Change Management Action Plan
for sustainable educational environments

Reid Kerr College
December 2010

Contents

Behaviour Change Management Pilot

Identifying how best to engage with staff and students to achieve the wide scale reductions in energy use and carbon emissions needed to protect and conserve our environment is a key challenge for educational institutions.

In recognition of this challenge the EAUC has developed a behaviour change management pilot project specifically designed to offer a package of support to signatories of the University and Colleges Climate Commitment for Scotland (UCCCfs) and benefit the sector as a whole. The pilot project is funded by the Scottish Funding Council and runs from September 2010 to February 2011.

Reid Kerr college is participating in the pilot, alongside the University of the West of Scotland.

About Reid Kerr College

With approximately 18,000 students and 550 staff Reid Kerr college is the tenth largest college in Scotland.

It runs a wide range of courses in a variety of subjects across three campuses in Paisley, Renfrewshire.

Like many colleges the physical estate - a mix of old and new build - presents significant challenges in terms of energy use and management.

WorkWareSUSTAIN

As part of this project AMA Alexi Marmot Associates deployed the WorkWare SUSTAIN toolkit at Reid Kerr college.

Devised to inform behaviour change programmes to reduce energy and carbon the objective of the toolkit is to gather evidence on attitudes and behaviors of students, staff, estates and energy managers across a range of key topics: space and energy use; environmental policy and governance; energy saving; travel; recycling and waste, catering and purchasing.

Thanks are due to Judith Paxton who co-ordinated input from Reid Kerr.

Methodology

The following WorkWare SUSTAIN tools were applied within the UCCCfS Behaviour Change Management Programme to assess the efficacy of the toolkit as a benchmarking system and as a robust performance improvement tool:

a) SUSTAIN questionnaire (web-based) issued to all staff and students

- The survey was available over 3 weeks and was issued to all staff by email and to a selection of 140 students for whom email addresses were available. The survey was also made available on the student intranet.

- 207 responses were received from staff (c. 38%)

- 104 responses were received from students (c. 74% of emailed students) - over 50% of these were from the Business School.

b) Facilities management questionnaire

- Completed on site with assistance from the Facilities Manager

c) Interviews with key stakeholders in energy and carbon management

- 11 people were interviewed during a 1 day site visit

d) Collation and interpretation of available data on space and energy use

- Requested data included space and energy records, eMandate statistics and the Carbon Trust Carbon Management Plan

Purpose of this report

To provide a summary of findings and a recommended change management action plan for Reid Kerr college which identifies:

a) The greatest opportunities for carbon saving through behaviour change

b) The groups and behaviours most amenable to change

c) Recommended change management tools

d) Benchmarks against which future change can be evaluated.

Space and Carbon emissions

- The educational estate is comprised of a wide range of building types which presents challenges in achieving efficiencies in space and energy use.

- The college has a clear strategy and programme of projects to reduce building related energy through new build and retrofit solutions to contribute towards a target 20% reduction in carbon emissions from organisational functions by 2014 compared to a 2008/9 baseline.

- Regular audits of energy wastage are carried out and results reported back to staff which is excellent practice.

- While the college does keep good records on energy use they are not presented in a format which is easily digestible or linked to space holdings.

Environmental policy and governance

- Approximately 50% of staff but only one third of students agree that sustainability is a core part of the college's vision.

- The college has an environmental policy in place although visibility is an issue - approximately two thirds of staff and students are either unaware of its existence or do not know the full details.

- The college has an adequate governance process in place - activities are co-ordinated by a representative College Environmental Group although some members have commented on poor meeting attendance and the time taken to complete actions.

- Less than one third of both staff and students feel that the environment is high priority at college or that enough is being done to cut carbon emissions.

- Staff and students share a strong belief that people should be personally responsible for acting in a more environmentally friendly way.

- 50% of staff and 40% of students say they would be willing to do more if the college, as an institution, did more, and that they can think of lots of ways in which their departments could be more environmentally friendly.

- While the college does not currently have any environmental champions a total of 22 people have volunteered via the online survey.

Campus facilities and environment

- The SUSTAIN facilities management questionnaire was completed for the college. The overall score received was 31% which is adequate.

- Key areas where the college can improve are: feedback on energy use to building occupants; gathering data on space use and utilisation and building this into reporting systems; reducing the number of people driving to college; working to reduce overheating across the estate.

- Evidence from questionnaires shows that a large proportion of staff regularly observe energy wastage across the campus - particularly in terms of overheating in classrooms and lights left on in empty rooms.

Environmental attitudes, barriers and motivation

- Compared to national benchmarks compiled by DEFRA, Reid Kerr has proportionally more people who report doing very little to help the environment but also a greater proportion of people who would like to do a lot more.

- Compared to national averages students are less likely to believe the world faces an environmental crisis while staff believe this more strongly.

- Approximately half of students and staff say that they require more information on what they can do be more environmentally friendly.

- At least one third of both staff and students agree that any changes made to help the environment should fit with their lifestyle.

- Only a small proportion of staff and students agree that money is a key motivator for changing behaviour.

Saving energy and resources

- Over 70% of staff and 40% of students report regularly witnessing excess heating and lights left on on campus - however very few report energy wastage to the college.

- In general both staff and students report regularly switching off PC's, using stairs in preference to lifts and avoiding printing unnecessary paper.

- Key areas for behaviour change focus are alternative travel options, print behaviour and reducing energy use of shared equipment.

Business and college related travel

- Questionnaire results provide additional data to aid the calculation of carbon emissions from business related travel and show this figure is significantly higher than Carbon Trust estimates (387 vs. 34 tonnes of CO_2 per annum).

- Major contributors are air and car travel which equate to more than 80% of the total.

- Almost 50% of staff agree that some restrictions should be placed on international air travel, yet only 21% said they would avoid taking flights where alternative travel options are available.

Commuting to campus

- The college has a green travel plan in place which seeks to minimise the use of individual vehicles.

- The majority of staff travel into college 5 days a week - 70% drive to work alone, equating to 725 tonnes of carbon per year.

- Almost 50% of staff who travel 2 miles or less, travel by car.

- The majority of students travel into college 3 days per week - 20% drive to college alone, equating to 1,676 tonnes of carbon per year.

- For those who drive short distances, the decision not to take alternative transport is at least in part motivated by personal convenience.

- Results suggest car sharing incentives or the introduction of parking charges could significantly reduce carbon emissions from the commute to work.

Waste and recycling

- The college has done a lot of work on paper recycling and results reflect this - almost 100% of staff and 80% of students regularly recycle loose paper.

- Recycling rates for other consumables are very low, with the exception of print cartridges/toner amongst staff and plastic bottles amongst students.

Catering and purchasing

- Available catering and purchasing choices on campus strongly reflect the environmental and social ethos on campus and can have a significant impact upon reducing global emissions.

- At Reid Kerr most staff purchase lunch and about half of students purchase lunch and snacks every day. At present less than 20% of students and 14% of staff regularly purchase meat free meals while on campus.

- In terms of purchases made on campus only a small proportion of staff and students prioritise the purchase of products which are environmentally friendly - both groups are more inclined to purchase low packaging or Fairtrade products than products which are durable, recyclable or recycled.

Promoting sustainable behaviour

- AMA has conducted wide research into how to successfully engage with staff and students to promote sustainable behaviour.

- Key areas of influence upon attitudes and behaviour in educational environments can be broadly distilled into three main categories: college/university policies, curriculum and social influences.

- Key requirements to support behavioural change are outlined against these three categories, including top tips for recruiting champions and encouraging grass roots change.

- Findings from this study have been translated into a change management action plan which is summarised on the following page.

Through its carbon management plan Reid Kerr college has identified a series of projects to achieve a 20% reduction in energy use related to operational activities by 2014. Key challenges going forward are to engage with staff and students bodies to help achieve these targets by motivating individual and group action. The following recommendations should be reviewed in conjunction with the SUSTAIN change checklist on page 21 of this report.

Key areas of focus for behaviour change:

• Saving energy on campus - reinforcing switch off campaigns, encouraging environmental guardianship and reporting of energy wastage;

• Choosing paper saving print options and switching off shared equipment;

• Reducing business related air travel and car use through selection of alternative travel options (staff only);

• Reducing the number of solo car drivers who commute to college through car share incentives, parking charges or reduced parking spaces;

• Promoting cycling and walking for students supported by buddy scheme;

• Increasing recycling of non-paper materials.

Key messages and areas of focus for campaigns:

• Most staff and students would like to more to help the environment and believe climate change is a problem that can be solved;

• There is a strong belief that people should be more personally responsible for behaving in an environmentally friendly way;

• Gather pledges to do more / ideas for departmental initiatives

• Begin with changes that can be made without significant lifestyle change

• For staff, focus on reward and recognition instead of financial motivators; for students provide a mix of incentives;

• Promote work of departments who are taking ownership of energy wastage.

Engagement through policy

• Develop a clear and simple mission statement - outline clearly commitment to change;

• Publicise what the college has done already, future plans, what staff/students can do;

• Create a visually engaging version of the sustainability policy and communicate widely;

• Increase visual prompts on campus - signage, recycling bins, purchasing and catering promotions (e.g.. Buy recycled, meat-free Mondays);

• Maintain up to date records of space and energy use and benchmarks and develop simple reporting template to feed back energy use to management meetings/department heads;

• Monitor business related travel and continue to work with APUC and catering providers to promote environmentally friendly options.

Engagement through curriculum

• Work with teaching staff and students to explore how sustainability can be embedded in the curriculum;

• Hold focus groups to find out what information/learning opportunities would staff and students like;

• Develop a program extra curricula activities which explore environmental issues and solutions and encourage college wide debate.

Engagement through social influence

• Hold a series of open meetings to share ideas and encourage action - consider re-launching the college environment group as an environmental action group which co-ordinates activities of champions and wider body using points and prizes system to encourage activity;

• Use shared noticeboards (physical or online) to promote departmental competition, collect ideas and incentive action;

• Recruit and train champions and develop support materials;

• Work with student committee to develop roles and responsibilities of environmental officers - begin by sharing questionnaire findings

Space and carbon emissions

The estate at Reid Kerr college is currently measured at 28,612m^2 Gross Internal Area (GIA) and is based across three campuses - Renfrew Road, New Street and Renfrew Sports Centre. Like many educational estates it comprises a wide range of building types, constructed at different times and of varying condition and repair. This presents challenges in achieving efficiencies in space use and energy use.

Significant work has been done over the past 11 years to implement an estate strategy with the objectives of improving the quality of the education environment, consolidating the campus and improving energy efficiency.

The college's recent Carbon Management Plan identifies building related energy use as the primary contributor to overall the carbon emissions from the delivery of organisation functions - 879 tonnes of CO_2 out of a total 1,030 (87%). The Carbon Management Plan identifies a target 20% reduction by 2014. Data on business and university related travel from the questionnaire significantly increases the contribution of travel to overall carbon emissions (see page 14 for more details).

The college has a clear strategy and programme of projects to reduce build related energy through new build and retrofit solutions. In parallel a series of ICT and other projects are being implemented to reduce energy demand and heating and cooling requirements.

Regular audits of energy wastage are carried out and results reported back to staff. This is excellent practice and there is evidence that some departments are now beginning to take ownership of this issue. The work of these departments should be supported and promoted by the college.

The collation of accurate data which can be compared against sector benchmarks is fundamental to good space and energy management.

Recommended metrics are identified in the table on the right plus benchmarks from the most recently published eMandate return. Where possible, indicative figures for Reid Kerr have been calculated though they should be treated with caution as a series of assumptions have been made.

While the college does keep good records on energy use they are not presented in a format which is easily digestible or linked to space holdings.

The college should work to develop a simple reporting template to be reviewed regularly at management meetings.

Carbon emissions (tonnes)

Carbon Trust

Total: 1,030

AMA

Total 2,130
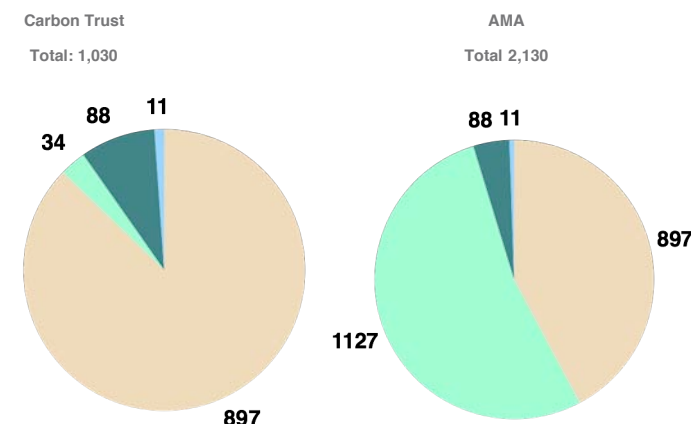
Space and energy benchmarks

Source: eMandate 06/07

% people who:	Reid Kerr	Lower quartile	Median	Upper quartile
Gross Internal Area per learner FTE*	4.3	-	6.2	7.7
Space utilisation rate	-	20%	27%	40%
Energy (kWh)** per m2 GIA	249	182	220	258
Energy (kWh) per learner FTE	1,070	1,061	1,372	1.726
Water m3 per m2 GIA	-	-	0.6	
Water m3 per learner FTE	-	2.4	3.3	5.2

*Current learner FTE's calculated at 6,660 based on data from SFC Infact database which showed FTE's were 37% of total headcount

** Energy (kWh) calculated by averaging the kWh consumption per building across energy display certificates provided

● Buildings ● Transport ● Waste ● Water

Achieving CO_2 reduction targets as set out in the college's Carbon Management Plan will require strong commitment across the college.

The 2009-2012 strategic plan makes an explicit commitment to environmental issues and the continued embedding of staff and student knowledge and understanding of sustainable development.

Approximately 50% of staff but only one third of students agree than sustainability is a core part of the college's vision.

The college has in place a broad 'Environment and Sustainable Development Policy' which identifies clear action points against six key objectives. It is supported by supplementary policies on carbon management and water, green transport and waste management. The policy is updated on an annual basis and is available to staff and students via the college intranet. Staff are also asked to record their awareness of the policy as part of their induction checklist.

Visibility of the policy is an issue - approximately two thirds of staff and students are either unaware that it exists or do not know the full details.

Of those students who are fully aware of the policy, the majority feel it is being followed. Staff are more critical, with almost 20% reporting that the policy is either not comprehensive enough or not fully followed.

The college has an adequate governance process in place. The Director of HR & Facilities has overall responsibility for the delivery of environmental policy objectives. Activities are coordinated by the College Environmental Group, chaired by the Director of HR & Facilities. The group includes a total of 16 staff and student representatives organised into 6 sub groups who meet bi-monthly. Some members have commented on poor meeting attendance, particularly amongst academic staff, and of the time taken to complete actions.

The student body has recently elected an Environmental Officer to the Student Committee - a position which has been vacant for several years. This role will be critical in increasing student engagemen,t moving forward.

Staff

Staff pie chart: 17%, 10%, 9%, 44%, 20%

Students

Students pie chart: 28%, 4%, 1%, 26%, 41%
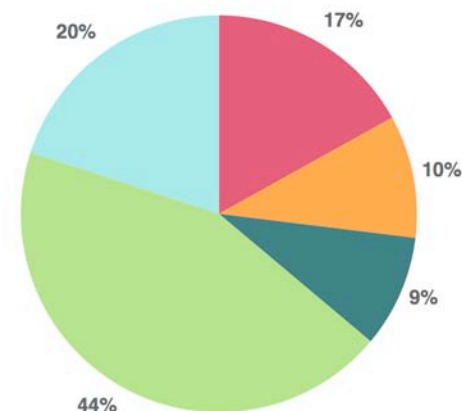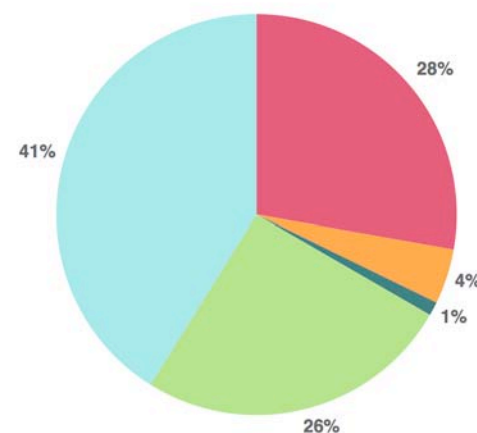
Source: AMA Questionnaire Are you aware of your university's sustainability policy?

Yes, well implemented ● Yes, not followed ● Yes, not comprehensive ● Yes, don't know details ● No ○

In general students are less positive about the college's commitment to environmental issues than staff, and are less engaged, though opinions are comparable across both groups.

Less than one third of both staff and students feel that the environment is high priority at college or that enough is being done to cut carbon emissions.

Approximately one third of respondents agree that the college provides plenty of information and opportunities to learn about how to reduce their environmental impact. However, most are neutral, with a small minority actively disagreeing.

Staff and students share a strong belief that people should be personally responsible for acting in a more environmentally responsible way at college.

50% of staff and 40% of students say they would be willing to do more if the college, as an institution did more, and that they can think of lots of ways in which their department can be more environmentally friendly.

The college should tap into these findings by working with staff and students at a departmental level to encourage and incentivise ideas and actions, through shared noticeboards and inter-departmental competitions. The NUS Green Impact programme which is currently taking place at Reid Kerr will provide an opportunity to test these ideas.

Further information should be collected on the sorts of information and learning opportunities staff and students would like to support reducing their environmental impact as targeted campaigns will be most effective.

Reid Kerr does not currently have any environmental champions. However 11 staff members and 11 students who responded said they would be willing to perform this role without any information on what this might involve.

Reid Kerr college should now develop a role description for environmental champions in consultation with students and staff and begin recruitment.

Staff

Statement	Strongly Agree/Agree	Neutral	Disagree/Strongly Disagree
I think people should be personally responsible for acting in a more environmentally responsible way when at college (207)	81	14	5
Sustainability is a core part of my college's vision (181)	53	38	9
If my college did more to tackle climate change I would too (200)	52	37	11
I can think of lots of ways in which my department could be more environmentally friendly (196)	52	41	7
Some restrictions should be placed on international travel (186)	44	35	21
There is plenty of help available for people who want to find the most environmentally friendly way to travel into college (184)	37	39	24
The environment is HIGH priority compared with other things at college (195)	35	27	38
My college provides plenty of opportunities to learn about how to reduce my environmental impact (186)	33	40	26
My college is doing enough to cut carbon emissions (179)	27	46	27

Students

Statement	Strongly Agree/Agree	Neutral	Disagree/Strongly Disagree
I think people should be personally responsible for acting in a more environmentally responsible way when at college (85)	69	21	9
Sustainability is a core part of my college's vision (70)	33	51	16
If my college did more to tackle climate change I would too (75)	43	43	15
I can think of lots of ways in which my department could be more environmentally friendly (74)	38	50	12
Some restrictions should be placed on international travel (75)	27	44	29
There is plenty of help available for people who want to find the most environmentally friendly way to travel into college (76)	32	38	30
The environment is high priority compared with other things at college (79)	35	35	29
My college provides plenty of opportunities to learn about how to reduce my environmental impact (76)	17	47	36
My college is doing enough to cut carbon emissions (71)	32	46	21

Source: AMA Questionnaire How much do you agree with the following statements?

Strongly Agree/Agree ● Neutral ● Disagree/Strongly Disagree ●

Campus facilities and environment

The SUSTAIN facilities management questionnaire was completed for Reid Kerr college based on discussions with the Facilities Manager and during interviews.

The overall score received was 31%, which is adequate. More detailed results are shown in the appendix.

The age and quality of the buildings across the estate does present difficulties in terms of energy management. However, key areas where the college can improve are:

• feedback on energy use to building occupants

• gathering data on space use and utilisation and building into reporting systems

• reducing the number of people driving to college

• working to reduce overheating across the estate

Evidence from questionnaires shows that a large proportion of staff regularly observe energy wastage across the campus - particularly in terms of overheating in classrooms and lights left on in empty rooms. A large proportion of students also feel that classrooms are often overheated when in use.

The college should monitor and reduce temperatures in classrooms where possible and work with both the staff and student body to take greater responsibility to both take personal action to reduce energy wastage and report issues to the facilities team. This may be achieved through a combination of:

• increasing the number of 'prompts' to switch off/turn down - *see materials produced by Action for Sustainability on the EAUC UCCCfs website*

• publicising energy wastage at a departmental level and encouraging inter-departmental competition

• providing incentives to report energy wastage which cannot be directly controlled by building occupants (e.g. points scoring system or similar)

Score	TOPIC	Max score	% score
5	Energy Management	20	25%
3	Heating and Cooling	10	30%
6	Lighting	10	60%
1	Space efficiency and space utilisation	10	10%
8	Travel and flexible working	20	40%
6	Office supplies - procurement and waste management	20	30%
2	Equipment usage	10	20%
31	OVERALL SCORE	100	31%

% people who always/often see:	Staff	Students
Lights on in empty rooms at night	71%	29%
Lights on in empty rooms during day	72%	31%
Overheating in classrooms when in use	74%	56%
Overheating in classrooms when empty	71%	38%
Overheating in corridors and shared areas	57%	33%
Computers left on overnight	46%	n/a
Printers and copiers left on overnight	51%	n/a
Large volumes of uncollected printing	35%	n/a

Source: SUSTAIN facilities management questionnaire/ Questionnaire: How often do you see…?

Attitudes towards own lifestyle and environment

In 2009 DEFRA commissioned a survey on public attitudes and behaviours towards the environment. Just over 2000 people* were surveyed via a face to face survey. A selection of questions from this survey were included in the SUSTAIN questionnaire for benchmarking purposes.

Results from the DEFRA survey show that 50% of people do a few things which are environmentally friendly, with a roughly even split between smaller groups who either do a lot and those who do very little.

At Reid Kerr lifestyle attitudes show important variations from national averages. The staff population is split into thirds, with a greater proportion of people who do a lot or do very little. Student numbers are more comparable to national figures, though there is a greater number of students who do very little.

While Reid Kerr has proportionally more people who report doing very little to help the environment than the national average it has a greater proportion of people who would like to do more. This is particularly pronounced for staff members, which supports previously reported data which showed higher engagement levels amongst staff and students.

A matrix of results from both questions provides a way of quantifying opportunities for change at Reid Kerr:

• 8% of staff and students are not engaged and will be **difficult to change**

• There is potential to **effect minor change** in 29% of staff and 45% of students

• There is potential to **effect major change** in 31% of staff and 28% of students

• 10% of students and 9% staff are **already green** but don't want to do more

• 9% of students and 22% of staff are already doing lots but would like to do more and represent potential **culture carriers*** (i.e. peer group motivators)

Benchmarks

% people who:	Staff	Students	DEFRA
Do lots of things which are environmentally friendly	32%	20%	27%
do a few things which are environmentally friendly	33%	50%	49%
do very little/nothing which is environmentally friendly	35%	30%	24%
are happy with current lifestyle	30%	40%	45%
would like to do a bit more to help the environment	51%	46%	47%
would like to do a lot more to help the environment	19%	14%	8%

Change Matrix
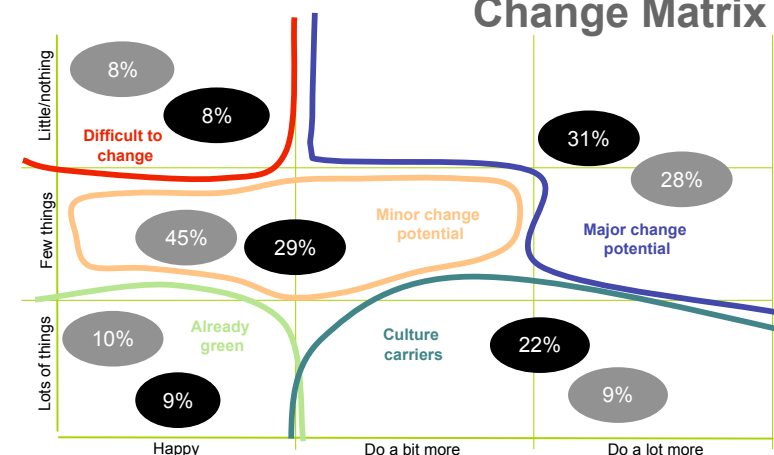
Source: AMA Questionnaire   Which of these best describes how you feel about the current impact of your current lifestyle on the environment?

Staff ● Students ●

•Aged 16 or over in England

Ecological world view, barriers and motivation

The DEFRA public attitude survey included a series of questions to establish an individuals ecological world view - the extent to which they believe there is a need to address environmental issues.

Compared to national averages students are less likely to believe that the world faces an environmental crisis. Staff believe this more strongly.

Data suggests that change campaigns at Reid Kerr should focus on the belief amongst staff and students that climate change is a solvable problem. For students there would be benefit in working to emphasise the potential impacts of climate change, particularly to their local geography.

Change campaigns should pay close attention to the barriers and motivators of behaviour.

Providing information is the first stage. Approximately half of students and staff say that they require more information on what they can do to be more environmentally friendly.

At least one third of both staff and students agree that any changes made to help the environment should fit with their lifestyle.

Reid Kerr should begin by creating information campaigns which identify the sorts of changes that can be easily made without significant lifestyle change.

For behaviors where significant change is required (e.g. commute to work) initiatives should explore how changes might improve rather than detract from current lifestyles. This may require changes to organisational policy.

Only a small proportion of staff and students agree that money is a key motivator for changing behaviour. While financial savings can help influence change Reid Kerr should ensure any campaigns which use financial incentives should also include other motivators, e.g. recognition, competition, improved health and well-being.

Benchmarks

Strength of belief that:	Staff	Students	DEFRA
World faces an environmental crisis	3.6	3.2	3.5
Climate change is a solvable problem	3.9	3.6	3.9
Earth is close to people capacity	3.2	3.5	3.6
Ecological world view score	**3.6**	**3.4**	3.7
Motivation score	**3.6**	**3.2**	3.3

Staff

Statement	Strongly Agree/Agree	Neutral	Disagree/Strongly Disagree
Any changes I make to help the environment need to fit in with my lifestyle (201)	34	27	38
The environment is low priority compared to other things in my life (203)	22	25	53
I don't believe my everyday behaviour and lifestyle contribute to climate change (200)	15	26	60
Its not worth me doing things to help the environment if others don't do the same (201)	12	19	69
Its only worth doing environmentally friendly things if they save you money (202)	11	18	71
I need more information on what I could do to be more environmentally friendly (210)	10	12	78
The effects of climate change are too far in the future to really worry me (199)	8	14	78

Students

Statement	Strongly Agree/Agree	Neutral	Disagree/Strongly Disagree
Any changes I make to help the environment need to fit in with my lifestyle (83)	42	37	20
The environment is low priority compared to other things in my life (84)	20	37	43
I don't believe my everyday behaviour and lifestyle contribute to climate change (82)	20	34	46
Its not worth me doing things to help the environment if others don't do the same (85)	18	33	49
Its only worth doing environmentally friendly things if they save you money (85)	14	33	53
I need more information on what I could do to be more environmentally friendly (83)	47	37	16
The effects of climate change are too far in the future to really worry me (84)	13	26	61

Source: AMA Questionnaire   How much do you agree or disagree with the following statements?

Strongly Agree/Agree ●   Neutral ●   Disagree/Strongly Disagree ●

Behaviour - Saving energy and resources

Staff and students were asked how frequently they engaged in certain environmentally conscious behaviors. Results are quite varied for each group.

In general both staff and students report regularly switching off PC's, using stairs in preference to lifts and avoiding printing unnecessary paper.

Very few people report energy wastage to the college - this is despite over 70% of staff and 40% of students responding that they regularly witness excess heating and lights left on on campus.

Reid Kerr should encourage staff and students to act as environmental guardians and encourage them to report issues to the facilities team.

For students other key areas where the college may wish to focus on encouraging behaviour change are:

• choosing print and copy options which save paper

• printing in grayscale not colour where possible

For staff key areas are:

• exploring alternative travel options

• purchasing of non-disposable items and those with low packaging
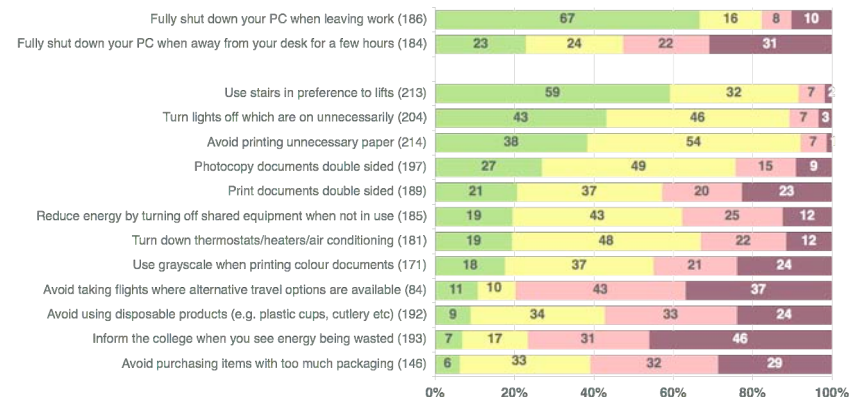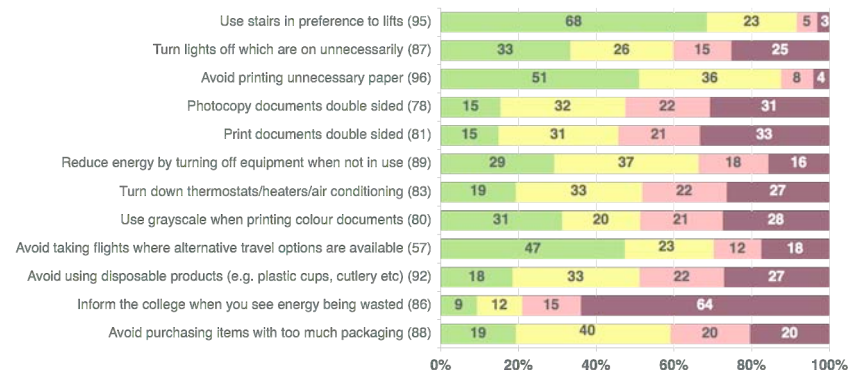
• printing double sided and grayscale as default

• turning off shared equipment when not in use

Enabling the successful uptake of these behaviours may require some infrastructure changes.

Staff

	Always	Very often/Often	Occasionally	Never
Fully shut down your PC when leaving work (186)	67		16	8	10
Fully shut down your PC when away from your desk for a few hours (184)	23	24	22	31
Use stairs in preference to lifts (213)	59		32	7	
Turn lights off which are on unnecessarily (204)	43	46	7	3
Avoid printing unnecessary paper (214)	38	54	7	
Photocopy documents double sided (197)	27	49	15	9
Print documents double sided (189)	21	37	20	23
Reduce energy by turning off shared equipment when not in use (185)	19	43	25	12
Turn down thermostats/heaters/air conditioning (181)	19	48	22	12
Use grayscale when printing colour documents (171)	18	37	21	24
Avoid taking flights where alternative travel options are available (84)	11	10	43	37
Avoid using disposable products (e.g. plastic cups, cutlery etc) (192)	9	34	33	24
Inform the college when you see energy being wasted (193)	7	17	31	46
Avoid purchasing items with too much packaging (146)	6	33	32	29

Students

	Always	Very often/Often	Occasionally	Never
Use stairs in preference to lifts (95)	68		23	5	3
Turn lights off which are on unnecessarily (87)	33	26	15	25
Avoid printing unnecessary paper (96)	51	36	8	4
Photocopy documents double sided (78)	15	32	22	31
Print documents double sided (81)	15	31	21	33
Reduce energy by turning off equipment when not in use (89)	29	37	18	16
Turn down thermostats/heaters/air conditioning (83)	19	33	22	27
Use grayscale when printing colour documents (80)	31	20	21	28
Avoid taking flights where alternative travel options are available (57)	47	23	12	18
Avoid using disposable products (e.g. plastic cups, cutlery etc) (92)	18	33	22	27
Inform the college when you see energy being wasted (86)	9	12	15	64
Avoid purchasing items with too much packaging (88)	19	40	20	20

Source: AMA Questionnaire   While on campus, how often do you personally?

Always ● Very often/Often ● Occasionally ● Never ●

Behaviour - Business and college related travel

The Carbon Management Plan prepared for the college by the Carbon Trust included an estimated figure of 34 tonnes per year for carbon emissions relating to business travel whilst acknowledging that the college was planning to implement measures to improve the monitoring of travel methods and necessity of journeys.

Results from the questionnaire provide additional data to aid the calculation of carbon emissions from business related travel and show that this figure is significantly higher than original estimates.

Extrapolations from staff reports on annual air travel and weekly travel using cars, trains and buses generates an estimated total of 387 tonnes of CO_2 per annum. Major contributors are air and car travel which equate to more than 80% of the total.

Almost 50% of staff agree that some restrictions should be placed on international air travel, yet only 21% said they avoid taking flights where alternative travel options are available.

The college should consider implementing guidelines for staff business travel, including criteria for assessing the most appropriate means of travel. Detailed records on staff travel should be gathered and held centrally to enable ongoing monitoring and reporting of carbon emissions.

Student college related travel is not included as part of college operational activities but does have a significant carbon implication. Extrapolated data from survey responses suggest student travel to and from college and study related travel accounts for 1,874 tonnes of CO_2 per annum.

To help reduce this figure the college could publish guidance for current and prospective students on sustainable travel options when travelling to and from college at the beginning and end of term, promoting ferries, trains and coaches where practical.

Carbon calculation assumptions:

Figures calculated for 550 staff and 13,000 students (18,000 - 5,000 virtual students) using DEFRA 10 conversion factors:

Plane: 0.09797 kg of CO_2 per passenger kilometer (average short haul international); Car: 0.20825 kg of CO_2 per mile (average car, fuel unknown); Train: 0.0773 kg of CO_2 per passenger kilometer (average local train/tram); Bus: 0.0773 kg of CO_2 per passenger kilometer (average local bus - not London).

Staff
tonnes of CO_2 per year

27   14

129

217
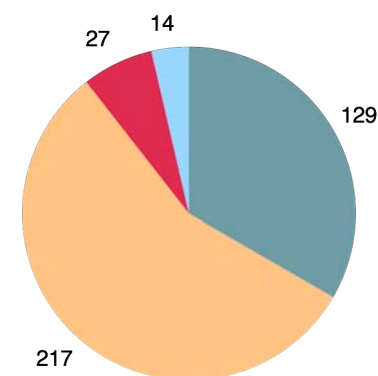
Students
tonnes of CO_2 per year

740

1135
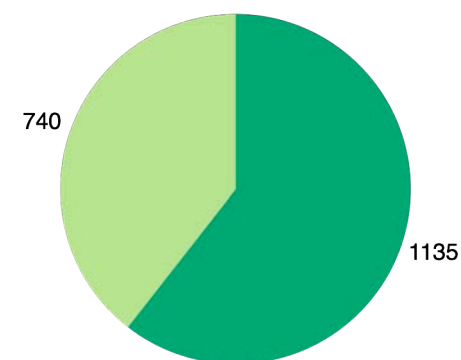
Source: AMA Questionnaire   How many hours per week/year do you?

Staff: Air travel ⬤   Car travel ⬤   Train travel ⬤   Bus travel ⬤   **Students:** Air travel - to/from college ⬤   Air travel - study related ⬤

Reid Kerr College Change Management Action Plan - December 2010
Produced as part of the EAUC Behaviour Change Management Programme Pilot

While commuting to college is not counted as part of the CO_2 emissions for the delivery of organisation functions, it has a very significant contribution to an individuals' carbon emissions.

The college has a green travel plan in place which seeks to minimise the use of individual vehicles. In addition the college has for some time provided interest free season ticket loans for public transport and promotes cycling and walking to work on a periodic basis. Work is underway with Sustrans to look at improving access to the college by bike. There are currently 5 cycle racks which are rarely used.

There are currently a large number of parking spaces which are free for staff and student use.

The majority of staff members travel into college 5 days per week and have an average commute of 11 miles each way. 70% of staff drive to work alone, travelling an average of 12.7 miles.

Based on these data staff car travel to and from college can be conservatively estimated at 407 tonnes of carbon per year (or 0.7 tonnes per staff member)

Almost 50% of staff travel by car for journeys less than 2 miles and 75% of staff travel by car for journeys of between 2-5 miles.

The majority of students travel into college 3 days per week and have an average commute of 7 miles each way. 20% drive to college alone, travelling an average of 6.9 miles.

Students are much more likely than staff to walk or take the bus for short commutes

Based on this data student car travel to and from college can be conservatively estimated at 1,027 tonnes of carbon per year (or 0.1 tonnes per student)

Carbon calculation assumptions:

Figures calculated for solo car drivers only; 0.20825 kg of CO_2 per mile (DEFRA 2010, average car, unknown fuel); 550 staff and 13,000 students (18,000 - 5,000 virtual students)

Staff
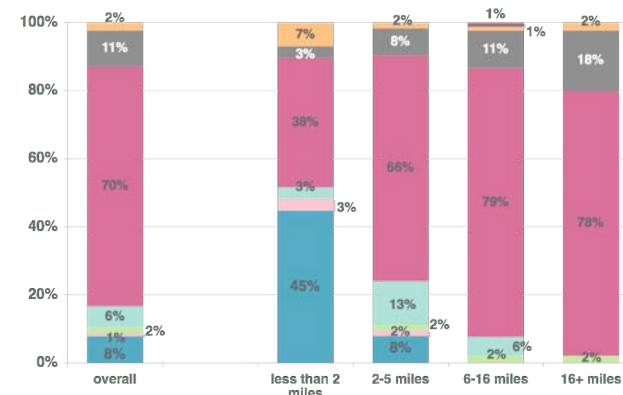
Students
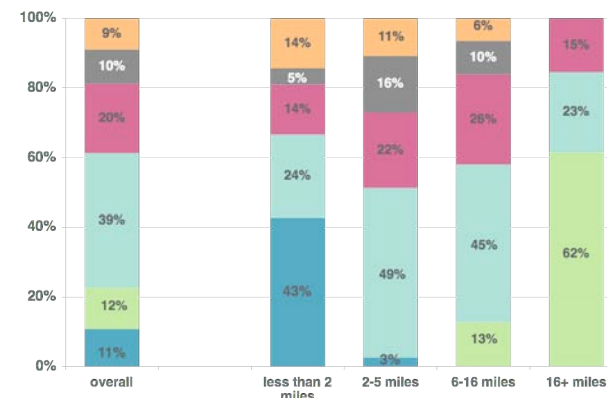
Source: AMA Questionnaire   What is the main form of transport you use to travel to the campus where you are normally based?

Motor bike / Scooter   Car passenger   Car (w/passenger)   Car (on own)   Bus   Train   Cycle   Walk

Encouraging lower carbon commutes

The biggest potential for change is for those people who drive to college despite living five miles or less away. Data were analysed to explore the reasons why those who have short commutes choose to drive and how this different from those who live further away.

For those who drive short distances the decision not to take alternative transport is at least in part motivated by personal convenience.

Many of this group also use the car to drop off or collect dependents and the practicalities of this responsibility would need to be explored if the college seeks to significantly reduce car use.

30% of staff who drive 5 miles or less indicated that they require their car for work purposes - this group drive an average of 3 hours per week for business purposes. While these staff members may need to drive of part of the week they could be encouraged to use alternative transport.

For those who live further away cost and the lack of direct public transport are barriers to the use of alternative transport.

The college may wish to consider the introduction of parking charges - approximately 20% of staff and students who drive said this would discourage them from driving, while a further 35-45% said it would depend on price. At least half of drivers would be more likely to car share if dedicated parking spaces were available. Staff would also be more likely to car share with a guaranteed ride home in the case of emergencies.

Interestingly 35% of staff who drive said they would like helping in finding a car share partner, despite the existence of a scheme at the college. This indicates that the scheme should be more heavily publicised or individual discussions held.

Approximately 20% of staff said they would be encouraged to travel by public transport by discounted fares and a similar number said they would be more likely to walk or cycle if there were improved infrastructure, shower facilities and lockers. A similar number of students agreed, with 30% saying that they would like a walking or cycling buddy.

Staff

	OVERALL	5 miles or less	6 miles or more
personal convenience	45%	51%	42%
car is quicker	43%	39%	46%
no direct public transport	39%	12%	52%
dropping off/collecting dependants	22%	34%	17%
car essential for work	21%	27%	18%
car is cheaper	21%	25%	19%
infrequent public transport	21%	10%	26%
health/disability reasons	4%	3%	5%
lack of information on alternative modes of transport	3%	2%	4%
insufficient cycle parking/lockers/security	2%	3%	2%
other (please specify)	0%	0%	0%
Total	**184**	**59**	**125**

Students

	OVERALL	5 miles or less	6 miles or more
personal convenience	37%	42%	29%
car is quicker	55%	58%	50%
no direct public transport	13%	8%	21%
dropping off/collecting dependants	34%	42%	21%
car essential for work	0%	0%	0%
car is cheaper	24%	17%	36%
infrequent public transport	5%	4%	7%
health/disability reasons	8%	4%	14%
lack of information on alternative modes of transport	3%	4%	0%
insufficient cycle parking/lockers/security	5%	4%	7%
other (please specify)	0%	0%	0%
Total	**38**	**24**	**14**

Source: AMA Questionnaire   What are the barriers to you using alternative transport?

Behaviour - Waste and recycling

Objectives of the college's waste management policy are to: meet legislative requirements in terms of waste disposal; reduce the amount of materials and waste generated for college business activities; and the promotion of reuse and recycling.

The college is currently in the process of reviewing waste contracts, in part driven by legislative requirements.

The college has done a lot of work on paper recycling and questionnaire results reflect this.

Almost 100% of staff and 80% of students regularly recycle loose paper. The majority of staff also recycle other paper products and cardboard, though these rates are far lower amongst students.

Recycling rates for other consumables are very low, with the exception of print cartridges/toner amongst staff and plastic bottles amongst students.

The college has recently placed mixed recycling bins in student areas which should be promoted to encourage uptake of recycling amongst the student body. In parallel further work should be done with staff to encourage recycling of non-paper consumables, particularly plastic bottles and other plastic packaging and tins/cans/foil.

The quantity and location of recycling bins should be reviewed to ensure there are plenty located in prominent locations (e.g. in highly visible areas in canteen, by door entrances, busy thorough-fares. Best practice advice suggests a 1:1 ratio of waste bins to recycling bins.

Clear guidance should be available to staff and students on what can be recycled where on campus (e.g. on college intranet) and, as importantly, what cannot yet be recycled, what plans are in place for the future and where this might be recycled off campus.

The college should also aim to make one major event each year 'zero-waste' to help raise awareness of the importance of minimising waste as part of normal college operations . A wide range of advice and toolkits are available online.

Materials:	% who regularly recycle:	
	Staff	**Students**
loose paper	98%	80%
brochures/newspapers/magazines	77%	30%
cardboard	66%	19%
print cartridges/toner	47%	8%
plastic bottles	18%	49%
other plastic packaging	9%	26%
electrical/electronic equipment	8%	5%
tins/cans/foil	8%	33%
food waste	5%	26%

Source: AMA Questionnaire   Which of the following do you regularly recycle while on campus?

One of the major purchases made by staff and students on campus on a daily basis is food. At Reid Kerr most staff purchase lunch and about half of students purchase lunch and snacks every day.

While not currently factored into institutional carbon reduction targets alterations to catering policies can have a significant impact on reducing global emissions by reducing food miles, encouraging diets with a lower meat content* and improve the environment by supporting reduced use chemicals in farming and non-biodegradable/recyclable packaging.

While greater cost may be attached to more environmentally friendly catering options, they often align with socially positive purchasing and healthy eating agendas. They should be explored where possible and costs reviewed on a regular basis. In addition canteen areas are prominent places on campus and present an opportunity to spread messages about environmental concern e.g. Fairtrade or local/seasonal food) and promotional campaigns (e.g. Autumn Harvests, Local dairy products).

At present more than 50% of staff and students rarely purchase meat free meals while on campus.

Current government advice suggests reducing consumption of meat and dairy products is likely to have the most significant and immediate effect on making diets more sustainable*. This suggests there is significant potential to support government initiatives by promoting 'meat free' days (e.g. Meat Free Monday campaign).

The canteen has been described as a focal point on campus and is likely to be effective location for promotional campaigns which can be tied into both global and local environmental issues through food and ethical purchasing.

There may also be an opportunity to include a module on sustainable food for catering students.

% meals purchased on campus

Staff
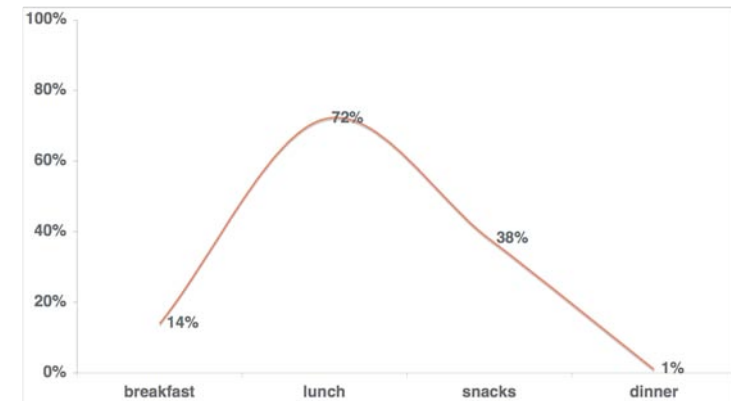
Students
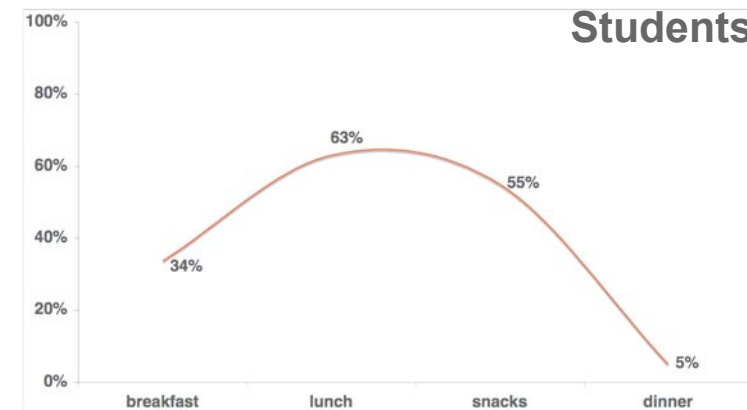
Source: AMA Questionnaire   Which meals do you purchase from catering outlets on campus during a typical day?

• see 'Setting the Table' by the Sustainable Development Commission - notes 18% greenhouse gases related to food production and consumption

Behaviour - Purchasing

Large scale purchases at Reid Kerr are managed through the APUC framework.Smaller scale purchases can be made by certain members of staff.

The college is developing a procurement policy in conjunction with APUC which will include purchases which do not go through the APUC framework.

In terms of purchases made on campus, only a small proportion of staff and students prioritise the purchase of products which are environmentally friendly. Both staff and students are more inclined to purchase low packaging, Fairtrade and recyclable/recycled products than products which are durable or organic.

The college should work with APUC to ensure that, where cost effective, environmentally friendly products are available to purchase on campus.

Guidance on what labels to look for can also be helpful and can be easily obtained from DEFRA's website and publicised within the college.

Staff

|	Whenever I can	Sometimes	Never
low packaging products	41%	40%	19%
fairtrade products	32%	52%	17%
recyclable products	32%	46%	22%
recycled products	29%	45%	26%
organic products	21%	55%	24%
durable products	20%	44%	35%

Students

	Whenever I can	Sometimes	Never
low packaging products	34%	38%	28%
fairtrade products	29%	36%	36%
recyclable products	27%	41%	32%
recycled products	26%	41%	34%
organic products	15%	43%	42%
durable products	21%	42%	37%

Source: AMA Questionnaire When shopping on campus how often do you consciously choose the following sorts of products?

Whenever I can ● Sometimes ● Never ●

Reid Kerr College Change Management Action Plan - December 2010
Produced as part of the EAUC Behaviour Change Management Programme Pilot

Establishing how to successfully engage with staff and students to promote sustainable behaviour is a challenge facing many institutions.

AMA has conducted wide research into this issue drawing on literature and research within psychology, change management, communication and marketing combined with evidence from case studies from across the education sector.

Based on this research key areas of influence upon attitudes and behaviour in educational environments can be broadly distilled into three main categories - college/university policies, curriculum and social environment. These have been usefully illustrated by Sjerp-Jones (2007) as part of a CETL funded research project into student engagement for sustainability (see diagram).

Policies
A fundamental success criterion for effecting change within any organisation is a clear vision and strategy which is visibly supported by senior leadership and clearly communicated across the organisation. The vision should be reinforced through the physical environment and relevant information about what individuals or groups need to do to and how they can do it must be easily accessible and engaging. Findings from the questionnaire on tools for communication illustrate that quite different means of communication will be required for students who make far more use of the internet and social networking.

Curriculum
Embedding sustainability within the curriculum is essential for success. Lecturers play a key role in engaging students and communicating the relevance of sustainability both in terms of citizenship and future employment opportunities. The college must support this process by working with teaching staff to develop curriculum content and providing training and extra curriculum activities for all staff and students.

Social influences
Attitudes, opinions and behaviour are significantly influenced by those with whom we spend time. Appropriate infrastructure must be provided to allow engaged students, lecturers and other staff to have a voice and to encourage action.

These topics are outlined in more detail on the following page.

Areas of influence
from Sjerp-Jones (2007)
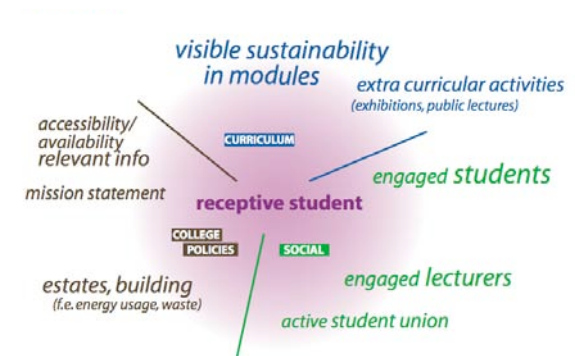
Communication methods

preferred method of communication	Staff	Students
Email	92%	62%
College Website	58%	67%
Departmental intranet	24%	27%
Posters	19%	37%
Virtual Learning Environments (eg Blackboard, Moodle)	9%	17%
Facebook Groups	7%	41%
Other social networking sites	0%	8%
Twitter	0%	10%

Source: AMA Questionnaire   How would you prefer to receive communications about college related activities?

SUSTAIN change checklist

POLICY: Set a vision that inspires
• create a holistic, coherent and desirable vision (which clearly defines sustainability)
• consider brand and vocabulary carefully to create a positive and compelling message
• support with a clear delivery strategy which is visibly supported by senior leadership
• make room for both top down and bottom up (grass roots) ideas and campaigns

POLICY: Make it visible
• make visible what the college is doing already and that policy is being put into practice
• provide visual prompts to act - noticeable, simple and located where desired behaviour should take place
• integrate into performance objectives and provide feedback and recognition - reward and celebrate success
• make it easy for people to obtain relevant information

CURRICULUM: Embed sustainability into education
• give lecturers incentives to include sustainability in teaching and identify sources for content development
• clarify to students how sustainability is linked to success inside and outside the classroom
• provide extra-curricula learning opportunities

SOCIAL: Create networks of social influence
• establish a pool of engaged champions (using incentives, reward where appropriate) to motivate peer groups
• encourage and facilitate debate and discussion (e.g. open forums, world café, pecha kucha events)
• build social norms by communicating positive figures for numbers of people who engage in desired behaviour (e.g. numbers of people who recycle waste, or report switching off lights)
• look for opportunities to foster social diffusion (adoption of new behaviours due to influence of others) e.g. by advertising names of people who have committed to a new behaviour
• try to link internal events to local or national events

SOCIAL: Emphasise action (and make it easy)
• Ask for public and group (voluntary) commitments and emphasise written over verbal communications
• Use incentives (either financial or social), particularly where motivation to change is low
• Identify any external barriers (real or perceived) and try to reduce them (e.g. by getting people to try a new behaviour or making an undesirable activity less convenient or more expensive)

SOCIAL: Run targeted campaigns using effective communication
• Research the attitudes and behaviours relating to targeted behaviour before developing the campaign
• Use messages which are clear, vivid, personal and which use inclusive language (us, we)
• Use trusted individuals to deliver messages (ideally in person)

Top tips for…
recruiting champions

• clarify scope and time commitments

• be clear about the benefits of involvement

• provide training (consider paying for time) and support with regular communications

• encourage staff and student champions to work together to explore how to embed sustainability in curriculum

• consider league tables and incentives e.g. prizes for recruiting most people or accumulating the most points based on activity

encouraging grass roots change

• hold open meetings - one per term per campus

• try an open agenda but facilitate meetings well and ensure minutes go to college management

• If possible provide a supporting fund (e.g. max £100 per application) to translate ideas into actions

• celebrate success with annual event/awards

• link in with other bodies - e.g. people and planet 'go green', NUS Green Impact, NUS Scotland Student Footprints, Transition Scotland

Appendices

Attitudes towards policies

Statement	AVERAGE SCORES		% who AGREE with statement	
	Staff	Students	Staff	Students
If my college did more to tackle climate change I would too	3.5	3.3	52%	43%
I can think of lots of ways in which my school could be more environmentally friendly	3.5	3.3	52%	38%
The environment is high priority compared with other things at college	2.9	3.1	35%	35%
Sustainability is a core part of my college's vision	3.5	3.2	53%	33%
My college is doing enough to cut carbon emissions	3.0	3.1	27%	32%
Some restrictions should be placed on international travel	3.3	2.9	44%	27%
My college provides plenty of opportunities to learn about how to reduce my environmental impact	3.1	2.8	33%	17%
There is plenty of information available for people who want to find the most environmentally friendly way to travel into college	3.1	3.0	37%	32%
I think people should be personally responsible for acting in a more environmentally responsible way when at college	4.0	3.7	81%	69%
Policy attitude score	3.3	3.2	46%	36%

Facilities Management Questionnaire

Energy Management

✓ Targets have been set for reduction of waste, water, electricity and fuel

✓ Carbon emissions from operational activities calculated

× Information on energy not consistently fed back to building occupants

× Guidance on how to save energy could be increased

× Limited training for facilities reps on energy saving techniques

× No named person with overall responsibility for energy management

Heating and cooling

✓ Most buildings are naturally ventilated

✓ System off for about 6 hours per night

× Not known if conforms to CIBSE/BCO temperature settings

× Some parts of the building have excessively high/ low temperatures

× No zoned controls for heating/cooling

Lighting

✓ Over 60% of people within 7m of a window

✓ Windows cleaned every 3 months or less

× No movement sensors or additional lighting sensors installed

Space efficiency and space utilisation

× Workstations occupied less than 70% over week

× NIA per workstation not known

× % utilisation of teaching rooms not known

× Linear metres of storage per desk not known

Travel and flexible working

✓ Campus well served by public transport

✓ Sufficient access to video conferencing facilities

✓ Green travel plan in place

× Parking available for more than 50% of employees

× Bicycle spaces less than 5% of employee headcount

× Business travel is not offset

Office supplies (procurement and waste)

✓ Water saving initiatives being installed

✓ Take back schemes in operation

× Water wastage not monitored

× Travel/food miles not factored into purchasing decisions

× Mainly plastic/polystyrene used in catering packaging

Equipment usage

✓ Mainly desktop computers with flat screens

✓ Power down features enabled on all computers for night time

× Most printers are desktop rather than MFD

× High ratio of printers (1 for every 5 people or less)

Attitudes towards facilities

	AVERAGE SCORES		% who AGREE with statement	
Statement	Staff	Students	Staff	Students
There are plenty of recycling facilities on campus	2.9	2.9	37%	35%
There is not a lot of energy wasted in college buildings	2.0	2.7	5%	19%
My college provides excellent facilities for cyclists	4.1	2.7	28%	15%
While on campus I am able to purchase products with a low carbon footprint (recycled, low packaging, recyclable)	2.9	3.0	26%	31%
There are enough local/seasonal catering options available on campus	2.9	3.0	34%	30%
There are enough vegetarian/vegan catering options available on campus	3.0	3.1	33%	36%
Facility attitude score	3.0	2.9	27%	28%

Observed energy wastage on campus

Statement	AVERAGE SCORES		% who see this ALWAYS/OFTEN	
	Staff	Students	Staff	Students
Lights on in empty rooms at night	3.3	2.2	71%	29%
Lights on in empty rooms during the day	3.3	2.3	72%	31%
Overheating in classrooms when in use	3.4	2.9	74%	56%
Overheating in classrooms when empty	3.3	2.3	71%	38%
Overheating in corridors and other shared areas	3.0	2.3	57%	33%
Computers left on overnight	2.7	n/a	46%	n/a
Printers and copiers left on overnight	2.8	n/a	51%	n/a
Large volumes of paper uncollected from print machines	2.4	n/a	35%	n/a
Observed energy wastage score	**3.0**	**2.4**	**60%**	**38%**

Ecological world view, barriers and motivation

	Statement	AVERAGE SCORES			% who DISAGREE with statement		
		Staff	Students	DEFRA	Staff	Students	DEFRA
ECO WORLD VIEW	Climate change is beyond control - its too late to do anything about it	3.9	3.6	3.9	74%	60%	68%
	The so-called 'environmental crisis' facing humanity has been greatly exaggerated	3.6	3.2	3.5	59%	41%	46%
	We are not close to the limit of the number of people the earth can support	3.2	3.5	3.6	35%	39%	70%
	Ecological world view score	**3.6**	**3.4**	**3.7**	**57%**	**47%**	**61%**
BARRIERS AND MOTIVATION	The effects of climate change are too far in the future to really worry me	4	3.7	3.7	78%	61%	64%
	Its only worth doing environmentally friendly things if they save you money	3.8	3.5	3.6	71%	53%	60%
	Its not worth me doing things to help the environment if others don't do the same	3.8	3.4	3.7	69%	49%	65%
	I don't believe my everyday behaviour and lifestyle contribute to climate change	3.5	3.4	3.3	60%	46%	48%
	The environment is low priority compared to other things in my life	3.4	3.3	3.3	53%	43%	46%
	Any changes I make to help the environment need to fit in with my lifestyle	3	2.7	2.8	38%	20%	27%
	I need more information on what I could do to be more environmentally friendly	3.8	2.7	2.6	78%	16%	24%
	Motivation score	**3.6**	**3.2**	**3.3**	**64%**	**41%**	**48%**

Campus behaviour

Statement	AVERAGE SCORES		% who do this ALWAYS/OFTEN		AMA Benchmark
	Staff	Students	Staff	Students	
Inform the college when you see energy being wasted	2.0	1.8	23%	21%	
Avoid printing unnecessary paper	4.0	4.1	92%	88%	43%
Use grayscale when printing colour documents	2.8	3.0	55%	51%	
Photocopy documents double sided	3.5	2.6	76%	47%	44%
Print documents double sided	3.0	2.6	57%	46%	42%
Avoid using disposable products (e.g. plastic cups, cutlery etc)	2.5	2.8	43%	51%	27%
Avoid taking flights where alternative travel options are available	2.1	3.5	20%	70%	
Reduce energy by turning off equipment when not in use	3.1	3.2	62%	66%	
Fully shut down your PC when leaving work	4.1	n/a	82%	n/a	76%
Fully shut down your PC when away from your desk for a few hours	2.7	n/a	47%	n/a	
Turn lights off which are on unnecessarily	4.0	3.1	89%	60%	
Turn down thermostats/heaters/air conditioning	3.2	2.8	67%	52%	
Avoid purchasing items with too much packaging	2.4	2.9	39%	59%	
Use stairs in preference to lifts	4.3	4.4	92%	92%	37%
Environmental behaviour on campus score	**3.2**	**3.1**	**63%**	**59%**	

Student behaviour

Topic	Overall	Rented/Own flat or house	Parental flat or house
no. of respondents	104	52	47
Environmental behaviour at home	3.4	3.6	3.2
Environmental behaviour on campus	3.1	3.1	3.0

Topic	Business School	Institute of Construction & Engineering	Academy of Creative Arts	Centre for Leisure Industries	School of Life Sciences
no. of respondents	53	1	14	14	21
Environmental behaviour at home	3.5	3.5	3.6	3.2	3.5
Environmental behaviour on campus	3.2	2.5	2.9	2.9	3.0

Student residential behaviour

Statement	AVERAGE SCORE	% who do this ALWAYS/ OFTEN
Switch appliances off rather than leaving them on standby	3.6	75%
Switch lights off when you leave the room	4.0	86%
Switch the heating off before opening windows	3.6	71%
Put warmer clothes on before turning on the heating	3.3	65%
Use energy-efficient lightbulbs	3.8	78%
Plan your meals to avoid throwing food way	3.6	78%
Buy local/seasonal produce	3.0	61%
Wash clothes at 40 degrees or less	4.1	88%
Look for second hand items before buying something brand new	2.5	37%
Set default print options to save paper	3.3	67%
Monitor your electricity consumption	3.0	59%
Environmental behaviour at home score	**3.4**	**69%**

Attitudes towards own lifestyle and environment

Staff

Topic	Aver. score	I'm happy with what I do	I'd like to do a bit more	I'd like to do a lot more	Don't Know
no. of respondents	**214**	**58**	**100**	**37**	**8**
Environmental behaviour on campus	**3.2**	**3.3**	**3.2**	**3.4**	**3.6**
Energy wasted on campus (as observed)	**3.0**	**3.0**	**2.9**	**3.4**	**3.0**
Facilities, policy and behaviour on campus					
Physical facilities on campus	3.0	3.0	3.0	2.8	3.1
University policy	3.3	3.3	3.3	3.3	3.2
Ecological Worldview	**3.6**	**3.5**	**3.6**	**3.7**	**3.0**
Barriers and motivation	**3.6**	**3.6**	**3.6**	**3.8**	**3.4**

Students

Topic	Aver. score	I'm happy with what I do	I'd like to do a bit more	I'd like to do a lot more	Don't know
no. of respondents	**104**	**34**	**39**	**11**	**4**
Environmental behaviour on campus	**3.1**	**3.2**	**3.0**	**2.8**	**3.2**
Energy wasted on campus (as observed)	**2.4**	**2.7**	**2.4**	**2.0**	**2.0**
Facilities, policy and behaviour on campus					
Physical facilities on campus	2.9	3.2	2.7	2.7	2.6
University policy	3.2	3.3	3.0	3.5	2.5
Environmental behaviour at home	**3.4**	**3.4**	**3.7**	**3.1**	**3.1**
Environmental world view	**3.4**	**3.1**	**3.6**	**3.8**	**3.1**
Barriers and motivation	**3.2**	**3.0**	**3.2**	**3.4**	**3.7**

Distance and Frequency of Commute

Staff

distance journey from home to campus	n	% Total
Less than 2 miles	29	13%
2-5 miles	62	27%
6-16 miles	90	40%
16-25 miles	24	11%
26-50 miles	20	9%
More than 50 miles	1	0%
Total (n)	**226**	**100%**

travel days/week to campus	n	% Total
1	3	1%
2	10	4%
3	25	11%
4	14	6%
5	173	76%
6	0	0%
7	1	0%
None	1	0%
Total	**227**	**100%**

The average staff member travels 11.3 miles to campus each way; car users average 11.1 miles each way

Students

distance journey from home to campus	n	% Total
Less than 2 miles	21	20%
2-5 miles	37	36%
6-16 miles	31	30%
16-25 miles	7	7%
26-50 miles	6	6%
More than 50 miles	1	1%
Total (n)	**103**	**100%**

travel days/week to campus	n	% Total
1	2	2%
2	10	10%
3	70	67%
4	10	10%
5	11	11%
6	0	0%
7	1	1%
None	0	0%
Total	**104**	**100%**

The average student travels 8.9 miles to campus each way; car users average 6.9 miles each way

Encouraging lower carbon commutes

Staff

Items that would encourage using Public Transport	n	% TOTAL
timetable and route information	14	8%
discounted bus/train fares	39	23%
Salary sacrifice for annual ticket	1	1%
No I would not travel to campus by public transport	124	73%
Total	170	

Items that would encourage car sharing	n	% TOTAL
already car share	20	20%
help in finding a car share partner	35	35%
dedicated parking spaces for car sharers	45	45%
guaranteed ride home in emergencies	52	52%
other (please specify)	0	0%
Total	100	

Students

Items that would encourage using Public Transport	n	% TOTAL
timetable and route information	10	26%
discounted bus/train fares	15	39%
No I would not travel to campus by public transpo	18	47%
Total	38	

Items that would encourage car sharing	n	% TOTAL
already car share	14	47%
help in finding a car share partner	4	13%
dedicated parking spaces for car sharers	14	47%
guaranteed ride home in emergencies	1	3%
other (please specify)	0	0%
Total	30	

Encouraging lower carbon commutes

Staff

Items that would encourage cycling/walking	n	% TOTAL
info on paths/routes	15	8%
buddy (company on route)	11	6%
information on health benefits	3	2%
bike loan scheme	18	10%
lockers	30	16%
shower facilities	34	18%
cycle training	7	4%
infrastructure (cycle paths/lanes)	41	22%
No I would not cycle/walk to campus	118	63%
Total	**187**	

would parking charges discourage car use?	n	% TOTAL
yes	31	17%
no	88	49%
depends on price	61	34%
Total	**180**	**100%**

Students

Items that would encourage cycling/walking	n	% TOTAL
info on paths/routes	12	14%
buddy (company on route)	26	31%
information on health benefits	4	5%
lockers	21	25%
shower facilities	12	14%
cycle training	2	2%
infrastructure (cycle paths/lanes)	8	9%
No I would not cycle/walk to campus	40	47%
Total	**85**	

would parking charges discourage car use?	n	% TOTAL
yes	7	18%
no	14	37%
depends on price	17	45%
Total	**38**	**100%**

Travel between campuses

Staff

Do you travel between campuses on a regular basis?	n	% TOTAL
yes by car	39	18%
yes by car share	0	0%
yes by public transport	4	2%
no	170	80%
other	0	0%
Total	**213**	**100%**

Students

Do you travel between campuses on a regular basis?	n	% TOTAL
yes by car	9	9%
yes by car share	2	2%
yes by public transport	17	17%
no	73	72%
other	0	0%
Total	**101**	**100%**

Business and Air Travel

Staff

During your last working week how long did you spend using the following forms of transport for work reasons?	Total	None	< 1 hr	1-3 hrs	3-5 hrs	5-15 hrs	15-25 hrs	25+ hrs
car/motorbike	200	51%	16%	19%	10%	5%	0%	1%
train	134	91%	2%	5%	1%	1%	0%	0%
bus	138	85%	8%	5%	1%	1%	0%	0%

How many hours ... spent travelling by air?	Total	None	< 3 hrs	3-5 hrs	6-15 hrs	16-25 hrs	25+ hrs
for work	177	77%	3%	2%	10%	3%	5%
for personal reasons	195	38%	4%	11%	27%	8%	12%

Students

How many hours ... spent travelling by air?	Total	None	< 3 hrs	3-5 hrs	6-15 hrs	16-25 hrs	25+ hrs
between home and college/univ.	91	90%	1%	1%	4%	2%	1%
for study purposes	84	92%	2%	1%	2%	1%	1%
for holidays	94	60%	7%	13%	12%	6%	2%

Behaviour - Purchasing

Staff

Conscious choice of environmentally friendly products	average score	Happy with what I do	Like to do a bit more	Like to do a lot more	Don't know
(no. of respondents)	**155**	**46**	**65**	**28**	**8**
fairtrade products	2.1	2.1	2.2	2.2	1.9
organic products	2.0	1.9	2.1	1.9	1.8
durable products	1.8	1.8	2.0	1.8	1.5
recycled products	2.0	1.9	2.3	2.0	1.5
recyclable products	2.1	2.0	2.3	2.1	1.5
low packaging products	2.2	2.1	2.3	2.3	2.0
Average purchasing behaviour	**2.1**	**2.0**	**2.2**	**2.1**	**1.7**

Students

Conscious choice of environmentally friendly products	average score	Happy with what I do	Like to do a bit more	Like to do a lot more	Don't know
(no. of respondents)	**88**	**29**	**35**	**11**	**4**
fairtrade products	1.9	2.1	2.0	1.5	1.3
organic products	1.7	1.9	1.7	1.5	1.5
durable products	1.8	1.9	1.9	1.7	1.3
recycled products	1.9	2.1	1.9	1.7	1.5
recyclable products	2.0	2.1	1.9	1.8	1.5
low packaging products	2.1	2.1	2.1	2.2	1.3
Average purchasing behaviour	**1.9**	**2.0**	**1.9**	**1.7**	**1.4**

Demographics

Staff

main campus	n	% Total
Main campus	170	76%
Renfrew Road	49	22%
New Street	6	3%
Total	**225**	**100%**

working time arrangement	n	% Total
Full time	162	71%
Part-time/Fractional	59	26%
Hourly/Ad hoc/Contractor	6	3%
Total	**227**	**100%**

Students

main campus	n	% Total
Main campus	54	52%
Renfrew Road	47	45%
New Street	3	3%
Total	**104**	**100%**

study mode	n	% Total
Full time	111	98%
Part time	2	2%
Distance Learning	0	0%
	0	0%
Total	**113**	**100%**

Demographics

Staff

Department	n	% Total
Business School	41	18%
Institute of Construction & Engineering	24	11%
Academy of Creative Arts	19	9%
Centre for Leisure Industries	26	12%
School of Life Sciences	26	12%
Support for Learning Department	20	9%
College Support Staff	66	30%
Total	**222**	**100%**

Job role	n	% Total
Senior management	20	9%
Academic	118	56%
Administrative/Facilities support	61	29%
Technical and IT	12	6%
Total	**211**	**100%**

Students

Department	n	% Total
Business School	60	54%
Institute of Construction & Engineering	1	1%
Academy of Creative Arts	16	14%
Centre for Leisure Industries	14	13%
School of Life Sciences	21	19%
Total	**112**	**100%**

course level	n	% Total
NQ - Access/Intermediate 1/Intermediate 2	18	16%
NQ - Higher/Advanced Higher	0	0%
NC/NPA	30	27%
HNC/HND	55	49%
SVQ/NVQ	1	1%
Foundation degree	0	0%
Undergraduate degree	1	1%
Professional Development Award (PDA)	3	3%
Other	4	4%
Total	**112**	**100%**

Demographics

Staff

Age	n	% Total
16-24	5	2%
25-34	18	9%
35-44	48	23%
45-54	78	38%
55-64	56	27%
65	2	1%
Total	**207**	**100%**

typical diet	n	% TOTAL
I am vegetarian/vegan	11	7%
Most of the meals I purchase on campus are vegetarian/vegan	12	7%
Some of the meals I purchase on campus are vegetarian/vegan	49	29%
Very few of the meals I purchase on campus are vegetarian/vegan	95	57%
Total	**167**	**100%**

Students

Age	n	% Total
16-24	46	52%
25-34	22	25%
35-44	14	16%
45-54	6	7%
55-64	0	0%
65	1	1%
Total	**89**	**100%**

typical diet	n	% TOTAL
I am vegetarian/vegan	8	8%
Most of the meals I purchase on campus are vegetarian/vegan	11	11%
Some of the meals I purchase on campus are vegetarian/vegan	26	27%
Very few of the meals I purchase on campus are vegetarian/vegan	53	54%
Total	**98**	**100%**

Change Management Action Plan
for sustainable educational environments

Contact:

Felicity Swaffer

AMA Alexi Marmot Associates

felicity@aleximarmot.com

+44 (0)20 7284 5888

Behaviour Change Management Programme

facilitated by: **eauc** The Environmental Association for Universities and Colleges

supported by: **UCCC S** Universities and Colleges Climate Commitment for Scotland

funded by: Scottish Funding Council Promoting further and higher education

In partnership with:

Action for Sustainability   AMA Alexi Marmot Associates   esd consulting   Delaney &Hart   n u s national union of students   Sustainability Insight