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		<p>Shane and Paul welcomed everyone to the lab and gave a summary of equipment and testing capabilities. The Research & Design lab comprises a large workshop facility which can be divided into smaller project workspaces. Equipment within the Research & Design lab includes biomass and biogas testing facilities, and a range of testing and ancillary equipment.</p> <p>Shane gave an overview of biogas testing equipment and explained that in order to assist the growing biogas industry in our region, CREST have developed a range of testing services. Having invested in new laboratory apparatus, CREST is now able to offer:</p> <ul style="list-style-type: none"> • Gas quality testing (Methane, Carbon Dioxide, Oxygen, Hydrogen Sulphide, Temperature) • Feedstock and Digestate nutrient analysis (N,P,K) • Feedstock biogas potential (total gas yield, gas quality, retention times) • Digester performance tracking and optimisation (FOS/TAC and Volatile Fatty Acids) • Batch and continuously fed digestion analysis • Pre-treatment system performance assessment • Digester additive performance analysis <p>The range of services available through CREST has been developed in co-operation with local industry to identify specifically which particular analysis and techniques are the most desirable and commonly used. Shane explained the benefits to local AD operators of having such specialized testing facilities locally and emphasized that CREST are working with over 60% of the biogas plants in Northern Ireland in some sort of technical capacity.</p> <p>Paul described the biomass testing equipment and detailed the range of equipment used to process and analyse various biomass residues to assess their suitability for producing biomass fuel. He explained how biomass fuel could be analysed to assess quality by determining ash content, calorific value, moisture content etc. A live demonstration was also given of the pellet mill which is used to make wood pellets.</p>	
3	<u>New Erne campus project –</u>	Peter Archdale (Board of Governors) gave a PowerPoint presentation on the proposed Erne Project New Build for South West College on the old Erne Hospital	

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	<p><u>Sustainability, passive-house design and energy-efficient building management.</u></p>	<p>site. Hamilton Architects were selected to design the 8,000 sq. metre new build. The building will be conveniently located in the town centre, on the waterfront with a south facing aspect, it comprises of a curved glass, water facing frontage which sweeps south to west, the south end of the building will comprise of 4 floors whilst the west end will have 2 floors. The building has been designed with the flow of people moving through the glass fronted corridors with classrooms being placed in the core of the building. It is anticipated that the new build will be complete and ready for moving into by September 2019.</p> <p>The presentation was followed by an open discussion on the various elements of sustainable building design and building management. An engaging discussion highlighted various areas that might be worth further evaluation including:</p> <ul style="list-style-type: none"> • “windowmaster” ventilation solution (operated via BMS) and the need to ensure that roof-vents are weather-proof was also made. • “liquid cooling” for server rooms including the use of oil as the liquid coolant as pioneered by Leeds University. • “energy monitoring of server rooms” and possible software options to manage this • concept of “soft landing” contracts whereby contractors/developers remain involved in the project after completion so that any teething issues during operation can be ironed out. 	
4.	<p><u>Social responsibility and sustainability strategy/approach at the University of Edinburgh.</u></p>	<p>Matthew Lawson (Edinburgh University) was the invited speaker and gave a presentation on <i>“Social responsibility and sustainability strategy/approach at the University of Edinburgh”</i>.</p> <p>Matthew's presentation focussed on some key areas such as:</p> <ul style="list-style-type: none"> • The importance of pursing a holistic approach to sustainability incorporating broader sustainability considerations such as CSR, climate/energy policy and targets, community involvement and engagement, divesting from fossil fuel investments, promoting ethical investments, etc. • For a sustainability movement to get noticed internally it needs to be supported by a strong communication policy – to ensure that the movement has a visual impact i.e. a brand, social network platforms, etc. • Appropriate policies and procedures need to be prepared – not just for the sake of having them. Policies and procedures need to enact change management. 	

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		<ul style="list-style-type: none"> Engaging staff and students is crucial – develop an academic workforce to work on projects, engage students in a sustainability forum (needs creativity – food festivals, films, etc.). Engaging staff can involve a sustainability recognition scheme where there are monthly awards for staff who are “seen to be green”. Engage the broader community and other institutions to come together to share ideas, influence policy, etc. together. Scottish Govt has implemented mandatory carbon reporting for all public bodies – this helped force institutions into action. <p>Matthew's presentation was followed by an engaging and interactive Q&A session.</p>	
5.	<u>Energy efficient ICT practices</u>	<p>Damian Dalton (UCD) gave a presentation on “Green data-centres” and energy-management of servers.</p> <p>Damian's presentation provided a great insight to the Group on the energy-demands of IT servers and how this demand can be monitored and subsequently managed. Some notable points of info included:</p> <ul style="list-style-type: none"> In approx. 73% of organisations utilities are paid for by Estates/Facilities Team – disincentivising IT teams to manage servers more efficiently In an average server room, approx. 38% of the energy demand comes from cooling requirement Timing of running tasks on server is important – non-essential tasks can be run at night and non-essential servers can be powered down overnight. Air-flow in a server room has a huge impact on room-temperature and cooling solutions and needs to be considered when designing a server room Software solutions (Data-Centre Infrastructure Management (DDIM) tools) are available that can help to identify individual programs and users that are particularly demanding of the server, can allow an operating cost estimate to be made on some of the College's applications such as e-mail, CRM, payroll, etc., and can facilitate monitoring of kWh, cost, CO2, “energy hoggers”, etc. <p>Before finishing his presentation Damian extended an offer of his services/expertise to those institutions in attendance and advised that – for those interested – there is a free course available through Netherlands “Open University” on Green Data Centre Management. All members were offered by Stratergia a free version of Papillon to install in their institute computing facilities.</p>	

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6.	<u>General Group discussion</u>	<p>The last agenda item covered a general discussion on the future work of the EAUC Ireland Group and relevant house-keeping issues.</p> <p>Some of the ideas/suggestions proposed included:</p> <ul style="list-style-type: none"> • Mary Daly (LYIT) advised that SEAI have an “energy link mailer” where people can pose relevant energy-related questions. The EAUC Ireland Group could set up something similar. • Suggestion: EAUC-Ireland group should have a shared web page to make comments and provide a thread for discussing various topics. • Future meetings could focus on sharing of best-practice on energy-saving initiatives. The theme of incentivising and directing academics in sustainability was a topic proposed for the next or subsequent meeting. • Belfast Met and Letterkenny IT put forward their institutions as possible future venues. The end of May was put forward as the proposed date for next meeting. • To look to share institute sustainability KPI's at the various EAUC Ireland meetings so that we can monitor sustainability progress over the periods between the meetings and also discuss possible improvements for the future. • EAUC Ireland Group should look at organising a “national climate day of action/commitment” across all institutions • Get other contacts from the Irish institutes so that they can be included in future EAUC email shots. • Keep NI Beautiful looking to link with Group to progress the “Green/Eco Campus” initiative • A suggestion was made by Paul Mooney (CAFRE) that an invite be extended to someone from EAUC to attend the Group’s next meeting to discuss in more detail the LIFE assessment tool. • EAUC Ireland Group could look to engage more with NUS “Green Impact” scheme and other student-union led initiatives. • EAUC Ireland Group will look to organise a major, national event on sustainability with an international guest, speaker to give a keynote address. A committee should be established to co-ordinate and maximise the impact of the event. • The idea of sharing data on energy-usage, forming energy-related KPIs, etc. was discussed with Ben McGonagle (SWC) to discuss with Peter Kane (Belfast Met) about a possible template for circulation to the Group. 	

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		<ul style="list-style-type: none"> • OPW in ROI have an “optimising power at work” scheme which is providing free-metering to some institutions – this might be something worth looking into. <p>Damian closed the meeting by thanking those in attendance and the host-venue for their hospitality. There were unanimous thanks to Ben McGonagle, Peter Archdale and all the other CREST team members for their splendid presentations, informative talks and warm reception. A special thanks was also given to our guest speaker, Matthew Lawson, University of Edinburgh, for his excellent presentation “Working together to create a leading socially responsible and sustainable university”.</p>	