



Sustainable Thinking Meddwl Cynaliadwy

Cardiff Metropolitan University
Prifysgol Metropolitan Caerdydd

REPORT ON SUSTAINABILITY AND THE ENVIRONMENT

AUGUST 2013 - JULY 2014



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FOREWORD



I am fully committed to sustainable development in learning, teaching, research and enterprise and in our leadership and management practices. The University will continue to embed sustainability principles within its strategic, business and operational activities.

A key emphasis will be to ensure that our graduates are 'future proofed', motivated and inspired to make a positive difference: we are committed to promoting and incorporating education for sustainable development and global citizenship within the curriculum, developing sustainable graduates with the awareness and critical capabilities to respond effectively to challenges throughout all aspects of their lives and careers.

I am proud of our achievements in these areas, which were reflected in the 2014 People and Planet League Table, where the University was ranked 19th in the UK, in the First Class Category and 2nd in Wales. We have been certified against the ISO14001 Standard for Environmental Management Systems (EMS) since 2012, and work in partnership with others in Wales and in wider communities.

Prof A J Chapman
Vice-Chancellor & Principal



2. ABOUT THE UNIVERSITY

Located in an exciting, modern European capital city, Cardiff Metropolitan University is a global university that provides education and training opportunities that are accessible, flexible and of the highest quality to students from over 140 countries worldwide. The university has been integral to the City of Cardiff since 1865 and prides itself on being a strong, sustainable and student-centered, focused on the economic, social and cultural wellbeing of Cardiff and southeast Wales; promoting student employability, applied research and knowledge transfer. Cardiff Metropolitan University is made up of five Academic Schools: Cardiff School of Art and Design, Cardiff School of Education, Cardiff School of Health Sciences, Cardiff School of Management and Cardiff School of Sport.

All schools specialise in courses that are career orientated and have been designed in conjunction with business and industry. Through work placement programmes, professional accreditations and opportunities to study abroad, our focus on employability has ensured that 94% of our graduates enter employment or further study within six months of graduation.

Learning and teaching is central to what the University does and it has a developing research profile which informs and helps develop/enhance teaching and learning activities. Cardiff Metropolitan University is proud to be associated with a number of high-calibre partners in the UK and internationally. This means that students from over 140 countries are able to study Cardiff Metropolitan University degrees and MBA programmes.

3. POLICIES, STANDARDS AND BENCHMARKS FOR THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

- a) The University's work on the environment and sustainability is guided by an Environment and Sustainability Policy. This policy was reviewed by the Board of Governors in November 2014 and is attached at Appendix 1.
<http://www.cardiffmet.ac.uk/about/Documents/Sustainability/Environment%20and%20Sustainability%20Policy%20v3.pdf>
- b) The University submitted into the People and Planet League Tables and was rated 19th of universities in the UK, 2nd in Wales and was ranked in the First Class Category. The University will continue to use this league table as a measure of its performance.
- c) The University achieved ISO14001 in March 2012.
- d) Inclusion of Major Incident Plan at Appendix 5



4. RESPONSIBILITIES

The Board of Governors has responsibility for environmental performance and the sustainability strategy. The Finance and Estates Committee of the Board oversees the detailed work on the environment and sustainability in the organization and its business operations. The ISO14001 Environmental Performance Group (formerly called Steering Group) reports directly to the Vice-Chancellor's Board.

The Environmental Management System (EMS) covers all University activities from energy and utilities, to waste management and recycling, but more significantly includes embedding education for sustainable development in the curriculum and into research and enterprise activities.

The University works closely with the Student Union to maintain ISO14001 and the Student Union takes particular interest in the University's Fair Trade Status and is the vital link to all student activities. Penarth Management Services is providing on-going support to the maintenance of ISO14001. During 2013-14 the University made good progress improving its register of environmental legislation, its register of aspects and its procedures. The University improved its document storage system and did a range of audits.

The University has identified environmental aspects and nominated aspect owners, which are attached at Appendix 2.

5. THE UNIVERSITY'S APPROACH TO SUSTAINABLE DEVELOPMENT

During the year, Cardiff Metropolitan University made strides to cohere various strands of its activity on the sustainability agenda, recognising that the concept of sustainable development is complex, spanning economic development, environmental quality and social equity. The University believes its actions must address these environmental, economic and social factors. Its approach to sustainability is characterised as an organic, or a bottom-up approach within a management framework, rather than a top-down imposition of a high level concept. The approach, whilst comprising individual operational areas, each focussing on specific targets or standards, allows the University to implement relevant and meaningful change. The specific strategies and action plans are overseen and steered via a range of senior management groups and committees, inter alia Estates and Sustainability Committee, Equality and Diversity Forum, Staff Development Panel and Health and Well-being Steering Group, to ensure appropriate priority, resource and outcome is provided to meet agreed objectives.

When aggregated, the outcomes clearly amount to a sustainable development position evidenced by the following achievements:

- ✎ *An Investor in People organization.*
- ✎ *Gold in the Wales Corporate Health Standard.*
- ✎ *A Fair Trade University.*
- ✎ *Gold in the Welsh Government's Travel Plan Awards and developing second generation Carbon Management Plan.*
- ✎ *ISO14001 certified Environmental Management System.*
- ✎ *1st Class Award and being ranked within the top 20 universities in the UK for its environmental performance.*

As a result of developing action plans for Investors in People, Corporate Health Standard, ISO14001 and the Strategic Equality Plan, it became clear that much of this work is, by nature, complementary. A number of activities and actions are relevant to all areas of work and whilst many of the University-wide achievements are accolades in their own right, the combined sum of this work opens up new dimensions of thinking.

The University has adopted sustainable behaviours and continues to meet the challenge of embedding these into all staff and student activities. These behaviours are guided by the Strategic Equality Plan, Environmental Management System, Health and Well-being Strategy (Corporate Health Standard), Carbon Management Plan, Water Efficiency Plan, Investors In People Standard, Transport and Travel Plan, Fair Trade Policy and Sustainable Procurement approach via the Welsh Sustainable Procurement Assessment Framework. The University's adoption of these behaviours is linked to clear measurable objectives such as ISO14001.



In July 2014 the Major Incident Plan was developed. This Major Incident Plan (MIP) sets out how the University will deal with the threat, immediate consequences and aftermath of a major incident. The MIP will be reviewed annually and tested through a simulation exercise periodically.

As part of its commitment to raising the awareness of sustainability and engaging staff to make a difference, the University has implemented an on-line, e-Learning module which can be accessed by all staff as part of their induction and staff development process. This course introduces staff to the topic of sustainability and policies of the University, and is a compulsory part of all new staff's corporate induction into the University.



PEOPLE AND PLANET: GO GREEN WEEK 2014

Go Green Week is People & Planet's annual national week of action on climate change in schools, colleges and universities.

For 2014 Go Green Week was undertaken by a group of level 5 students studying for a degree in Events Management within the School of Management. The Students ran a week of activities to raise awareness and demand stronger action to tackle the climate crisis.

The University celebrated the People and Planet Go Green Week 2014 with the following activities:

Gorgeous in Green

Support the cause and wear green.

Water Refill Stations available

Water refill stations are available to all staff and students to purchase a bottle for £1.50 and then fill up with water rather than buying bottled water.

Green Pledge - Sign up for a pledge

Students and Staff are able to make a green pledge to save energy and be more green.

Waste not Smoothies

Smoothies on sale for staff and students to purchase.

Photo Booth

Take a Go Green photo with your friends.



Environmental Exhibition

- Cardiff Digs & Cardiff Council Waste Management
- Energy Saving Trust / Cyd Cymru
- Tenovus
- Traveline Cymru
- Veolia
- Waste Awareness Wales / Love Food, Hate Waste
- WRAP
- Cardiff Met Sustainable Travel stand
- Clothes 'Swap Shop' organised by students
- South Wales Police (security marking bikes + selling bike locks)
- Cycle training
- Dr. Bike (free bike servicing)

Clothes Corner

Donate or swap your clothes

Pedal Power-

Charge your phones for free

The Big Green Quiz-

Can you take on mother nature?



Above: Clothes 'Swap Shop' organised by students.



Above: Vice Chancellor and students trying out the Go Green Photo Booth props.



6. PROGRESS ON ACADEMIC SUPPORT

Between 2012 to 2014 a range of teaching interventions, associated case studies and support resources have been developed to demonstrate how sustainability is being and could be taught across the University. The case studies are from a range of different discipline areas and discuss ideas around the topics studied, teaching methods used and assessments carried out. These best practice case studies can be found at

<https://tsr.cardiffmet.ac.uk/Units/LTDU/Pages/Sust-Case-Studies.aspx>

In 2013 a University 'Graduate Attributes Framework' was approved. This framework specifies a number of skills that all Cardiff Metropolitan graduates will acquire, and evidence of these skills in the curriculum will be required when validating and reviewing programmes. The framework includes demonstrating an appreciation of the importance of sustainable development. During 2014-15 (as part of the periodic review process) the Learning Teaching and Development Unit (LTDU) will be actively supporting academics and programme directors in implementing the graduate attributes framework in curricula.

In recent months LTDU has implemented an institution wide self-evaluation audit tool which enables Programme Directors and teams to report on sustainability oriented teaching that currently exists within the University curricula. The tool provides customised feedback based on responses. The purpose of the tool is two-fold, allowing for auditing of current provision as well as providing programme directors with a catalyst for developing their programmes.

The University continues to increase flexible learning through enhancement of virtual learning practices via the implementation of Moodle, as well as the piloting of Panopto lecture capture software. Lecture capture potentially addresses some key issues and challenges faced by the University in shaping flexible and sustainable learning environments appropriate to a wide range of learner requirements. Thus becoming increasingly relevant across the institution, LTDU continues to drive forward the notion of lecture capture as an integral aspect of contemporary academic delivery.

Video Conferencing continues to be regularly used for Franchise Approval Events, Periodic Reviews and Action Planning Meetings with collaborative partners. Staff are also encouraged to use Skype for day to day contact with partners and this has been written into the Moderator and Link Tutors Handbook. The electronic submission of assignments continues to increase.

In the coming weeks the first of an on-going sustainability oriented open forum event entitled Sustainable Campus Exchange will take place. The event and its associated umbrella project, Cardiff Metropolitan Sustainable Campus aim to develop an institution wide community of practice focused on the field of sustainability. Key to achieving this is the involvement of a broad range of potential stakeholders including university service and academic staff, university students and members of the wider community including other local education institutions, Cardiff Council and other local organisations and individuals with an interest in progressing inclusive sustainability practices in the locality.



7. PROGRESS IN SCHOOLS



A) CARDIFF SCHOOL OF HEALTH SCIENCES (CSHS)

Towards a paperless business

The Psychology undergraduate degree has moved over to the electronic submission of coursework. This work is then marked electronically in nearly all cases and the assessment and feedback are given to the student electronically. We have also changed to keeping only electronic student files. This not only reduces our use of stationery but also directly assists with the storage problems the school encounters. Many programmes are adopting this and the school is rolling out this technology to enable all degrees to move to paperless submission, assessment and feedback.



Sustainability in the Curriculum

Since 2013 all programme reviews and validations have considered how sustainability has been embedded in the curriculum. This allows us to demonstrate how programmes give students the opportunity to study sustainability issues to gain skills and knowledge regarding the environment and sustainability. Modules in Biomedical Science, Food Science and Technology, Human Nutrition and Dietetics, Public Health Nutrition and Sports Biomedicine and Nutrition have strengthened suitability through a range of modules including Molecular Biology of Cancer & Ageing; Translational Research; Contemporary Topics in Biomedical Sciences; Sustainable Food Issues and Environmental Management to name a selection.

A team of four students on the School's Food Science and Technology programme won a Silver award at 2014 Ecotrophelia UK, an EU-wide Dragons' Den style competition rewarding student teams who have developed the best eco-innovative food products. The UK arm of competition is organized jointly by the Institute for Food Science and Technology and Campden BRI is open to teams of students studying at UK universities. The team's product 'Cwytch Circles' re-used waste product from apple and pear processing and biscuit manufacture with a fair-trade chocolate coating.

Above: Cardiff Mets' winning team at Ecotrophelia UK for their innovative product Cwytch Circles.

Sustainability in research and knowledge transfer

The School continues to undertake research with a direct link to sustainability.

The School's Centre for Outdoor Activities and Leisure comprises a group of researchers in Cardiff School of Health Sciences (Departments of Applied Psychology and Biomedical Sciences) and the Cardiff School of Sport. This inter-disciplinary collaboration enables us to draw on a range of expertise in quantitative and qualitative methodologies and to understand psychological, social and physiological parameters. The aim of the group is to understand the myriad of benefits that can be gained from engaging in physical activity or leisure pursuits with a particular focus on the role of the outdoors. We are currently engaged in a wide variety of projects investigating, for example, how gardening, walking, care farming and working with animals may benefit individuals and communities. The majority of our research involves working with real life projects in local communities and our collaborators are key to the success of this work.

An example of such successful collaboration is the EU supported 'Knowledge Economy Skills Scholarship' on Translating Exercise-Derived Health benefits from the Laboratory to the Community that successfully completed in 2014. The project focused on the impact of community-based outdoor exercise on systemic health and markers associated with cardiovascular risk and mental health. A team of Biomedical Scientists, Physiologists and Psychologists collaborated with Groundwork Wales / Valleys Regional Park, an economic regeneration body that aims to foster participation in outdoor exercise within the South Wales Valleys as part of the economic regeneration of that region. The results gained from 120 participants demonstrated a broad range of health benefits from green exercise and have been widely publicised.

The Frailomic initiative

The increase in life expectancy of Western societies is having major socio-economic and public health impacts. One crucial aspect emanating from this scenario is the increase in the number of frail people. Frailty places elderly adults at increased risk of disability, falls, hospitalization and premature death. Hence preventing frailty is an important goal to help older adults to maintain their health and independence, and to reduce the burden on the health care and welfare systems. Currently, assessment of frailty relies primarily on measuring functional parameters and it is increasingly recognised that the clinical utility of these is limited.

FRAILOMIC is a major EU Framework Seven Programme to identify markers of frailty in the elderly to allow better identification and management of frailty. The School's Cellular Senescence and Vascular Aging research group led by Professor Jorge Erusalimsky is analysing candidate biomarkers for cognitive performance and blood vessel dysfunction associated with ageing in a sample drawn from 75,000 participants in 8 cohort studies across Europe.

The Vascular Physiology research group led by Dr Barry McDonnell Provides health assessments termed Health MOTs both internally to staff and students of the university, and externally at events such as the National Eisteddfod, Welsh Government public-engagement-in-science events, the BHF 'Heart Month' event in Feb 2015, etc. These activities provide a non-invasive high through-put mechanism for health assessments, and so are key to the prudent healthcare and sustainability agenda.



Food Industry Centre (FIC)

The FIC is working closely with the Welsh Government on environmental and sustainability issues of the food industry in Wales and developing a detailed understanding of the carbon foot print of the industry.

The project has benefits in three areas:

- 1. Improved production process efficiency**
To produce food products more efficiently and reduce production losses which in turn will increase production efficiency and have a significant impact on profits in an industry where margins are extremely challenging.
- 2. Reduce give away in final pack**
Reduction in giveaway will reduce the amount of raw materials used and purchased and improve the efficiency of energy consumption per unit.
- 3. Improved Supply Chain Efficiency and environmental performance of the food sector**
Many of the issues associated with production of food will help improve supply chain efficiency by decreasing the number of vehicles required to deliver raw materials and finished goods ultimately reducing food miles.

We are working with industrial partners in the bakery, ready meals and butchery sectors in a detailed analysis of 9 products. Results to date indicate a projected saving of £ 500,000 savings to business over the period 2015 - 2020 and a reduction of 10,000 food miles per annum. The work aligns with the Welsh Government's food action plan and the centre is seeking to extend this work across the industry.

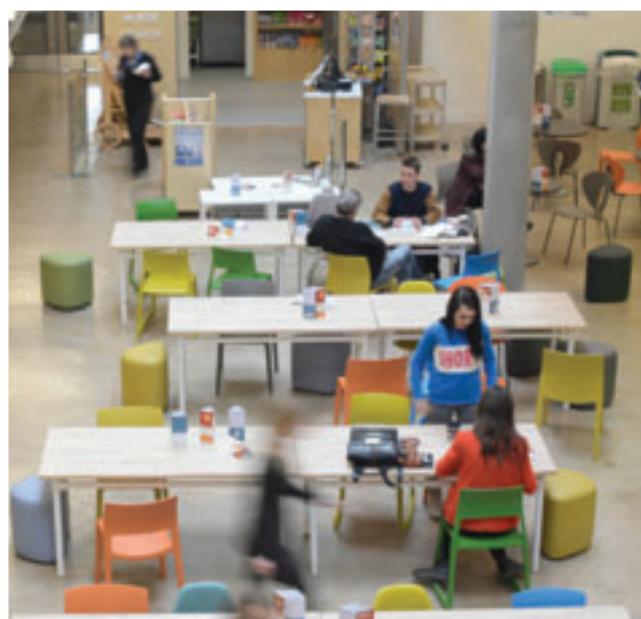
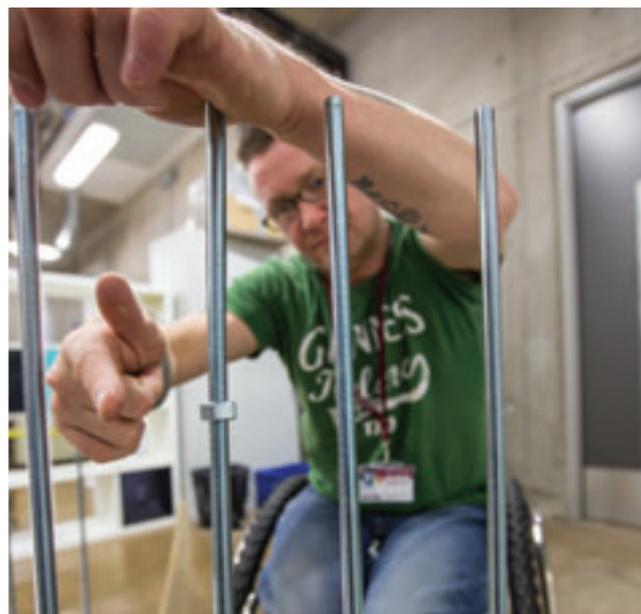


B) CARDIFF SCHOOL OF ART & DESIGN (CSAD)

Rather than create specific and therefore isolated sustainability modules and projects, the CSAD elected, from an early stage, to integrate sustainability thinking fully into all its areas of activity. The School's approach is now implicit in its protocols for the use of materials and workshops, as well as in its teaching and student assessment. It is also evident in the CSAD's research and enterprise portfolios. The approach also extends to design and planning for the School's new accommodation: CSAD is working with the University's Estate Department and Project Team to ensure that the new CSAD building benefits from solar power and a substantial redeployment of current resources.

CSAD's aim is to develop artists and designers who reflexively and consciously consider environmental issues in their practice. This starts with the responsible use of materials and well-developed approaches to recycling and up-cycling. This goes along with an awareness of the amount of energy deployed in production, with strategies to minimize energy consumption, where possible.

The examples of sustainability in the curriculum can be drawn from all areas, as it is an implicit feature of student learning. The examples are therefore numerous and can be drawn from all areas. Indeed the new undergraduate curriculum has been especially developed to enable all students to engage in the issues of sustainability. Projects available challenge student thinking on reuse, up-cycling, hacking, as well as how the deployment of some new technologies can transcend issues of waste and scarce resources.





C) CARDIFF SCHOOL OF SPORT (CSS)

The Cardiff School of Sport has taken steps to embed core principles of sustainable practice within the everyday delivery of its undergraduate and postgraduate programmes, as a part of a wider perspective of sustainable practice across the School. The School recognises that this is particularly pertinent for its undergraduate operations because the scale of its teaching portfolio means that even modest shifts towards more sustainable practice has potential for significant improvements across a number of sustainability indicators. The School has added sustainability to the remit of the School Ethics Committee which means the committee considers the ethical (in environmental and human terms) procurement of materials and services used for teaching and research activities within the School.



The key sustainability initiatives the School has focused on have involved fast tracking the transition towards digital information delivery and assessment modalities across as many undergraduate modules/programmes as possible. Using a combination of Sharepoint, Blackboard/Moodle and Turnitin platforms, combined with extensive staff development interventions in support of these technologies. This has been largely achieved in the short period of two years, with all student all coursework submission occurring through Turnitin. In a 2012-13 self-report audit conducted on assessment and marking practices, 96 of 147 coursework assessment points were marked electronically (64%) and 13 of 59 examination assessment points were conducted on a computer (22%). This figure has increased significantly since that point and a further audit will be conducted to confirm the extent of this following the implementation of the programme changes which followed last year's periodic undergraduate programme review. The movement towards fully digitised processes to support and ameliorate high quality face to face educational interactions with students is seen as central to creating sustainable education practices within the School.

Outside of curriculum and assessment, many administrative functions now embrace technologically driven sustainable practices. In particular the coursework, examination, question preparation, student evaluation and external examiner evaluations have all been digitised via SharePoint and Dropbox. Consequently, there are now a number of modules running that are now almost entirely paperless. Further to this, in the 2014-15 academic year, the School is

piloting (with 50 members of its academic staff) an online digital tutorial booking system. This offers students the opportunity to book tutorials with staff via any online web browser thereby significantly reducing the environmental and social impact of making tutorial arrangements. In addition this pilot is also including the offer of video tutorials for those students who cannot physically attend tutorials. It is anticipated that these pilots will be rolled out across the school in 2015-16.

In addition to the practical initiatives outlined above, in 2013 and 2014 there have been awareness raising staff development sessions and School meeting promotions that have presented University corporate strategy, in order to in augur School and individual level responses. Central to this initiative is the imperative of embedding the concept of sustainable development within curriculum content in order to provide students with a heightened understanding of the significance of the sustainable development in their professional fields within the sports industry. A number of core and option modules now include sessions covering aspects such as the sociology of sustainability in relation to sports cultures, ethical practices in sports coaching and physical education and generic issues of social equality and equity in sport relating to gender, sexuality, ethnicity ability, age, class and health. Additional sessions embedding sustainability are also planned for 2015-16.

D) CARDIFF SCHOOL OF MANAGEMENT (CSM)

Cardiff School of Management has made significant progress in embedding the concepts and practices associated with sustainability over the past year. Some of these are outlined below to illustrate the spread across every academic area of the School.

The Foundation programme at CSM was developed to offer an alternate route into a university education. It could be said that sustainability is at its very core as the purpose of this year is to equip learners with lasting skills that will support them through their university careers and into employment.

Following a recent sustainability audit of the programme, it was found that sustainability could be evidenced in all areas both in terms of the development of skills for lifelong learning but also at the heart of the subject matter studied in all of the core subjects. Module leaders were able to point to the use of varied case studies and ample opportunities for critical reflection of the students' own behaviour and behaviours of corporations and business throughout. What was clear from the audit as well was that the concept of sustainability was not explicit enough and therefore in the last programme committee it was agreed that programme and module information would be amended to ensure that this multifaceted term has a much stronger and more meaningful presence.

Sustainability represents a central theme throughout the core strategy models on the Business and Management programme. It is understood as resting upon three pillars;

- the maintenance of a sustainable physical environment;
- the generation of economic sustainability based upon the adoption of a long term perspective, and one based upon an appreciation of economic complexity and economic relationships
- recognition that society or community, at all levels – local, national and global, both supports and is in turn supported by sustainable practices.

True sustainability is only recognised when these three conditions are met and considered in total. The core strategy modules seek to promote an understanding of sustainability in all of these dimensions. At level 4, for example, the module BSP4001 Business in Global Context devotes 25% of its

delivery and assessment to establishing the main dimensions and implications of sustainability for business and its conduct. The focus is to take students beyond the simple environmental understanding of the term, and place sustainability within a broader business context.

At level 5, BSP5003 Contemporary Issues in International Political Economy discusses the need to consider sustainability within a wider global context, and the fact that the long term sustainability of the global system depends upon equity and social justice. A global system riven by massive inequality both within and between countries, is inherently unstable and unsustainable. The module explores those factors driving inequality, such as the operation of global financial markets, and the practices of multinational business. It will address the responses to these factors and the long term implications of creating a global underclass. Students will be given the opportunity to consider a number of issues related to sustainability within the assessment diet of this module.

Finally, at level 6, BSP6000 Strategic Management considers how sustainability can be built into business thinking, not simply as a bolt on to policy but as a central objective of strategic design. Sustainable strategy might focus upon business model creation and innovation, the promotion of business ethics and corporate social value, and the development of resilience in business and its ability to deal with change. The focus on sustainability in this module is more practical and seeks to identify clear and identifiable strategy that businesses might adopt to satisfy organizational goals. Students will be required to consider issues of sustainability throughout the workshop programme,



and given the portfolio based assessment for this module it will constitute a key theme in this assessment programme.



Many students select sustainability related topics for undergraduate and post graduate dissertation study and given the international cohort of students within the business school these projects have been global in focus. Recent projects have included the Sustainability of China's Export Sector, the Sustainability of Tourism in the Middle East, An Investigation into the True Meaning of Social Value, and Social Entrepreneurs and Shared Value Creation.

Sustainability is discussed in macroeconomics in terms of the limitations of the GDP measure for living standards and in terms of the Austrian theory of capital. In Microeconomics it is more directly discussed in terms of externalities and it is part of the market failure analysis in Public Sector economics.

From a 'Tourism, Hospitality & Events' perspective, sustainability is integral to most modules and is not treated as a separate entity in terms of a distinct/separate module. Instead, it is incorporated in the learning outcomes of a large proportion of THE modules. The concept of sustainability is also referred to in its widest sense, in relation to environmental, socio-cultural and economic sustainability (political sustainability is referred to in a lesser extent) – particularly in relation to competitive advantage at destination or product level. In terms of examples of innovative practice, the various field study modules at Levels 5, 6 and 7 are good examples given that the students interact with the tourism product and structures within destinations, with sustainability being a constant element that they would consider within their module assessments.

Other examples of assessment include:

- Level 7 - Event Planning Mobilisation and Evaluation module - a significant proportion of the assessment is devoted to critiquing an event and discussing how it can be developed to generate more positive impacts (environmental, social, economic, etc.).
- Level 5 - The event students have to submit an environmental policy as part of their event plan – which is now essential for the License application process. The module Developing Competitive Destinations is underpinned by the principles of sustainability in relation to competitive advantage at destination level, whilst Global Hospitality Management Today approaches it in the same way, but from an industry dimension.
- Level 6 - Venue Design and Project Management includes an assessment which is to design an Eco-friendly room – the sustainability brief is again broad, so

they can either achieve this by local sourcing such as local produce and art (reducing the miles travelled and carbon footprints), or by using materials that are sourced from further afield but are Eco-friendly due to the new technologies employed, or alternatively the students can address Eco friendly disposal of old material.

In the area of IT and Computing, sustainability issues are embedded within the programmes through sessions on hardware implementation and design, software design and optimisation through to the management of IT companies and issues regarding professionalism and ethics. Computing plays a critical role in our society, thus it has a special responsibility for sustainability and by its very nature is inherently interdisciplinary and ubiquitous. Students are made aware of the issues regarding Green computing or ICT sustainability throughout their time on the programme with implicit discussions around the sustainable nature of their work and the explicit identification of sustainable issues within identified modules (below). The overall goal within the programmes with regards to sustainability is to prepare students with the computing competencies, multi-disciplinary knowledge, and computational thinking methodologies to create a sustainable future.



E) CARDIFF SCHOOL OF EDUCATION (CSE)

As sustainability is integral to the education **system in Wales**, the Centre will build upon best practice in terms of subject knowledge and pedagogical practice. It will play an important part in enhancing understanding of sustainability issues, for students and participants from external bodies.

All Programme Directors have been requested to include 'sustainability' as a standing item on their Programme Committee agenda. The LTDU Sustainability toolkit has been shared with Programme Directors and will form the basis of the School's annual



reporting. This will be reported for the first time in 2014-2015. All newly validated programmes (PGCE Primary Education) and those subject to validation/review in 2014-15 (Humanities Matrix, Educational Studies and Associated Pathways) have been required to explore the extent to which the criteria from the LTDU Sustainability toolkit is reflected in their programme. This will apply to those programme scheduled for review in 2015-2016 (BA Secondary Education, BA Youth and Community Work, PGCE PCET, PCE PCET and the International Foundation Course). As one of the Corporate cross-cutting themes, Programme Directors have also reported on the ways in which sustainability is met through their programme in APRs.



8. EMISSIONS AND EFFLUENTS

The University continues to be exempt from Emissions to Air Consent, due to its insignificant impact (ref Natural Resources Wales)

However, despite this exemption, the University continues with its robust maintenance strategy in line with statutory obligations, its Schools continue to maintain their risk assessments to ensure minimal impact on the local environment (dealt with at a local level within Schools)

The University has completed a full survey of surface and foul water drainage at Cyncoed and Llandaff campuses, and has an action plan to address all remedial work identified. The University continues to hold a letter of consent, issued by Welsh Water, which permits the University to deposit trade effluent into the local drainage system. This consent recognises the insignificant impact that the University effluent has on the water course.

a. Air-Conditioning Inspections

The University contracts specialist services to maintain its air conditioning equipment. This contract includes robust testing for refrigerant leaks, and oversees the phased replacement of the ozone depleting gas, R22, with more environmentally friendly gas, as and when necessary.

Refrigerant leak tests also form part of the servicing schedule, as even the environmentally friendly gasses have a global warming potential.

The Estates and Facilities Department will continue to pursue an active regime of reducing, where possible, the amount of chemicals in use through its procurement of contractors and materials. As stated last year, the University has reduced its use of chemicals from 4000 to 2000 in recent years and it is hoped that this can be improved upon even further.

Throughout the implementation of ISO14001 the University has been working to become compliant and to ensure emissions to air are kept to a minimum, including identifying further potentials for improvement. All relevant environmental legislation relating to emissions to air has been identified and the University is working toward full compliance.



9. ENERGY AND UTILITIES

a. Carbon Management Plan

The University's new Carbon Management Strategy was approved in 2014, following a successful period of carbon management reduction during the earlier carbon management phase 2008 to 2013, during which emissions were reduced by 16.3% against a 12% target.

The new Strategy states:

"In order to manage energy consumption and mitigate its impact on climate change, Cardiff Metropolitan University aims to reduce absolute carbon emissions by a minimum 15% by end 2017/18, against a 2012/13 baseline. An annual reduction of 3% will be targeted to work towards this, in-line with Welsh and UK Government long-term ambitions."

To work towards achieving these targets, a Carbon Management Plan has been developed to deliver the aims of the Strategy. The plan is an evolving list of projects which allows prioritisation according to energy and carbon reduction, and financial payback. In addition to implementing these projects, continuing to engage staff and strengthening engagement with students will be fundamental in realising the most efficient management of energy and emissions across the residential and non-residential estate.

The new Carbon Management Strategy and Plan were developed in accordance with the HEFCW Carbon Management Policy (W14/O9HE), published March 2014.

b. Energy and Carbon Emissions

The University has consistently reduced both its electricity and gas consumption every year since 2007/08. In 2013/14, energy use across the university estate reduced by 5.5% compared to the previous year, from a total of 18.06 GWh to 17.07 GWh. Electricity consumption reduced by 4.8% and gas consumption reduced by 5.9%. Oil use remained consistent, but represents only 0.1% of overall energy consumption.

Despite these significant reductions, overall emissions increased by 1.7%. The reason for this was an increase in coal used in UK electricity generation, which increased the emissions conversion factor published by Defra for 2014 by 11.1%. This resulted in emissions from electricity generation, transport and distribution increasing by 5.8%, despite the reduction in consumption of 4.8%. The reduction in gas consumption was reflected in gas emissions reducing by 5.5%.



c. Water and Carbon Emissions

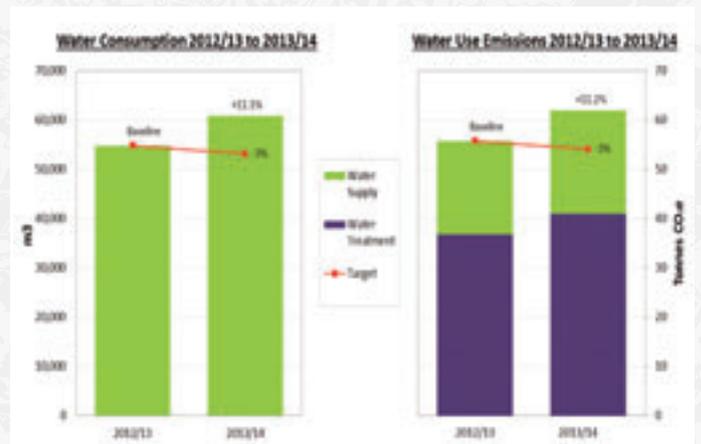
Water consumption increased during 2013/14, explained in part by mains water leaks at the Cyncoed campus, and significant water consumption during the construction and commissioning of the new Cardiff School of Art & Design building at Llandaff.



Above: Plas Gwyn Halls of Residence.

Encouragingly, water consumption at our Plas Gwyn halls of residence site fell by 15% compared with the previous year.

Emissions associated with the supply and treatment of water used at the University increased by 11%, in-line with the increased consumption. Reversing the year's increased consumption and emissions will be a challenge for the University. However, and the Carbon Management Plan identifies a number of water-reduction projects which will be reviewed over the coming year to help us achieve this.





Above: Cardiff School of Art & Design.



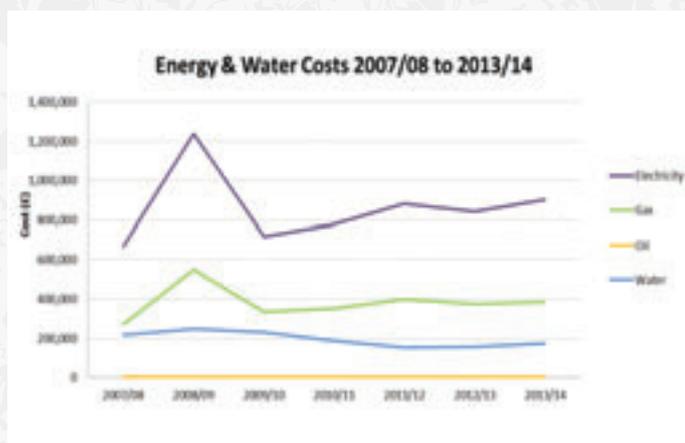
d. Energy and Water Costs

In 2013/14 the university spent £1.46 million on energy consumption (electricity, gas and oil) and water use. Despite a 5.5% reduction in energy consumption compared to the previous year, this represents an overall cost increase of 6.4%. This was largely a result of an average increase in daytime electricity tariffs to the major university supplies of 9.6% per kWh. Gas tariffs reduced 1.5%, but increases in standing charges resulted in a slight increase in overall gas costs.

Energy cost increases despite successful reduction in consumption highlights the importance of continued investment in energy reduction initiatives in order to mitigate energy price increases.

Electricity accounted for 62% of all energy and water costs, gas consumption accounts for 27%, with water at 11% and oil <1%.

With wholesale energy prices falling during 2014, the University's Procurement and Estates teams will be monitoring the market on an ongoing basis in order to conduct future energy procurement at the most advantageous time.



10. OCCUPATIONAL HEALTH AND SAFETY

The University recognises that the health and well-being of staff and students is essential to its success and therefore is committed to the provision of an environment which supports the adoption of healthier lifestyles. The philosophy which underpins this commitment is one of self-help and individual responsibility within a corporate framework, promoting and supporting good practice to comply with legislation, addressing key workplace risks to health and encouraging a healthy lifestyle culture. The encouragement of healthy lifestyle culture among staff and students includes active support to staff and students that use sustainable forms of commuting (walk/cycle/public transport) to/from and between their places of work and study. Health and well-being development is a key component of the Corporate HR Strategy and improvement goals have been set which target key preventable ill-health issues and the Welsh Government's Health Challenge Wales priorities. The aims of the strategy are to enhance the University's reputation as a health promoting University through:

- Improving the health (physical, emotional and psychological) of the University community; and
- Increasing employee engagement.

To achieve these aims, key strategic objectives have been identified as being crucial to its success. Attached Appendix 4 is a table which identifies those objectives and provides an outline of progress made on their respective achievement during 2013/14.

During 2013/14 the Sustainable Engagement Working Group convened to consider and report on the University's approach to the Healthy and Sustainable University concept.

11. SAFETY OF HAZARDOUS CHEMICAL SUBSTANCES

Schools and Units are required to identify and assess risks posed to staff, students and the environment by hazardous chemicals and to liaise with Campus Services over their safe disposal. During 2013/14, Schools and Units continued to ensure that risk controls implemented for hazardous chemical substances remained effective. Progress continues to be made towards the establishment of a University-wide Code of Practice for the use and disposal of chemical substances. A cross school working group was established in the summer of 2013 and a Hazardous Chemicals User Workshop has been included in the Corporate Staff Development Programme for 2013/14.



Above: Students working in Cardiff School of Art & Design.

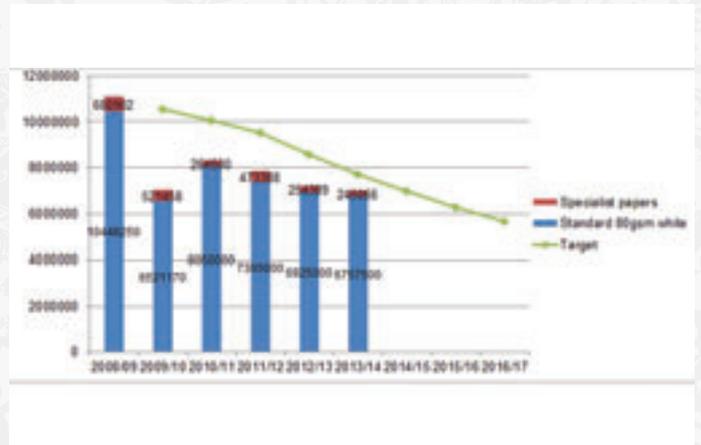
12. PRINTING AND COPYING

Printing and copying continues to be a necessary activity within the University. All student and staff copying resources are centrally managed through the Print Studio. Print resources for staff are the responsibility of respective Schools and Units; student print resources also fall within the remit of the Print Studio.

Paper consumption is considered a significant environmental aspect by the University, due to the associated 'whole life' environmental cost from the supply chain, associated energy consumption, and ultimately the waste product. To address this effect the University has developed a target and supporting actions for the reduction of its paper consumption. The target and key actions are to reduce the overall consumption of paper by 5% up to 2016/17 by:

- Increasing double sided print by 3% per annum.
- Increasing print output to the central MFD fleet by 2% per annum.
- Training and information campaigns to promote environmentally friendly practice.

The table shows the progress made against target for the past 5 years, which illustrates the positive effect of the actions employed to date.



Above: Table 1: Total volume of paper purchased by Cardiff Metropolitan University 2008 – 2014

The Print Studio currently uses Uniflow software to monitor and analyse multi-functional device print and copy activity against the targets and to identify areas that require a particular focus.

More information relating to Printing and Copying, to include Paper Supply and Usage, Document Printing and Double-sided Printing, is attached at Appendix 3.

13. SUSTAINABLE ESTATE

In academic year 2013 – 14 the University completed a new Art school at the Llandaff campus, completing the current Estates Strategy. This new building will allow the University to dispose of the Howard Gardens campus in the city centre. The Estate is thus sustainably enhanced in a number of ways eg. much reduced footprint for the school, the provision of an energy efficient building that has the benefit of passive design, designed to BREEAM Excellent standards. The building has several notable sustainable design elements ie. photovoltaic panels to the roof, natural ventilation and a high level of energy metering and controls. On completion of the facility the University will have achieved its target of reducing to two academic campuses. In addition to the foregoing a range of estates improvements have continued, including the upgrading of boilers to more efficient models, several water saving installs, the installation of LED lighting and the programme for replacing single glazed fenestration.



Above: Cardiff School of Art & Design, Llandaff Campus.



14. SUSTAINABLE PROCUREMENT AND FAIR TRADE

The University's procurement function is a key contributor to sustainability objectives. Whilst the primary objective of all University procurement is the achievement of best value for its goods and services needs, the University seeks to configure all procurements to include additional and non-core benefits, of which sustainability is a major consideration, and to do so in a manner consistent with the Welsh Government 'Welsh Procurement Policy' statement.



When developing the specifications for its procurement requirements, the University strives to include sustainable benefits, which in the last twelve months have ranged from a continuation of the growth in use of office products manufactured from recycled materials; establishing environmental and workers' rights considerations throughout the entire supply chain for the University's sports clothing procurement; through to the delivery of a number of 'community benefits' deriving from tendering exercises.

Wherever practicable, the University divides its tenders into

regional or requirement 'lots' to assist in ensuring smaller and local businesses are able to engage in University procurement exercises.

The benefit to the local economy of these various 'local supply' initiatives can be illustrated through the fact that in the last twelve months, some 58% of the University's influenceable spend was placed with Welsh based suppliers, which reflects an increase of some 5% over the last 3 years.

The University seeks to make full use of electronic tools wherever appropriate in its procurement processes. It has introduced a full e-procurement ordering process to complement its electronic tendering portal, resulting in a reduction of the use of hard copy documents and stationery used in communicating to bidders and suppliers and, as a consequence, dramatically reduces the use of surface mail services.

In the coming twelve months, the University will: be expanding the positive impact of paperless business trading by increasing the number of suppliers trading through the university's e-marketplace; distributing all non-marketplace purchase orders and payment remittance advices via email; seek to make use of the changes to the Public Contracts Regulations ("EU procurement rules") to further enable small businesses to participate in tender exercises; and seek further opportunities to introduce community benefits aspects into its procurement exercises.

15. TRAVEL AND TRANSPORT

The well-established University Travel Plan provides a comprehensive framework to continually review and improve the University's travel practices. The University's continual investment and improvement in sustainable travel has directly enhanced the health and wellbeing of students, staff and the local community.

Since 2007, Cardiff Metropolitan University has achieved a significant 12.2% reduction in the number of student car users and a 24% reduction in the number of staff driving to work. The University's successful travel initiatives have created a growth in passengers on its dedicated Met Rider bus service, along with substantial investment in cycling facilities.

Our successful and continued proactive approach to travel planning was recognised in 2012 with the University being awarded a Gold Level Welsh Travel Plan Award.

Key Statistics

- Staff single occupancy car usage down from 74.2% in 2009 to 58.3% in 2013
- Student car usage down from 39% in 2009 to 27.1% in 2013
- Staff walking increased from 5.8% in 2009 to 14% in 2013
- Student cycling increased from 4.2% to 7.1%

Next steps

- Explore the inclusion of a Met Rider pass within a Halls of Residence package.
- Develop options to introduce a cycle hire scheme on each of the campuses.
- Develop strategies to reduce the University's direct and indirect business travel footprint.
- Continue to explore new travel options with local train companies, and bus operators to assist student and staff use of public travel.

Appendix 6 details further travel initiatives.



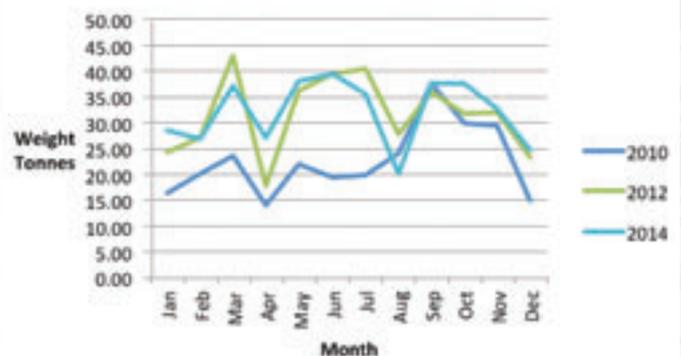
16. WASTE MANAGEMENT

General Waste is no longer sent to Landfill. From July 2014 all of our General Waste was taken, via Avon-mouth Docks, to Sweden where it was burned to create energy. This was still a cost effective solution for our Waste Management contractor despite the transport involved.

Since November 1st 2014 all of the General Waste has been sent to the Trident Scheme in Cardiff Bay for Energy Conversion. This Waste Diversion exercise means that none of our waste is sent to Landfill. Cardiff Met will continue to monitor and record Diverted Waste so that an overall picture of our waste production and disposal can be maintained.

Recycling is continuing to be a priority. The graphs for the last three years have become very similar and there are no easy gains left to be taken. A lot more emphasis will be placed on persuading more people to join in and use the schemes that we already have in place. "Freshers' Fayre" and "Go Green Week" will be the main points of our access to educating Students along with information bulletins on a twice-yearly basis. Staff will also be bombarded with information and reminded of the availability of Recycling opportunities.

Recycling Waste Totals 2010, 2012 & 2014



17. CONCLUSION

The University continues to make excellent progress on the environment and sustainability agenda and thanks are due to the staff and students for their contribution. Its pursuit of becoming a top 10 university in the next five years opens up further challenges. There are many examples where the University makes a difference, but it can do more. This is a great opportunity to lead in pushing forward the principles of sustainable development. By committing to the sustainable development agenda, Cardiff Metropolitan University can win the hearts and minds of staff and students, create positive impacts, shift the culture from compliance to alliance and drive up performance and invest in the future.





APPENDIX 1

Environment and Sustainability Policy

1. Policy Statement:

Cardiff Metropolitan University recognises the importance of the role it has to play in environmental stewardship of its estate and in promoting principles of sustainability across all of its activities, including teaching and research. The University will manage and control its environmental risks in a sustainable manner by complying with relevant legislation and adopting where appropriate best practice.

2. Application:

It is essential that sustainable development is at the core of all activities in the higher education sector and at Cardiff Met. The University is a major contributor to society's efforts to achieve sustainability through:

- the environment in which its students learn
- the skills and knowledge that they acquire and put in to practice; and
- its own strategies and operations

This policy applies to all activities undertaken by (or on behalf of) the University including those of governors, staff, students and contractors.

3. Objectives of this policy are:

- To make sustainability a core principle in all that we do.
- To ensure that all environmental risks are assessed, managed and controlled.
- To promote and adopt best practice within the higher education sector.
- To maintain and develop the University in a sustainable manner.
- To work together with our community on matters of the environment.
- To develop good working relationships with relevant external authorities and bodies.
- To develop managers, staff and students by providing training and information on Sustainable Development: Environmental management, Social Justice and Economy

3.1 In accordance with the policy statement the University will:

- Adopt Sustainable Development: Environment, Social Justice and Economy, as a key principle in the University's strategic planning and delivery.
- Cohere the plans and activities, of complementary policies, to enhance efficiency and results: Health &

Wellbeing, Environmental Management, Equality & Diversity and Staff Development.

- Meet the requirements of environmental legislation and commit to a process of continual environmental improvement.

4. Promote and Adopt Best Practice

- Maintain an Environmental Management System; to set targets and indicators, measure environmental performance and report progress.

5. Promote and adopt sector initiatives and best practice

Through sustainable procurement best practice, seek to support, influence and deliver continuous improvement across social ethical and environmental aspects of products and services whilst achieving best value.

- Maximise energy efficiency, use of renewable resources and use of low carbon technology;
- Minimise waste generation and facilitate repair, reuse and recycling over disposal of wastes;
- Audit the ecology and biodiversity of the estate, and develop an associated action plan to enhance its performance and mitigate impact
- Actively promote sustainable and active travel to and from the campus;
- Promote continual improvement in maintenance practices
- Encourage activities to enable students to contribute to sustainable development.
- Communicate and inform the University Community

6. Produce an Annual Report;

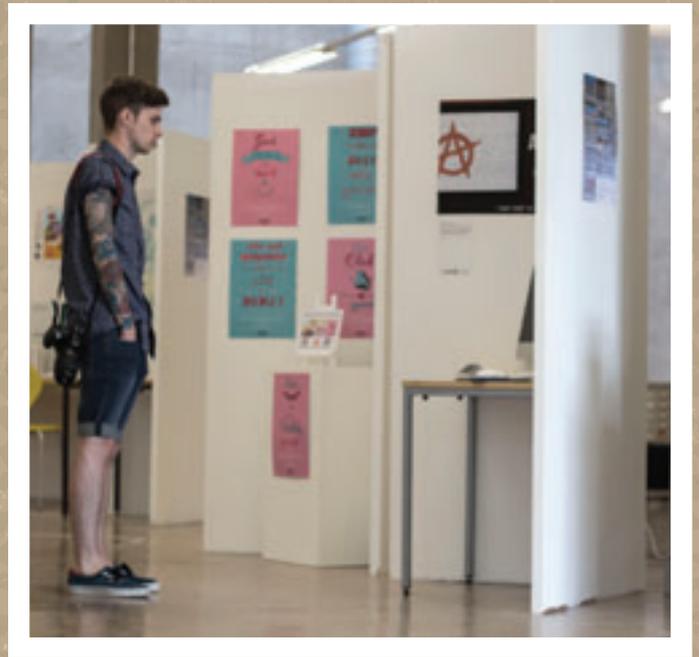
- Produce reports to the appropriate committees;
- Communicate with the Sustainability Champions;

7. Working with External Authorities and Bodies

- Develop good working relationships with all relevant external authorities;
- Develop links with appropriate environmental bodies and associations;
- Report any incidents as required

8. Development of Managers, Staff and Students

- Provide appropriate training and information to the University community.





APPENDIX 2

Environmental aspects and nominated aspect owners

Aspect	Owner
Academic Development	Dean of Learning and Teaching
Emissions and Effluents	Maintenance Operations and Space Manager
Energy and Utilities	Energy Manager, Estates and Facilities
Environmental Awareness	HR Manager (Staff Development)
Operational Health and Safety	Health and Safety Advisor
Paper	Head of Commercial Services
Sustainable Estate	Director of Estates and Facilities
Student Union	Chief Executive, Cardiff Metropolitan University Student Union
Sustainable Procurement and Fair Trade	Head of Procurement
Travel and Transport	Travel Plan Manager, Estates and Facilities
Waste Management	Facilities Manager, Estates and Facilities

APPENDIX 3

Paper Supply and Usage

The University sources the majority of its paper from the Antalis McNaughton Paper Group, under the Higher Education Purchasing Consortium for Wales (HEPCW) agreement. The paper purchased through this contract derives from certified sustainable sources, and is produced in ISO14001 accredited mills. In March 2012, the University changed the standard of paper it purchases, from an 80g to a 75g product. The 75g paper is made from 32% less trees/wood, and has reduced production waste by approximately 6%.

The following summarises paper purchased 'centrally' by the University over the last five academic years. The excellent performance necessitated a review of the original target. This has now been increased, and is set to achieve a 50% (5.5m sheet) reduction in overall paper purchased between 2008/09 and 2016/17.

2010/11 volume of paper purchased: 8,314,500 sheets
 2012/13 volume of paper purchased: 7,179,389 sheets
 2013/14 volume of paper purchased : 7,002,556 sheets

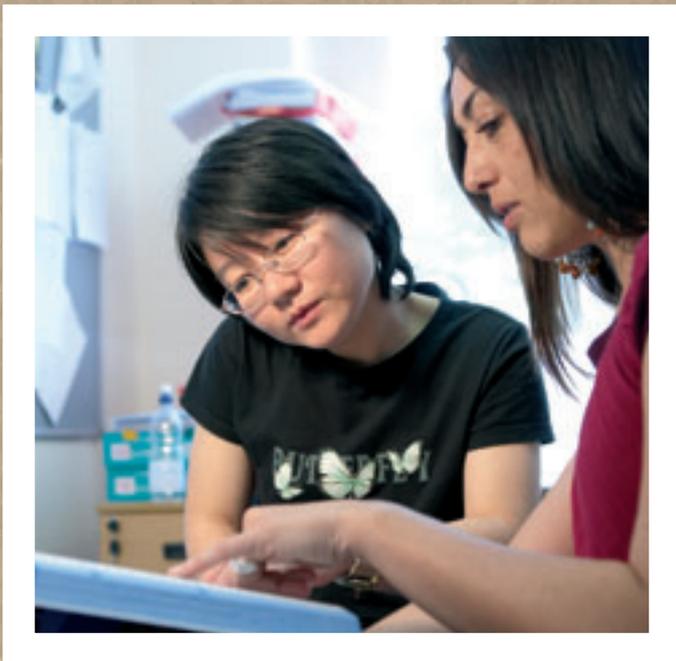
The following sections detail the strategies that assist meeting the paper-reduction target.

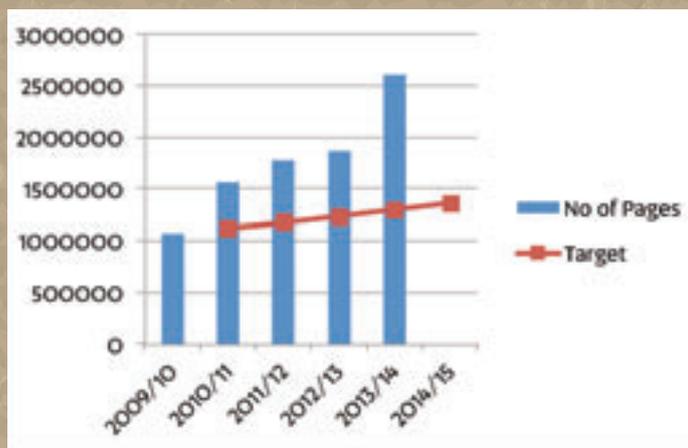
Document Printing

Moving toward a centralised print model for document production involves the gradual removal of non-essential desktop office printers with the redirection of printing to centralised/shared multi-functional devices. This model offers a more economic and environmentally friendly approach for this activity. The University monitors all print activity.

The results show a continued improvement in the transfer of document production to central devices. What is heartening is that this is happening in a voluntary way, with staff recognizing the benefits to be gained from this approach. This has been helped in part by an information campaign to raise awareness of the benefits of this model.

The five years of data for the print activity across the entire MFD fleet along with the annual target are as follows:





Above: Table 2: Total number of pages printed on MFD between 2009/10 – 2013/14

The table shows a significant increase in print activity each year, with 2013/14 achieving a 40% increase on the previous year's result.

Two thirds of the University's print volume is generated by the academic Schools, therefore looking specifically at their respective performance provides a clear indication of the progress being made with the move towards use of mfd's. CSAD is now located in a new build where local printers have been removed.

	2009/10	2010/11	2011/12	2012/13	2013/14
CSAD	7500	7726 (+3%)	17,580 (+227%)	25373 (+44%)	41,270 (+62%)
CSHS	181,047	256,229 (+41%)	320,486 (+25%)	365,460 (+14)	396,770 (+8%)
CSE	83,992	109,177 (+29%)	126,420 (+29%)	193,324 (+53%)	134,763 (-31%)
CSS	49,199	63,764 (+29%)	90,317 (+41%)	84,925 (-6%)	60,342 (-29%)

Double Sided Printing (Duplex Printing)

Double sided printing can bring obvious reductions in paper usage, and is therefore an area of focus. Analysis of print activity for 2013/14 shows 49% duplex prints and copies.

The new multi-function device contract, 2013/14, included a management system (UniFLOW). This management system provides a statistics module, making it far easier to collate information on printing, copying and scanning. In addition, UniFLOW can assist in the work toward financial and environmental savings, by providing reports on user activity, and how system interventions are assisting these savings, eg through secure job deletion and rules based routing, or environmentally through hardware and related CO2 emissions.

Job Deletion

Our Print Management now enables us to see the number of jobs that were not printed using our follow me print solution. There are 2 different main categories :-
 Deletion maintenance – this is where the system deletes the job after a 24 hour period in the print queue. This year this accounted for 166,808 mono pages and 48,477 colour pages.
 Manual deletion – this is where the user deletes the job from the queue themselves. This year this accounted for 321,493 mono pages and 299,768 colour pages.
 Total saving pages 836,546 (paper saving 800 – 1000 reams of paper)

Print Audit

The new multi-function device (mfd) contract includes the completion of an organisational Print Audit. The audit will capture volumes, document types, user trends, colour content and use of double sided printing via the installation of software on to the network. An Organisation 'Print Audit' will provide recommendations to advise on how the University may further reduce the cost (and environmental impact) associated with document production.

Rules based routing

The University's Schools and Units are all currently reviewing expenditure related to print, with the aim of reducing as much as possible. In support of this the University will be implementing 'Rules Based Routing'. This system is used to control the routing of print production to the most cost effective device (within the organisation). Essentially it is designed to move production from desktop printers to pooled devices, to assist the University to remove its dependence upon desktop printers. This will take place after the Print Audit. It is intended to deploy the system in an advisory way initially, providing the opportunity to collect data on areas not taking the advice.

APPENDIX 4

Occupational Health progress

Strategic Goal

Progress during 2013/14

'To increase employee engagement through encouraging participation in workplace health and well-being activities'

A health and well-being Promotion Group comprising volunteers from Schools/Units met throughout 2013/14.

There were over 500 instances of staff participation in health promotion activities organised throughout 2013/14. This figure includes a number of active travel related activity where staff were encouraged to improve their health through green exercise initiatives.

More than 450 staff participated in the biennial Staff Health & Well-being Survey in March 2014.

'Encourage exercise through the promotion of active transport'

Bike/walk to work weeks were held throughout 2013/14. More than 300 staff participated. The University also run a 'Cycle Purchase Scheme' during the year where more than 30 members of staff were able to purchase bicycles for travel to and from work through a salary sacrifice scheme.

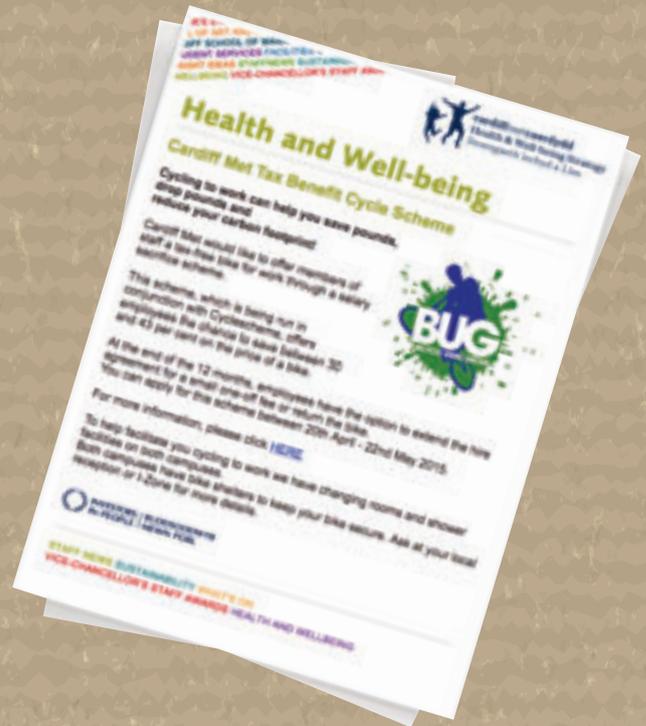
'To provide supportive mechanisms to enable staff to make informed health-oriented lifestyle choices'

Access to on-site smoking cessation groups were provided, through a partnering arrangement with the NHS Stop Smoking Wales.

On-site confidential staff counselling was provided again during 2013/14 with more than seventy staff members attending sessions held on the Llandaff campus.

The Eatwell Project continued to be developed during 2013/14. The project aims were to make the healthier, more nutritious choice, the easier choice for staff and students and a number of campaigns were held.

Access to dedicated health information from the university's workplace health and well-being staff portal.



Above: Example of staff email promoting Health & Wellbeing at Cardiff Met.

Strategic Goal

Progress during 2013/14

'To raise awareness among staff of workplace health and well-being provision at Cardiff Met'

An internal communications strategy has been developed by Communications and Marketing to promote health and well-being at Cardiff Met and a series of mixed media communications featured throughout the year.

'To develop the provision of health and well-being at Cardiff Met to a level which satisfies the Gold Level Award criteria for the Welsh Government's Corporate Health Standard (CHS)'

Cardiff Met was awarded the Gold Level of the Corporate Health Standard in December 2011 and preparations for a re-validation in March 2015 were initiated during 2013/14.

APPENDIX 5

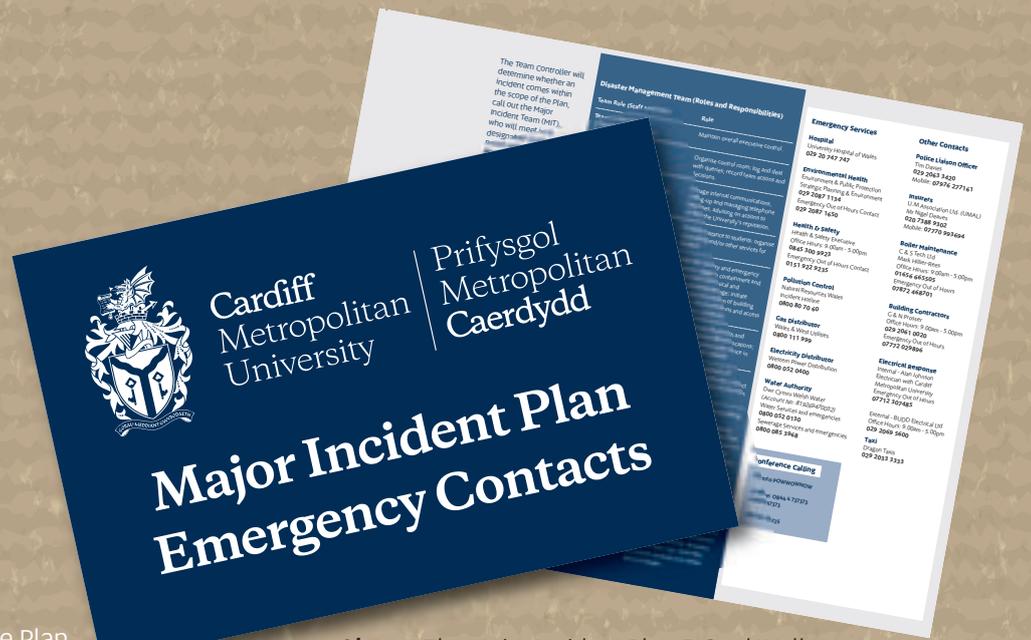
Major Incident Plan

The Major Incident Plan (MIP) sets out how the University will deal with the threat, immediate consequences and aftermath of a major incident.

In summary

The Chief Operating Officer (Team Controller) will determine whether an incident comes within the scope of the Plan, call out the Major Incident Team (MIT), who will meet in a designated Control Room and will work in defined roles to checklist and logs.

The MIP will be reviewed annually and tested through a simulation exercise periodically.



Above: The Major Incident Plan Z-Card Wallet leaflet distributed to all Senior Managers.

What constitutes a major incident?

A major incident is an actual or anticipated event which threatens:

- The physical and/or psychological well-being of staff, students, visitors and third parties
- The University's core operations
- The University's reputation
- The University's property or a serious financial loss
- The University's information, data or systems and is beyond the scope of resolution by normal decision-making mechanisms.



APPENDIX 6

Travel Initiatives

Walking

Recent years have seen an increased trend in both students and staff choosing to walk to campus as both an environmental and healthy lifestyle choice. **The 2013 survey indicated that over a quarter of students and 14% of staff now daily walk to campus.**

Travel Mode	Student Data %			Staff Data %		
	2009	2011	2013	2013	2011	2009
Walking	23.0	26.9	27.9	14.0	7.9	5.8

These improvements have been supported through the addition and promotion of:

- Access to shower and changing facilities with lockers
- Walk to Work free breakfast packs available four weeks a year.



- Free pedometers permanently available for staff and students who wish to monitor their exercise.
- Health & Well Being Walk the World campaign
- Increased awareness amongst students and staff of safe walking routes to and from the campuses.

Cycling

Cardiff Metropolitan University has the largest work based Bike User Group in Wales with in excess of 300 members of staff regularly cycling to work. In addition to this, over 700 students have currently requested card access to the cycle stores be added to their ID card.

Our continued focus on cycling as a preferred travel method for staff and students has resulted in 7.1% of students (745) and 11.7% of staff (146) cycling regularly. This has been supported by the University free breakfast scheme which has witnessed in the past three years an average of 308 members of staff annually participating in the Cycle or Walk to Work weeks. Cardiff Met having provided a staggering 6,565 free healthy breakfasts during this period.

Travel Mode	Student Data %			Staff Data %		
	2009	2011	2013	2013	2011	2009
Cycling	4.2	5.3	7.1	11.7	12.4	7.0

Recent cycling initiatives have included:

- The Cycle Hub at Llandaff – a direct cycle lane from the front of the campus that safely skirts the perimeter and delivers the user safely to the cycle stores and shower facility
- The purpose built Cycling changing, storage and shower facilities that opened in September 2014 in the new Cardiff School of Art & Design.
- The relocation and extra provision of cycle storage on both Llandaff and Cyncoed Campuses.
- The 28 days a year of FREE breakfast for staff who opt to cycle or walk to work.
- Removal of Cycle stands at front of Llandaff Campus due to ongoing thefts and relocation to a safer environment within the campus.
- Provision of Grade 10 security D-Locks for to purchase at £20 from Print Studios. RRP £69.99
- Extension of Cycle purchase window to six weeks with the addition of a dedicated member of staff to facilitate and promote the initiative resulting in 61 participants in 2013
- The annual provision of 1,000 Cardiff cycling maps courtesy of the Cardiff City Council given to staff and students



Met Rider

Since the Met Rider was launched in 1997 usage has grown from just 100 permits a year to in excess of 2300 passes a year, making it the largest student bus service in Wales. The Rider offers students and staff an affordable and subsidised method to travel safely around the city of Cardiff. Student passes are valid from 1st September until 30th June each year and cost under £6 a week for the entire year. Staff passes are valid for the entire year at under £24 a month which is deducted monthly throughout the year.

During the 2013/14 term the university peaked at 6,000 individual journeys being made weekly on the Rider with **130,000 journeys being taken in total that year**. It is not just members of Cardiff Met that benefit though, as the Rider is a public service linking Cardiff East and West with routes that did not previously exist.

The 2013 Student Travel Survey illustrated that of the 1277 respondents, **508 (39.8%) confirmed they have used the Rider to attend Campus during the past year**. Of 427 staff respondents 79 (20.1%) confirmed they had used the Met Rider in the past year to either travel to campus or between campuses.

The recent closure of the Howard Campus has led to an improved Rider service and delivery, which has been assisted by Cardiff Bus providing a double service six times a day of a bendy bus on the peak routes. Alongside this, the frequency of the 52 Service has increased to Cyncoed Campus following the removal of the 52A Cardiff Bus service.

For the 2013/14 academic year the Met Rider card production was expanded to the campus Print Studios delivering an immediate service for student applicants as opposed to a two day wait.

2013 Travel Survey

Llandaff 44.9% of students and 15% of staff have used the Rider during the past 6 months.

Cyncoed 33.3% of students and 20% of staff have used the Rider during the past 6 months.

Car Share

Cardiff Met has been a founder member of CarShare2Cardiff joining within the first week of the schemes launch in 2006. Since the introduction of the scheme the university has experiencing fluctuating demand for car share spaces dependent upon the success on our periodic car share campaign. The nature of our substantial in staff and student car usage has resulted in reduced requirement amongst those wishing to car share.

Travel Mode	Student Data %		
	2009	2011	2013
Car share	4.2	2.7	3.9

The University currently has a total of 731 members (148 staff and 583 students) and 39 active groups registered with the car share scheme.



Business travel

Business travel is an essential part of Cardiff Mets daily operations, but where applicable we always seek to ensure that staff are travelling via the most sustainable option. The University encourages staff to reduce their business travel via the utilisation of technology, such as web conferencing, virtual learning and one to one skype discussions.

With an expanding overseas student market, we will always have a necessity for air travel to promote the University and its courses. Where possible air travel is kept to a minimum with long haul visits being combined to several destinations in one trip rather than repeated long haul flights from the UK. The recent relocation of the Howard Gardens Campus to Llandaff and the removal of split campus studies has substantially reduce both student and staff travel during the day.

	Mileage of members in group if travelling seperately	Milage saved if members in group travel together	Tonnes CO2 of members in group if driving separately	Tonnes CO2 saved if members in groups travel together
Per week	5,618	2,969	1.4	0.74
Per year	252,803	133,592	63.2	33.4

Our active car share groups reduced their car mileage by approximately 133,592 miles in 2013, which equated to savings of 33.4 tonnes of CO2.



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