Sustainability Report 2019/2020 of the Royal College of Art

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This is the first-ever Sustainability report on the Royal College of Art. It presents the institution's values and governance model and its commitment to a sustainable global economy.

Created by two students at the Royal College of Art the report summarises the university's environmental performance and related actions at its three campuses; Kensington, Battersea and White City in the Academic year of 2019/2020.

In this report we wish to share the actions taken to reduce the negative impacts of running our University. It includes our improvement challenges and risks, annual performance measures and how we seek to better our students' experience, community and environment.

This is a first attempt at collecting all sustainability centered initiatives on all levels within the College and informing the governance and departments about them. We also tried to find solutions to the current situation, bringing in positive criticism and, ultimately, starting a conversation.

Introduction//

Governance, College, Students.

The College Council and the Rector have ultimate responsibility for improving sustainability performance within the College.

- Environmental Policy 2015
- SustainRCA
- Sustainability Working Group
- Governance Structure
- Sustainability Committee

The College has an international reputation for providing excellence in art and design education with a focus on socio-political and community-centred issues. It recognises responsibilities to reduce the environmental impact of its activities and is committed to continuously improving its sustainability performance[1].

The following statement provides information about the College's governance procedures. The College Council and Rector hold the ultimate responsibility for improving sustainability performance within the College[2].

Council is the governing body of the College and comprises a majority of lay members together with staff and student members. All members are appointed under the College's Statutes. The roles of Chair and Vice-Chair of Council are separate from the role of the College's Chief Executive, the Vice-Chancellor. Council is responsible for the College's ongoing strategic direction, approval of major developments and receiving regular reports from executive officers on day-to-day operations[3].

A University Health, Safety and Environmental Officer (HSE) was appointed as part of the Building & Estate team. The main job function of the HSE is 'developing an environmental strategy for the College in key areas such as waste and energy management, and advising staff and students on making it a more sustainable place to work and study[4].'

1 *RCAEnvironmentalPolicy_October2015.pdd page 1 — see the Appendix pages 136—137*
2 *ibid, page 2*
3 *https://www.rca.ac.uk/more/about-rca/official-information/governance/*
4 *Regulations2015-2016draft.pdf, page 92*

POLICY 2015*	STATUS	POTENTIAL ACTION
Meeting, and wherever possible exceeding, environmental legislative and other requirements	N/A	Transparency on the current state of affairs.
Preventing pollution by managing and reducing emissions and discharges and using resources responsibly and efficiently	N/A	Transparency on the current state of affairs.
Producing and implementing a Carbon Management Plan to improve energy and water efficiency, increase recycling and minimise waste	Pending for approval since February 2011	New, improved and approved version with SMART goals.[5]
Considering sustainability as part of the College's purchasing processes	The College is currently a member of the LUPC (London University Purchasing Consortium), all purchasing processes are mediated by them. (Read more on page 17)	Transparency on the current state of affairs and information on the specific choice of providers.
Ensuring that all construction and refurbishment work takes into account sustainability principles and that the BREEAM standard is applied to all new buildings.	New Battersea Campus: BREEAM Excellent rating[6]	Transparency on the current state of affairs.
Producing and implementing a Travel Plan to encourage more sustainable commuting and business travel.	*N/A*	Transparency on the current state of affairs.
Incorporating sustainability and promoting good environmental practice as part of learning and teaching activities.	Varies from program to program (see pages 24—25 Academic Engagement)	Requisite for all programs to include sustainability into their curriculum
Protecting and enhancing biodiversity	Plans to develop a roof garden on the Kensington Campus terrace by the Student Union	Developing a plan of action to protect and enhance biodiversity and encourage students and staff engagement.
Improving sustainability awareness among staff and students	N/A	Reinstating a service (see SustainRCA on pages 12—13) to help students and staff with sustainability and their practice.
Engaging with the local community and the Further and Higher Education Sector on sustainability issues	N/A	Transparency on the current state of affairs.
Regularly reviewing the Sustainability Policy and setting objectives and targets for its implementation	N/A, no reviews nor updates since the document was published in 2015.	Transparency on the current state of affairs.

**RCAEnvironmentalPolicy_October2015.pdf*

5 *SMART: Specific, Measurable Achievable, Relevant, and Time-bound*
6 *https://studiogang.com/project/royal-college-of-art-battersea-campus*

FIG.1 *Fiddling While Earth Burns*, An Exhibiton by the Climate Action Collective, 22 April 2016

« LOOKING BACK SUSTAINRCA

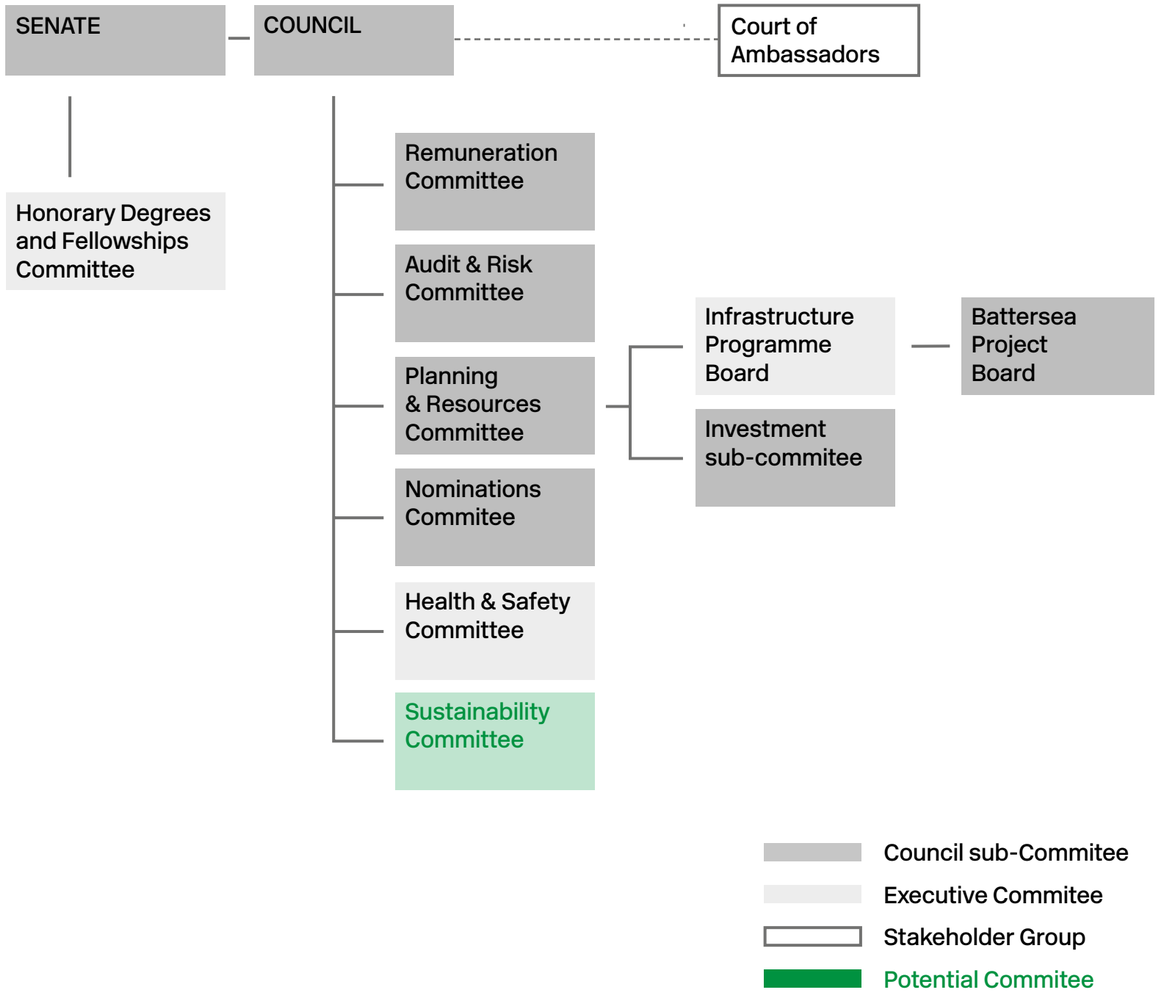
From 2011 to 2016, the school established the department of SustainRCA. It was an initiative that aimed to inspire, encourage and support students to embrace sustainability in their work.

Working across all disciplines, they guided students and helped them produce innovative solutions to think critically around some of the most pressing social and environmental issues of the time. Sadly in 2016 the department was disassembled.

Every year culminated in the annual Sustain Show & Awards, which honour the very best of graduates' work, bringing to the fore excellence in sustainability, and showcasing the wide range of talent and expertise across the RCA[7]. (FIG.1)

Royal College of Art
SUSTAINRCA

GOVERNANCE STRUCTURE*



> SUSTAINABILITY WORKING GROUP

The group focuses on discussion or activity around the subject of sustainability within the college and comprises the HSE Officer, the Director of Building Operations, several heads of departments (such as catering, IT services and the shop), a representative of the Student Union together with staff and student members.

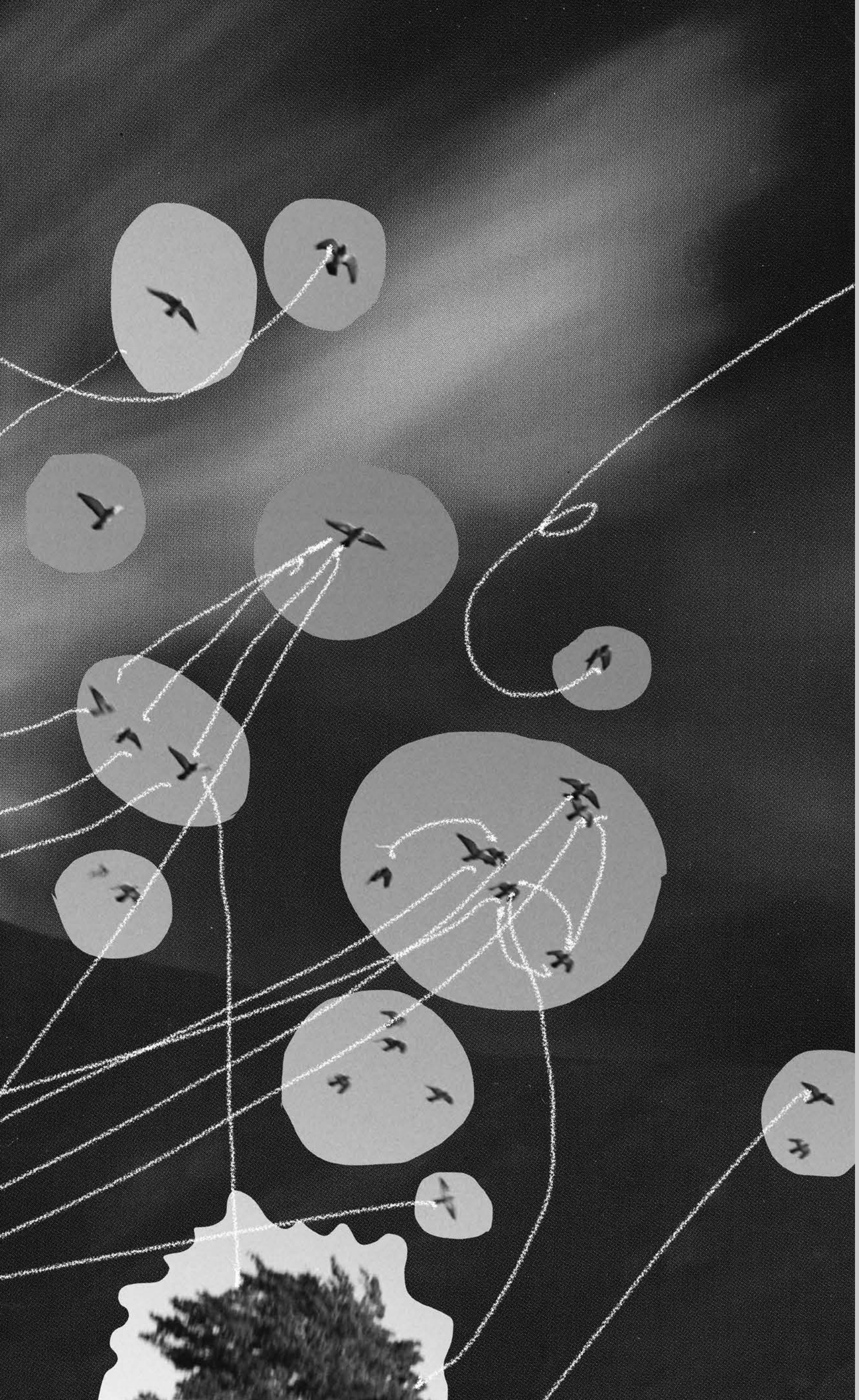
The following issues are discussed in these meetings: what is currently taking place inside of the college in terms of sustainable initiatives, how to improve data collection regarding sustainability, ideas on how to improve the environmental performance of the college and other universities that could be emulated.

/ACTION

Creation of a '**Sustainability Committee'**. The Committee's remit shall encompass oversight of the sustainability planning, execution and the sustainability performance of all the College's resources.

7 *http://cargocollective.com/sustainrca*

** RCA Council Governance Structure from September 2019, New_Structure_chart_and_membership_Sept_2019.pdf*



Staff and students have an important role to play in sustainability within the College.

Staff and students have an important role to play in sustainability within the College. They are supported by the Safety, Health and Environmental Officer, the Programme of Buildings and Estates and the Green RCA Group.[8]

> SURVEY

We've sent out a survey to all the staff members on the topic of sustainability to try and measure the interest and the initiatives taking place in the different departments.

As mentioned before this is a first attempt at collecting data around the issue so the survey may be flawed. Out of 87 responses, 97.8% agree with the following statement 'universities should actively promote sustainability' and 96.6% agree that 'sustainability should be integrated into all departments'.

When asking about whether the college is taking actions to limit its negative impact, 60.2% agree that the university is in fact taking actions while 14.8% disagree and 14.8% don't have an opinion. Another 6.6% think some actions are taken but there should be more initiatives[9].

8 *Regulations2015-2016draft.pdf, page 92*
9 *See Staff Survey in Appendix pages 88—107*

Services

The different service departments within the college all have specific content regarding sustainability while they share related information as the purchasing agreements.

> LUPC

All the service departments of the College are obliged to work with the not-for-profit professional buying organisation LUPC or London University Purchasing Consortium to find their providers as the College is a member of the Consortium.

The LUPC was established in 1968 and is a Member-owned organisation. Their sole aim is to secure the best possible value for their members in the procurement of goods and services, without causing harm to others. LUPC's membership is made up of universities and colleges of higher education in and around the capital. However, around half of LUPC's membership is also drawn from other not-for-profit organisations from our neighbouring sectors in the arts, sciences and education. [10]

> FOCUS LUPC

LUPC's vision for the future is to "become a leader in making ethical trading and sustainability available to their Members[11].":

What is Responsible Procurement:

a. seeks to build on and expand the scope of 'ethical' and 'sustainable' procurement to include environmental, economic, and social issues and their risks and benefits;

b. includes a range of considerations of equal or greater importance than profitability and the generation of value;

c. includes purchasing that minimises carbon emissions causing climate change, challenging the systems and industries driving it;

d. identifies, prevents and mitigates the risks of human rights abuses in the supply chain, including forced labour, child labour and human trafficking;

e. recognises that these considerations are interconnected, and must be approached in their totality, with a sensitivity to that.

What is their Supply Chain Code of Conduct:

a.As a minimum, comply with all local and national environmental laws, regulations and directives of the countries they are working in, manufacturing in or trading with, as applicable.

b.Actively avoid causing environmental damage and/or negative environmental impact through manufacture and supply of the goods or services and disposal of supply chain waste.

c.Have a business plan in place, and be acting on it, to minimise their environmental impact year on year and adopting or working towards internationally recognised environmental standards and/or behaviours.

d. Encourage the development and use of environmentally friendly technologies.

e. Promote positive environmental impacts (such as reduced carbon emissions, better carbon management, waste management and water management, reduced pollution levels and technological improvements) through their activities wherever possible.

10 *https://www.lupc.ac.uk/about-us*
11 *lupc-responsible-procurement-policy-and-strategy-v10.pdf*

ITC SERVICES

» SUPPLIER

Wex Photo Video: Was established in 1997, their dedication to service, expertise and customer satisfaction is underpinned by competitive prices and the largest range of any UK photo and video retailer, with over 20,000 products[12].
SUSTAINABILITY POLICIES: N/A

CVP: For more than 30 years, CVP Group has been one of the leading Broadcast and Professional video solutions providers in the United Kingdom and Europe, with a comprehensive UK sales and support infrastructure[13].

SUSTAINABILITY POLICIES:
CVP is continuously working towards being a more sustainable company and we keep improving their sustainability efforts, whether that's through introducing new policies and initiatives to operations and new materials.

In terms of additional packaging provided by CVP when dispatching goods to our customers, our approach is to package equipment appropriately whilst minimising the environmental impact of our (non-original equipment manufacturer) packaging. The packaging measures we have introduced include; The use of recycled and recyclable cardboard boxes. The introduction of a wheat based (recycled and biodegradable) packaging infill – EcoFlo – instead of polythene beads. The minimisation of the use of plastic wrapping/infill. We are investigating the use of paper based packaging tapes[14].

CPC: Founded in 1967, CPC has earned its place as one of the UK's leading distributors of electrical, electronics and related products. Working closely with businesses, tradespeople, installers, consumers and Makers and Educators, the CPC team is constantly striving to deliver only the best when it comes to product quality, value and customer service[15].
SUSTAINABILITY POLICIES: N/A

» DISPOSAL

The old/faulty equipment is disposed of by a company that recycles them; if they can still be repaired they are donated to charity.

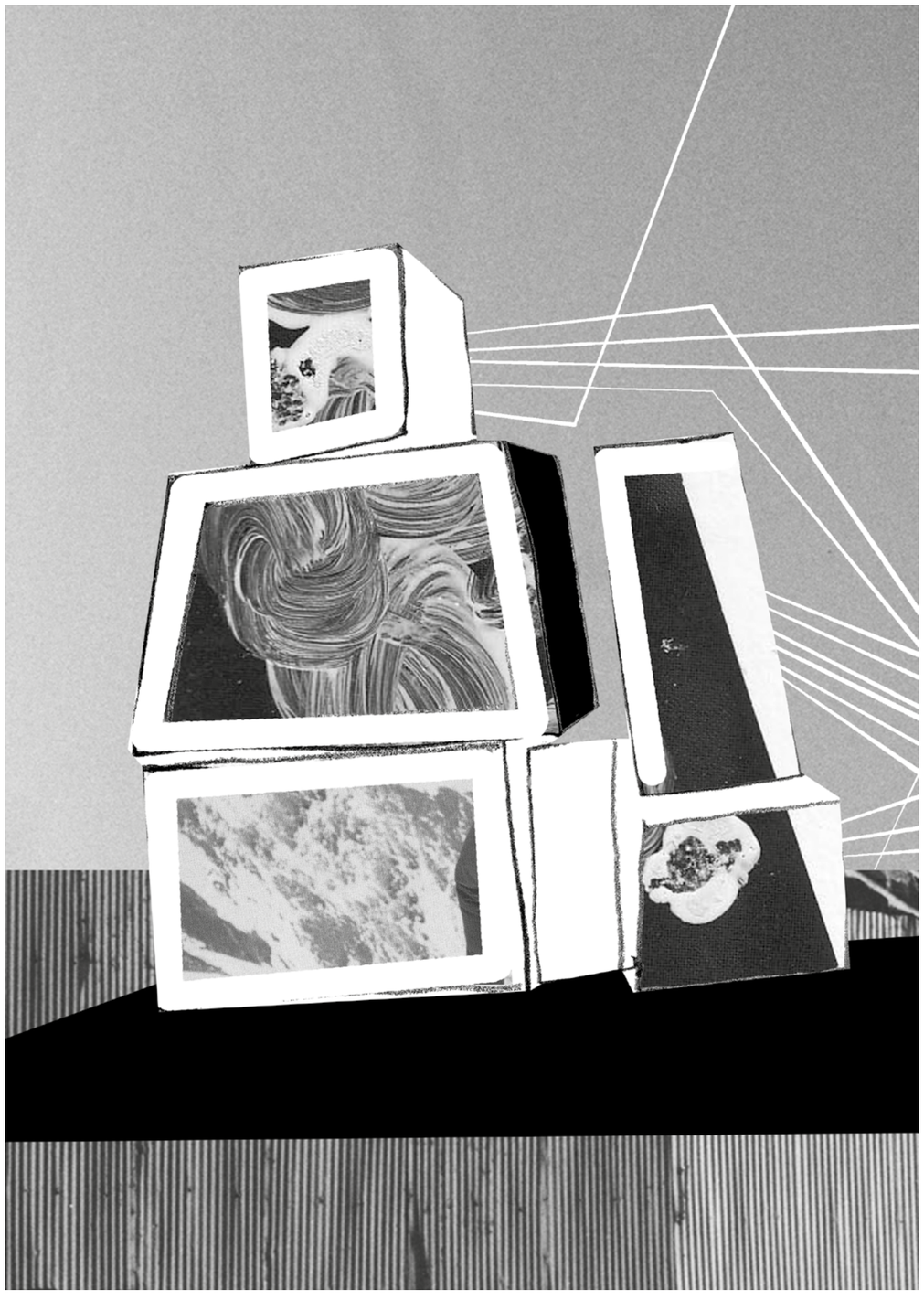
/ACTION

The following potential actions are suggestions made from the ICT staff: more recycling bins, better communication with the students informing them to ask for help in order to avoid paper wastage, turning more computers off.

» SURVEY

In the survey we conducted, 6 people from the ICT department responded to our survey. Out of those 6, 4 said to have followed some form of training or to have some kind of experience regarding sustainability in their field. 4 said that they are able to advise on sustainability questions within their field. 2 had previously received questions from students or staff about sustainability and IT.

We have also asked technical questions such as, how many minutes does it take a computer to go into sleep mode, 2 seem to think after 0 seconds whereas 3 believe it is after 10 seconds. When asked if the computers get shut down at night when they are not in use, 3 affirm they are not, where 2 believe the opposite.



12 https://www.wexphotovideo.com/about-us/
13 https://cvp.com/support/page/about
14 https://cvp.com/support/page/cvp-recyclable-packaging-and-sustainable-materials
15 https://cpc.farnell.com/about-us

RESOURCE STORE

SUPPLIER

Wex Photo video, CVP, CPC: see ICT department suppliers (p.18)

DISPOSAL

The old/faulty equipment is disposed of by CDL recycling collection that recycles them. Approximately 20 to 50 items are disposed of every year by the resource store.

THE LIBRARY

SUPPLIER

DawsonEnter: Is Europe's leading library supplier, they are at the forefront of technical innovation in the supply of books and standing orders to professional,research and academic institutions. Dawson Books leads the market in the use of information technology to expedite the book buying process, providing a total acquisitions package for professional librarians worldwide[16].

DISPOSAL

As the library possess limited spaces, books that are not often borrowed by the students need to get disposed of. Recurrent 'open' tables are organised, where these un-borrowed books are made available to anyone to get them free of charge.

ARTSHOP

The shop motivates people not to use bags by imposing a charge for paper bags. It also offers recyclable packing and encourages returning materials they don't use. A shelf filled with reusable materials can also be found inside of the shop.

ADMINISTRATION

INITIATIVE

The sustainable initiatives seem to vary from one office to another. Some seem to be doing really well and will use the recycling bins on a daily basis and they tend not to print too many paper copies or will laminate documents that they use more than once so that they don't need to print it again and will use their own water bottles and cups. Whereas the others don't seem to see any sustainable initiatives in their department.

/ACTION

Actions are needed on a structural level for policies around sustainability within the office spaces. Furthermore, we should be enabling easy access to water fountains, reusable water bottles, cups, cutlery and plates of the staff, as well as placing recycling and food waste bins nearby.

16 *https://dawsonenter.com/AboutUs.aspx*

WORKSHOPS

DISPOSAL

Quantities of waste produced within the workshops are hard to measure as it varies due to size and amount of exhibitions happening inside of college. Nevertheless, many initiatives are initiated by technicians inside of the workshop areas to reduce waste, such as introducing "swap shops".

Wood off cuts from the wood workshop are disposed of into a "firewood bin" for people to take home. Some workshops also educate students on the most sustainable materials to use and actively research these for specific workshops they hold. Others promote the reusable options or wash and reuse tools and clothes in their workshops.

SURVEY

Out of the 10 responses from technicians on the survey, 6 said that an area in their workshop space is dedicated to offcuts, while 2 said no and 1 is keeping broken items to use for spare parts. 5 out of 10 technicians said the off cuts get reused, and 7 students are showing interest in reusing materials[17].

/ACTION

The need for a more robust bin system to be initiated seems to be a big demand. The green recycling and white waste bins are currently not enough to keep up with the demand, and the bins are currently confusing to students.

Although a lot is already being recycled, a better bin system would make it easier for everyone to recycle more and would encourage a climate conscious environment within the school. Another aspect to consider would be a centralised swap shop on each campus.

PRINTLAB

Paper and ink seem to be the main material used overall throughout the institution. But quantifying the amount of waste produced in the PrintLab is not easy, as it is down to the students whether what they have printed/cut becomes waste or will be cherished.

Although they accumulate quite a bit of rolled paper off cuts, all the Print lab waste is either recycled, reused, left for students' usage or disposed of responsibly (e.g. waste ink). When asked if the students often use scrap paper for tests, 2 out of 3 respectively said that they often or occasionally do.

/ACTION

Vinyl is the enemy when it comes to sustainability inside of the print lab as vinyl offcuts and waste ends up in landfill. Technicians already encourage students to avoid vinyl when possible, but possibly more communication is needed to stress the impact it has on our planet and help raise awareness.

WIP and Degree shows organised by the college constantly use vinyl to communicate, these events should lead by example. Another possibility for the Printlabs would be to offer alternatives to vinyl, such as eco-friendly stickers, reducing its use for smaller formats.

17 *See Staff Survey in Appendix pages 88—107*

Outsourced Company

+ BAXTERSTOREY

In 2018 BaxterStorey opened the café in response to requests from the Student Union for an outlet to cater for the increasing number of vegans and vegetarians in the student population.

With over 2300 students enrolled at the university, a number set to increase in coming years, the caféwas designed in collaboration with the Student Union's president and with support from Bentley Consulting.

With most students based on campus and working from design studios throughout the day, the vegan hot spot started offering a nutritious all-day grazing menu with energy boosting artisan coffee using plant-based milk alternatives.

As the first vegan-only café in the BaxterStorey portfolio, there are ambitions to expand the theme to the Battersea campus when it will open.

Business development manager Martin Holden-White said: "We are delighted to be working with Royal College of Art and to have brought this exciting new space to their iconic Kensington campus. We are very aware of the rapid growth in plant-based food trends and it was fantastic to work alongside such a passionate student union and a forward-thinking consultant in David Bentley, which allowed us to be creative and offer students a greater choice of nutritious and varied foods to fit their study patterns[18]."

Since then, RCA does not enforce any kind of restrictions or constraints on BaxterStorey regarding: Ingredients sourcing (local, organic, etc),Packaging of snacks and beverages, food composting, vegan/vegetarian option on the menu and food waste. The only restrictions the school is enforcing is the price range of the food offered by the company[19].

/ACTION

Some initiatives that could be pushed forward with the help of the college would be adding food waste bins and discouraging the use of single use plastic. Baxter Storey currently uses 9 tonnes of non-recyclable plastic per year, this number could be lowered by allowing students and staff to bring their own container and charge for the disposable ones. Another option would be a reusable container scheme within the school.

18 *https://www.slcmagazine.co.uk/news/2018-10-09-baxterstorey-launches-vegan-cafe-at-rca*
19 *See: BaxterStorey's 5 Sustainability Game Changers for 2020.pptx in Appendix*

+ CHURCHILL

Is the largest independently owned cleaning services provider in the UK. They have provided the cleaning services for the College since 2018. Sustainability is central to every part of how Churchill works[20].

Churchill swiftly installed a Purex water system to produce chemical-free, deionized water for cleaning. The system is self-replenishing and is able to produce and hold up to 80 litres of water by passing tap water through reverse osmosis and/or de-mineralising bead filters, thus removing limestone, heavy metals, nitrates, chlorine, etc.

The benefits of using pure water in the cleaning process are multiple; namely, pure water naturally tries to return to its impure state, so it therefore absorbs and removes dirt and bacteria efficiently to leave a residue-free finish on any surface. The system is also 100 percent sustainable, with the added bonus of significantly reducing running costs in comparison to traditional cleaning methods. Perhaps most importantly, the system is user-friendly and easily integrated into the day to day cleaning processes of all staff[21].

Additionally, this year Churchill announced the first project of their sustainability charter to dramatically reduce our single-use plastic consumption by introducing a range of recyclable cleaning products. The new products, which have been developed in partnership with Jangro, replaced their top five cleaning products and have already removed 25,000 plastic containers from their operations. They expect to eliminate 60,000 plastic containers from their operations in the first year, with that figure set to increase as they add more products to the range.

These new products, which are 100% sustainable, include glass cleaner, hard surface cleaner, washroom cleaner, descaler and floor maintainer. Their unique recyclable packaging, which they co-created with Jangro, house biodegradable and phosphate-free sachets. In addition to a reduction in plastic, the sachets also require less water to use effectively and are able to be transported more efficiently, further reducing their footprint[22].

+ GOGUTSI

To connect all three campuses, the college currently employs the company GoGutsi for the shuttle services offered in-between the sites. This directly impacts the carbon footprint of the college. Founded in 2007 GoGutsi specialises in providing superior executive transports, one of the services the company offers is to allow commuters to store bikes on board, thus encouraging the use of bikes in the college.

/ACTION

GoGutsi has invested three years in pure R&D and formed partnerships with leading electric coach builders and fitters, to achieve the unthinkable – building the UK's most executive people carrier with the lowest environmental footprint, the GoGutsi Zero[23]. This line of buses has a ultra low energy usage, rejects zero carbon dioxide and toxic emissions. The college should revise their contract with the company and ask to use this type of vehicle instead of their current diesel range.

20 *https://www.fmj.co.uk/royal-college-art-commissions-churchill-three-year-cleaning-deal/*
21 *http://chtmag.com/down-to-a-fine-art-churchill-cleans-at-the-royal-college-of-art/*
22 *https://www.churchillservices.com/sustainability/*
23 *https://gogutsi.com/sustainability/*

Academic Engagement

COURSES

ENVIRONMENTAL ARCHITECTURE MA

Environmental Architecture focuses on the co-dependence of life forms and earth systems as well as the co-existence of alternative concepts of landscapes, environments and territories as they are expressed by different societies. (FIG.2)

If the planet has a design problem, what do the terms 'design' or 'architecture' mean when they are applied to phenomena as varied as oceans and atmospheres, or to farmlands and deserts? The intensity of environmental change calls for new forms of knowledge production based in propositional thinking, especially design-based methods.

We offer an intensive series of seminars, lectures, workshops and symposia that cultivate new and experimental approaches to the discipline. You'll have access to a rich culture of radical and experimental interdisciplinary work at the RCA, and the chance to establish a network of colleagues and mentors in London. Environmental Architecture has sustainability directly built inside of their curriculum[24].

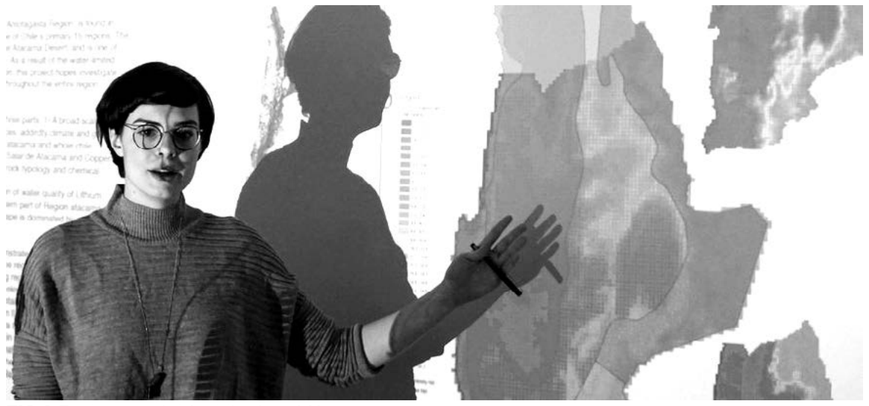


FIG.2 *Environmental Architecture MA*

OTHER COURSES

The rest of the programs seem to be left to their own devices in terms of deciding if sustainability has its place in the curriculum or not. As it is not mandatory by the college to include sustainability in the curriculums, some departement are lacking the structure to help their students in this aspect of their practice. (FIG.3)

/ACTION

The college should promote sustainability in all practices and encourage their students towards a sustainable practice. In order to allow that, the curriculums need to evolve and sustainability must be embedded within. Reinstating a college-wide department such as SustainRCA would be a good platform for students to promote good practices.

FIG.3 *This is not waste.*, Laura Krarup Frandsen 2019

ACROSS RCA

AcrossRCA is an annual, week-long programme that offers students the opportunity to collaborate across disciplines. This year's workshop engaged expertise and skills from across the College – incorporating research centres, external partners such as the V&A and Wellcome Collection, and briefs led by students, tutors and technical staff. From principles of inclusive design to traditional craft techniques students had the opportunity to learn new skills in intensive workshops, gain practical experience through live briefs and make lasting connections working collaboratively with their peers. Here is a summary of one of the projects that touched on sustainability[25].

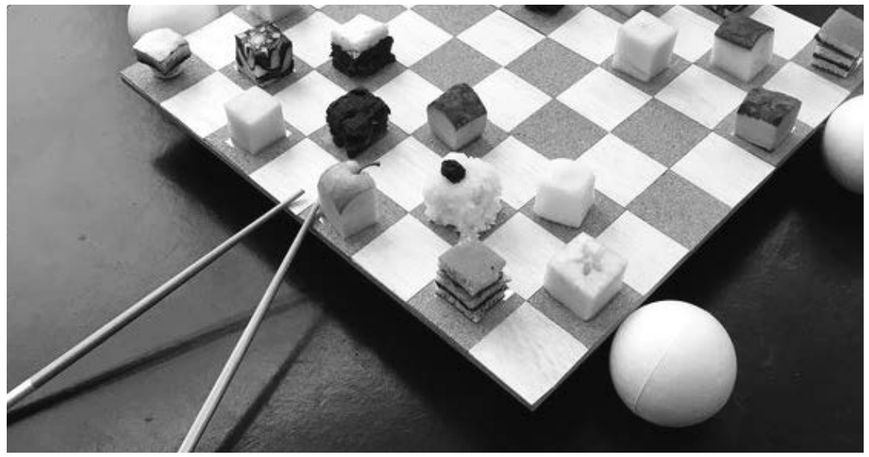


FIG.4 *Circular Food Design* Across RCA 2019

CIRCULAR FOOD DESIGN

Innovation Design Engineering alumnus and Visiting Lecturer Dejan Mitrovic led this two day workshop, which looked at the circular economy, food and design. Over two days participants focused on finding innovative solutions for turning food byproducts into new materials, additional food products or creating services. The workshop was run in collaboration with Department 22, an innovation agency set up by RCA alumni which focuses on design, food and sustainability. (FIG.4)

24 https://www.rca.ac.uk/schools/school-of-architecture/environmental-architecture/

25 https://www.rca.ac.uk/news-and-events/rca-stories/acrossrca-2019-peer-peer-learning-developing-new-skills-and-connecting-across-disciplines/

“Every project should be assessed on sustainability.”
—Current student at the College

Students Voice[27]

UNIVERSITIES SHOULD ACTIVELY PROMOTE SUSTAINABILITY

176 Agree

4 disagree

6 don't have an opinion

1 Sustainability should be a scientific conclusion, not a fancy trend. So it should be an education, not a promotion

1 take actione more than promote

SUSTAINABILITY SHOULD BE INTEGRATED INTO ALL COURSES

164 Agree

1 Not necessary as a topic but rather should be promoted a sustainable way of studying and engaging with the school

1 To a certain degree and to set an example, but I think It should always be considered to what degree we are hindering learning possibilities because of pro-sustainability measurements.

13 Disagree

MY UNIVERSITY TAKE ACTIONS TO LIMIT NEGATIVE IMPACT

82 Disagree

8 Don't have an opinion

1 I am not well informed about it

1 I see some effort in Fashion but very little things are done in general (or I am maybe not informed about them)

1 As I see it, almost nothing is being done to be honest.

48 Agree

1 Agree, but there is always more we can do, including simple changes

1 I think the school should make it easier for us to produce cheap and reused materials for rapid prototyping. Available from the shop. And also maybe a container where students could put waste materials that other students can use.

1 They've tried, but barely I would say.

"We should have a department specifically for sustainability"

"What happens to the waste from shows?"

"The action for sustainability should be based on research, not an abstract ideas."

"Cross-collaborations for both students and staff to help creating a more sustainable life on campus!"

"Be authentically committed?"

"Have a clear strategy and support students wanting to work in the field of sustainability."

"Is our banking ethical? Do we adhere to sustainable procurement practices? We should be leading the way with this. "

"Inform students of how to recycle or throw away appropriately."

"Create a policy and strategy for action and ensure it is publicised and actively supported by staff and students."

"Get a compost bin for food waste."

"Use renewable energy, avoid investing in fossil fuels and environmentally damaging companies."

"Material bank for spare-materials."

"Have a sustainability rep and put on some talks."

27 *See Students Survey in Appendix pages 79—87*

Student Union

SUSTAINLAB

SustainLab is a student-led society based at the Royal College of Art in London that operates under the Students Union. It was set up in response to the closure of the college's own SustainRCA department back in 2016. Recognising the importance of maintaining a dedicated space for sustainability, the intention of the society was to support, champion and nurture a critical sustainability mindset in the artists and designers of the future.

SustainLab is a collaborative platform for all RCA students to explore what sustainability is and how it can be progressed. It is a middle ground for ideas to be challenged, investigated, experimented, and shared. SustainLab organises events, workshops and open-crits for students to develop their knowledge of sustainability and how to incorporate it into their creative processes[28].

GREEN WEEK

Every year the student union runs its annual events called the 'Green Week', during which students are invited to submit ideas of workshops, events of all sorts to engage with sustainability. This year for the annual Green Week (9-13 March) one of their projects is to put a film together to feature work from across the three campuses. The films will be based on the themes of the anthropocene, ecology, sustainability, Earthly matter, nature, globalisation[29].

ECO(LOGICAL) SENSE EXHIBITION

Another event, presented during the Green Week 2020 is the Eco(logical) Sense exhibition, where this report will be introduced for the first time.[30]

The selected works that will be shown are critiques to the current attitudes to materials, modes of production and the fundamental relationship that humans have with the natural environment. Here, sustainability will point to time, from the lost landscape of Doggerland to the technological fashions of the future.

Works will demonstrate the need to acknowledge that production is the start of a chain that involves an afterlife, leading us to re-think our attitudes to materials and waste. Whilst grounded within the walls of the Hockney gallery, the exhibition will provide a space to question the institution in which it sits and asks how the university itself is responding to the issue.

Participants: Betty Brunfaut, Ed Carr, Liz K Miller, Eva Lili Bartha, Effy Harle, Harriet Hellman, Magda Tritto, Marina Belintani, Peter Green, Shir Raz, Sylwia Orynek, Woo Jin Joo.

FIG.5 *RCAfé Kensington*, copyright: Richard Haughton

DISPOSABLE CUPS SCHEME

Last year, the initiative to start charging for disposable cups across the campus was launched. It came out of discussions between Baxterstorey's manager, SustainLab and the Students Union to impose a £0.10 fee on all disposable cups, discouraging their use in favor of reusable coffee cups and mugs. The money that was raised as a result of this scheme will go into the development of a roof garden on the Student's Union terrace. (FIG.5)

FIG.6 *RCAfe Terrace, with views of the Royal Albert Hall.*, copyright: Richard Haughton

TERRACE RE-DESIGN & ROOF GARDEN

RCASU is working with RCA and Gale & Snowden Architects to redesign the terrace area! (FIG.6) Alongside the terrace redesign is a potential project to create a roof garden in an effort to improve the biodiversity and community of the college. The roof garden would be situated next to the Students Union terrace and would allow students and staff to engage in it's care. It is currently under discussion.[31]

28 *http://sustainlabrca.org/about/*
29 *https://www.rcasu.org.uk/news/article/6013/Open-call-for-film-amp-moving-image/*
30 *https://www.rcasu.org.uk/ents/event/85/*
31 *https://www.rcasu.org.uk/news/article/6013/terrace/*

Student Engagement

> INNOVATION RCA

Their current mission is to help students and graduates transform compelling ideas into successful businesses, as well as to strengthen the culture of design innovation and entrepreneurialism at the Royal College of Art. Here presented, are the projects with a strong focus on the environment and sustainability.

FIG.7 *ZELP,* Francisco Norris 2017

ZELP (ZERO EMISSIONS LIVESTOCK PROJECT)

ZELP is dedicated to significantly reducing the environmental impact of the livestock industry. Public awareness of the livestock industry's contribution to global warming is rapidly driving changes in consumer habits towards alternatives that are more environmentally friendly. Producers, processors, and food brands are making it a priority to reduce their impact on the environment and to improve their corporate image. Currently, there are no plausible alternatives to significantly address these issues and reach these objectives. (Fig.7)

We are committed to transforming the way we think about climate action in agriculture. Countless efforts are placed in replacing animal protein altogether. However, we will face the impact of 1.5C and 2C global warming before mass adoption of plant or cultured alternatives. The demand for beef & dairy products is rising steadily. The time to act is now. ZELP's vision is of a world in which consumers are empowered and enabled to choose responsible, climate-smart beef and dairy products.[32]

JIVA MATERIALS

Jiva Materials is developing a water soluble, fully biodegradable non-hazardous flax based board, the Soluboard, to replace the fibreglass that is currently used as the substrate in Printed Circuit Boards (PCBs). This allows for safer recycling of PCBs. Jiva's patent-pending Soluboard delaminates when immersed in warm water, allowing PCB components to be recovered safely leaving compostable flax and solution that can be disposed of using standard domestic waste water systems. (Fig.8)

Jiva Founder Jack Herring began working on the project whilst studying for his Masters in Design Products at the Royal College of Art. The company has already raised venture capital investment through InnovationRCA 1 fund.[33]

FIG.8 *Jiva,* Jack J Herring 2017

OLOMBRIA

Insect pollinators provide a vital ecosystem service for crop pollination in wild plants, and over 75% of crops worldwide benefit from insect pollination through increased yields at harvest. The number of wild pollinators, especially bees, is steadily declining globally due to industrial agriculture, pathogens, loss of biodiversity, use of pesticides and climate change. This documented decline poses a significant risk to the production of many crops and threatens food security.

Olombria encourages flies to be more efficient pollinators, in scenarios where bees are no longer as viable. Flies are already adept pollinators, being the main pollinators in urban environments, and in total, accounting for over 30% of all pollination. (Fig.9)

Olombria provides horticultural growers with information on pollinators and environmental conditions and uses chemical volatiles to manage pollinating fly species, thereby increasing crop productivity, and ensuring sustainable food harvests for the future.

The company has already raised venture capital investment through InnovationRCA 1 Fund, and SVG Ventures (THRIVE accelerator).

Olombria originated from the RCA's entry to the 2017 Biodesign Challenge and is led by Royal College of Art graduate Tashia Tucker.[34]

FIG.9 *Olombria,* Tashia Tucker 2017

32 https://www.zelp.co/about-us/
33 https://www.jivamaterials.com/
34 http://www.flypollination.com/

Building &Estate

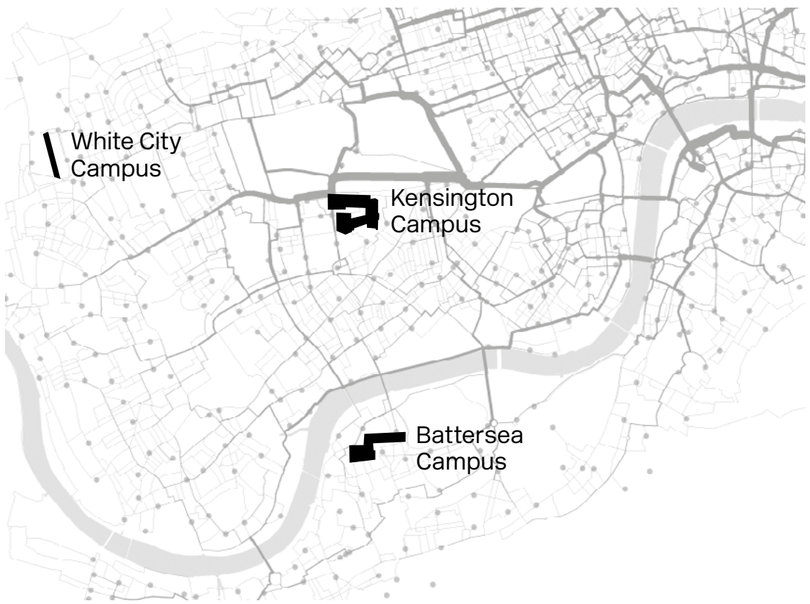
1 Hectare
Total Site area[35]

290 Cycle spaces
25 Car Parking spaces

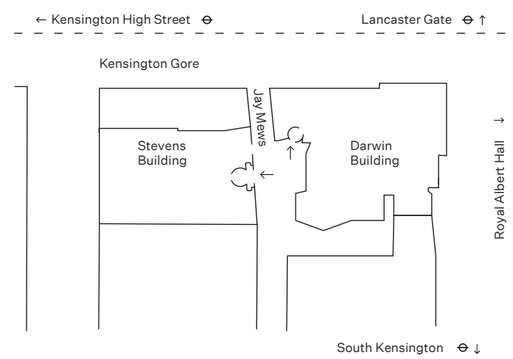
32,656m²
Total gross internal area

12 Total numbers of buildings

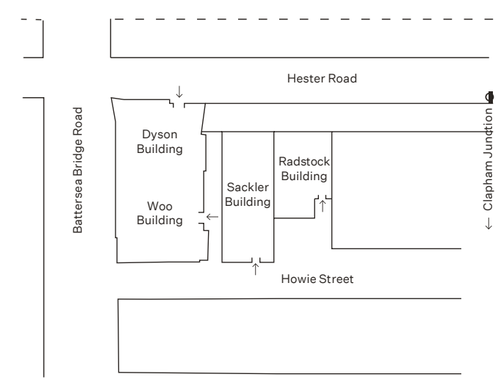
3 Number of Sites



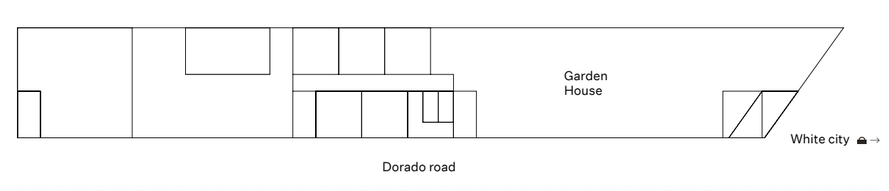
KENSIGTON CAMPUS



BATTERSEA CAMPUS



WHITE CITY CAMPUS



34 *according to HESA academic years 2015/2016 to 2017/2018—See HESA in Appendix pages 110—111*

The College currently employs Capital Waste to dispose of its waste on all three campuses.

- Capital Waste
- Seneca
- Anaerobic digestion
- Food waste bins

» SUPPLIER

> CAPITAL WASTE

The College currently employs Capital Waste to dispose of its waste on all three campuses. The company is 100 percent compliant with all regulations and authorities. They guarantee 90 per cent of the waste that is removed is recycled at eco-friendly sites[36]. Capital Waste is working with the recycling center of Seneca, 55% of the waste they collect from the College gets recycled and the remainder is sent for waste to energy recovery. **Nothing is sent to landfill**. To ensure the good progress of the waste from the RCA to the recycling center they audit site, according to them the primary issue is the lack of segregation on site.

Capital waste does not at this time collect food waste from the College, but discussions are undergoing. Their distinctive yellow trucks are state-of-the art vehicles, but don't run on electric at present as the technology isn't to be available for waste collecting vehicles yet.

> SENECA

The mission of the Ottawa, Sandusky, Seneca Joint Solid Waste Management District is to ensure quality waste stream management for its residents and to foster long term positive solid waste habits including recycling, reduction, reusing and buying of recycled products[37].

EXAMPLE OF PLASTIC RECYCLING PROCESS

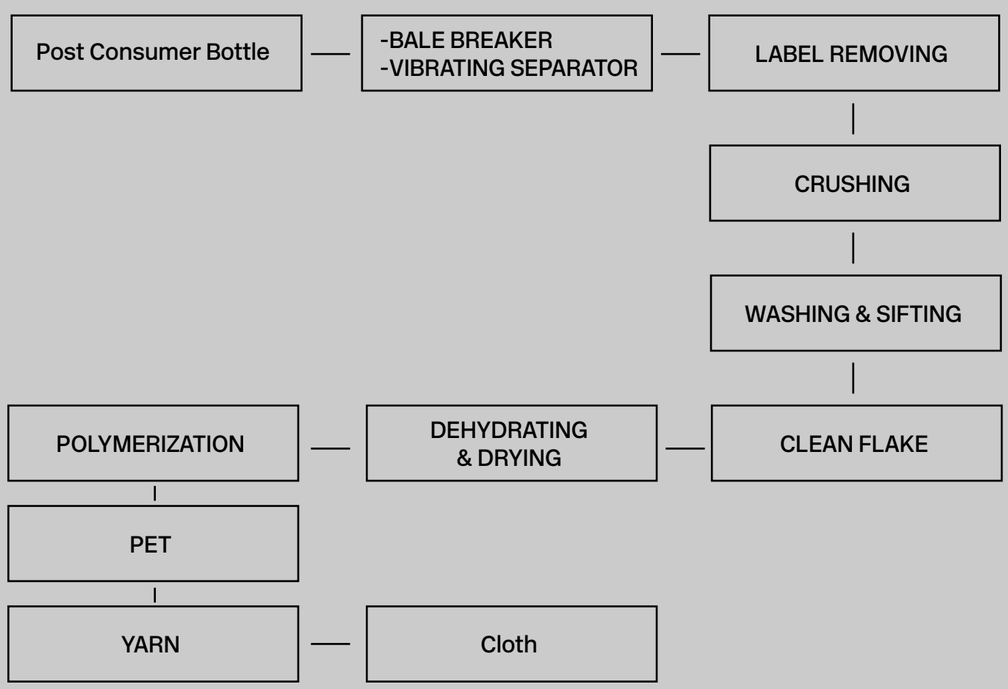


FIG.10 *https://www.jprecycling.net/plastic/process.html*

36 *https://capwaste.co.uk/*
37 *https://www.careysplc.co.uk/seneca-resource-recovery*

/ACTION

Introducing food waste collection in RCA.

For food waste collection on this scale, it would require **anaerobic digestion**. Which is a complex biological process which takes place when food biodegrades in the absence of air.
The digestion takes place in large sealed vessels where temperature and mixing are controlled. Food waste is tipped in a de-packaging area where all packaging is removed and sent for disposal at an energy recovery facility.

The de-packaged food waste then enters a sealed building where water is added and it is processed into a porridge-like consistency then pumped into a temperature controlled vessel known as digesters. The bacteria then feeds on the waste and produces biogas. Bio gas is typically made up of 60% methane and 40% carbon dioxide and it is captured and used as a fuel in combined heat and power plants.

The digestate or biofertilizer produced undergoes pasteurisation to ensure any pathogens are killed and is stored in larger covered tanks ready to be applied to farmland. The use of the high nutrient biofertilizer replaces the use of fossil fuel derived fertilizer and ensures nothing is wasted. Each tonne of food waste recycled by anaerobic digestion rather than being landfilled prevent approximately 900kg of CO2 entering the atmosphere.

One key aspect will be the communication around the new bins and what can be disposed of in them. A food waste bin system will also encourage the use of compostable cutlery, cups and plates.

COMPOST PROCESS PROPOSED

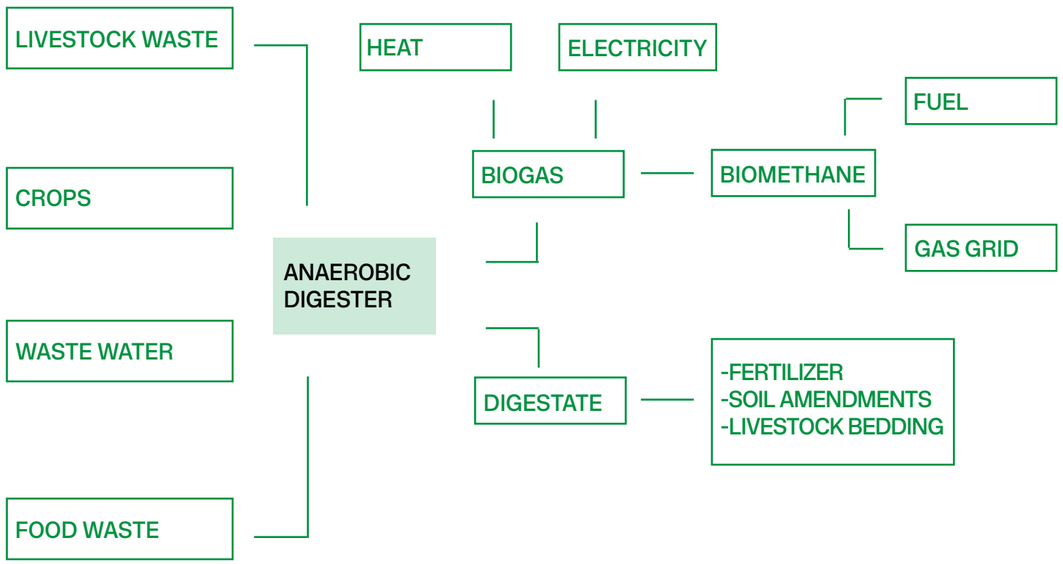
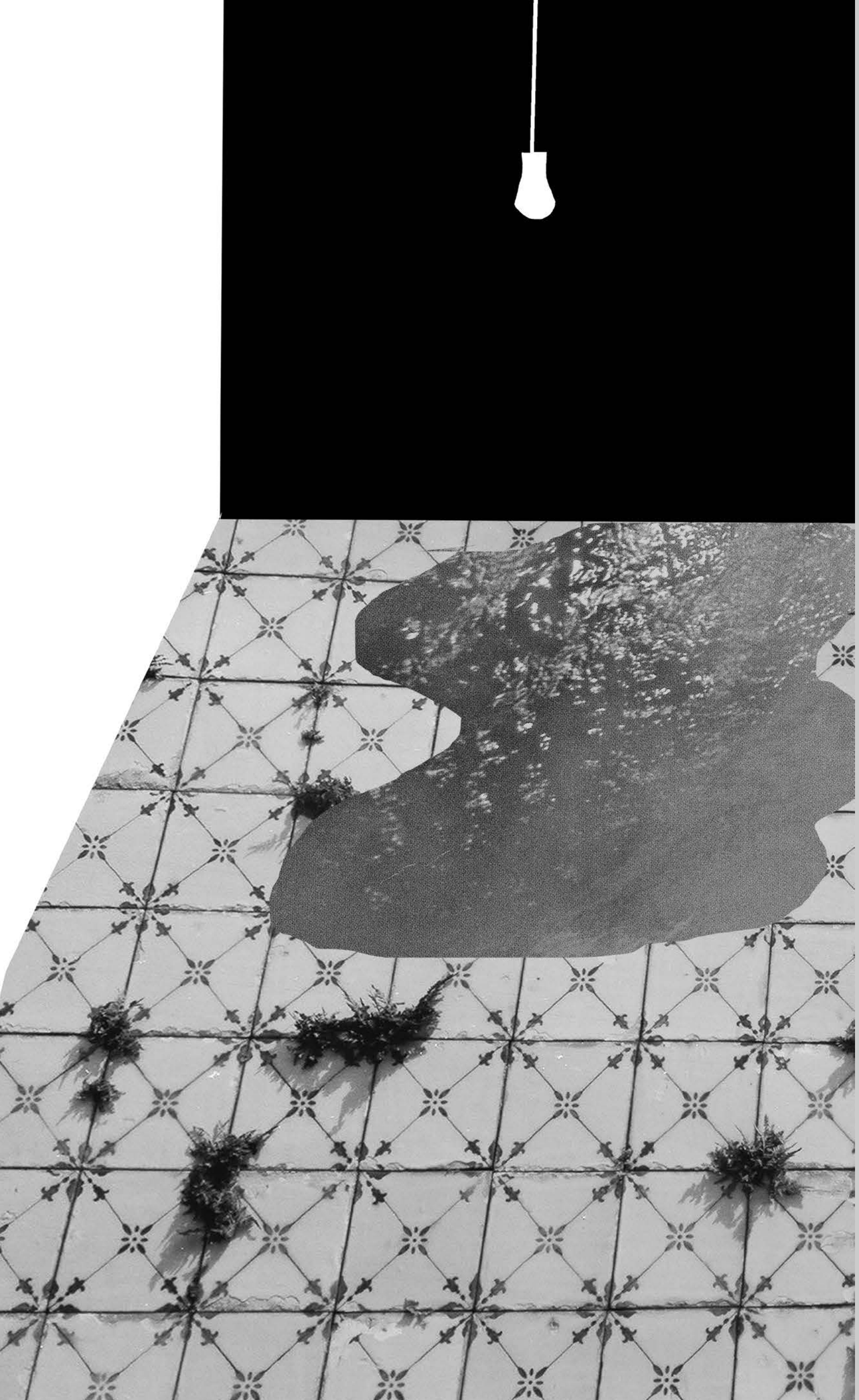


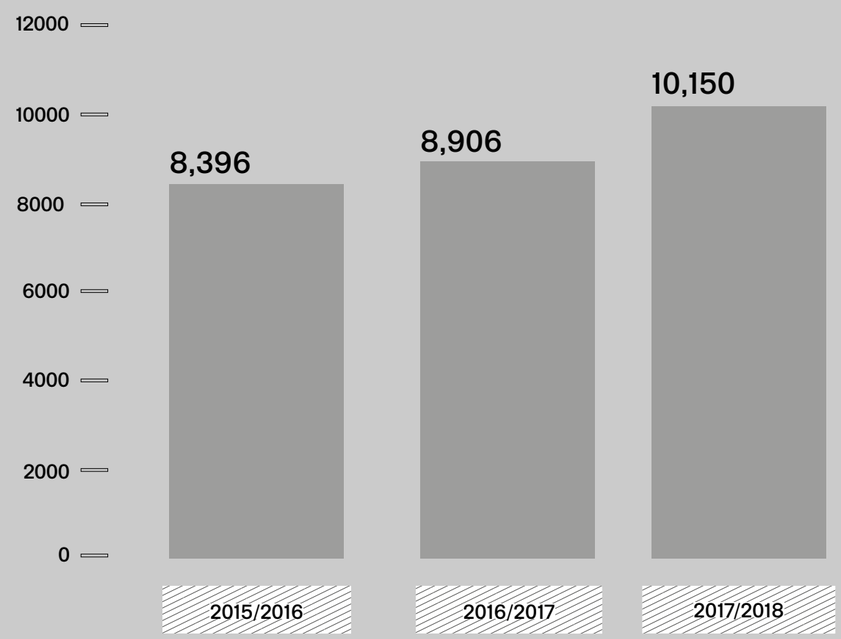
FIG.11 *https://www.eesi.org/papers/view/fact-sheet-biogasconverting-waste-to-energy*



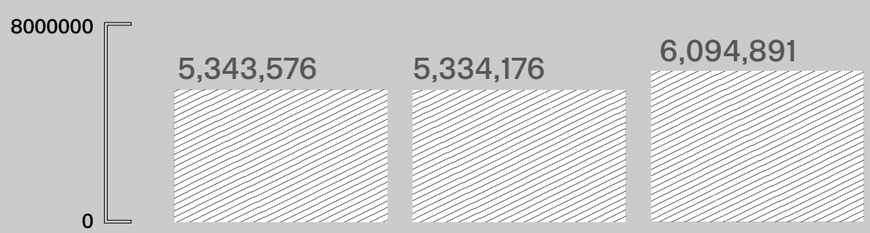
The college ensure that all energy is used as efficiently as possible.

- Energy Consumption
- Display Energy Certificate
- Water Consumption
- Transparency/Sun Panels
- Rainwater Collection

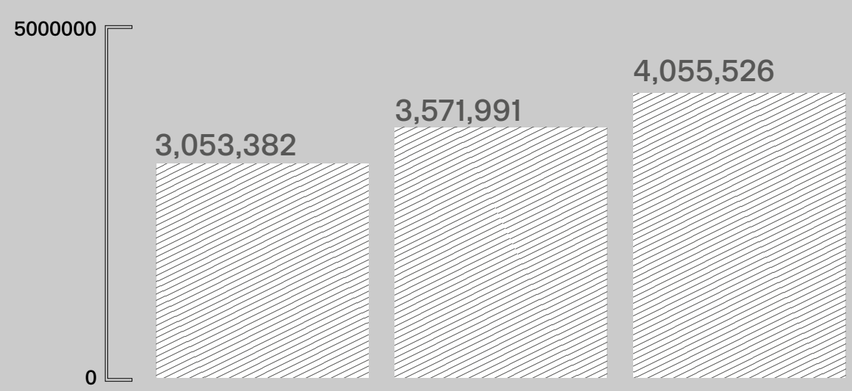
Energy Consumption



Total Energy Consumption (kWh)[39]



Compressed Natural Gas (kWh)



Grid Electricity (kWh)

39 *according to HESA academic years 2015/2016 to 2017/2018—See HESA in Appendix pages 110—111*

42.9%

Total percentage of renewable energy purchased through green tariffs
academic years 2015/2016 to 2016/2017

N/A

Total percentage of renewable energy purchased through green tariffs
academic years 2017/2018

N/A

Total renewable energy generated onsite or offsite
academic years 2017/2018

N/A

Different Suppliers from all campuses
academic years 2019/2020

/ACTION

Transparency on the energy suppliers of all campuses is primordial as the energy supplier chosen affects directly how the energy is sourced. We've asked well informed people their opinion and **Bulb** was recommended to us as a good energy supplier.

bulb

Bulb is the UK's biggest green energy supplier. We provide all our members with 100% renewable electricity. For every unit you use, we make sure a unit is produced and put on the grid by a renewable source including solar, wind and hydro. Plus, our gas is 100% carbon neutral. 10% is green gas produced from renewable sources like food or farm waste. And we offset the rest of the gas we supply by supporting carbon reduction projects around the world[40].

Another idea to investigate is **sun panels** on the roofs of the College buildings. Like other renewable energies, solar power is entirely 'clean' as it doesn't release any harmful emissions of pollutants. In fact, solar power does the opposite and contributes massively to reducing CO2 emissions produced by fossil-fuel powered energies. The Energy Saving Trust estimates the average UK home with a solar PV system installed could reduce carbon emissions by 1.2 to 1.7 tonnes per year. Moreover, Once solar panels are installed, building owners can begin generating their own electricity for free[41].

40 *https://bulb.co.uk/*
41 *https://theswitch.co.uk/technology/guides/energy/solar-panels-tiles*

Display Energy Certificate[41] (DECs)

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building including for lighting, heating, cooling, ventilation and hot water. It is compared to a benchmark that represents performance indicative of all buildings of this type.

ENERGY PERFORMANCE OPERATIONAL RATING

This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.

TOTAL CO^2 EMISSION

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO^2.

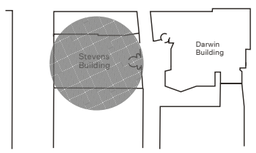
■ ELECTRICITY
▨ HEATING
■ RENEWABLES

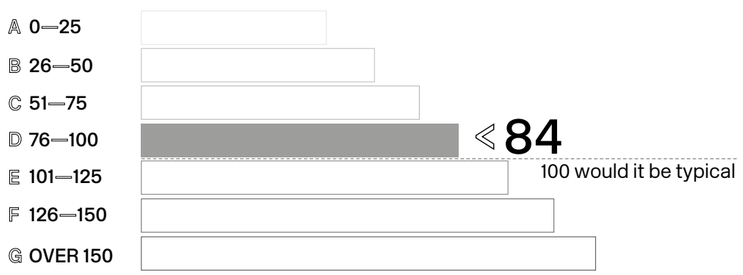
PREVIOUS OPERATIONAL RATINGS

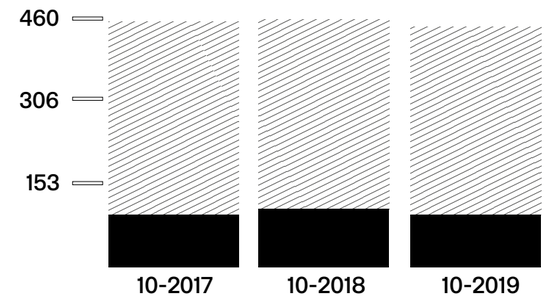
This tells you how efficiently energy has been used in this building over the last three accounting periods.

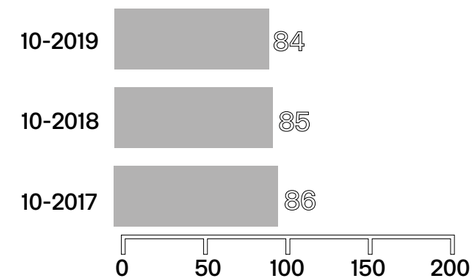
KENSINGTON CAMPUS

Stevens Building

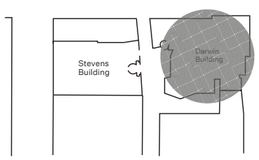


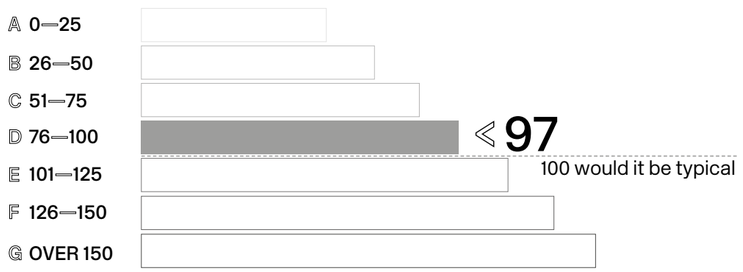


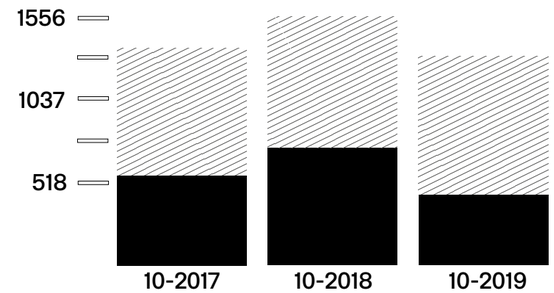


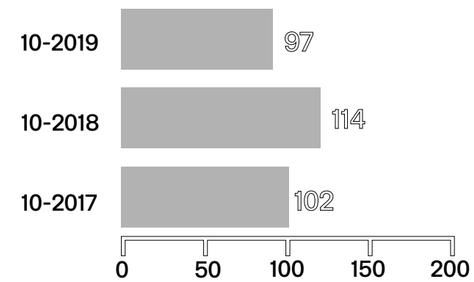


Darwin Building



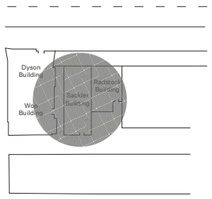


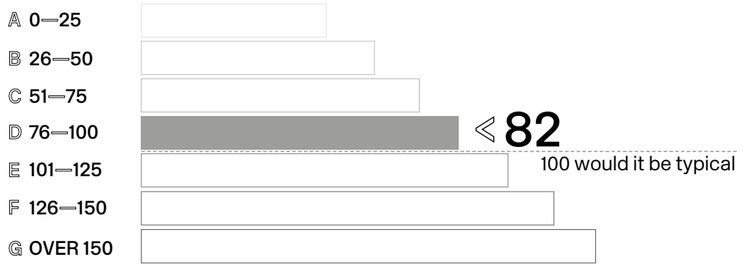


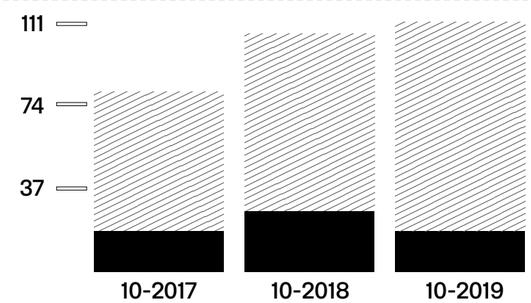


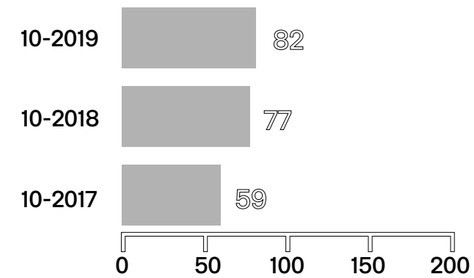
BATTERSEA CAMPUS

Sackler Building

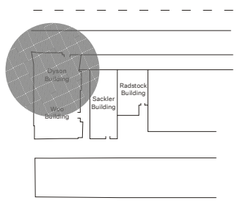


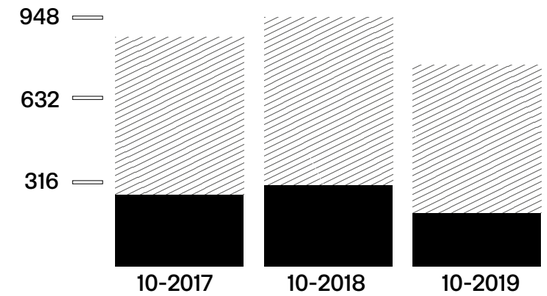


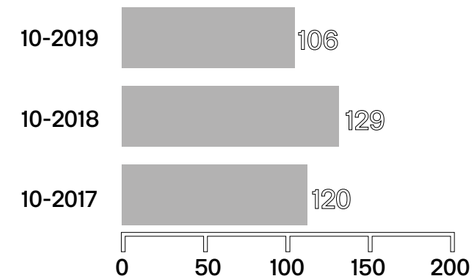




Dyson Building

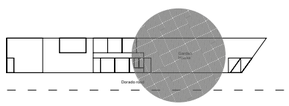


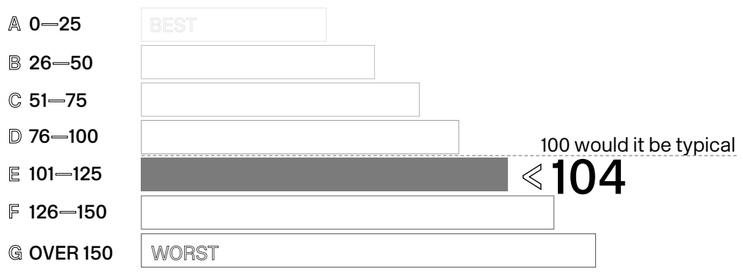


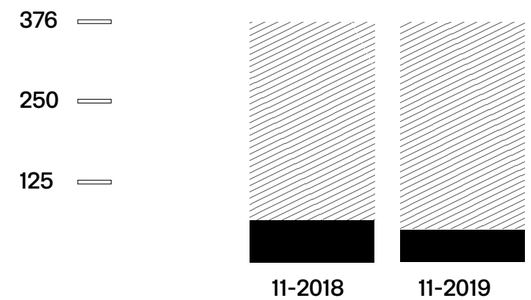


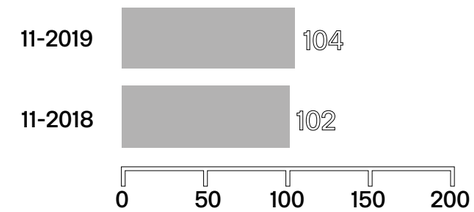
WHITE CITY

Garden House









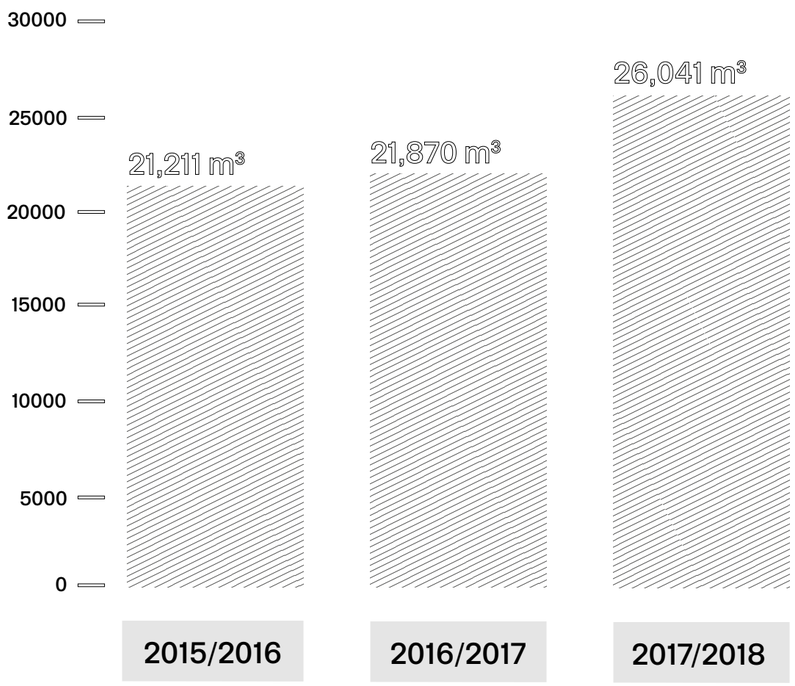
41 *RCAEnvironmentalPolicy_October2015.pdf — see the Appendix pages 136—137*

Water Consumption

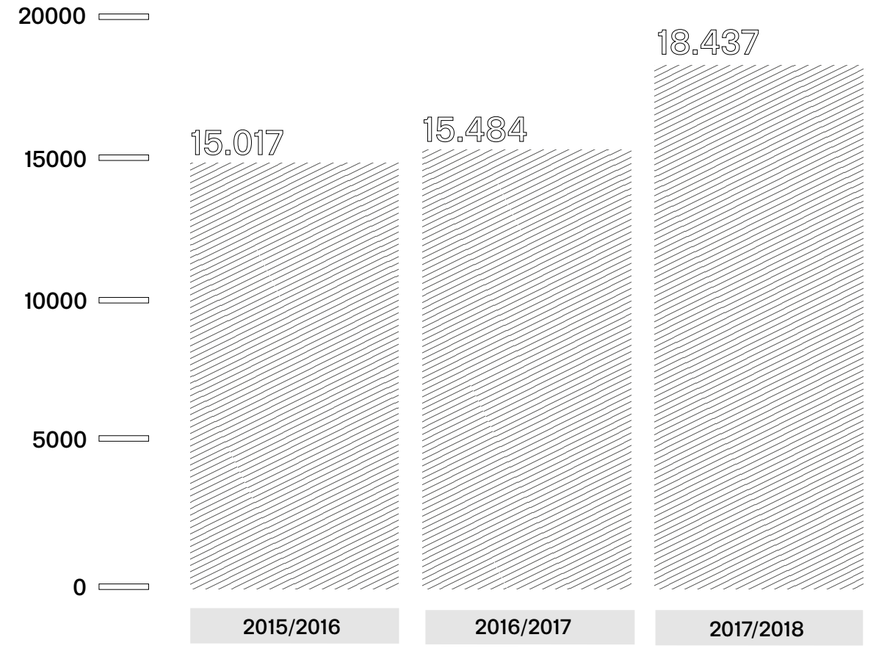
Scope 1* – **All Direct Emissions** from the activities of an organisation or under their control. Including fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning leaks.

Scope 2** – **Indirect Emissions** from electricity purchased and used by the organisation. Emissions are created during the production of the energy and eventually used by the organisation.

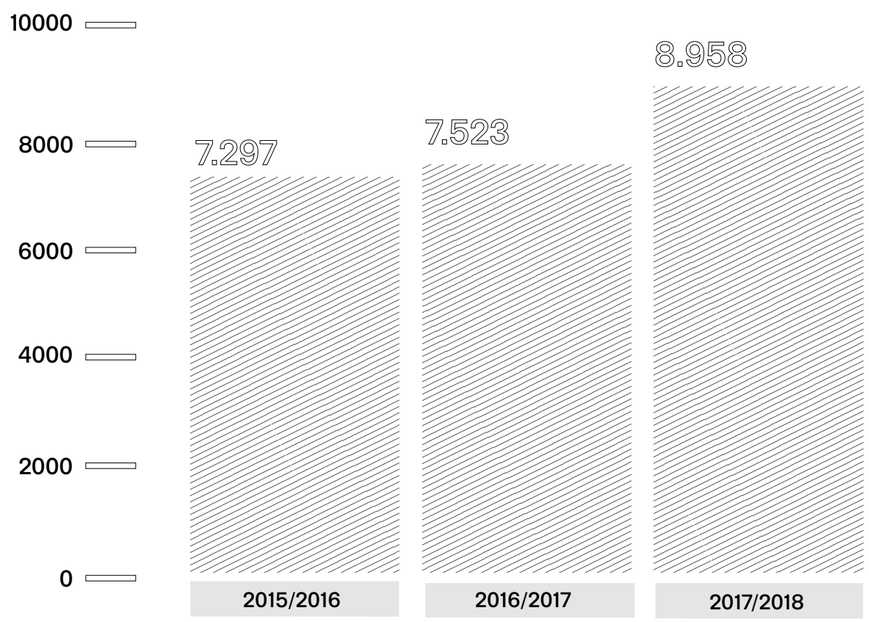
Scope 3*** – **All Other Indirect Emissions** from activities of the organisation, occurring from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement, waste and water.



Total Energy Consumption (kWh)[42]



Total scope 3*** carbon emissions from wastewater treatment (tonnes CO2e)

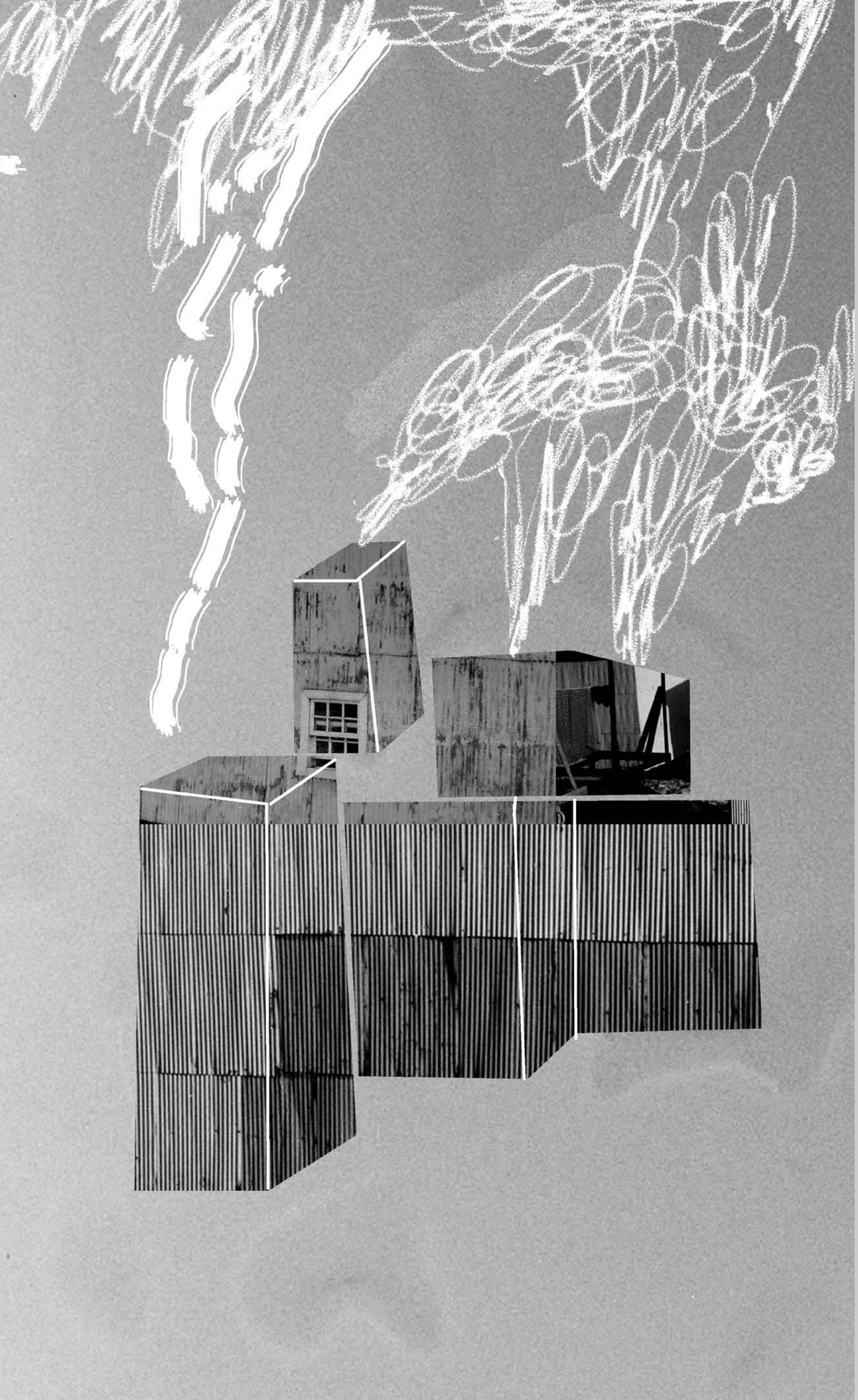


Total scope 3*** carbon emissions from water supply (tonnes CO2e)

/ACTION

Maintanance of the facilities within the College should be a priority. **Rainwater collection** could be a good option to use in the workshops in order to reduce the consumption of wastewater.

42 *according to HESA academic years 2015/2016 to 2017/2018—See HESA in Appendix pages 110—111*



We can expect energy prices to continue to rise in future years, so reducing the amount that we use also makes sound financial sense, saving resources for our core activities.
—Vice-Chancellor

Carbon Management Plan[42]

The 25 February 2011, the College realesed a Carbon Management Plan(CMP), signed by the Vice-Chancellor but never approved.

The University's Carbon Management Plan 2011 outlined details of the University's carbon emissions and planned measures for reducing carbon emissions over the next five to 5 years.

The push comes from the participation in Phase IV of the Carbon Trust's prestigious Higher Education Carbon Management (HECM) programme to raise awareness of the impacts of climate change on the institution and develop the capacity to identify and deal with these impacts.

The **HECM Programme** is based around a five-step process through which the College can create an organisation-wide carbon management strategy:

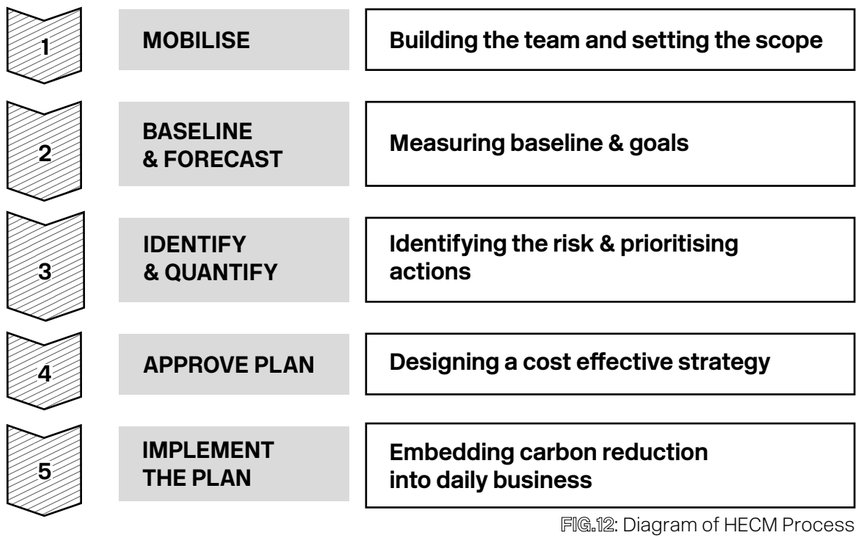


FIG.12: Diagram of HECM Process

A Carbon Management Plan was first drafted by Mike Alexander in 2011 but it was never approved.

TARGET AND OBJECTIVES

The Royal College of Art has set a target to reduce CO2 emissions from those activities identified in the scope of the Carbon Management Programme by 25% (in absolute terms) by the end of the 2014/15 academic year, compared to the baseline year of 2009/10.

The College has also set an aspirational target to reduce Scope 1 and 2 CO^2 emissions by 30% (in absolute terms) by the end of the 2019/20 academic year, compared to the baseline year of 2005/6.

42 *See in appendix: "1RCA_Carbon_Management_Plan.pdf" at pages 112—131*

SCOPE

The University's carbon emission baseline has been calculated using data from 2005/06 academic year. The baseline includes:

Scope 1 emissions - are defined as direct emissions occurring from sources that are owned or controlled by the College:

- Natural gas used for heating.
- Liquid Petroleum Gas (Acetylene and Propane) used for processes.
- Transport fuel used in College owned vehicles including the Student Union Mini- bus.

Scope 2 emissions - are defined as indirect emissions from the generation of electricity consumed by the College.

- Purchased electricity from the National Grid.

Scope 3 emissions – are defined as those arising as a consequence of the activities of the College but occurring from sources not owned or controlled by the College. The following Scope 3 emissions have been included in the baseline:

- General Waste (this includes landfill waste but not incineration or recycling).
- Water consumption.

STRATEGIC THEMES

The following strategic themes arising from the HECM programme will consolidate the College's focus on carbon reduction, energy efficiency and wider sustainability issues:

THE ROLE OF THE CARBON MANAGEMENT PLAN WITHIN THE COLLEGE
To provide a plan with clear guidance on carbon reduction and emission targets which can be integrated into the culture of the College through wider academic, sustainability and estate management strategies.

POLICY REVIEW
To continue to review and develop the College Environmental Policy and create additional policies and procedures to ensure that there is effective support for ongoing reductions in carbon emissions.

INVESTMENT AND FINANCIAL PLANNING
To ensure that existing budgets are maintained to promote a cost efficient and energy saving maintenance regime and contribute to reduction targets.

STAKEHOLDER ENGAGEMENT
To provide a plan that is effectively communicated throughout the College in order to promote continued input from and engagement with staff, students and other stakeholders.

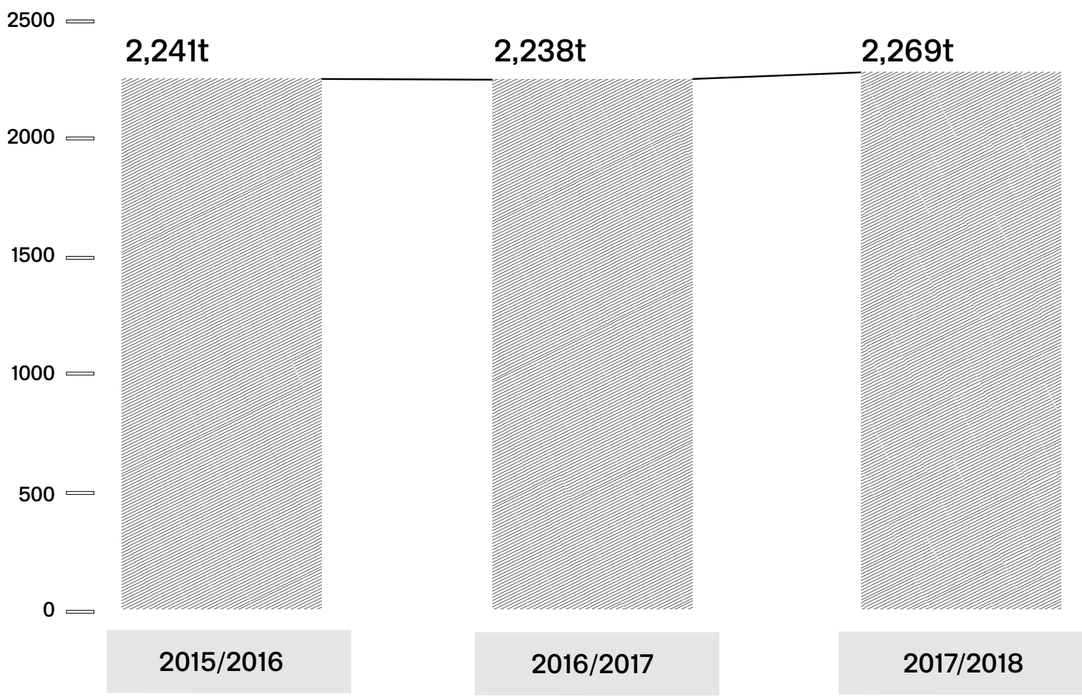
BENCHMARKING PERFORMANCE
To continue to actively contribute to benchmarking activities, such as the Estates Management Statistics and People and Planet Green League and other sector wide initiatives in order to demonstrate progress and learn from the best practice within the Sector.

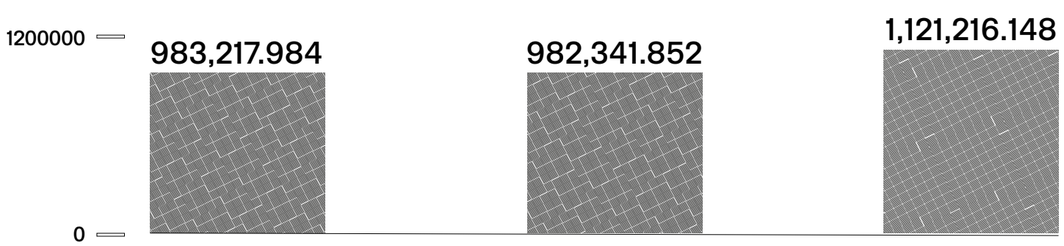
LOCAL METERING
To ensure that carbon savings are measurable through a range of technical infrastructure improvements (local metering).

STRATEGIC PARTNERSHIPS
To work with HEIs and other public sector bodies in the London area (and the wider HE sector) on policy initiatives and where appropriate infrastructure projects to help achieve reduction targets

Carbon Emission[43]

Total scope 1* and 2 carbon emissions (Kg CO^2)**





Compressed natural gas (Kg CO2e)

! SCOPE

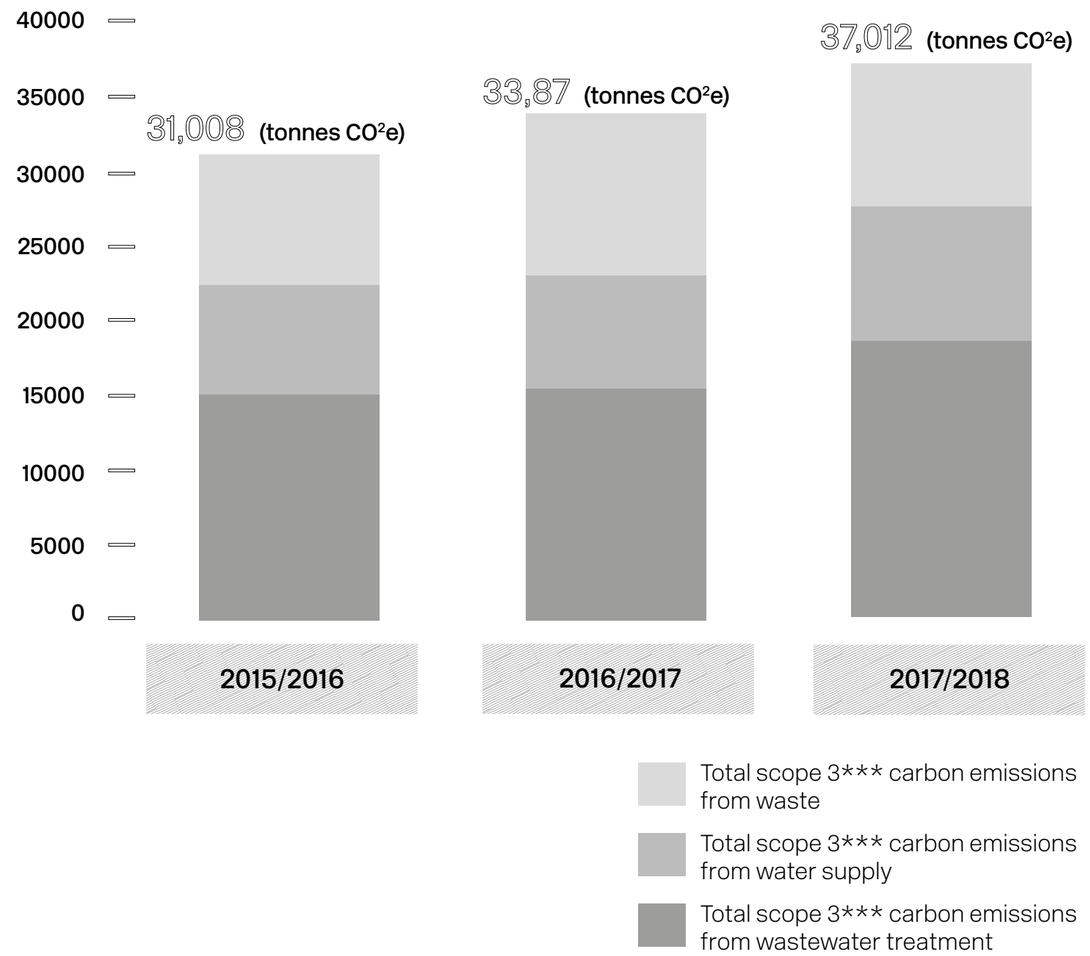
Scope 1* – **All Direct Emissions** from the activities of an organisation or under their control. Including fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning leaks.

Scope 2** – **Indirect Emissions** from electricity purchased and used by the organisation. Emissions are created during the production of the energy and eventually used by the organisation.

Scope 3*** – **All Other Indirect Emissions** from activities of the organisation, occurring from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement, waste and water.

43 *According to HESA academic years 2015/2016 to 2017/2018— See HESA in Appendix pages 110—111*

Carbon Emission from waste, water supply and wastewater treatment [44]



/ACTION

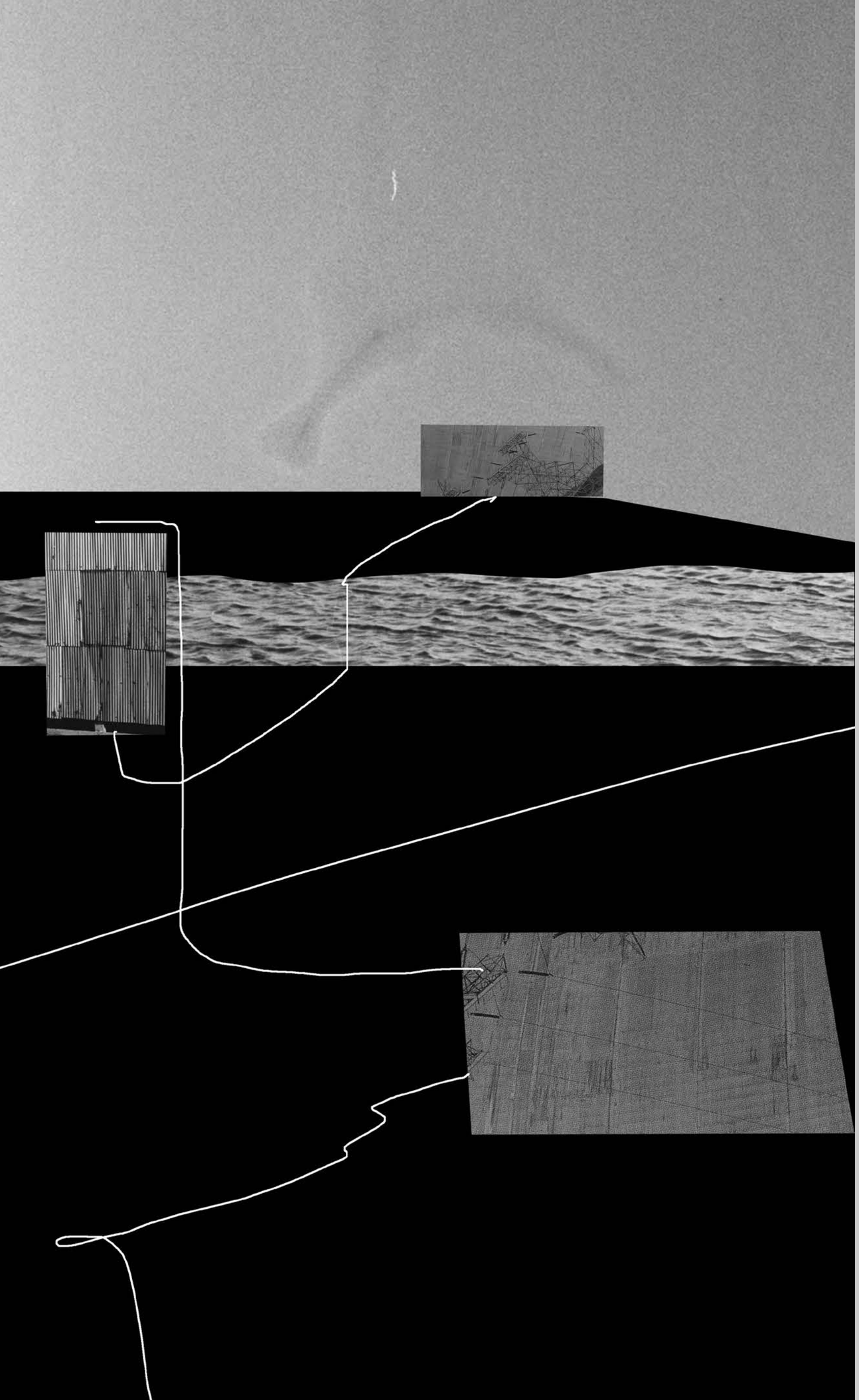
The college is in great need for an updated, **approved carbon management plan** if it aims to achieve the target set by the Climate Change Act of 2008.

The role of the Carbon Management Plan within the College is **to provide a plan with clear guidance on carbon reduction and emission targets** which can be integrated into the culture of the College through wider academic, sustainability and estate management strategies.

The **UK government has set a goal of a 34% reduction in carbon emissions by 2020** and a long term reduction goal of 80% by 2050.

Reporting on this issue is necessary and should be made available to the public. The leadership of the College has the duty to encourage and enforce these policies on a structural level as well as setting measurable goals.

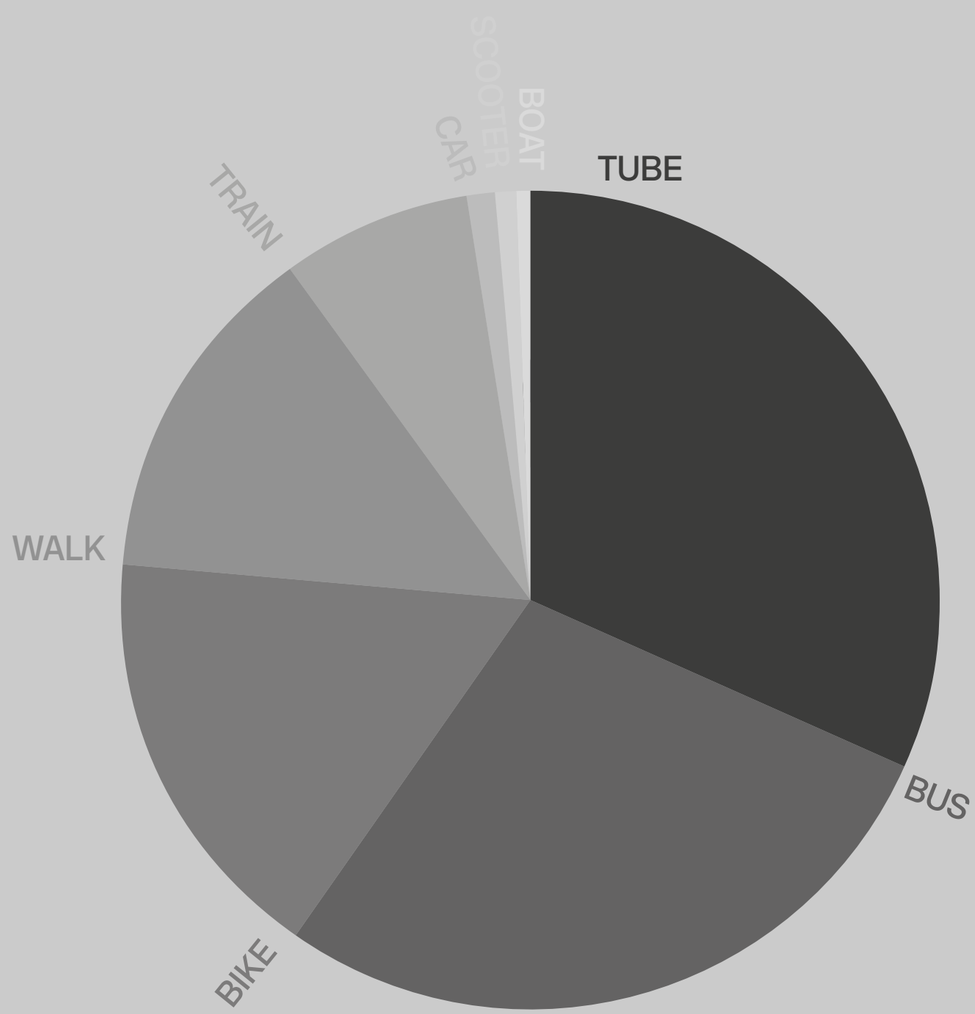
44 *According to HESA academic years 2015/2016 to 2017/2018 —See HESA in Appendix pages 110—111*



The most commonly used vehicle to get to the College is the tube, followed by the bus and walking.

Which vehicle do you use to go to the College? [45]

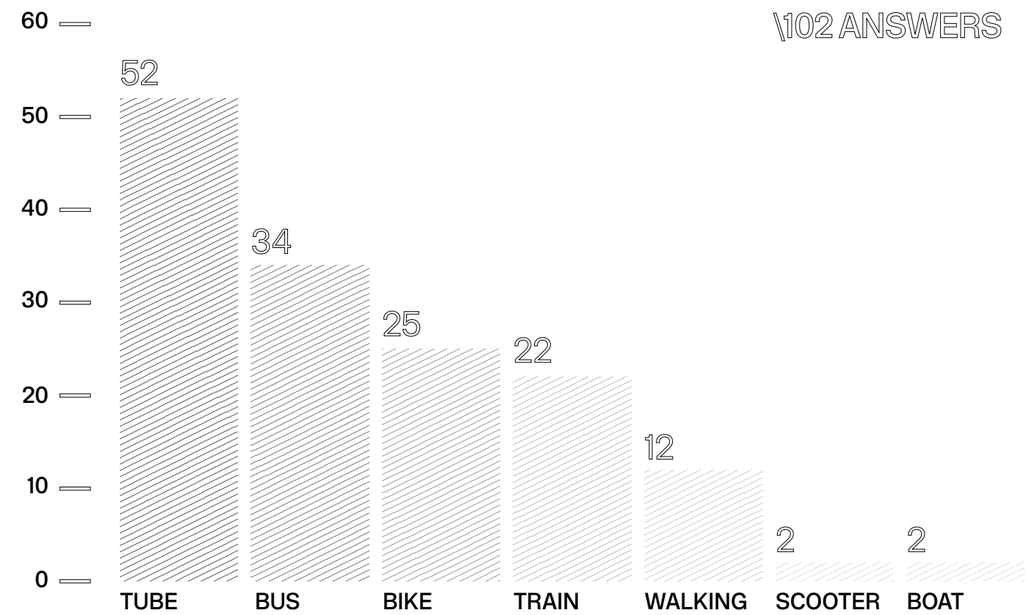
\292 ANSWERS



128	43,83 %	TUBE
112	38,35 %	BUS
67	22,94 %	WALK
55	18,83 %	BIKE
29	9,93 %	TRAIN
5	1,71 %	CAR
3	1,02 %	SCOOTER
2	0,68 %	BOAT

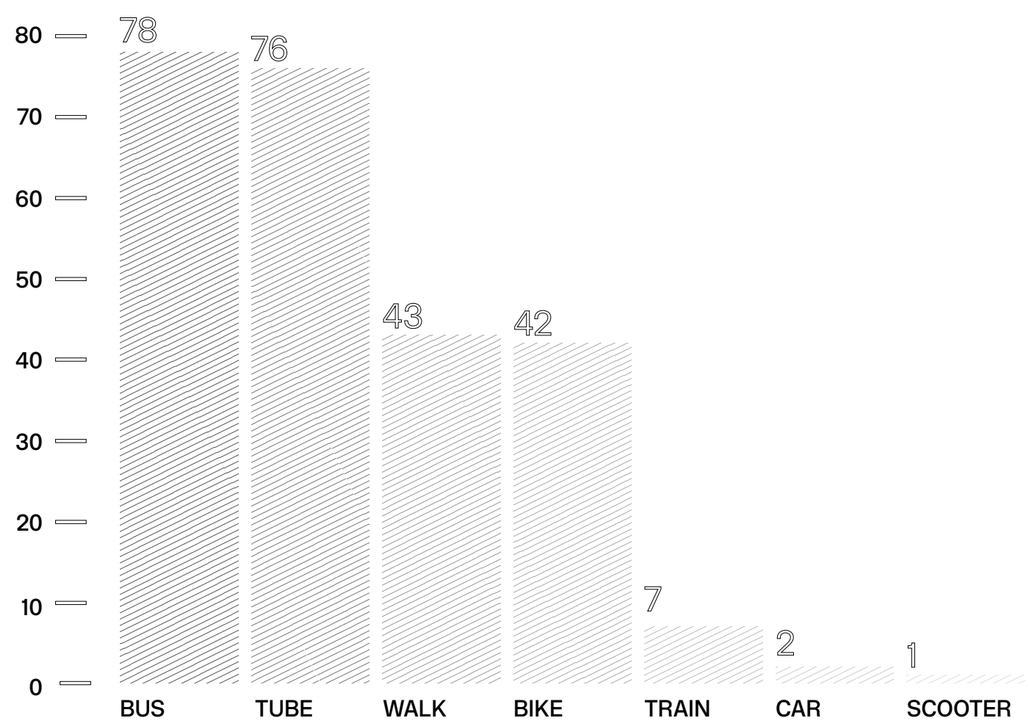
staff

\102 ANSWERS



students

\190 ANSWERS



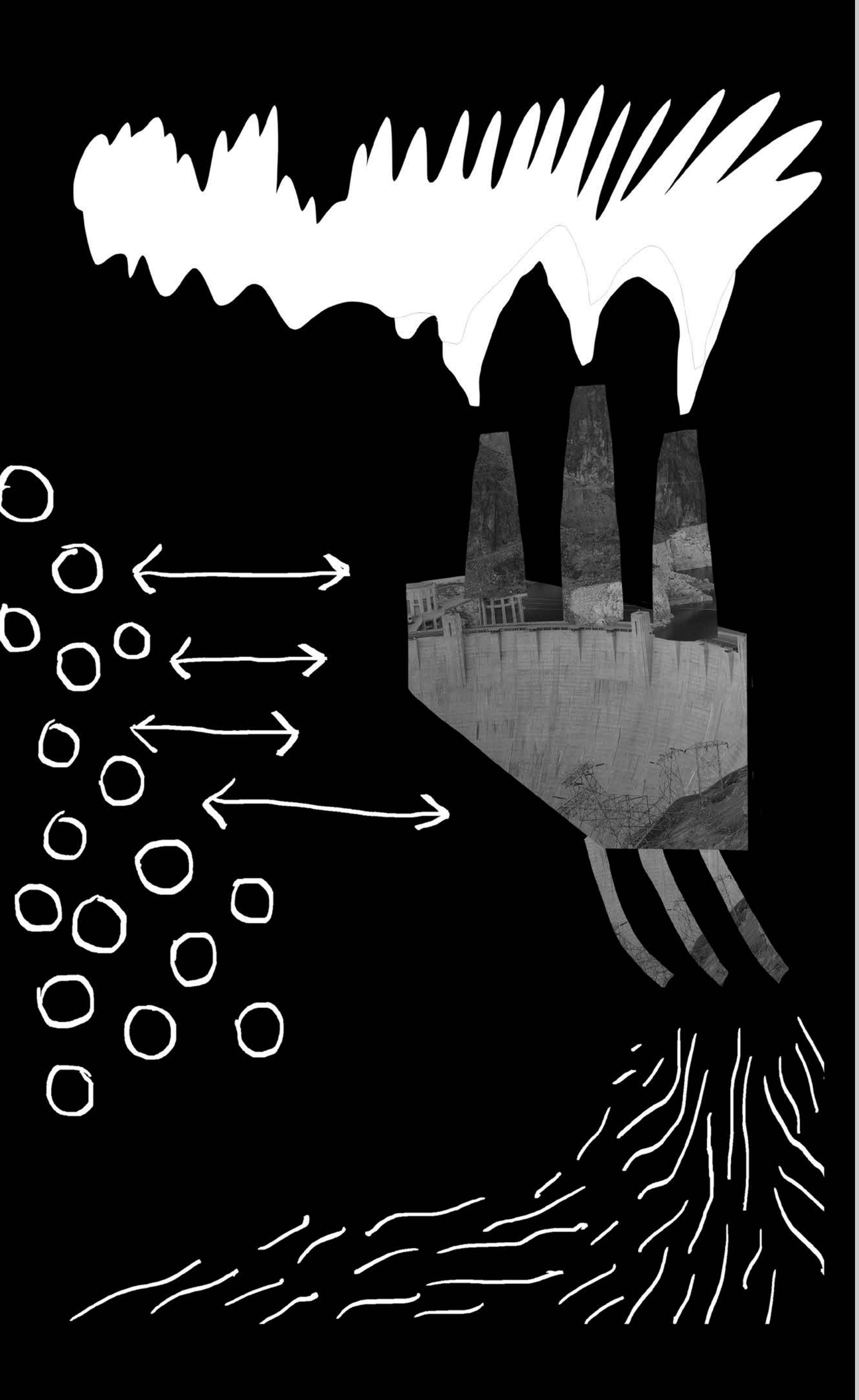
/ACTION

As promised in the RCA Environmental policies published in 2015, the college should produce and implement a Travel Plan to encourage more sustainable commuting and business travel. As this has yet to be addressed.

45 *See Students Survey in Appendix pages 88—107*

students & staff

Business Operations



The fossil fuel industry currently holds carbon reserves that are 5 times larger than what it is safe to emit into the atmosphere.

The latest published amount of investments made by the college is £905,000.

RCA's Total amount invested
£905,000

Typical percentage invested in Fossil Fuel companies
6.5%

Estimate of RCA's amount invested in Fossil Fuel companies
£58,825

people & planet
UNIVERSITY
LEAGUE

People & Planet, the largest student network in the UK campaigning for social and environmental justice, ranked the Royal College of Art as a 'failed' university in terms of sustainability.

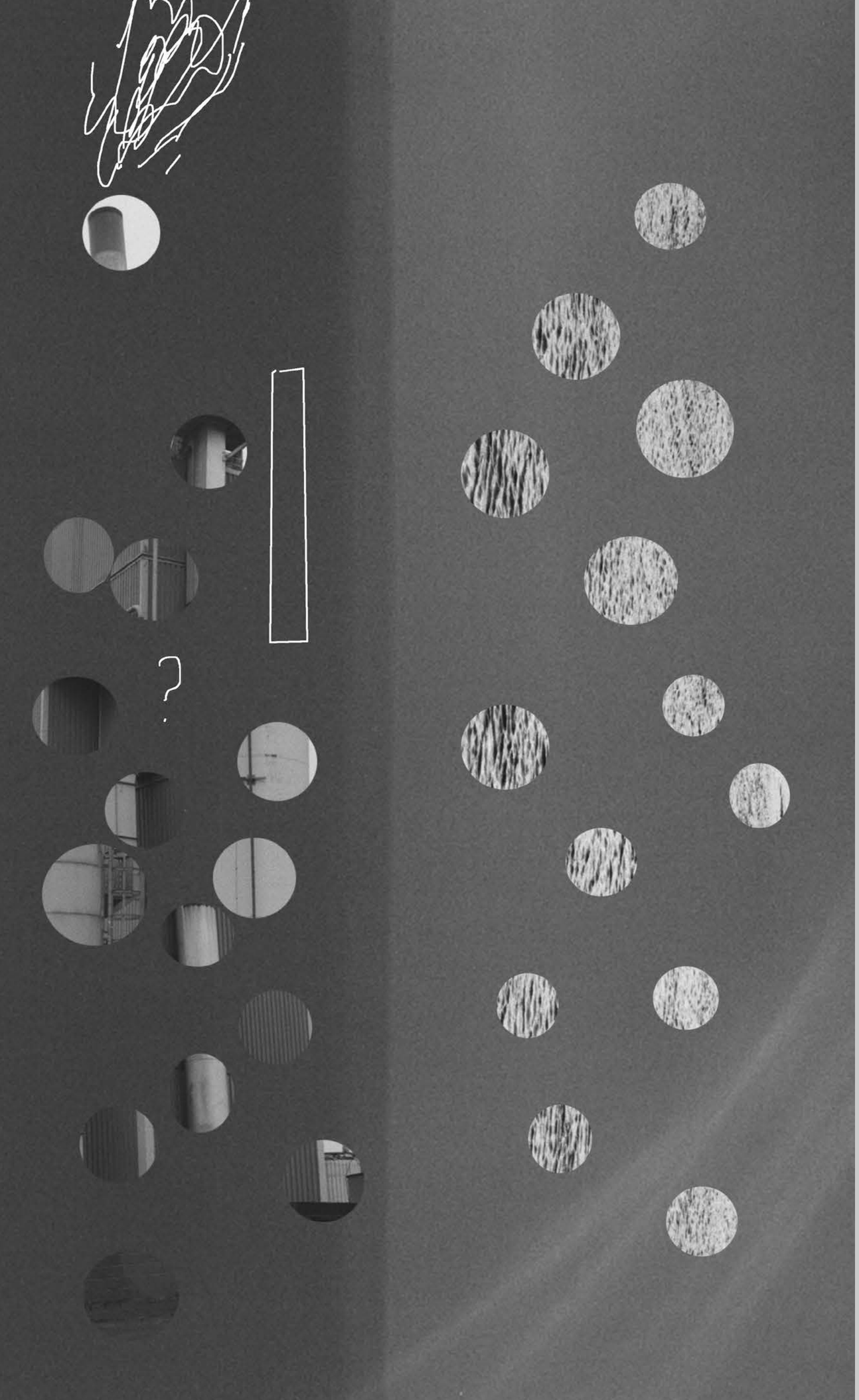
As the college does not at the present publish information about how much it invests in fossil fuel, People & Planet applied an average, to have an estimate.

Typically, of a total amount invested through portfolios, 6.5% is invested in fossil fuel companies. In the Royal College of Art's case, that would amount to £58,825[46]. Unfortunately, this is only an estimate.

/ACTION

The College has to divest from fossil fuel and be transparent on its investments. In the case that no action is taken from the governing body and leadership, the students and staff will most likely need to start actively campaigning against these investments.

46 https://peopleandplanet.org/university/129827/ul19

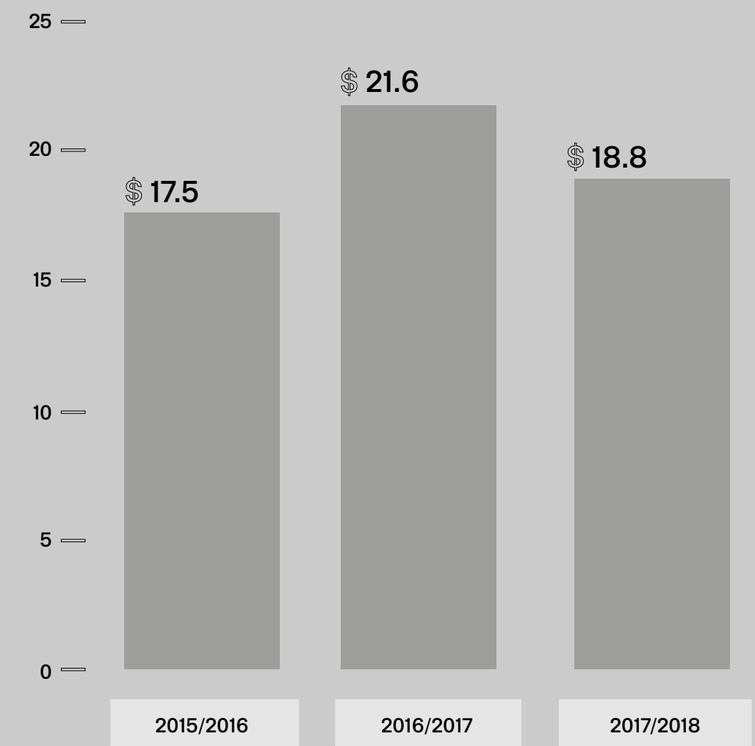


Banks and financial institutions play a major role when looking to achieve the target of the Paris Climate Agreement.

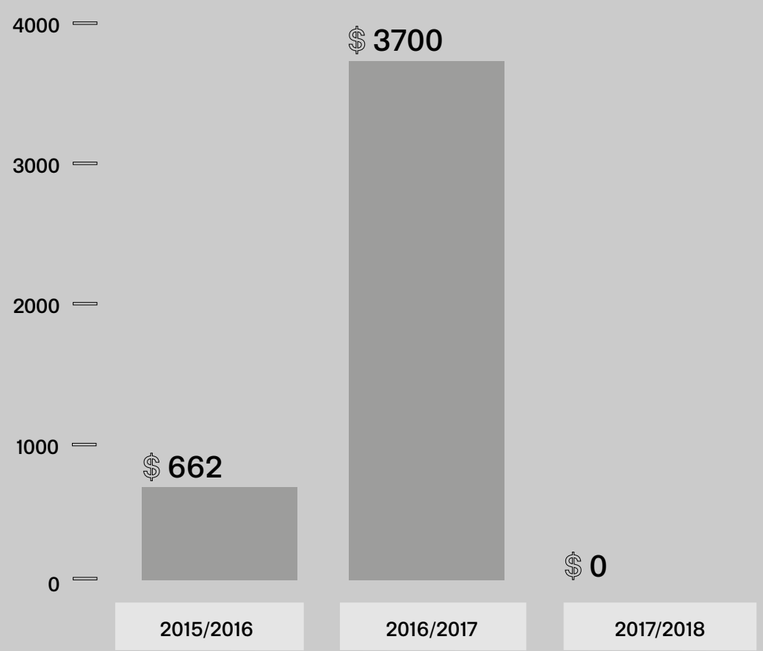
> NatWest & HSBC
« Investment
/ Reassessment

High street banks have for a long time been investing unfathomably large sums of money into the planet's most precarious commodities: oil, coal and gas.

For decades fossil fuel investments have underpinned pensions, ISAs and many other major investments. This is because demand for fossil fuels is high across the globe, exponentially rising, and traditionally provides good financial returns.



HSBC ($ billion)



RBS/NatWest ($ billion)

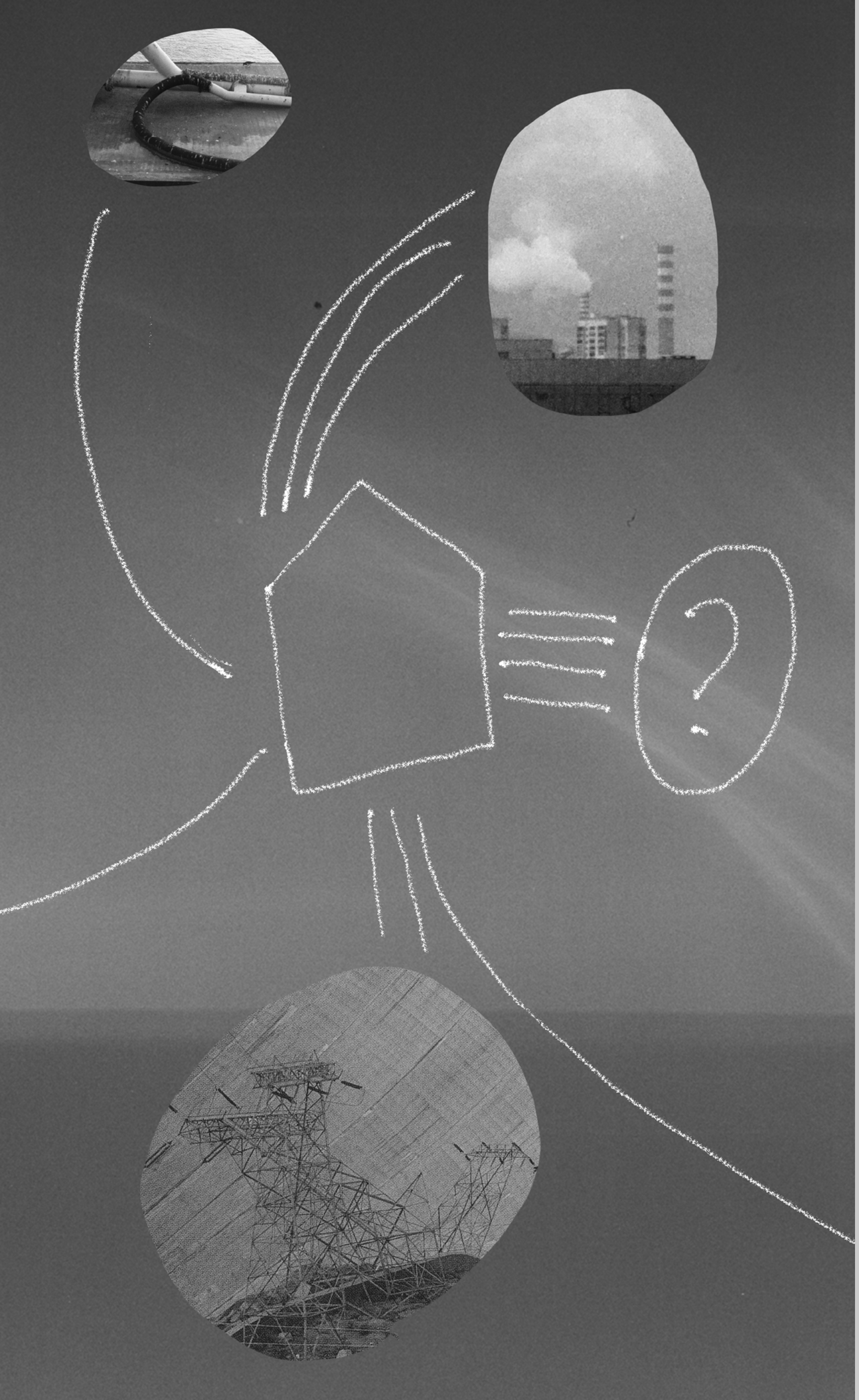
The banks that currently handle RCA's funds are NatWest and HSBC. Banking is relevant to sustainability as banks make decisions about what to invest their client's money in without consulting them, and perhaps most worryingly, they may not even want to tell their clients what they're doing with it.

In 2018, HSBC was investing £18.3 billion in fossil fuel. That same year, NatWest had completely divested from fossil fuel[47] and said it will cut the net greenhouse-gas emissions of its operations to zero this year and will be "climate positive" by 2025[48].

/ACTION

While NatWest seems to be taking measures to follow the Paris agreement and following the divestments movements.
Although HSBC appears to have been very conservative in its ways this far, they have announced thay will be making a change in their investments soon[49]. The college should reassess who it's banking with and make changes accordingly. Other banks to consider: Triodos as they are completely transparent on their investments and only offer investments in organisations delivering positive change, and designed to make environmental, cultural or social impact.

47 https://www.telegraph.co.uk/business/2019/04/12/hsbc-rejects-calls-end-pension-cuts-fossil-fuel-funding/
48 https://www.bloomberg.com/news/articles/2020-02-14/rbs-plans-to-cut-fossil-fuel-loans-be-climate-positive-by-2025
49 https://www.nationofchange.org/2018/04/21/hsbc-will-no-longer-fund-fossil-fuel-industry/



RCA must have a clear line and understand its core principles before negotiations with a sponsor start.

> VC and Chancellor's Circle
/ CSR Ranking

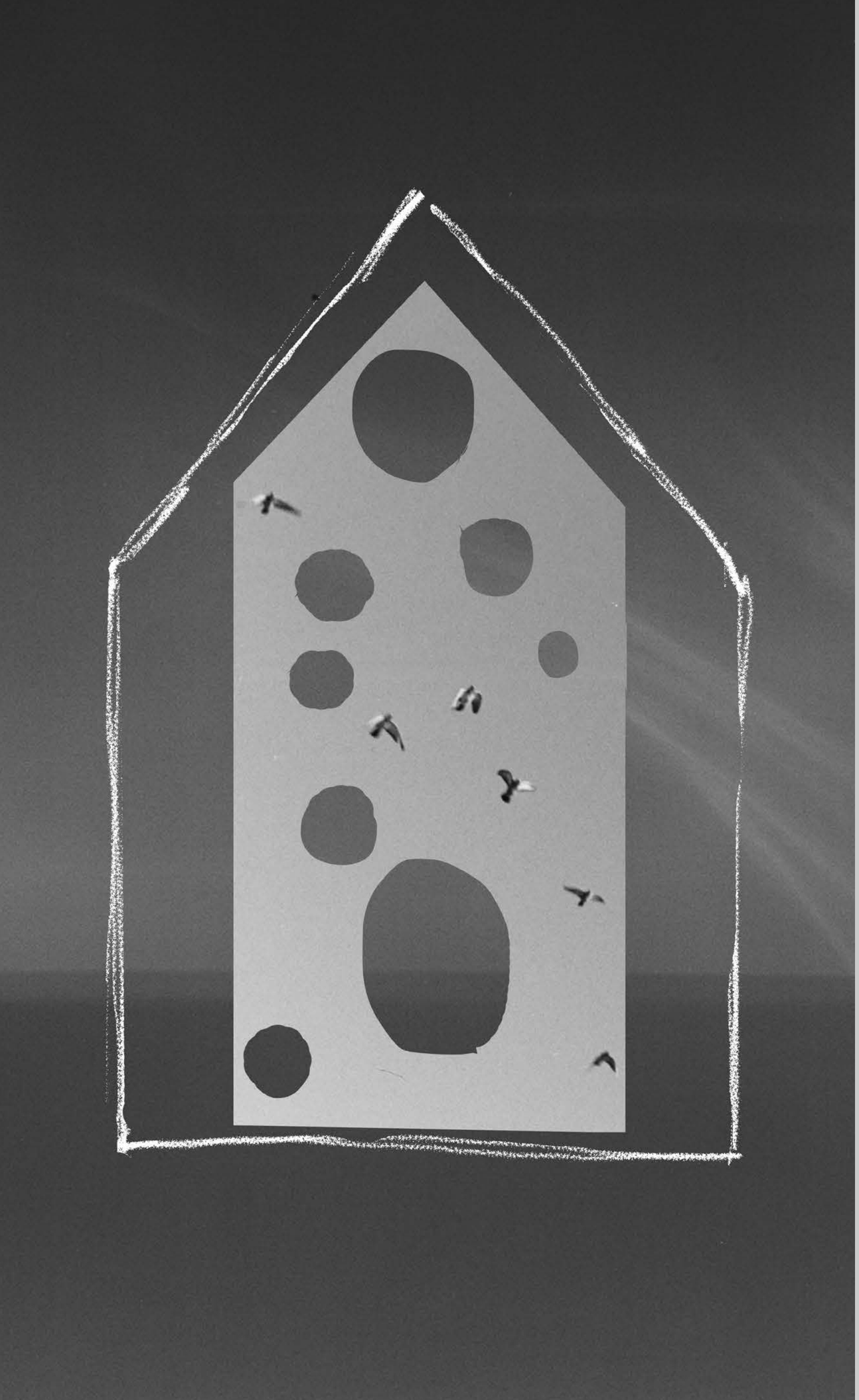
Corporate Social Responsibility (CSR) performance of the Sponsors and Partners affiliated with the Royal College of Art and its governance.

CHANCELLOR'S CIRCLE	CSR / ESG Ranking (%)[50]
THE ABRAAJ GROUP	N/A
BASIL H ALKAZZI	Artist
APPLE INC*	91%
BURBERRY FOUNDATION	93%
THE CLORE DUFFIELD FOUNDATION	Charity
THE CONRAN FOUNDATION	Charity
DEBBIE LO CREATIVITY FOUNDATION	N/A
THE DR MORTIMER AND THERESA	Charity
SACKLER FOUNDATION	N/A
GARFIELD WESTON FOUNDATION	Support Charities
GENESIS FOUNDATION	Charity
LYDIA AND MANFRED GORVY	N/A
LADY HAMLYN	N/A
HYUNDAI MOTOR (UK) LTD	79%
SIR JONY AND LADY IVE*	N/A
JAMES DYSON FOUNDATION	N/A
KIA MOTORS (UK) LTD	70%
THE LINBURY TRUST	Charity
LING LIU	Artist
LOGITECH	90%
MONDAY CHARITABLE TRUST	Charity
PROSIT PHILOSOPHIAE FOUNDATION	NGO
ROYAL COLLEGE OF ART USA, INC	N/A
THE SACKLER TRUST	Support Charities
SIGRID RAUSING TRUST	N/A
SIR PO-SHING AND LADY WOO	N/A

VICE-CHANCELLOR'S CIRCLE	CSR / ESG Ranking (%)
AEDAS	N/A
ASHLEY FAMILY FOUNDATION	CHARITY
BURBERRY LTD	93%
ERIC AND JEAN CASS	N/A
CLORE ISRAEL FOUNDATION	N/A
THE CLOTHWORKERS' COMPANY	N/A
CONSTANCE FAIRNESS FOUNDATION	Support Charities
THE DAVID HOCKNEY FOUNDATION	N/A
MERVYN DAVIES, BARON DAVIES OF ABERSOCH	politician
DESIGN TRUST HONG KONG	N/A
THE DURHAM WHARF FOUNDATION	Support Charities
THE FIDELITY UK FOUNDATION	Support Charities
FOYLE FOUNDATION	Support Charities
CHARLOTTE A FRASER	Scholarship
GERARD AND SARAH GRIFFIN	N/A
LOIS HUNT	Singer
ORLA KIELY AND DERMOTT ROWAN	N/A
LANE CRAWFORD JOYCE GROUP	N/A
LEVERHULME TRUST	Charity
LLOYD'S REGISTER FOUNDATION	N/A
THE POKÉMON COMPANY	N/A
ROYAL COMMISSION FOR THE EXHIBITION OF 1851	N/A
EDWARD M SISKIND	N/A
SNOWDON TRUST	Scholarship
STAVROS NIARCHOS FOUNDATION(SNF)	N/A (Funds derived from Fossil Fuel)
STEWARTS	N/A
THE WOLFSON FOUNDATION	Charity
THE WORSHIPFUL COMPANY OF BRODERERS	N/A

** Donors of the Royal College of Art USA, Inc*

50 Compared With 18,958 Companies - https://www.csrhub.com/CSR_and_sustainability_information



Transparency implies openness, communication, and accountability.

/ Transparency

If you've read this report thoroughly, you can most likely see it's flaws. This is an attempt to celebrate all the smaller initiatives happening inside of the College but also to point out the flaws in the system and the lack of policies in place to promote these initiatives. But first and foremost this is a major call for transparency around sustainability issues inside of the College.

The aim is in no way to blame but to try and be constructive by giving potential and imperative solutions. This report is a conversation starter, it came out of over a month of research and was edited and designed by two students currently enrolled at the Royal College of Art.

If you have any additional or contradictory information please do let us know at magda.tritto@network.rca.ac.uk & betty.brunfaut@network.rca.ac.uk.

/ Transparency

Appendix

Student survey

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all courses	My university take actions to limit negative impact	Which vehicle do you use to go to your campus?	Do you use the recycling bins in school?	Do you use a reusable bottle?	Do you use a mug or a cup in school?	How often do you buy a plastic water bottle in school?	Do you have your own cutlery in school?	How often do you use the metal cutlery available in school?	Can you recycle your artwork?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Which material you use the most? (mark max 3 materials)	Would you re-use donated materials from other students?	Have you recycled a laptop or computing equipment before?	Does your course offer support in making your practice more sustainable?	Would you like your university to be more sustainable?	Do you have any suggestion regarding sustainability within the school?
21/02/2020 14:13:59	Agree	Agree	Disagree	TUBE/BUS	Yes	Yes	Yes	Once a week	Yes	I might have used it once or twice	No	500+	PAPER, WOOD	Yes	Yes		Yes	Fire Paul Thompson
24/02/2020 15:55:35	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Often	Yes	0-10	PAPER	Yes	Yes		Yes	
24/02/2020 15:55:44	Agree	Agree	Agree	TUBE/BUS	Sometimes	Yes	No	Everyday	No	Often	Sometimes	10-100	PAPER, GLASS, PLASTIC	Yes	Yes		Yes	
24/02/2020 15:55:58	Agree	Agree	Disagree	BUS	I use them but I know that all the rubbish in the end goes into the same bin. No recycling is actually done. The canteen staff told me this.	Yes	Yes	A few times a month	No	Always	Sometimes	0-10	PAPER	Yes	No		Yes	Every project should be assessed on sustainability.
24/02/2020 15:56:14	Agree	Agree	I don't have an opinion	WALKING	Always	Yes	No	A few times a week	No	Always	No	200-500	PAPER, FABRIC	Yes	No		Yes	
24/02/2020 15:56:50	Agree	Agree	Agree	BIKE	Always	No	Yes	A few times a year	No	Often	No	10-100	PAPER, PAINT, WOOD	Maybe	No		Yes	Coffee cup recycling?
24/02/2020 15:56:52	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	A few times a year	Yes	Always	No	100-200	PAPER, WOOD, PASTEL, FABRIC	Yes	I didn't know I could		Yes	
24/02/2020 15:57:05	Agree	Agree	I don't have an opinion	Train and Bike	Sometimes	Yes	Yes	Never	No	Barely	Sometimes	100-200	PAPER	Yes	No		Yes	
24/02/2020 15:57:17	Agree	Agree	I don't have an opinion	WALKING	Always	Yes	Yes	A few times a year	Yes	Always	Yes	200-500	PAPER, PLASTIC, CLAY	Yes	Yes		Yes	
24/02/2020 15:57:36	Agree	I don't have an opinion	Agree	BUS	Sometimes	Yes	Yes	Once a week	Yes	Always	Sometimes	10-100	PAPER, PLASTIC, WOOD	Yes	No		Yes	
24/02/2020 15:57:51	I don't have an opinion	Agree	Disagree	BUS	Always	No	No	A few times a month	No	Always	Yes	100-200	PAPER, METAL, WOOD	Yes	No		Yes	
24/02/2020 15:57:58	Agree	Agree	Disagree	BUS	Always	Yes	No	Never	No	Sometimes I forget my cutlery and i have been told off by a member of canteen staff for borrowing cutlery. Apparently if i hadn't bought lunch then I wasn't allowed to use school metal cutlery. I think plastic cutlery should be removed from campus.	Yes	10-100	PAPER	Yes	No		Yes	
24/02/2020 15:58:07	Agree	Disagree	Agree	TUBE/BUS	Always	Yes	Yes	A few times a year	No	Often	No	10-100	PAPER, PAINT, WOOD, FABRIC	Yes	Yes		Don't know	
24/02/2020 15:58:11	Agree	Agree	Agree	TUBE/BUS	Sometimes	Yes	Yes	Never	No	Always	Sometimes	10-100	PAPER, METAL, WOOD	Yes	No		Yes	Nothing about the rca is actually sustainable. All just big empty talk!
24/02/2020 15:58:27	Agree	I don't have an opinion	I don't have an opinion	WALKING	Always	Yes	Yes	A few times a year	Yes	Never used		200-500	PAPER, INK	Yes	No		Yes	For starters, Replace toilet papers with hand-drying machines at white city.
24/02/2020 15:58:28	Agree	Agree	Trying but not doing enough yet	TUBE	Always	Yes	Yes	A few times a month	Yes	Barely	Yes	200-500	PAPER, FABRIC, CANVAS	Yes	No		Yes	
24/02/2020 15:58:38	Agree	Agree	Disagree	WALKING	Always	Yes	Yes	A few times a year	No	Often	Sometimes	100-200	PAPER, PLASTIC, METAL, WOOD, FABRIC	Yes	No		Yes	
24/02/2020 15:58:55	Agree	Agree	Disagree	TUBE	Always	Yes	No	Never	No	Never used	Yes	0-10	PAPER	Yes	No		Yes	People need a better understanding on how to use the recycling bins.
24/02/2020 15:59:06	Agree	I don't have an opinion	I don't have an opinion	TUBE	Always	Yes	Yes	A few times a month	No	Barely	Yes	10-100	PAPER	Maybe	I didn't know I could		Yes	
24/02/2020 16:00:03	Agree	Agree	Not enough actions	WALKING	Always	Yes	Yes	Never	No	Often	Yes	0-10	METAL	Yes	Yes		Yes	Use renewable energy, avoid investing in fossil fuels and environmentally damaging companies,
24/02/2020 16:00:13	Agree	I don't have an opinion	They could do more. recycling bins would be a start!	Tube Bus Walking	Sometimes	No	Yes	A few times a year	Yes	Always	Store	200-500	PAPER	Maybe	Yes		Yes	
24/02/2020 16:00:23	Agree	Agree	Disagree	TUBE/BUS	Sometimes	Yes	Yes	Never	Yes	Barely	Nothing thrown out yet	10-100	PAINT, WOOD, FABRIC	Yes	I didn't know I could		Yes	Get rid of fussil fuel!!!!!! Stop cutting corners
24/02/2020 16:00:34	Agree	Agree	Agree	BUS	Sometimes	Yes	Yes	Never	Yes	Barely	Sometimes	200-500	PAPER, FABRIC	Yes	Yes		Yes	
24/02/2020 16:00:56	I don't have an opinion	I don't have an opinion	Agree	CAR	Sometimes	No	No	A few times a week	No	Never used	No	10-100	PAPER	Maybe	Yes		Yes	
24/02/2020 16:01:11	Agree	Agree	Agree	WALKING	Always	Yes	No	Never	Yes	Never used	Yes	200-500	PAPER	Yes	No	Option 1	Yes	
24/02/2020 16:01:12	Agree	Agree	Disagree	WALKING	bins are not properly marked. Sometimes black garbage bag is places in Green bins and everyone uses them for waste. especially in the Stephens building.	Yes	Yes	Never	Yes	Barely	Sometimes	100-200	PAPER, PLASTIC, WOOD	Yes, but it has not been advertised or coordinated yet	Yes		Yes	
24/02/2020 16:01:19	Agree	Agree	Not aware of anything meaningful	TUBE/BUS	Always	Yes	Yes	Never	Yes	Barely	As often as possible	10-100	METAL, WOOD, Yarns	Yes	Yes		Yes	Collection and reuse of materials
24/02/2020 16:02:02	Agree	Agree	Agree	BIKE/TUBE	Always	Yes	Yes	Never	Yes, but don't use it for canteen food	Often	Sometimes	100-200	PAPER	Yes	No		Yes	
24/02/2020 16:02:07	Agree	Agree	If they do, they are not overly visible/known about! The only thing I know about/affects me is about coffee cups!	Used to walk, now I have to drive then get trains.	Always	Yes	Yes	Never	No	Often	Yes	0-10	Work with video so rarely use any materials	Yes	No		Yes	
24/02/2020 16:03:01	Agree	Agree	The toilet flush in all campuses have been running constantly since the beginning of the year, just to mention one of the things which make rca one of the most unsustainable places I have been in the last decade.	WALKING	Always	Yes	Yes	Never	Yes	Always	Yes	10-100	PAPER	Yes	Yes	No	YES!!!!!!!	

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all courses	My university take actions to limit negative impact	Which vehicle do you use to go to your campus?	Do you use the recycling bins in school?	Do you use a reusable bottle?	Do you use a mug or a cup in school?	How often do you buy a plastic water bottle in school?	Do you have your own cutlery in school?	How often do you use the metal cutlery available in school?	Can you recycle your artwork?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Which material you use the most? (mark max 3 materials)	Would you re-use donated materials from other students?	Have you recycled a laptop or computing equipment before?	Does your course offer support in making your practice more sustainable?	Would you like your university to be more sustainable?	Do you have any suggestion regarding sustainability within the school?
24/02/2020 16:03:09	Agree	Agree	Disagree	BIKE	Always	I don't buy water	No	A few times a year	No	Always	No	200-500	PAPER, METAL, WOOD, FABRIC	Yes	Yes		Yes	Material bank for spare-materials, initiatives for staff and students to fly less in connection with work/studies, sustainability/circular economy principles as a core part of the schools' value-set and curriculum with focus on the impact designers can have in this transition to a circular economy. This is not an 'extra' - 'add-on' theme that should be attached, this is fundamental to how we need to think of our work.
24/02/2020 16:03:30	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	Never	Yes	Never used	No	10-100	PAINT, FABRIC, CANVAS	Yes	I didn't know I could		Yes	I have been very concerned about recycling issues at Sackler Building since the beginning of the academic year and even sat down to have a short conversation with Indu Wijayatunga, the Buildings and Estates Operations Manager about recycling bins in the building but have never heard back since then. I also heard nothing back from Mike Alexander. I'm very disappointed at the college's response at sustainability issues as I have addressed multiple times about how much waste painting students could produce daily. Also, when I visited the recycling station last time in Dyson Building, the waste was not separated but all for general waste.
24/02/2020 16:04:12	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	No	A few times a month	No	Always	Sometimes	10-100	PAPER, PLASTIC, INK	Yes	Yes	Yes	Yes	
24/02/2020 16:04:37	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Often	No	100-200	CANVAS	Yes	No		Yes	No one recycle in Painting and we have just one recycling bin which accept only limited things of what can be technically recycled. (E. g. plastic bottles, but not plastic containers). On the first floor Sackler there are no bins for recycling at all. Generally painting department is extremely unsustainable
24/02/2020 16:05:02	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Barely	Sometimes	10-100	METAL, CEMENT, FOUND POLYSTYRENE	Yes	Yes	No	Yes	Creating a material hub in each campus, clearly advertised, where people can bring what they don't use and take what they could need
24/02/2020 16:05:42	Agree	I don't have an opinion	Agree	WALKING	Always	Yes	Yes	Never	No	Often	Yes	10-100	PAPER, PLASTIC, WOOD	Yes	No	Yes	Yes	
24/02/2020 16:05:54	Agree	Agree	Agree	TUBE/BUS	Always	Yes	Yes	Never	No	Always	Yes	200-500	PAPER	Yes	Yes	I don't know	Yes	
24/02/2020 16:06:13	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	No	Always	No	10-100	PAPER, SOIL, Biomaterials	The system does not work!!!!	No	No	Yes	Toilet paper, hand towels in WC, cafe have a much higher reusable Cup discount (current 10p is a JOKE!!!), drinking water faucet in WC, electric school bus, only vegan food!!!, reusable material/work rep, designated area!!! Talks, discounts, cycle-to school scheme, use less LIFT,,, I want to get involved in this - Lina Lember IED Y1
24/02/2020 16:06:39	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	Never	No	Never used	Yes	100-200	PAPER	Yes	No	Yes	Yes	
24/02/2020 16:07:32	Agree	Agree	Agree	BUS	Always	Yes	No	Never	Yes	Always	Sometimes	10-100	PAPER, Plaster	Yes	Yes	No	Yes	
24/02/2020 16:07:39	Agree	Agree	don't understand	BIKE	Sometimes	Yes	Yes	A few times a month	Yes	Often	Sometimes	200-500	PAPER, METAL, WOOD	Yes	Yes	Yes	Yes	
24/02/2020 16:08:14	Agree	Agree	In someways	TUBE/BUS	Always	Yes	Yes	A few times a month	No	Often	Sometimes	10-100	PAPER	Yes	No	No	Yes	mandatories workshop/course for inform and educate
24/02/2020 16:13:27	Agree	Agree	Agree	Motorcycle	Always	Yes	No	A few times a year	Yes	Often	No	0-10	PAPER, WOOD	Yes	I didn't know I could	I don't know	Yes	
24/02/2020 16:13:47	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	A few times a year	No	When it's available but so often it isn't and we have to use plastic instead!	N/A	0-10	PAPER, N/A (humanities student)	N/A (humanities student)	I didn't know I could	No	Yes	Encourage people to use their own lunchboxes for takeaway food servings (and maybe sell sustainable lunchboxes,reusable cutlery etc??)
24/02/2020 16:14:19	Agree	To a certain degree and to set an example, but I think it should always be considered to what degree we are hindering learning possibilities because of pro-sustainability measurements.	Disagree	WALKING	Sometimes	sometimes	Yes	Never	No	Often	No	10-100	PAPER, PLASTIC, WOOD	Yes	No	No	Yes	

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all courses	My university take actions to limit negative impact	Which vehicle do you use to go to your campus?	Do you use the recycling bins in school?	Do you use a reusable bottle?	Do you use a mug or a cup in school?	How often do you buy a plastic water bottle in school?	Do you have your own cutlery in school?	How often do you use the metal cutlery available in school?	Can you recycle your artwork?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Which material you use the most? (mark max 3 materials)	Would you re-use donated materials from other students?	Have you recycled a laptop or computing equipment before?	Does your course offer support in making your practice more sustainable?	Would you like your university to be more sustainable?	Do you have any suggestion regarding sustainability within the school?
24/02/2020 16:15:09	Agree	not necessarily as a topic, but rather should be promoted a sustainable way of studying and engaging with the school	Disagree	TUBE	Always	No	school should provide one for each student	Once a week	No	Often	I don't produce material artworks	0-10	my computer	Yes	I didn't know I could	No	Yes	provide reusable mugs for free; set up a system for sharing unused materials; provide a software for easy-reading and studying on laptops (archiving, saving, making notes, underlining etc) of the mandatory and optional readings for classes and other readings that are known to be useful and offer consulted
24/02/2020 16:17:08	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	Once a week	Yes	Barely	No	500+	PAPER, WOOD	Yes	Yes	No	Yes	Have the board and SLT take more impactful actions
24/02/2020 16:19:00	Agree	Agree	Limited actions	WALKING	Sometimes	No	No	A few times a week	No	Often	Sometimes	10-100	PLASTIC, METAL, WOOD	Yes	I didn't know I could	I don't know	Yes	Printing could be improved, defaulting to a4 double sided recycled paper leads to many re-prints as often I need single sided high quality paper (a4 and a3)
24/02/2020 16:19:03	Agree	Agree	I don't have an opinion	BUS	Always	Yes	No	Once a week	No	Never used	Sometimes	0-10	PAPER	Yes	Yes	I don't know	Yes	please change the faucet to those one that we can turn it off as long as we finish wash our hand. Right now it opens for a fixed time which is usually longer than we need.
24/02/2020 16:19:03	Agree	Disagree	I don't have an opinion	WALKING	Always	Yes	No	A few times a week	No	Always	No	200-500	PAPER	Maybe	Yes	No	Yes	
24/02/2020 16:19:18	Agree	Agree	Agree	WALKING	Sometimes	Yes	No	Never	Yes	Never used	Yes	200-500	PAPER, WOOD, plaster	Yes	Yes	Yes	Yes	
24/02/2020 16:19:52	Agree	Agree	Disagree	BIKE	Yes, when they are provided	Yes	Yes	Never	Yes	Always	Some of my artworks are using recycled materials. If they are made from 'virgin' materials they will be reused in some form in the future.	10-100	METAL, WOOD, FABRIC	Yes	I didn't know I could	No	Yes	
24/02/2020 16:19:54	Agree	Agree	Disagree	TUBE/BUS	Sometimes	No	No	A few times a week	No	Always	Sometimes	100-200	PAPER, PLASTIC, WOOD	Yes	No	Yes	Yes	Sustainability can be promoted much more in the school in general. Even finding a recycling bin is hard at the moment.
24/02/2020 16:19:56	Agree	Agree	Agree	Train, bus, tube	Always	Yes	Yes	Never	Yes	Often	don't produce physical artworks	10-100	PAPER, WOOD	Yes	No	Yes	Yes	would be good for students to show where their pieces go next, whether they're going to be dismantled for parts or could be sold on
24/02/2020 16:21:32	Agree	Agree	Disagree	WALKING	Always	Yes	Yes	Never	Yes	Often	Sometimes	10-100	PAPER	Yes	I didn't know I could	No	Yes	Speak to the Service Design course about how to go about finding solutions to the problem. This is what we're great at!
24/02/2020 16:23:24	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	Never	Yes	Never used	No	10-100	CERAMIC, CLAY, GLAZE, Plaster	Yes	No	No	Yes	
24/02/2020 16:24:53	I don't have an opinion	Disagree	Agree	TUBE/BUS	Always	Yes	No	Everyday	No	Barely	No	10-100	PAPER, METAL	Yes	Yes	Yes	No	
24/02/2020 16:25:13	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	No	A few times a year	No	Often	Sometimes	100-200	METAL, WOOD	Yes	No	No	Yes	
24/02/2020 16:27:35	Agree	Agree	Agree	TUBE	Always	Yes	No	Never	Yes	Often	Yes	100-200	PAPER	Yes	Yes	Yes	Yes	Sort out all the taps so they stop leaking water! I know there are signs up on the main Battersea girs' bathroom but people seem unable to turn them off. Other taps just constantly leak and can't be fully turned off. Which is such an enormous waste of water!!
24/02/2020 16:28:39	Agree	Agree	We do not even sort our waste - the RCA seems to be not doing anything.	TUBE/BUS	Always	Yes	Yes	A few times a month	Yes	Always	No	0-10	PAPER, FABRIC, SILICON	Maybe	I didn't know I could	No	Yes	Please make recycling available in the studios - could easily sort cardboard/plastic etc.
24/02/2020 16:31:40	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Always	Sometimes	100-200	PAPER, PLASTIC, INK, FABRIC	Yes	Yes	Yes	Yes	The students manner of garbage(especially in the canteen) is really bad. so need to gain the notion of food waste and how we should throw away correcly.
24/02/2020 16:32:53	Agree	This statement is a bit too broad. Integrated in what way? I don't think we need separate lectures on sustainability.	I don't really know.	Usually tube, sometimes just walking	Always	No	No	A few times a year	Yes	Barely	I keep them, so I neither throw them away nor recycle.	100-200	PAPER, PAINT, coloured pencils	Yes	I didn't know I could	I don't know	Depends on what it means. For example, I need to print out certain things so printing should be readily available and not be limited.	Donated materials are scattered all around the school. It would be nice to have a list of what's available and where.
24/02/2020 16:33:40	Disagree	Disagree	Agree	WALKING	Sometimes	Yes	Yes	Never	No	Barely	No	100-200	PAPER, METAL, CLAY	Yes	No	Yes	No	
24/02/2020 16:33:42	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	Never	No	Always	Yes	10-100	PAPER, FABRIC	Yes	I didn't know I could	Yes	Yes	No plastic cutlery, ceramic bowls for salads instead of single use cardboard, no plastic bottles or coffee lids
24/02/2020 16:35:29	Agree	Agree	I don't have an opinion	BIKE	Always	Yes	Yes	Never	Yes	Often	Sometimes	10-100	PAPER, PAINT, WOOD	Yes	Yes	No	Yes	
24/02/2020 16:37:53	Agree	Agree	I don't have an opinion	Bike and then Tube	Always	Yes	No	Never	No	Never used	No	10-100	PAPER, PAINT, INK	Yes	I didn't know I could	I don't know	Yes	
24/02/2020 16:38:22	Agree	Agree	Agree	BIKE	Sometimes	Yes	Yes	Never	Yes	Always	Yes	10-100	PAPER	Yes	Yes	No	Yes	
24/02/2020 16:38:43	Agree	Agree	I don't have an opinion	TUBE/BUS	Always	Yes	Yes	Never	Yes	Always	not producing artworks	10-100	PAPER	no need	Yes	No	Yes	
24/02/2020 16:41:29	Agree	Agree	Agree	Train	Always	Yes	Yes	Never	No	Never used	No	0-10	Moving Image based work / digital	Yes	Yes	I don't know	Yes	No
24/02/2020 16:44:03	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	A few times a year	No	Always	Yes	100-200	PAPER	Yes	No	No	Yes	stop outsourcing, remove concessions and take a more student led approach
24/02/2020 16:46:06	Agree	Agree	I don't have an opinion	WALKING	Sometimes	Yes	Yes	A few times a month	No	Always	Sometimes	100-200	PAPER, GLASS, PLASTIC	Maybe	No	Yes	Yes	

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all courses	My university take actions to limit negative impact	Which vehicle do you use to go to your campus?	Do you use the recycling bins in school?	Do you use a reusable bottle?	Do you use a mug or a cup in school?	How often do you buy a plastic water bottle in school?	Do you have your own cutlery in school?	How often do you use the metal cutlery available in school?	Can you recycle your artwork?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Which material you use the most? (mark max 3 materials)	Would you re-use donated materials from other students?	Have you recycled a laptop or computing equipment before?	Does your course offer support in making your practice more sustainable?	Would you like your university to be more sustainable?	Do you have any suggestion regarding sustainability within the school?
24/02/2020 16:47:55	Agree	Agree	Probably Yes but much can be improved!!!	BIKE	Always	Yes	Yes	Never	No	Always but it's a problem that it's not always available	Yes	10-100	Digital mostly, wax and crayons on paper	Yes	Yes	I don't know	Yes	Get rid of the plastic cuttery and paper Cubs, food options without waste
24/02/2020 16:54:54	Agree	Agree	I don't have an opinion	TUBE	Sometimes	Yes	Yes	A few times a year	No	Always	No	Not sure	PAPER, CLAY, FABRIC	No	No	No	Yes	
24/02/2020 16:57:05	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	A few times a month	Yes	Barely	Yes	10-100	PAPER, post its	Yes	Yes	No	Yes	start with the food and the canteen. the should avoid or reduce the takeaway option. tones of plastic and cardboard and also incentives to eat alone. in the desk. terrible practice
24/02/2020 16:58:50	I agree to a certain degree - IF the universities themselves are in a position to promote sustainability (actively doing sustainable work, not getting funded by big corporate companies polluting all over the world etc...). Which RCA in the moment are not able to.	Agree	Disagree	BUS	Always	Yes	Yes	A few times a year	No	Always	Yes, but design work.	10-100	PAPER, METAL, WOOD	Yes	No	No	Yes	Have a clear strategy and support students wanting to work in the field of sustainability. Do cross-collaborations for both students and staff to help creating a more sustainable life on campus!
24/02/2020 17:01:56	Agree	Agree	Agree but not enough	TUBE	Always	Yes	Yes	A few times a year	Yes	Always	No	10-100	PAPER, PAINT, WOOD, Plaster	Yes	No	Yes	Yes	Prevent large number of non-sustainable materials. E.g foam for exhibition material
24/02/2020 17:07:30	Agree	Agree	Disagree	WALKING	Always	No	No	A few times a week	No	Often	No	10-100	PAPER, PLASTIC	Yes	No	No	Yes	
24/02/2020 17:25:21	Agree	Agree	Disagree	BUS	Never	Yes	Yes	Never	Yes	Often	No	10-100	PAINT, WOOD, CANVAS	Yes	No	No	Yes	Start with recycling bins!! Not a single one in painting department which seems absolutely insane. Thank you!
24/02/2020 17:27:04	I don't have an opinion	To an extent, the nature of art and design is not really sustainable?	Somewhat but could do better	TUBE	Sometimes	Yes	Yes	A few times a year	Yes	Often	Sometimes	10-100	PLASTIC, FABRIC, Electricity via laptop/computer	Maybe	Yes	I don't know	Yes, but not sure how it could without changing the nature of student's work, and ties in to a larger debate about the role of the creative industry	None for now
24/02/2020 17:35:20	Agree	Agree	I don't have an opinion	BIKE	Always	Yes	Yes	Never	Yes	Often	Sometimes	10-100	PAPER, WOOD, FABRIC	Yes	I didn't know I could	I don't know	Yes	
24/02/2020 17:47:34	Agree	Agree	Disagree	BUS	Always	Yes	Yes	Never	Yes	Always	Yes	100-200	PAPER, CLAY, GLAZE	Yes	Yes	No	Yes	Materials recycling point, coffee etc always in a ceramic mug rather than disposable...
24/02/2020 17:55:18	Agree	Agree	I don't have an opinion	BUS	Always	Yes	No	A few times a month	No	Always	Yes	10-100	PAPER, WOOD, CLAY	Yes	No	Yes	Yes	
24/02/2020 18:04:00	Agree	Agree	I don't have an opinion	TUBE	Always	Yes	Yes	A few times a year	No	Always	Sometimes	0-10	PAPER, INK	Yes	I didn't know I could	Yes	Yes	
24/02/2020 18:04:05	Agree	Agree	I don't have an opinion	TUBE	Always	Yes	Yes	A few times a year	No	Always	Sometimes	0-10	PAPER, INK	Yes	I didn't know I could	Yes	Yes	
24/02/2020 18:15:58	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	No	Always	No	0-10	PAPER, WOOD	Yes	Yes	No	Yes	There's way too much waste and it's not managed properly - food waste, paper waste, energy waste, etc. 1. don't make a4 printing free (controversial but necessary) 2. sort out the waste management and cutlery disposal in the canteen 3. have a more permanent bin system - the card bins are terrible and constantly get switched by students, make it more permanent
24/02/2020 18:16:45	Agree	I don't have an opinion	I don't have an opinion	TUBE/BUS	Never	Yes	No	A few times a month	No	Always	Yes	0-10	PAPER, PLASTIC, WOOD	Maybe	Yes	I don't know	Yes	
24/02/2020 18:24:12	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Often	I don't know	10-100	PAPER, WOOD, INK	Yes	Yes	No	Yes	Yes - this is a huge topic - but I would start with a MUCH better recycling system throughout the campuses. At the moment it is token at best.
24/02/2020 18:30:00	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Never used	No	10-100	PAPER, METAL, INK	Yes	No	No	Yes	Have a sustainability rep and put on some talks
24/02/2020 18:33:21	Agree	Agree	Disagree	WALKING	Always	Yes	Yes	A few times a year	Yes	Often	don't know	100-200	PAPER	Yes	No	No	Yes	yes, I think it would help to provide education on how to recycle. In America for rubbish to be recycled it needs to be clean and if it isn't then the entire bag may be thrown out. Do we know what the standards are here and are we adhering to them?
24/02/2020 18:34:41	Agree	Agree	I don't have an opinion	WALKING	Always	Yes	Yes	Never	Yes	Often	don't know	10-100	PAPER, INK, PASTEL	Yes	I didn't know I could	No	Yes	
24/02/2020 18:37:56	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	A few times a month	Yes	Often	No	200-500	PAPER, PLASTIC, WOOD	Yes	Yes	Yes	Yes	
24/02/2020 18:40:04	I don't have an opinion	Agree	Disagree	BUS	Sometimes	No	No	A few times a month	No	Barely	No	10-100	PAPER, PLASTIC, PAINT	Yes	I didn't know I could	No	Yes	too many students and very limited facilities and space
24/02/2020 18:48:44	Agree	Agree	Agree	WALKING	Always	Yes	Yes	A few times a month	Yes	Often	Sometimes	10-100	PAPER, WOOD	Yes	Yes	Yes	Yes	
24/02/2020 18:56:47	Agree	Agree	Agree	WALKING	Always	Yes	No	Never	Yes	Never used	Unsure	10-100	PAPER, INK, FABRIC	Yes	No	No	Yes	
24/02/2020 19:04:24	Agree	Agree	Agree	TUBE/BUS	Always	Yes	Yes	A few times a year	No	Always	Yes	200-500	PAPER	No	Yes	No	Yes	More recycling bins for different items, purely paper bin, purely plastic bin etc
24/02/2020 19:11:00	Agree	Agree	Disagree	BUS	Always	Yes	Yes	Never	Yes	Never used	Yes	10-100	PAPER, PAINT, INK	Yes	Yes	No	Yes	

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all courses	My university take actions to limit negative impact	Which vehicle do you use to go to your campus?	Do you use the recycling bins in school?	Do you use a reusable bottle?	Do you use a mug or a cup in school?	How often do you buy a plastic water bottle in school?	Do you have your own cutlery in school?	How often do you use the metal cutlery available in school?	Can you recycle your artwork?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Which material you use the most? (mark max 3 materials)	Would you re-use donated materials from other students?	Have you recycled a laptop or computing equipment before?	Does your course offer support in making your practice more sustainable?	Would you like your university to be more sustainable?	Do you have any suggestion regarding sustainability within the school?
24/02/2020 19:13:55	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	No	Always	Unsure, there wasn't alot of paper used.	10-100	PAPER	Yes	No	No	Yes	Interior Design MA is an awfully wasteful course. Their WIP show I personally found shocking. Apparently it's okay to buy industrial quantities of a material which has unquestionably terrible sustainability credentials for a three day show?! Which everyone who visited the RCA had to see as they were around the entrance to the school. Just because noone could be bothered to tidy their studio to make the WIP look good. Appalling behavior.
24/02/2020 19:18:28	Agree	Agree	Disagree	BIKE	Mixed Recycling bins don't seem like recycling bins to me?!	Yes	Yes	A few times a year	Yes	Barely	Dont know	10-100	PAPER, METAL, WOOD	Yes	Yes	Yes		better places to look more bike. Material reuse section. Programs organising the material for the students to reduce emissions and waste
24/02/2020 19:33:04	Agree	Agree	Agree	BIKE	Always	Yes	Yes	Never	No	Always	No	100-200	PAPER	Yes	No	No	Yes	
24/02/2020 19:33:19	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	Never	Yes	Always	Sometimes	10-100	PAPER, chemistry	Yes	No	I don't know	Yes	
24/02/2020 19:39:50	Agree	Agree	Disagree	BUS	Sometimes	Yes	Yes	A few times a year	Yes	Never used	Sometimes	10-100	PAPER, GLASS, SILICON	Yes	Yes	I don't know	Yes	Yes and we are just setting up a sustainability group
24/02/2020 19:50:35	Agree	Agree	Agree	WALKING	Sometimes	Yes	No	A few times a month	No	Often	No	10-100	PAPER, PLASTIC, INK, CANVAS	No	I didn't know I could	I don't know	Yes	
24/02/2020 19:52:58	Agree	Agree	Disagree	WALKING	Always	Yes	Yes	A few times a year	No	Always	Yes	10-100	PAPER, WOOD, INK	Yes	I didn't know I could	No	Yes	Look at the skip outside and cry for the planet
24/02/2020 19:55:38	Agree	Agree	I don't have an opinion	WALKING	Always	Yes	sometimes	Never	No	Often	don't know	0-10	PAPER	No	No	Yes	Yes	Bar - plastic cups / bottles are not currently recycled.
24/02/2020 19:58:27	Agree	Agree	Disagree	BUS	Always	Yes	Yes	Once a week	No	Always	Don't know	500+	PAPER, GLASS, PLASTIC	Yes	I didn't know I could	No	Yes	
24/02/2020 20:03:21	Agree	Disagree	Agree	WALKING	Always	No	Yes	Never	Yes	Barely	No	500+	PAPER, INK	Yes	Yes	No	-	
24/02/2020 20:14:53	Agree	Agree	Disagree	BIKE	Sometimes	Yes	Yes	Never	Yes	Often	Sometimes	100-200	PAPER, CERAMIC, INK	Yes	I didn't know I could	No	Yes	
24/02/2020 20:15:43	Agree	Disagree	Agree	TUBE/BUS	Always	Sometimes	Yes	Never	No	Always	No	10-100	PAPER, METAL, WOOD	Yes	Yes	No	Yes	RCA is an industry thought leader. It should apply this to Sustainability so as to maintain a credible voice in industry and society.
24/02/2020 20:18:53	Agree	Agree	take view actions	TUBE	Always	Yes	Yes	Never	No	Always	No	10-100	PAPER, SILICON	Yes	No	No	Yes	store where stuff that usually goes in the skip is offered for students
24/02/2020 20:29:15	Agree	Agree	Agree	BUS	Always	Yes	No	Once a week	No	Always	Do not know this	10-100	PAPER, PLASTIC	Yes	No	No	Yes	
24/02/2020 20:34:15	Agree	Agree	Disagree	BIKE	Always	Yes	sometimes	Never	sometimes	Often	No	200-500	PAPER, INK	Yes	I sold it within Uni	No	Yes	We should have a department specifically for sustainability
24/02/2020 20:34:16	Agree	I don't have an opinion	I don't have an opinion	WALKING	Sometimes	No	No	A few times a week	No	Never used	No	100-200	PAPER, PLASTIC, WOOD	Yes	Yes	No	Yes	
24/02/2020 20:34:32	Agree	Disagree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Barely	Yes	10-100	PAPER, WOOD, CLAY	Yes	No	Yes	Yes	
24/02/2020 20:35:59	Agree	Agree	I don't have an opinion	BIKE	Always	Yes	Yes	Never	Yes	Never used	Yes	10-100	PAPER	Yes	I didn't know I could	I don't know	Yes	
24/02/2020 20:42:20	Agree	Agree	Disagree	BUS	Always	Yes	Yes	A few times a year	Yes	Always	I don't know	10-100	WOOD, FABRIC, Readymade	Yes	No	Yes	Yes	
24/02/2020 21:44:38	Agree	Agree	Agree	BUS	Always	Yes	Yes	Never	Yes	Barely	No	0-10	PAPER, PLASTIC, METAL	Yes	Yes	No	Yes	Instructions for using recycling bins. seems like some students have a hard time figuring it out.
24/02/2020 21:49:59	Agree	Agree	I don't have an opinion	I cycle 4 days a week , tube 1 day	Always	Yes	Yes	A few times a year	There is some in the kitchen next to my studio	Often	not sure	100-200	PAPER	Yes	No	I don't know	Yes	I think sustainability is a very broad term that is used so flippantly it has almost lost its meaning. I think it is important to be more specific about the type of sustainability we are talking about here and address it at a much more nuanced level! Thanks for taking this on though!
24/02/2020 22:04:33	Agree	Agree	I don't have an opinion	WALKING	Always	Yes	No	A few times a year	Yes	Barely	No	0-10	PAPER, PLASTIC, METAL	Yes	I didn't know I could	No	Yes	
24/02/2020 22:07:27	Agree	Agree	Agree	WALKING	Always	Yes	Yes	A few times a year	Yes	Often	Yes	10-100	PAPER, METAL, WOOD	Yes	Yes	Yes	No	No
24/02/2020 22:08:05	Agree	Agree	Hard to measure - I'd hope it does but to what extent I have no clue	TUBE	Yes, but often I get really confused about what I can recycle and what I can't	Yes	Yes	Never	No	Only when I'm eating in the canteen which is rare these days (RIP freeedom)	Sometimes	10-100	PAPER, PLASTIC, INK, Service design use SO many post-it notes	We reused last years materials for our WIP show in some cases	I didn't know I could	No	Yes	
24/02/2020 22:08:15	Agree	Disagree	To some degree	TUBE/BUS	Always	Yes	Yes	Never	No	Always	I don't know	10-100	PAPER	Yes	Yes	I don't know	Yes	
24/02/2020 22:20:02	Agree	Disagree	Disagree	TUBE	Always	Yes	don't drink tea or coffee	Never	Yes	Barely	Sometimes	10-100	PAPER	Yes	No	No	training might be need to what can be recycled, as people put random things in the recycling bins.	In white city garden house the toilets are breaking all the time, and then they run like open taps for days, even when I message buildings and estates. A huge amount of water is literally going down the drain due to this negligence.

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all courses	My university take actions to limit negative impact	Which vehicle do you use to go to your campus?	Do you use the recycling bins in school?	Do you use a reusable bottle?	Do you use a mug or a cup in school?	How often do you buy a plastic water bottle in school?	Do you have your own cutlery in school?	How often do you use the metal cutlery available in school?	Can you recycle your artwork?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Which material you use the most? (mark max 3 materials)	Would you re-use donated materials from other students?	Have you recycled a laptop or computing equipment before?	Does your course offer support in making your practice more sustainable?	Would you like your university to be more sustainable?	Do you have any suggestion regarding sustainability within the school?
24/02/2020 22:22:22	Agree	Agree	Don't know	Train, bus, tube	Always	Yes	Yes	A few times a year	Yes	Often	Don't know	10-100	Body - walking	Maybe	No	Yes	Yes	Support student development of eco-materials eg bioplastics, review energy use and efficiency, invest in renewables, place eco concerns at the heart of design innovation, create a policy and strategy for action and ensure it is publicised and actively supported by staff and students, employ staff with this as their central role to ensure that actions are followed through.
24/02/2020 22:36:22	Disagree	Agree	Agree	TUBE/BUS	Sometimes	Yes	Yes	A few times a week	No	Often	Sometimes	100-200	PAPER, PLASTIC, cardboard	Yes	No	No	Yes	Stop take away boxes and disposable cups and cutleries.
24/02/2020 23:03:36	Agree	Disagree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Often	Sometimes	100-200	PAPER, WOOD, INK	Yes	Yes	Yes	Yes	
24/02/2020 23:11:29	Agree	Agree	I don't have an opinion	TUBE/BUS	Always	Yes	Yes	Never	Yes	Barely	No	10-100	PAPER, INK, FABRIC	Yes	No	No	Yes	
24/02/2020 23:32:31	Agree	Agree	I don't have an opinion	TUBE	Always	Yes	Yes	Never	Yes	Always	No	0-10		Yes	No	No	Yes	showers and secure parking spaces for cyclists
24/02/2020 23:46:45	Agree	Agree	I am not well informed about it	TUBE/BUS	Always	No	I don't need it	Once a week	No	Often	Sometimes	100-200	PAPER	Yes	I didn't know I could	I don't know	Yes	
25/02/2020 00:39:48	There always should be several opinions	I think it should be a personal choice	I don't have an opinion	TUBE/BUS	Always	No	No	A few times a week	Yes	Never used	Yes	200-500	PAPER, METAL, Leather	Yes	No	No	Yes	Establish industry connections. Meetings for people interested in that and people ready to provide
25/02/2020 01:24:55	Agree	Agree	Agree	BUS	Always	Yes	Yes	A few times a week	No	Never used	Sometimes	0-10	PAPER, METAL, INK	Yes	No	Yes	Yes	No
25/02/2020 01:36:15	Agree	Agree	I don't have an opinion	TUBE	Always	Yes	Mostly	A few times a year	No	Always	Sometimes	10-100	PAPER	Yes	Yes	No	Yes	
25/02/2020 08:40:59	Agree	Agree	Disagree	BUS	Always	Yes	Half the time	A few times a year	No	Always	Sometimes	200-500	PAPER, FABRIC	Yes	I didn't know I could	No	Yes	Be authentically committed? Recycling bins seem useless and not enforced. Waste in every department is chucked. No efforts made to actually investigate materials institutionally. What happens to the waste from shows? Too many students and tight timetables so perhaps admin can't pay attention.
25/02/2020 09:15:11	Agree	Agree	Disagree	BUS	Always	Yes	No	A few times a month	No	Always	Sometimes	10-100	PAPER, FABRIC	Yes	No	Yes	Yes	Better food options that are both veg friendly and local. At the very least, the school could get back on meatless Mondays.
25/02/2020 09:18:28	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	A few times a year	Yes	Always	Yes	10-100	PAPER, METAL, CERAMIC	Yes	Yes	No	Yes	
25/02/2020 09:31:24	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	A few times a month	No	Often	Yes	0-10	PAPER, INK	Yes	No	No	Yes	
25/02/2020 10:26:06	Agree	Agree	Disagree	BIKE	Always	Yes	I do't understand the question	Never	Yes	Always	No	200-500	PAPER	Yes	Yes	No	Yes	circular economy: Re-use trashed material through workshops > Sell
25/02/2020 10:29:38	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	A few times a year	Yes	Barely	Sometimes	100-200	PAPER	Yes	Yes	No	Yes	
25/02/2020 10:45:03	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	Never	Yes	Often	Sometimes	100-200	FABRIC	Yes	Still using my only ever laptop	Yes	Yes	More eco friendly options in the dye and screen printing labs - if you don't want to use the awful chemicals they have, you have to buy your own better dyes/inks - feels like it's promoting using toxic chemicals as better options have to come out of your own money
25/02/2020 10:47:17	Agree	Agree	Agree	TUBE	Always	Yes	Yes	A few times a year	Yes	Always	Sometimes	100-200	PAPER, FABRIC, Graphite	I already do	Yes	Yes	Yes	
25/02/2020 10:51:06	Agree	Agree	Disagree	TUBE/BUS	Sometimes	Yes	Yes	A few times a year	Yes	Always	No	100-200	PAPER, WOOD	Yes	Yes	I don't know	Yes	
25/02/2020 11:05:16	Agree	Agree	Disagree	BUS AND BIKE	I USE THEM BUT I DON'T HAVE ONE IN MY STUDIO (RADSTOCK)	Yes	Yes	Never	Yes	Never used	Sometimes	200-500	PAPER, CERAMIC	Yes	I didn't know I could	No	Yes	WE SHOULD HAVE A STORAGE OF USED MATERIALS IN EACH CAMPUS AVAILABLE FOR ALL STUDENTS TO LEAVE AND PICK RECYCLED MATERIALS FOR THEIR WORK.
25/02/2020 11:06:49	Agree	Agree	I think the school should make it easier for us to produce cheap and reused materials for rapid prototyping. Available from the shop. And also maybe a container where students could put waste materials that other students can use.	Walk and bus	Sometimes	Yes	Yes	Never. But I have bought coffee a few times (the cups are unsustainable)	Sometimes.	Always	Sometimes	100-200	PAPER, WOOD, SILICON	Yes	No	No	Yes	More washing stations and soap where people can clean after eating. Stations where people can use other peoples waste materials. Use recycled paper for the printers.
25/02/2020 11:14:39	Agree	Agree	They've tried, but barely I would say.	BUS	Even though the design is rather questionable.	Yes	No	A few times a year	Yes	Always	Yes	0-10	PAPER, PAINT, INK	Yes	No	I don't know	Yes	We need bigger and better steps.
25/02/2020 12:12:00	Agree	Agree	Disagree	BUS	Always	Yes	Yes	A few times a year	No	Always	Sometimes	10-100	PAPER, PLASTIC, CLAY	Yes	No	No	Yes	Inform students of how to recycle or throw away appropriately
25/02/2020 12:34:08	Agree	Agree	Disagree	BIKE	Sometimes	Yes	Yes	Never	No	Always	Yes	10-100	PAPER	Yes	I didn't know I could	No	Yes	STOP USING PLASTIC PINT GLASSES AT THE BAR

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all courses	My university take actions to limit negative impact	Which vehicle do you use to go to your campus?	Do you use the recycling bins in school?	Do you use a reusable bottle?	Do you use a mug or a cup in school?	How often do you buy a plastic water bottle in school?	Do you have your own cutlery in school?	How often do you use the metal cutlery available in school?	Can you recycle your artwork?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Which material you use the most? (mark max 3 materials)	Would you re-use donated materials from other students?	Have you recycled a laptop or computing equipment before?	Does your course offer support in making your practice more sustainable?	Would you like your university to be more sustainable?	Do you have any suggestion regarding sustainability within the school?
25/02/2020 12:48:09	Agree	Agree	As I see it, almost nothing is being done to be honest.	BIKE	Most be here don't know how to recycle coming from other countries	Yes	They shouldn't even offer take away coffee cups here, OR water cups as these contain plastic linings which aren't recyclable.	They shouldn't even be sold	Yes	Always	Yes	On virgin paper! Shocking. Only recyclable should be in the printers. If you want virgin paper you should have to buy it in the shop	METAL, CERAMIC, CLAY, FABRIC	There should be a materials depot for people to go and takedrop off things they don't want anymore. Save on the skips to take it away as we ALL need materials here at RCA.	Yes	No	VERY MUCH, RCA is very behind and it's embarrassing seeing it not addressed. It's 2020 for gods sake. And all education institutions should be setting a good example	Yes. Many you can mail me. elly.glossop. Recycled toilet paper and hand towels. Recycled paper ONLY in the printers. No take away cups in the cafe. No water bottles on sale. Only eat in options with ceramic and metal utensils. A swap material area - at Battersea they just through our so many useful resources. We are all makers and need materials.
25/02/2020 13:26:34	Agree	Agree	Disagree	BUS	Always	Yes	Yes	A few times a month	Yes	Often	Yes	10-100	PAPER, PAINT, INK	Yes	No	No	Yes	
25/02/2020 13:40:54	Agree	Agree	I see some effort in Fashion but very little things are done in general (or I am maybe not informed about them)	BIKE	When I find them I do, but sometimes the only have one type of bin and I just go for that one	Yes	Yes	A few times a week	Yes	Barely	No	500+	METAL, CERAMIC, It is variable	Yes	I had the same computer the last 10 years and have kept it as backup. My older computer I gave it to my youngest brother	No	Yes	It would be nice to make a Wide college assembly dedicated to sustainability where students and staff could propose improvements that can be done in the short and long term. Then this plan could be brought to the senior management to make a realistic plan of what is feasible and what not.
25/02/2020 14:32:59	Agree	Agree	Disagree	WALKING	Sometimes	Yes	Yes	Never	Yes	Often	No	10-100	PAPER, PLASTIC, INK	Yes	I didn't know I could	I don't know	Yes	Better recycling facilities and a better fridge in battersea to store home made food (so I dont have to buy it in single use plastics)
25/02/2020 14:33:45	Agree	Agree	I don't have an opinion	TUBE/BUS	Always	Yes	Yes	A few times a month	Yes	Always	No	10-100	PAPER, INK	Yes	No	No	Yes	
25/02/2020 14:37:28	Agree	Disagree	Disagree	TUBE/BUS	Always	No	No	Once a week	No	Always	No	10-100	PAPER, METAL	Yes	No	No	Yes	The amount of post it used by design student is enormous. We should teach people to use less paper in the ideation process
25/02/2020 14:37:47	Agree	Agree	Agree	TUBE/BUS	I do yes, but I always find other students out rubbish and recycling in both bins! In a mixture.	Yes	Yes	Never	Yes	Never used	Sometimes	0-10	PAPER, SOIL, Dark room chemicals	Yes	I fix my computer when it brakes	No	Yes	Yes, make students aware of what is recyclable and what is rubbish. Have composting sites for food waste. Stop using paper cups, they re not recyclable!! Give. Discount for using a reusable cup for hot drinks and don't have any disposable cutlery or single use plastic. Institutions need to be more aware and not supply disposable products. Also source sustainable food and art products. Use recycled paper ... the list is endless. Thanks
25/02/2020 15:27:19	Agree	Agree	I don't have an opinion	TUBE/BUS	Always	Yes	Yes	A few times a year	No	Always	Yes	100-200	PAPER, INK, FABRIC	Yes	I didn't know I could	No	Yes	
25/02/2020 16:11:44	Agree	Agree	Agree	WALKING	Always	Yes	Yes	Never	Yes	Barely	Sometimes	200-500	PAPER	Maybe	Yes	Yes	Yes	The cutlery set of canteen is single use plastic which is horrible
25/02/2020 16:18:40	Agree	Agree	Agree	train / bus	Always	Yes	Yes	Never	Yes	Always	n/a	100-200	PAPER	Yes	No	No	Yes	
25/02/2020 19:55:24	Agree	Agree	Disagree	WALKING	Always	Yes	Yes	A few times a month	Yes	Often	No	10-100	CERAMIC, INK, CHALK, FABRIC, CANVAS, SILICON	Yes	Yes	No	Yes	
25/02/2020 21:23:56	Agree	Disagree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Often	Sometimes	100-200	PAPER, WOOD, INK	Yes	Yes	Yes	Yes	
25/02/2020 21:45:36	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	No	Never	No	Always	Sometimes	10-100	PAPER	Maybe	No	No	Yes	Food - we should stop offering meat all together, especially beef.
26/02/2020 04:58:24	Agree	Agree	Disagree	BUS	Yes always, but I find that there are general rubbish in the recycling bins	Yes	Yes	Never	Yes	Always, but I find that sometimes the canteen only has plastic available	My work is performance based and does not use physical materials.	10-100	PAPER	Yes	Yes	No	Yes	At the end of the academic year a lot of furniture and usable materials are often thrown in skips by building management. This should be done more sustainably (eg usable furniture donated or materials made available to students. Sustainability goes further than recycling and reusables and transport. It should be considered in every choice the college makes regarding buildings and renovations, insulation, heating, etc.
26/02/2020 10:55:47	Agree	Agree	don't know - change to 'takes'	suggest putting multi options, bike & bus for me	most of the time... maybe add this in as an option?	Yes	Yes	Never	No	most of the time - keep these options consistant for your data. like the above q, always, most of the time, sometimes, never other is clearer	No	don't know ? i think there is a way to check online so could link that so people can accurately say	none. (Digital) so maybe put in a N/A for an answer & 'other'	Yes	No	I don't know	Yes	probably has to come from students. meet with reps. demand some change, & escalate to management.

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26/02/2020 11:31:09	Agree	Agree	I agree that it should take action but I don't feel it does currently	BUS	I would do it always but A. not everywhere there are the two options (general and recycling) and i sadly got know that the two bags end up mixed once they are in the kart for the landfill	Yes	Yes	Never	Yes	Often	Sometimes	100-200	PAPER	Yes	I didn't know I could	No	Yes	How is the rubbish sorted? Which is the name of the energy provider? You passed from not having any heating (last year) to make us sweat (this year). Any possibility we manage to stay in between? Automatic switchers to avoid that lights are left on in the night (at least between 00.00 and 8.30!)
26/02/2020 11:44:46	Disagree	Agree	Agree	TUBE	Always	Yes	KeepCup	Never	No	Always	N/A- MA WRITING (mostly digital)	0-10	PAPER	No	No	Yes	Yes	
26/02/2020 12:00:49	take actions more than promote	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Always	i guess but it's not meant to be thrown away...	100-200	PAPER, METAL, CERAMIC	Yes	No	No	Yes	free second hand material store at school and educate students so they give to the store
26/02/2020 13:32:24	Agree	Agree	Whilst I believe this to be somewhat true there is still a lot of questionable choices especially in the workshops and concerning the materials that we sell/provide.	tube then walk	Always	Yes	Yes	Never	Yes	Often	Sometimes	10-100	PAPER, FABRIC, natural dyes	Yes	No	Yes	Yes	Take away 'unsustainable' options - why are we still selling drinks in plastic bottles? why do we still sell polyester threads? why are we not using GOTS certified or Soil Association cert products (especially in Textiles/fashion)
26/02/2020 13:50:55	Agree	Agree	I don't have an opinion	WALKING	Sometimes	No	Yes	A few times a year	Yes	Barely	I do not make artwork	200-500	PAPER	Maybe	I didn't know I could	I don't know	Yes	
26/02/2020 19:21:20	Agree	Agree	Agree	WALKING	Always	Yes	Yes	A few times a year	Yes	Always	Yes	10-100	PAPER, METAL, PASTEL	Yes	Yes	No	Yes	
27/02/2020 09:31:46	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Often	Sometimes	10-100	PAPER, PAINT, INK	Yes	No	No	Yes	Stop giving out plastic cups at the art bar!!!! Absolutely insane, such a waste
27/02/2020 09:37:33	Agree	Agree	Disagree	TUBE/BUS	Sometimes	Yes	Yes	Never	Yes	Often	Yes	200-500	PAPER, INK, PASTEL	Yes	No	No	Yes	White City: in the toilets there are paper tissues instead of hand driers, the canteen sells things in plastic bottles and plastic packaging, lately there are even plastic glasses for people to drink water...
27/02/2020 09:59:07	I don't have an opinion	Disagree	Agree	BUS	Always	No	Yes	A few times a week	Yes	Always	Yes	0-10	PAPER, METAL, INK	Yes	Yes	No	No	Sustainability is great. But I don't think it should be applied to all course, for example I don't think we should be changing the chemicals for Photography darkroom to make it more sustainable, but we should really focusing on what to do with the chemicals after they are used, this kind of innovation will not only benefit photography but all other courses and practices that involves chemical. This is a much better and more time efficient way of improving sustainability at our uni
27/02/2020 10:12:35	Agree	Agree	Disagree	BIKE	After repeated requests our course does not have a recycling bin	Yes	Yes	A few times a year	No	Never used	Sometimes	10-100	PAPER	Yes	No	I don't know	Yes	More recycling bins, more awareness of small changes that have big impact
27/02/2020 10:14:10	Agree	Agree	I don't know.	BIKE	Yes around the college. But there isn't one in the Critical Practice studio.	I don't use bottles/	Yes		I bring my own food.	Never used	Sometimes	200-500	PAPER, WOOD, CANVAS	Yes	Yes	No	Yes	
27/02/2020 11:50:41	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	A few times a year	Yes	Always	Sometimes	100-200	CERAMIC, CLAY, GLAZE	Yes	Yes	I don't know	Yes	cardboard recycling at all sites.
27/02/2020 12:47:42	Agree	Agree	Disagree	TUBE/BUS	Sometimes	Yes	Yes	Never	Yes	Never used	No	10-100	PAINT, INK, CANVAS	Maybe	No	I don't know	Yes	
27/02/2020 14:31:17	Agree	Agree	Agree	Train/ tube	Always	Some days - if clean	No	A few times a week	No	Often	Yes	0-10	PAPER, INK	Yes	Yes	No	Yes	Module on the topic for all courses in year 1 term 1
27/02/2020 15:28:15	Sustainability should be a scientific conclusion, not a fancy trend. So it should be an education, not a promotion.	Agree	Agree	TUBE/BUS	Always	No	Yes	A few times a year	No	Often	They are digital.	10-100	PAPER, Colored pencil	Yes	I sell them online as secondhand products	No	Yes	The action for sustainability should be based on research, not an abstract ideas. For example, reducing the amount of toilet flush water or dispensed soap will result in water and soap being flushed and dispensed multiple times, ultimately wasting more resources than normal.
27/02/2020 19:45:54	Agree	Agree	Disagree	WALKING	Sometimes	Yes	Yes	Never	Yes	Never used	Yes	200-500	PAPER, INK	Yes	No	No	Yes	
28/02/2020 14:45:19	Agree	Agree	Agree	BUS	Always	Yes	Yes	A few times a year	No	Barely	Sometimes	10-100	PAPER, PLASTIC, FABRIC	Yes	Yes	Yes	Yes	
28/02/2020 16:00:56	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	No	Always	No	100-200		Yes	No	No	Yes	
28/02/2020 17:56:50	Agree	Agree	Disagree	BIKE	Sometimes	Yes	Yes	A few times a month	Yes	Always	Sometimes	0-10	digital media	Yes	No	I don't know	Yes	Should be integrated into core ethical teachings of each department. School should also do a better job of mitigating footprint via investments, food/drink offerings, curriculum modifications, research, and providing incentives for those who do pursue sustainable practices.

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28/02/2020 21:57:47	Agree	Agree	Disagree	Sometimes walk sometimes bus	Always	Yes	Yes	Never	I use the common ones in DP studio or in the canteen	Often	Yes	500+	PAPER, GLASS, METAL	Yes	No	No	Yes	There is definitely something dodgy going on (as we know it) and I think there should be a transparency on sustainability as well as financial report. You have my full support on what you're doing. Best of luck!
29/02/2020 02:30:28	Agree	Agree	impact of what	walking and school bus mostly	Sometimes	Yes	Yes	Never	Yes	Barely	Sometimes	i don't know	PAPER, METAL, CERAMIC	Maybe	No	I don't know	Yes	
02/03/2020 00:27:09	Agree	Agree	Disagree	WALKING	Always	Yes	Yes	A few times a month	No	Often	Sometimes	100-200	PAPER, WOOD, PASTEL	Yes	No	No	Yes	
02/03/2020 09:27:59	Agree	Agree	Agree, but there is always more we can do, including simple changes	TUBE/BUS	Always	Yes	No	Never	Yes	Always	Yes	10-100	PAPER	I'm PhD by thesis, so I'd use people's unwanted paper for notes, but don't produce artworks myself	No	No	Yes	I'd like to know more about the companies that process our recycling and where it goes.
02/03/2020 12:02:38	Agree	Agree	Agree	BIKE	Always	Yes	Yes	Never	Yes	Often	Sometimes	100-200	PAPER, FABRIC, Dye	Yes	I didn't know I could	No	Yes	
02/03/2020 13:05:46	Agree	Agree	Disagree	BUS	They've never been provided to us in our studio, despite numerous constant emails requesting them - Radstock	Yes	Yes	Never	Yes	Always	Sometimes	100-200	PAPER, culinary materials, video/audio	Yes	No	No	Yes	Make sure there are at recycling bins in each studio, maybe compost too!! And proper washout sinks/procedures, available cleanup rags that are cleaned/circulated by the school, maybe a shared material exchange hub for all students, sustainable ways or reducing toxic material waste, the college/boards financial deinvestment from fossil fuel holdings (if not done so already)
02/03/2020 13:53:02	Agree	Agree	Disagree	Train and walk	Always	Yes	Yes	A few times a month	Yes	The metal cutlery is horrible. Cheap. Unfinished metal that cuts your hands	Sometimes	100-200	PLASTIC	Yes	Yes	I don't know	Yes	There is a lot more we can do across the college. Is our banking ethical? Do we adhere to sustainable procurement practices? We should be leading the way with this. We could learn from Goldsmiths.
03/03/2020 14:45:06	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	A few times a year	Yes	Often	Sometimes	10-100	FABRIC, Fabric dyes and print paste	Yes	No	No	Yes	Get a compost bin for food waste. Help with sourcing sustainable materials for shows and sustainable materials for use in practical work.
03/03/2020 19:35:52	Disagree	Agree	Disagree	TUBE/BUS	we do not have recycled bins on the 3rd floor at sculpture studios, and ground floor bins near the canteen are always mixed despite signage of differentiation between bins	Yes	Yes	only in the case i forget mine at home or sth	Yes	Barely	No	10-100	METAL, SILICON, jemsmonite	Yes	i hoard all my old electronics, but have been changing their batteries, memory cards etc	No	Yes	RCA promotes sustainability conceptually in all possible ways, through briefs etc but in action is actually ridiculous how sustainability is so poorly acted out
04/03/2020 11:11:59	Agree	Agree	people are aware and the canteen has done things but not any specific course, as designers we tend to use lots of unnecessary materials sometimes	BIKE	Sometimes	Yes	Yes	Never	I bring with my lunch	Barely	Yes	100-200	PAPER	Yes	No	No	Yes	Encouraging people to buy just the necessary materials, organise spaces where you can bring used things or things that are halfway
07/03/2020 11:46:27	Agree	Agree	Disagree	WALKING	Sometimes	Yes	Yes	Never	Yes	Always	Yes	10-100	PAPER, PAINT, INK	Yes	Yes	No	Yes	A recycling point for large pieces of cardboard etc in studios/Or a recycling point near studios for large items of cardboard/paper. LED automatic lights in studios, toilets, etc. Change energy supply to clean energy (electricity can be 100% from clean sources).

Staff Survey

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all departments	The University take actions to limit negative impact	Which vehicle do you use to go to your workplace?	Do you use the recycling bins in the building?	Do you use a reusable bottle?	Do you use a mug or a cup in your workplace?	How often do you buy a plastic water bottle in the college?	Do you have your own cutlery in your workplace?	How often do you use the metal cutlery available in the college?	What area do you work in?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Do you regularly ask your students to print material to show to class?	Do you support and encourage sustainable attitudes among your students, if so how? (specify your department)	Have you followed some form of training or do you have any kind of experience regarding sustainability in your field?	Do you consider sustainability in your personal practice?	Are there some other sustainable initiatives in your department, if so what are they? (specify your department)
03/03/2020 08:40:14	Agree	Agree	I don't have an opinion	WALKING	Sometimes	Yes	Yes	Never	No	Often	TUTORS AND DEANS	0-10	Never		Yes	Always	don't know
03/03/2020 08:50:21	Agree	Agree	Agree	Train	Always	Yes	No	A few times a year	No	Never used	TUTORS AND DEANS	0-10	Never	I am very interested in environmental innovation, so always keen to share ideas and discuss this subject. It should be integrated into our practice.	No	Sometimes	I don’t know.
03/03/2020 08:59:24	Agree	Agree	Disagree	TUBE	Always	Yes	No	Never	No	Never used	TUTORS AND DEANS	0-10	Often	Sustainability is built into the elective I run. It is a print based/publishing elective and students are encouraged to consider sustainability in all aspects of their work.	Yes	Always	Awareness that "going digital" in publishing doesn't necessarily mean sustainability. If work cant be produced without emissions, then there is a necessity to be biodegradable - so no foils, plastics, laminates, etc.
03/03/2020 09:12:55	Agree	Agree	Agree	Tube and bike	Always	Yes	Yes	Never	No	Barely	TUTORS AND DEANS	10-50	Barely	Discussion of materials where appropriate.	Self taught and explores with increasing interest and importance within my practice	Always	Not that I'm aware of
03/03/2020 09:51:56	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Never used	TUTORS AND DEANS	100-200	Often		No	Sometimes	
03/03/2020 10:40:45	Agree	Agree	Agree	TUBE/BUS	Sometimes	Yes	Yes	Once a week	No	Always	TUTORS AND DEANS	0-10	Always	I teach an environmental architecture programme, ALL our teaching and design work is about sustainability.	Yes	Always	Research and work on climate and environmental justice is core to the department.
03/03/2020 11:33:47	Agree	Agree	Agree	TUBE/BUS	Sometimes	Yes	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
03/03/2020 11:36:06	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	Yes	A few times a year	Yes	Always	ADMINISTRATION OFFICES						
03/03/2020 14:18:41	Agree	Agree	I don't have an opinion	TUBE	Always	No	No	A few times a year	No	Never used	TUTORS AND DEANS	0-10	Barely	no	No	Always	None that I know of. This survey is very flawed. Whoever has set it should have allowed multiple answers for travel and also know my job before expecting answers about workplace when I have no office, desk or even locker.
03/03/2020 14:28:20	Agree	Agree	I don't have an opinion	motorbike	Always	Yes	Yes	Never	Yes	Barely	ART SHOP						
03/03/2020 15:30:59	Agree	Agree	Agree	Train	Always	I reuse a single use bottle many times	I reuse a cup many times	Never	Yes	Never used	IT SERVICE						
03/03/2020 17:56:43	Agree	Agree	can you clarify this question further ?	TUBE/BUS	Always	Yes	Yes	A few times a year	No	Barely	TUTORS AND DEANS	50-100	Barely	I do support this - but i don't think we have enough of a policy on this?	No	Always	no there are not and there should be.
04/03/2020 13:21:14	Agree	Agree	Agree	Scooter/tube	Always	Yes	Yes	Never	Yes	Never used	RESOURCE STORE						
04/03/2020 16:42:05	Agree	Agree	I don't have an opinion	TUBE	Always	Yes	Yes	Never	No	Never used	ADMINISTRATION OFFICES						
04/03/2020 16:42:58	Agree	Agree	Agree	BUS	Always	Yes	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
04/03/2020 16:43:01	Agree	Agree	Agree	BUS	Always	Yes	Yes	A few times a year	Yes	Always	ADMINISTRATION OFFICES						
04/03/2020 16:43:23	Agree	Agree	Agree	WALKING	Sometimes	Yes	Yes	Never	No	Always	ADMINISTRATION OFFICES						
04/03/2020 16:44:24	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	Never	Yes	Never used	ADMINISTRATION OFFICES						
04/03/2020 16:44:27	Agree	Agree	I don't have an opinion	Train + Walk (occasional Bus ride from station)	Always	Yes	Yes	Never	Yes	Often	ADMINISTRATION OFFICES						
04/03/2020 16:44:30	Agree	Agree	Disagree	TUBE/BUS	Always	Yes	No	Never	No	Never used	ADMINISTRATION OFFICES						
04/03/2020 16:44:34	Agree	Agree	Agree	TUBE/BUS	Always	Yes	Yes	A few times a month	No	Often	ADMINISTRATION OFFICES						
04/03/2020 16:44:37	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
04/03/2020 16:44:51	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
04/03/2020 16:45:31	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Always	WORKSHOPS						
04/03/2020 16:45:51	Agree	Agree	Agree	TUBE	Always	No	Yes	Never		Always	TUTORS AND DEANS	10-50	Barely		No	Sometimes	
04/03/2020 16:46:38	Agree	Agree	Agree	TUBE	Always	Yes	No	A few times a year	Yes	Barely	ADMINISTRATION OFFICES						
04/03/2020 16:47:18	Agree	Agree	Agree	BUS	Always	Yes	Yes	Never	Yes	Never used	ADMINISTRATION OFFICES						
04/03/2020 16:48:09	Agree	Agree	Agree	TUBE/BUS	Always	Yes	Yes	A few times a year	No	Always	TUTORS AND DEANS	0-10	Barely		No	Always	
04/03/2020 16:48:14	Agree	Agree	Agree	TUBE/BUS	Always	No	No	A few times a year	No	Always	ADMINISTRATION OFFICES						
04/03/2020 16:48:34	Agree	Agree	I don't have an opinion	BUS	Always	Yes	Yes	Never	Yes	Barely	ADMINISTRATION OFFICES						
04/03/2020 16:50:32	Agree	Agree	Agree	TUBE	Always	Yes	No	Never	No	Barely	TUTORS AND DEANS	0-10	Often		No	Yes	
04/03/2020 16:50:57	Agree	Agree	Agree	TUBE	Always	Yes	Yes	A few times a year	No	Often	TUTORS AND DEANS	0-10	Often	Inherent in the development of thesis proposals (Architecture MA)	Yes	Always	
04/03/2020 16:53:29	Agree	Agree	I don't have an opinion	BIKE	Sometimes	Yes	Yes	A few times a month	Yes	Always	TUTORS AND DEANS	200-500	I do not have students (I am at the Helen Hamlyn Centre)		No	Sometimes	

Timestamp	Have you followed some form of training or do you have any kind of experience regarding sustainability in your field?	Can you advise on sustainability questions within your field of expertise?	Do you receive questions from students or staff about sustainability and IT?	After how many seconds/minutes are the computers put into sleep mode in the school?	Do the computers get shut down at night when they are not in use?	Have you noticed any issues around sustainability in your department? If so, how would you fix it?	Are there some other sustainable initiatives in your department? If so, what are they?	How do you dispose of broken or damaged items?	Do you recycle any tech items if they are broken or damaged?	How many items do you dispose of per year?	Where do you get the new equipments from?	Are some of the tech equipment bought second hand?	If an item isn't borrowed often, after what length of time does it get disposed of?	How do you dispose of items that are still fully functioning?	Are there some other sustainable initiatives in your department. If so, what are they?	How many letters do you receive on a daily basis?	How many packages do you receive on a daily basis?	If not picked up, after how long is a letter of package disposed of?
03/03/2020 08:40:14																		
03/03/2020 08:50:21																		
03/03/2020 08:59:24																		
03/03/2020 09:12:55																		
03/03/2020 09:51:56																		
03/03/2020 10:40:45																		
03/03/2020 11:33:47																		
03/03/2020 11:36:06																		
03/03/2020 14:18:41																		
03/03/2020 14:28:20																		
03/03/2020 15:30:59																		
03/03/2020 17:56:43	Yes	Yes	Sometimes		I use a laptop													
04/03/2020 13:21:14																		
04/03/2020 16:42:05								CDL recycling collection	Always	20-50	WEX, CVP, CPC	No	It doesn't get disposed of	CDL collection	General recycling in the office			
04/03/2020 16:42:58																		
04/03/2020 16:43:01																		
04/03/2020 16:43:23																		
04/03/2020 16:44:24																		
04/03/2020 16:44:27																		
04/03/2020 16:44:30																		
04/03/2020 16:44:34																		
04/03/2020 16:44:37																		
04/03/2020 16:44:51																		
04/03/2020 16:45:31																		
04/03/2020 16:45:51																		
04/03/2020 16:46:38																		
04/03/2020 16:47:18																		
04/03/2020 16:48:09																		
04/03/2020 16:48:14																		
04/03/2020 16:48:34																		
04/03/2020 16:50:32																		
04/03/2020 16:50:57																		
04/03/2020 16:53:29																		

If disposed of, do the letters get recycled?	Are there some sustainable initiatives in your department, if so what are they?	In the course of a year, how many books get damaged?	What do you do with damaged books?	What are the names of your providers?	Are some of the materials bought second hand?	Are some items not borrowed often?	If it happens, what do you do with these items?	Are there some other sustainable initiatives in your department, if so what are they?	What are the names of your providers?	Is sustainability a consideration for choosing the materials in the shop, if so how does it affect your range of products?	What are the highest selling products in the shop?	How many paper (A4) do you sell per day on average?	Do you support and encourage sustainable attitudes among your students, if so how?	Are there some other sustainable initiatives in your department, if so what are they?	Which materials are used in your workshop area?	Can you quantify approximately, how much waste is accumulated over the course of a week?	Is there an area in your workshop dedicated to offcuts?
									?	Yes	papers and glues	20-50	encouraging people not to use bags and to return materials they don't use	a resuse shelf, recyclable packing, and a charge for paper bags			
															Paper	unsure	No

Are there some other sustainable initiatives in your department, if so what are they?	To your knowledge, are the offcuts being re-used?	Do students show interest in re-using materials?	How often do students use recycled materials?	Do you support and encourage sustainable attitudes amongst students, if so how?	How many sheets of paper (A4) do you sell per week on an average?	Can you quantify approximately, how much waste is accumulated over the course of a week?	How much ink-cartridge do you replace on a weekly basis?	Do students use scrap paper for tests?	Do you support and encourage sustainable attitudes amongst the students, if so how?	How many sheets of paper do you use weekly?	Are you officially or unofficially required to print out emails for some specific occasions, if yes on what occasions?	Are there some sustainable initiatives in your department, if so what are they?
										10-20	no	no
										10-20		Studio upcycling area
										10-20	n/a	
										10-20	Meetings	
										10-20	no	no
										0-10	no	no
										0-10	no	no
										10-20	No	Recycling and use of reusable cups or bottles for drinks
										0-10	Note required to print out emails	None
										20-50	to take to meetings	none I'm aware of
										0-10	no	we very rarely print things, we have our own mugs and cutlery etc
										0-10	Finance require hard copies of payment request forms and student expense claims.	
recycling	I don't know	No	Occasionally									
										10-20	Yes, I'm officially required to print materials and worksheets for courses	We use the recycling bins on a daily basis, we tend not to print too many copies, we laminate documents that we use more than once so that we don't have to print again. We use our own water bottles and cups.
										0-10		
										0-10	No	
										10-20		

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all departments	The University take actions to limit negative impact	Which vehicle do you use to go to your workplace?	Do you use the recycling bins in the building?	Do you use a reusable bottle?	Do you use a mug or a cup in your workplace?	How often do you buy a plastic water bottle in the college?	Do you have your own cutlery in your workplace?	How often do you use the metal cutlery available in the college?	What area do you work in?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Do you regularly ask your students to print material to show to class?	Do you support and encourage sustainable attitudes among your students, if so how? (specify your department)	Have you followed some form of training or do you have any kind of experience regarding sustainability in your field?	Do you consider sustainability in your personal practice?	Are there some other sustainable initiatives in your department, if so what are they? (specify your department)
04/03/2020 16:56:41	I don't have an opinion	I don't have an opinion	I don't have an opinion	TUBE/BUS	Always	Yes	Yes	A few times a month	Yes	Always	ADMINISTRATION OFFICES						
04/03/2020 16:57:42	Agree	Agree	It definitely does, but there is room for more to do	BIKE	Wherever they are available	Yes	Yes	Never	Yes	Always use my own	ADMINISTRATION OFFICES						
04/03/2020 16:59:31	Agree	Agree	Agree	BIKE	Always	Yes	Yes	Never	No	Always	TUTORS AND DEANS	100-200	Never	Yes. Through focus on radical transitions in placemaking and mobility research	Yes	Always	
04/03/2020 16:59:55	Agree	Agree	Agree	Car, tube & train	Always	Yes	No	Never	Yes	Always	TUTORS AND DEANS	0-10	Never	Yes	Yes	Always	
04/03/2020 17:00:38	Agree	Agree	Disagree	A Train!	Always	No	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
04/03/2020 17:01:53	Agree	Agree	Agree	Train/tube and bus	Always	No	Yes	A few times a month	No	Barely	TUTORS AND DEANS	10-50	Never		No	Sometimes	
04/03/2020 17:02:57	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	A few times a month	Yes	Often	ADMINISTRATION OFFICES						
04/03/2020 17:03:07	Agree	Agree	Agree	Train	Always	Rarely drink water but if I do use the water fountain/mug	Yes	Never	No	We have cutlery in the department office	ADMINISTRATION OFFICES						
04/03/2020 17:04:37	Agree	Agree	I don't have an opinion	TUBE/BUS	Always	Yes	Yes	Never	Yes	Barely	TUTORS AND DEANS	200-500	Never	Yes, writing an ASIS statement for our programme	No	Sometimes	
04/03/2020 17:08:44	Agree	Agree	Sometimes... but basic things seem overlooked or ignored.	Train and bus	Always	Yes	Yes	Never	Yes	Never used	ADMINISTRATION OFFICES						
04/03/2020 17:09:42	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Often	IT SERVICE						
04/03/2020 17:10:37	Agree	Agree	Agree	TUBE/BUS	Always	Yes	Yes	A few times a year	No	Always	TUTORS AND DEANS	0-10	Barely	Ask them to print only if necessary.	Yes	Always	
04/03/2020 17:14:59	Agree	Agree	Agree	BIKE	Always	Yes	Yes	A few times a year	Yes	Always	TUTORS AND DEANS	100-200	Barely	yes - use online systems rather than paper-based ones, re-use paper, recycle paper,	No	Always	e-submissions of MA dissertations, shared drives for co-working,
04/03/2020 17:23:21	Agree	Agree	Agree	car & train & tube & walking	Always	Yes	Yes	Never	No	dont eat at school but if do then metal	TUTORS AND DEANS	100-200	Often	debate always asking for their intent continue to inject in output reasons and process encrougae digital over physical to cut down physical about to create manifesto	Yes	Always	
04/03/2020 17:28:24	Agree	Agree	Disagree	BIKE	Always	Yes	Yes	Never	Yes	Barely	WORKSHOPS						
04/03/2020 17:31:12	Agree	Agree	not visibly	BIKE	Always	Yes	Yes	A few times a year		Always	TUTORS AND DEANS	10-50	Barely		No	Always	
04/03/2020 17:41:00	Agree	Agree	Agree	BIKE	Always	No	Yes	Once a week	Yes	Always	WORKSHOPS						
04/03/2020 17:41:29	Agree	Agree	I don't have an opinion	TUBE/BUS	Always	Yes	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
04/03/2020 17:55:52	Agree	Agree	Really - barely ...	TUBE/BUS	Always	sometimes	sometimes	A few times a month	Yes	Often	TUTORS AND DEANS	10-50	Barely	Oddly, the opportunity rarely comes up	No	Always	
04/03/2020 18:00:51	Agree	Agree	Agree	TUBE/BUS	Always	Yes	Yes	A few times a year	Yes	Barely	TUTORS AND DEANS	0-10	Barely		No	Sometimes	Sculpture dept. has a 'sustainability guidelines' sheet distributed to students
04/03/2020 19:30:03	Agree	Agree	Agree	TUBE	Always	Yes	Yes	A few times a year	Yes	Always	TUTORS AND DEANS	0-10	Often		No	Sometimes	
04/03/2020 20:50:12	Agree	Agree	Agree	Train and car and tube	Always	Yes	Yes	A few times a year	Yes	Never used	TUTORS AND DEANS	100-200	Barely	Yes through my teaching sustainability in art and design	Yes	Sometimes	
04/03/2020 21:21:32	Agree	Agree	I don't have an opinion	BIKE	Where are they?	Yes	Yes	Never	Yes	Often	WORKSHOPS						
05/03/2020 06:14:59	Agree	Agree	Agree	Train	Sometimes	Yes	Yes	A few times a month	Yes	Barely	IT SERVICE						
05/03/2020 06:45:54	Agree	Agree	Please clarify this question. it does not make sense.	TUBE/BUS	Sometimes	Yes	Yes	A few times a year	Yes	None available	WORKSHOPS						

ıive om students ut ly and IT?	After how many seconds/minutes are the computers put into sleep mode in the school?	Do the computers get shut down at night when they are not in use?	Have you noticed any issues around sustainability in your department? If so, how would you fix it?	Are there some other sustainable initiatives in your department? If so, what are they?	How do you dispose of broken or damaged items?	Do you recycle any tech items if they are broken or damaged?	How many items do you dispose of per year?	Where do you get the new equipments from?	Are some of the tech equipment bought second hand?	If an item isn't borrowed often, after what length of time does it get disposed of?	How do you dispose of items that are still fully functioning?	Are there some other sustainable initiatives in your department. If so, what are they?	How many letters do you receive on a daily basis?	How many packages do you receive on a daily basis?	If not picked up, after how long is a letter of package disposed of?
	10	No	we are going through thousands of paper boxes a year as students print things improperly several times instead of asking for help and create a huge pile of unusable paper; sometimes they print on acetate which melts in the printer and the engineer has to change a huge part of that device which cannot be recycled.	the old/faulty equipment is disposed by a company that recycles them; if they can still be repaired they are donated to charity by that company as far as I am aware											
	10	Yes	Need recycle bins in our office	Non that I'm aware of											

If disposed of, do the letters get recycled?	Are there some sustainable initiatives in your department, if so what are they?	In the course of a year, how many books get damaged?	What do you do with damaged books?	What are the names of your providers?	Are some of the materials bought second hand?	Are some items not borrowed often?	If it happens, what do you do with these items?	Are there some other sustainable initiatives in your department, if so what are they?	What are the names of your providers?	Is sustainability a consideration for choosing the materials in the shop, if so how does it affect your range of products?	What are the highest selling products in the shop?	How many paper (A4) do you sell per day on average?	Do you support and encourage sustainable attitudes among your students, if so how?	Are there some other sustainable initiatives in your department, if so what are they?	Which materials are used in your workshop area?	Can you quantify approximately, how much waste is accumulated over the course of a week?	Is there an area in your workshop dedicated to offcuts?
															Wood	Little. Any wood off cuts go into a firewood bin for people to take home.	Yes
															Paper	100kg of paper	No
															Metal	?	Yes
															Wood, Metal, Paper, Plastic, Paint, Ink, Pastel, Fabric, Canvas, Plaster	If by this you mean landfill waste I would say 4 bins worth. This is because there isn't efficient recycling bins. As technicians we collect as much reusable material as possible and sort into our materials "bins" however we cant catch everything before it goes into a bin. A more robust bin system needs to be in place. The green recycling and white waste bins are not enough and are confusing to students.	Yes

Are there some other sustainable initiatives in your department, if so what are they?	To your knowledge, are the offcuts being re-used?	Do students show interest in re-using materials?	How often do students use recycled materials?	Do you support and encourage sustainable attitudes amongst students, if so how?	How many sheets of paper (A4) do you sell per week on an average?	Can you quantify approximately, how much waste is accumulated over the course of a week?	How much ink-cartridge do you replace on a weekly basis?	Do students use scrap paper for tests?	Do you support and encourage sustainable attitudes amongst the students, if so how?	How many sheets of paper do you use weekly?	Are you officially or unofficially required to print out emails for some specific occasions, if yes on what occasions?	Are there some sustainable initiatives in your department, if so what are they?
										0-10	Yes	
										10-20	VERY rarely!	We're mostly paper free
										10-20	no	reuse of materials
										0-10	No	Nope
										10-20	No never	Reducing air travel /partly because it's easier to manage field trip in UK
										0-10	Rarely - to present reports, for example.	Not that are visible beyond the ones in the school
I started a "swap shop" where students can swap materials, equipment, books, etc.	Yes	Yes	Often	I started a "swap shop" where students can swap materials, equipment, books, etc.								
No	No	Yes	Occasionally	I always make sure to inform students that off cuts are available								
										10-20	No	No
Metal waste is recycled	Yes	Yes	Often	Promote reusable options								
We re use as much as possible. We save work for induction samples. rather than making new. We educate students on the most sustainable materials to use and actively research these for a specific workshop we hold.	Yes	Yes	Often	Yes, most workshops we hold encourage and discuss the use of sustainable, reusable, compostable materials and the importance of considering the environmental impact when creating.								

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all departments	The University take actions to limit negative impact	Which vehicle do you use to go to your workplace?	Do you use the recycling bins in the building?	Do you use a reusable bottle?	Do you use a mug or a cup in your workplace?	How often do you buy a plastic water bottle in the college?	Do you have your own cutlery in your workplace?	How often do you use the metal cutlery available in the college?	What area do you work in?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Do you regularly ask your students to print material to show to class?	Do you support and encourage sustainable attitudes among your students, if so how? (specify your department)	Have you followed some form of training or do you have any kind of experience regarding sustainability in your field?	Do you consider sustainability in your personal practice?	Are there some other sustainable initiatives in your department, if so what are they? (specify your department)
05/03/2020 07:45:27	I agree the university should activily promote sustainability. However just a commit on the survey and question design. These are very loaded or leading questions. Who would disagree with this statement really? So I don't understand the point of this other than to reinforce the survey designers own views. (which may or may not be right but shouldn't lead the participant)	Again, these are very loaded questions. Who would disagree with this?	Again, very loaded questions. Of course every one would wound to limit negative impact to whatever you ask. EG: do you think we should avoid the negative impact of eating apples.	Train / Bus	Sometimes	Sometimes	This is not a yes / no question. Options	Never	Shared cutlery	When available	ADMINSTRATION OFFICES						
05/03/2020 07:47:11	Agree	Agree	Agree	TUBE/BUS	Always	Yes	Yes	Never	Yes	Barely	WORKSHOPS						
05/03/2020 07:58:27	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	Never	Yes	Always	ADMINSTRATION OFFICES						
05/03/2020 08:43:13	Agree	Agree	Every SoAH programme team is putting together a statement	TUBE	Always	Yes	Yes	A few times a year	Yes	Barely	ADMINSTRATION OFFICES						
05/03/2020 08:43:47	Agree	Agree	Agree	Riverboat	Always	Yes	Yes	A few times a year	Yes	Barely	TUTORS AND DEANS	200-500	Often	I only have Phd students but I should add that I always print my reading material as unfortunately it's better to read from hard copy for mental health and learning. I need to interact with the hard copy.	Yes	Always	HHCD we self organise our own sustainable initiatives and actively write sustainability into my/ our research
05/03/2020 09:00:18	Agree	Agree	Agree	WALKING	Sometimes	No	No	Few times a week	No	Never used	TUTORS AND DEANS	10-50	Never	Support SoAH Programme statements on Sustainability	No	Sometimes	Each Programme commits to a Sustainability statement to illuminate sustainable practices at work and available to students. This is a new initiative and one to encourage.
05/03/2020 09:04:08	Agree	Agree	Agree	TUBE/BUS	Always	No	No	A few times a year	No	Often	IT SERVICE						
05/03/2020 09:15:20	Agree	Agree	Agree	WALKING	Always	Yes	No	A few times a year	No	Never used	ADMINISTRATION OFFICES						
05/03/2020 09:33:08	Agree	Agree	Agree	TUBE/BUS	Always	Yes	No	Never	Yes	Never used	IT SERVICE						
05/03/2020 09:49:58	Agree	Disagree	Disagree	BUS	Always	No	Yes	A few times a year	No	Often	ADMINISTRATION OFFICES						
05/03/2020 09:50:13	Agree	Agree	Agree	Train and bike	Always	Yes	Yes	Never	No	Barely	ADMINISTRATION OFFICES						
05/03/2020 10:02:01	Agree	Agree		BIKE	Always	Yes	Yes	Never	Yes	Always	WORKSHOPS						
05/03/2020 10:14:37	Agree	Agree	Agree	and bicycle and bus	Always	Yes	Yes	A few times a year	Yes	Always	PRINT LAB						
05/03/2020 10:31:30	Agree	Agree	I don't have an opinion	Train / Tube / Walk	Always	Yes	Yes	A few times a year	Yes	Never used	ADMINISTRATION OFFICES						
05/03/2020 10:40:52	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Barely	TUTORS AND DEANS	100-200	Never		No	Sometimes	
05/03/2020 10:55:43	Agree	Agree	Disagree	Train and bus and tube	Always	Yes	Yes	Never	Yes	Barely	ADMINISTRATION OFFICES						
05/03/2020 11:06:11	Agree	Agree	They do this where possible	Bus and walking	Always	Yes	Yes	A few times a year	Yes	Never used	ADMINISTRATION OFFICES						
05/03/2020 11:16:52	Agree	Agree	Agree	BIKE	Always	Yes	Yes	Never	Yes	Barely	PRINT LAB						
05/03/2020 11:38:51	Agree	Agree	Agree	Train	Always	Yes	No	Never	Yes	Barely	IT SERVICE						
05/03/2020 11:41:53	Agree	Agree	Agree	Bike & Train	Always	Yes	Yes	A few times a month	No	Always	ADMINISTRATION OFFICES						
05/03/2020 12:00:17	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Often	ADMINISTRATION OFFICES						

ıive om students ut ly and IT?	After how many seconds/minutes are the computers put into sleep mode in the school?	Do the computers get shut down at night when they are not in use?	Have you noticed any issues around sustainability in your department? If so, how would you fix it?	Are there some other sustainable initiatives in your department? If so, what are they?	How do you dispose of broken or damaged items?	Do you recycle any tech items if they are broken or damaged?	How many items do you dispose of per year?	Where do you get the new equipments from?	Are some of the tech equipment bought second hand?	If an item isn't borrowed often, after what length of time does it get disposed of?	How do you dispose of items that are still fully functioning?	Are there some other sustainable initiatives in your department. If so, what are they?	How many letters do you receive on a daily basis?	How many packages do you receive on a daily basis?	If not picked up, after how long is a letter of package disposed of?
	0	No	More recyling	Double sided printing											
	10	No	Turning more computers off possibly	Equipment recycling											
	0	Yes	No												

If disposed of, do the letters get recycled?	Are there some sustainable initiatives in your department, if so what are they?	In the course of a year, how many books get damaged?	What do you do with damaged books?	What are the names of your providers?	Are some of the materials bought second hand?	Are some items not borrowed often?	If it happens, what do you do with these items?	Are there some other sustainable initiatives in your department, if so what are they?	What are the names of your providers?	Is sustainability a consideration for choosing the materials in the shop, if so how does it affect your range of products?	What are the highest selling products in the shop?	How many paper (A4) do you sell per day on average?	Do you support and encourage sustainable attitudes among your students, if so how?	Are there some other sustainable initiatives in your department, if so what are they?	Which materials are used in your workshop area?	Can you quantify approximately, how much waste is accumulated over the course of a week?	Is there an area in your workshop dedicated to offcuts?
															Exhibition lighting electrician technical-tape, lamps, other electrical consumables.	No as it varies due the how many and how big exhibitions are happening in the college.	I tend to keep some broken items to use for spare parts.
															Wood, Metal, Paper, Plastic, Ink, Stone	Most waste come from paper which goes to the recycling bins	Yes

Are there some other sustainable initiatives in your department, if so what are they?	To your knowledge, are the offcuts being re-used?	Do students show interest in re-using materials?	How often do students use recycled materials?	Do you support and encourage sustainable attitudes amongst students, if so how?	How many sheets of paper (A4) do you sell per week on an average?	Can you quantify approximately, how much waste is accumulated over the course of a week?	How much ink-cartridge do you replace on a weekly basis?	Do students use scrap paper for tests?	Do you support and encourage sustainable attitudes amongst the students, if so how?	How many sheets of paper do you use weekly?	Are you officially or unofficially required to print out emails for some specific occasions, if yes on what occasions?	Are there some sustainable initiatives in your department, if so what are they?
										You can get this data if required by the college Paper-cut system.	No emails are required to be printed out.	Limit the need to print out (everyone has laptops at meetings). Recycle material where college provides facilities.
The movement to using only low energy lamps in all exhibition spaces.	Spare part see above.	N/A	N/A									
										20-50	No buy sometimes print them to work offline	Not that I am aware of
										0-10	No	Yes - you should email vanessa Thompson. She is collating all of the soih programme sustainability statements.
										0-10	no	Recycling bins / recycling cups / water Hydration Station
										10-20	no	none
										20-50	No	Not that I know of
We recycle metal, rags are cleaned for reuse, our stones are reused	Yes	Yes	Sometimes	Encourage them to be considerate in their practices, to reuse and share								
					50-100	Not easily - it is down to the student wether what they have print/ cut etc becomes waste or is cherished. Print lab waste is either recycled, reused, left for students usage or disposed of responsible eg waste ink.	1	Often	All print labs communicate that all vinyl ends up in landfill and we suggest that students and staff design accordingly. We buy in recycled and responsibly sourced papers.We recycle or reuse/ make available any waste that is a usable material - in White City most goes into the expanded print lab for any student to use. We encourage testing so that students only print once. We actively work with suppliers to encourage more sustainable consumables.			
										10-20	no	Recylying / own mugs
										0-10	NO	NO
										0-10	For planning	recycling paper and materials
					0-5	quite a bit of rolled paper off cuts & vinyl off cuts	1-5	Occasionally	I save all the bigger off cuts for printing.			
										0-10	No	
										10-20	no	no

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all departments	The University take actions to limit negative impact	Which vehicle do you use to go to your workplace?	Do you use the recycling bins in the building?	Do you use a reusable bottle?	Do you use a mug or a cup in your workplace?	How often do you buy a plastic water bottle in the college?	Do you have your own cutlery in your workplace?	How often do you use the metal cutlery available in the college?	What area do you work in?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Do you regularly ask your students to print material to show to class?	Do you support and encourage sustainable attitudes among your students, if so how? (specify your department)	Have you followed some form of training or do you have any kind of experience regarding sustainability in your field?	Do you consider sustainability in your personal practice?	Are there some other sustainable initiatives in your department, if so what are they? (specify your department)
05/03/2020 12:01:39	Agree	Agree	Agree	TUBE/BUS	Always	Yes	No	A few times a year	No	Never used	PRINT LAB						
05/03/2020 12:31:36	Agree	Agree	Agree	TUBE	Sometimes	Yes	No	A few times a month	Yes	Often	TUTORS AND DEANS	50-100	Often	Students are very active in this area. We have asked all studios to respond to the climate emergency in their briefs and it has been used as a key provocation for the WIP and reviews. We have setup a materials recycling space in the studio and are keen to support students in other similar initiatives.	No	Sometimes	
05/03/2020 12:32:16	Agree	Agree	Agree	Train/walking	Always	Yes	Yes	Never	Yes	Barely	WORKSHOPS						
05/03/2020 12:38:07	Agree	Agree	Disagree	BOAT	Always	Yes	Yes	Never	Yes	Barely	ADMINISTRATION OFFICES						
05/03/2020 13:21:29	Agree	Agree	Agree	Overground and walking	Always	Yes	Yes	A few times a year	No	Often	ADMINISTRATION OFFICES						
05/03/2020 13:48:00	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
05/03/2020 15:26:24	Agree	Agree	Agree	Bus, train and walking	Always	Yes	Yes	Never	No	Always	ADMINISTRATION OFFICES						
05/03/2020 15:34:51	Agree	Agree	I don't have an opinion	BIKE	Always	Yes	Yes	A few times a year	Yes	Often	ADMINISTRATION OFFICES						
05/03/2020 15:56:17	Agree	Agree	Agree	BUS	Always	Yes	Yes	Never	Yes	Always	WORKSHOPS						
06/03/2020 07:09:17	Agree	Agree	Disagree	TUBE	Always	Yes	Yes	Never	Yes	Often	ADMINISTRATION OFFICES						
06/03/2020 08:59:18	Agree	Agree	If this is supposed to be 'should take action', I agree	TUBE	Always	Yes	Yes	Never	Yes	sometimes	TUTORS AND DEANS	0-10	Never	verbily encouraging the sorts of behaviour these questions represent	No	Always	our sustainability statement of intent on moodle covers a few
06/03/2020 09:10:59	Agree	Agree	Agree	BIKE	Sometimes	sometimes	Yes	Never	No	Always	ADMINISTRATION OFFICES						
06/03/2020 09:43:07	Agree	Agree	Agree	Train, Bus, Tube and walk. It is a long way.	They are alway in a mess. sometimes there is only one type of bin so this does not help.	Mostly but sometimes I forget it.	No	Never	Yes	Never used	TUTORS AND DEANS	No idea	Never		No	Sometimes	
06/03/2020 10:02:21	Disagree	Agree	Disagree	Bike + Train	I use the ones that are around but there are not enough of them.	Yes	Yes	A few times a month	Yes	Always	WORKSHOPS						
06/03/2020 11:41:52	I don't think 'sustainability' is the right word. Anyone studying it from the social sciences or critical perspective understands it can be an empty signifier. I would want concrete definitions of what is meant by this word before agreeing or disagreeing to this statement.	I don't think 'sustainability' is the right word. Anyone studying it from the social sciences or critical perspective understands it can be an empty signifier. I would want concrete definitions of what is meant by this word before agreeing or disagreeing to this statement.	I don't understand what this is asking – limit negative impact of what?	BIKE	Always	Yes	Yes	A few times a year	No	Often	TUTORS AND DEANS	50-100	Never	I don't understand the conditions or definition of the term 'sustainable' or 'sustainable attitude' so can't really answer this question.	I don't think 'sustainability' is the right word. Anyone studying it from the social sciences or critical perspective understands it can be an empty signifier. I would want concrete definitions of what is meant by this word before agreeing or disagreeing to this statement.	I don't think 'sustainability' is the right word. Anyone studying it from the social sciences or critical perspective understands it can be an empty signifier. I would want concrete definitions of what is meant by this word before agreeing or disagreeing to this statement.	I don't think 'sustainability' is the right word. Anyone studying it from the social sciences or critical perspective understands it can be an empty signifier. I would want concrete definitions of what is meant by this word before agreeing or disagreeing to this statement.

ıive om students ut ly and IT?	After how many seconds/minutes are the computers put into sleep mode in the school?	Do the computers get shut down at night when they are not in use?	Have you noticed any issues around sustainability in your department? If so, how would you fix it?	Are there some other sustainable initiatives in your department? If so, what are they?	How do you dispose of broken or damaged items?	Do you recycle any tech items if they are broken or damaged?	How many items do you dispose of per year?	Where do you get the new equipments from?	Are some of the tech equipment bought second hand?	If an item isn't borrowed often, after what length of time does it get disposed of?	How do you dispose of items that are still fully functioning?	Are there some other sustainable initiatives in your department. If so, what are they?	How many letters do you receive on a daily basis?	How many packages do you receive on a daily basis?	If not picked up, after how long is a letter of package disposed of?

If disposed of, do the letters get recycled?	Are there some sustainable initiatives in your department, if so what are they?	In the course of a year, how many books get damaged?	What do you do with damaged books?	What are the names of your providers?	Are some of the materials bought second hand?	Are some items not borrowed often?	If it happens, what do you do with these items?	Are there some other sustainable initiatives in your department, if so what are they?	What are the names of your providers?	Is sustainability a consideration for choosing the materials in the shop, if so how does it affect your range of products?	What are the highest selling products in the shop?	How many paper (A4) do you sell per day on average?	Do you support and encourage sustainable attitudes among your students, if so how?	Are there some other sustainable initiatives in your department, if so what are they?	Which materials are used in your workshop area?	Can you quantify approximately, how much waste is accumulated over the course of a week?	Is there an area in your workshop dedicated to offcuts?
															Paper, Ink, Chemicals	I cannot quantify this as the bins are regularly emptied and I don't check on how full they are each time.	
															Silicone, Glass, Ceramic; Clay, Glaze, Plaster		Yes
															Wood, Metal, Paper, Plastic, Paint, Fabric, Plaster	The recycling bin is overflowing every day	Yes

Are there some other sustainable initiatives in your department, if so what are they?	To your knowledge, are the offcuts being re-used?	Do students show interest in re-using materials?	How often do students use recycled materials?	Do you support and encourage sustainable attitudes amongst students, if so how?	How many sheets of paper (A4) do you sell per week on an average?	Can you quantify approximately, how much waste is accumulated over the course of a week?	How much ink-cartridge do you replace on a weekly basis?	Do students use scrap paper for tests?	Do you support and encourage sustainable attitudes amongst the students, if so how?	How many sheets of paper do you use weekly?	Are you officially or unofficially required to print out emails for some specific occasions, if yes on what occasions?	Are there some sustainable initiatives in your department, if so what are they?
					500+	No	Every other month depending on how much usage a particular machine has been used	Students use scraps for a variety of reasons. We only use vinyl scraps for test prints, for the other machines we don't use scraps for test prints because everything we print on is a roll and scrap paper can not be placed back into the machine to print on.	As we do not print single sheets we do encourage students who print multiple small size artwork to layout their files in one document to make full use of the paper width. If a substantial amount of paper is not being used for a print we encourage students to put scraps in a box with other scarps so other students can use them. We try and encourage students to find alternative options to using vinyl as it is not a recyclable material.			
We use re-usable aprons, we recycle inks, we re-use paper where possible, we use rags which are sent off each month when dirty to be cleaned and exchanged for clean ones, we use water based inks where possible.	where possible	Not especially	Sometimes	I try but there is a difference in what they say and what they actually do. Students are often very vocal about sustainability but in practice do not try very hard to put the correct items in the recycling bins or show much willingness to re-use paper for print proofs. They can be very wasteful.								
										10-20	NO	NO
										0-10	not required to print emails	not sure
										50-100	Yes, frequently in meetings and planning activities for academics preferring paper copies	not that I am aware of
										0-10	Not emails, but paperwork for meetings	Not that I've seen. We could do with a food waste bin in the SoA office and a counter surface cloth to reduce paper towel use.
										0-10	Yes, but usually just for forms which need a signature or something that must be kept in hard copy. It's very rare now.	Just the general College ones such as not printing, using googlefolders, trying to keep paper to a minimum, using the recycling bins, reusable bottles/cups etc
	Yes	Yes	Often									
										0-10	Compliance report maintenance	Energy reduction, equipment efficiency
										20-50	Sometimes if documents need signing.	I don't know
	Yes, but there gets to a point that the off-cuts are too small to be useful	Yes	Occasionally	We actively encourage students to reuse materials, use materials sparingly and in a way as to not create too many unusable off-cuts.								

Timestamp	Universities should actively promote sustainability	Sustainability should be integrated into all departments	The University take actions to limit negative impact	Which vehicle do you use to go to your workplace?	Do you use the recycling bins in the building?	Do you use a reusable bottle?	Do you use a mug or a cup in your workplace?	How often do you buy a plastic water bottle in the college?	Do you have your own cutlery in your workplace?	How often do you use the metal cutlery available in the college?	What area do you work in?	Since the beginning of the academic year 2019/2020, how many A4 pages did you print in school?	Do you regularly ask your students to print material to show to class?	Do you support and encourage sustainable attitudes among your students, if so how? (specify your department)	Have you followed some form of training or do you have any kind of experience regarding sustainability in your field?	Do you consider sustainability in your personal practice?	Are there some other sustainable initiatives in your department, if so what are they? (specify your department)
06/03/2020 11:48:30	Agree	Agree	Agree	tube / santander bike	they arnt any in sackler battersea where i work, there does not seem to be many options	Yes	Yes	Never	shared staff cutlery	Barely	TUTORS AND DEANS	10-50	Never	painting- we have started the new Academic Statement of Intent for Sustainability in school, and hoping to push out to college wide. please email fro further info- jesse. ash@rca.ac.uk	No	Always	painting- as well as ASIS we have materials swap shop run by technician.
06/03/2020 12:33:53	Agree	Agree	Agree	TUBE	Always	Yes	Yes	Never	Yes	Barely	ADMINISTRATION OFFICES						
06/03/2020 14:52:29	Agree	Agree	Agree	TUBE	Always	Yes	Yes	A few times a year	No	Often	TUTORS AND DEANS	0-10	Never	Materials for WIP show	Yes	Always	None yet
06/03/2020 16:07:53	Agree	Agree	I don't have an opinion	Bycicle	Always	No	No	Never	Use hands for sandwich	Never used	TUTORS AND DEANS	50-100	Never	I do	No	Sometimes	
06/03/2020 21:00:46	Agree	Agree	I don't have an opinion	BIKE	Always	Yes	Yes	A few times a month	Yes	Barely	WORKSHOPS						
06/03/2020 23:42:47	Agree	I don't have an opinion	I don't have an opinion	BIKE	Always	Yes	Yes	Never	Yes	Never used	TUTORS AND DEANS	0-10	I 'm a tutor in the Print dept, so inevitably we do make prints	we recycle, we try and leave a space for the recycling of materials as well as reading matter	No	Sometimes	I always turn the lights off when I'm last in the office
07/03/2020 09:52:48	Agree	Agree	Agree	Train	there are not enough	Yes	Yes	Never	Yes	Always	TUTORS AND DEANS	10-50	Never	by example and observations around studio practice (painting)	No	Always	Jesse Ash is on the sustainability panel and keeps us up to date (painting)
08/03/2020 20:31:28	Agree	Agree	Agree	Train, Tube, Walking	Sometimes	Yes	Yes	A few times a year	No	Barely	TUTORS AND DEANS	10-50	Barely		Yes	Always	
08/03/2020 21:48:27	Agree	Agree	Agree	TUBE	Sometimes	Yes	Yes	Never	No	no access to metal cutlery at white city	TUTORS AND DEANS	10-50	Barely		Yes	Sometimes	
09/03/2020 11:00:43	Agree	Agree	Agree	BUS	Always	Yes	Yes	Never	Yes	Barely	WORKSHOPS						
09/03/2020 13:41:20	Agree	Agree	is that 'should'? or 'does'? this is mis-worded	WALKING	Always	Yes	Yes	Never	Yes	Never used	ART SHOP						
09/03/2020 15:13:35	Agree	Agree	I don't have an opinion	mainline train, bus and train	Always	Yes	Yes	Never	Yes	Often	TUTORS AND DEANS	0-10	Never	not applicable	No	Always	not applicable
09/03/2020 16:55:40	Agree	Agree	Disagree	BIKE	They all go into the same bin, so what's the point	Yes	Yes	Never	Yes	Often	WORKSHOPS						
10/03/2020 09:52:21	Agree	Agree	Agree	Train	Always	Yes	Yes	Never	Yes	Always	ADMINISTRATION OFFICES						
10/03/2020 13:35:50	I don't have an opinion	I don't have an opinion	I don't have an opinion	Walk and Bus - maybe you should have made this a question that allowed multiple selections	Sometimes	Yes	Yes	Never	No	use my hands	LIBRARY						

ıive om students ut ly and IT?	After how many seconds/minutes are the computers put into sleep mode in the school?	Do the computers get shut down at night when they are not in use?	Have you noticed any issues around sustainability in your department? If so, how would you fix it?	Are there some other sustainable initiatives in your department? If so, what are they?	How do you dispose of broken or damaged items?	Do you recycle any tech items if they are broken or damaged?	How many items do you dispose of per year?	Where do you get the new equipments from?	Are some of the tech equipment bought second hand?	If an item isn't borrowed often, after what length of time does it get disposed of?	How do you dispose of items that are still fully functioning?	Are there some other sustainable initiatives in your department. If so, what are they?	How many letters do you receive on a daily basis?	How many packages do you receive on a daily basis?	If not picked up, after how long is a letter of package disposed of?

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															Wood, Metal, Silicone, Paper, Plastic, Ceramic, Clay, Soil, Plaster		Yes
															Metal	1/2 a dustbin	Yes
									there are hundresds	sadly not	silicon and clay	0-10	we sell reuseable cups and water bottles				
															Wood, Silicone, Paper, Plastic, Clay, Plaster, Resin, foamboard	SO MUCH!!! Including toxic waste, around 20 bin bags	Yes
		50-100	If a student pays for a replacement copy of a book they damaged, they can keep the damaged copy. Other books are sold in a book sale or sent to AnyBooks, a company that will sell second hand books on our behalf. We will look to buy replacement copies for damaged items, particularly if the book is on a reading list, is popular and/or is a key/classic text. If a replacement is prohibitively expensive or is unavailable to purchase we will consider sending the damaged copy to be repaired/rebound by an external company.	Dawson, Amazon, AbeBooks, ACC Books and on occasion we source directly from museums and galleries.	Yes	Yes	If a book has not been borrowed for ten years, it is considered for removal from the collection. Librarians will then look at books which meet this criterion and decide if they should be removed or retained. Books which are removed from the collection are either sold in the book sale or sent to AnyBooks to be sold on our behalf.	not sure									

Are there some other sustainable initiatives in your department, if so what are they?	To your knowledge, are the offcuts being re-used?	Do students show interest in re-using materials?	How often do students use recycled materials?	Do you support and encourage sustainable attitudes amongst students, if so how?	How many sheets of paper (A4) do you sell per week on an average?	Can you quantify approximately, how much waste is accumulated over the course of a week?	How much ink-cartridge do you replace on a weekly basis?	Do students use scrap paper for tests?	Do you support and encourage sustainable attitudes amongst the students, if so how?	How many sheets of paper do you use weekly?	Are you officially or unofficially required to print out emails for some specific occasions, if yes on what occasions?	Are there some sustainable initiatives in your department, if so what are they?
										0-10	confirmation emails	recycling
	Yes	Yes	Always									
separate cardboard collection, recycling of metal off cuts	Yes	Yes	Often	Using off cuts and recycled materials for Marquettes and prototypes								
No - but we are hoping to introduce more sustainable materials in time, and we try to encourage students to think about the impact of their work, but this is not instilled by most of their courses	Yes	No	When we tell them to, sometimes	Yes, we try and recommend sustainable alternatives and support them where we can with this								
										20-50		

Display Energy Certificate

HM Government

How efficiently is this building being used?

Royal College of Art
Royal College of Art
Dyson Building, 20 Howie Street
LONDON
SW11 4AY

Certificate Reference Number:
0893-9869-8210-6300-2603

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building including for lighting, heating, cooling, ventilation and hot water. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information in the guidance document *Display Energy Certificates and advisory reports for public buildings* available on the Government's website at: www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Operational Rating

This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.

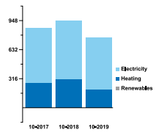
More energy efficient

- A 0-25
- B 26-50
- C 51-75
- D 76-100
- 100 would be typical
- E 101-125 ◀ 106
- F 126-150
- G Over 150

Less energy efficient

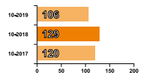
Total CO_2 Emissions

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO_2.



Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods.



Technical Information

This tells you technical information about how energy is used in this building. Consumption data based on actual meter readings.

Main heating fuel: Natural Gas
Building environment: Mixed-mode with Natural Ventilation
Total useful floor area (m²): 7089.54
Asset Rating: Not available

	Heating	Electricity
Annual Energy Use (kWh/m²/year)	144	146
Typical Energy Use (kWh/m²/year)	242	101
Energy from renewables	0.0%	0.0%

Administrative Information

This is a Display Energy Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software: SystemsLink, ORToolkit, v3.6
Property Reference: 238388290000
Assessor Name: Simon Chandler
Assessor Number: STRO004840
Accreditation Scheme: Stroma Certification Ltd
Employer/Trading Name: 1st For Energy
Employer/Trading Address: Gillespie House, 12 Chapel St, Dunfermline, Fife. KY12 7AW
Issue Date: 07-11-2019
Nominated Date: 31-10-2019
Valid Until: 30-10-2020
Related Party Disclosure: Not related to the occupier.

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report - .
You can obtain contact details of Stroma Certification Ltd at www.stroma.com.

Display Energy Certificate

HM Government

How efficiently is this building being used?

Darwin Building
Royal College of Art
Kensington Gore
LONDON
SW7 2EU

Certificate Reference Number:
0680-0016-7179-6290-5096

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building including for lighting, heating, cooling, ventilation and hot water. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information in the guidance document *Display Energy Certificates and advisory reports for public buildings* available on the Government's website at: www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Operational Rating

This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.

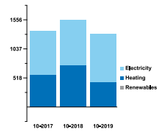
More energy efficient

- A 0-25
- B 26-50
- C 51-75
- D 76-100 ◀ 97
- 100 would be typical
- E 101-125
- F 126-150
- G Over 150

Less energy efficient

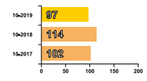
Total CO_2 Emissions

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO_2.



Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods.



Technical Information

This tells you technical information about how energy is used in this building. Consumption data based on actual meter readings.

Main heating fuel: Natural Gas
Building environment: Heating and Natural Ventilation
Total useful floor area (m²): 14997.61
Asset Rating: Not available

	Heating	Electricity
Annual Energy Use (kWh/m²/year)	154	104
Typical Energy Use (kWh/m²/year)	212	88
Energy from renewables	0.0%	0.0%

Administrative Information

This is a Display Energy Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software: SystemsLink, ORToolkit, v3.6
Property Reference: 867150270000
Assessor Name: Simon Chandler
Assessor Number: STRO004840
Accreditation Scheme: Stroma Certification Ltd
Employer/Trading Name: 1st For Energy
Employer/Trading Address: Gillespie House, 12 Chapel St, Dunfermline, Fife. KY12 7AW
Issue Date: 07-11-2019
Nominated Date: 31-10-2019
Valid Until: 30-10-2020
Related Party Disclosure: Not related to the occupier.

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report - .
You can obtain contact details of Stroma Certification Ltd at www.stroma.com.

Display Energy Certificate

HM Government

How efficiently is this building being used?

Stevens Building
Royal College of Art
Stevens Building
4-6 Jay Mews
LONDON
SW7 2EU

Certificate Reference Number:
0650-0116-6299-1390-2096

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building including for lighting, heating, cooling, ventilation and hot water. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information in the guidance document *Display Energy Certificates and advisory reports for public buildings* available on the Government's website at: www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Operational Rating

This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.

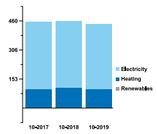
More energy efficient

- A 0-25
- B 26-50
- C 51-75
- D 76-100 ◀ 84
- 100 would be typical
- E 101-125
- F 126-150
- G Over 150

Less energy efficient

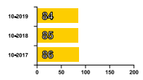
Total CO_2 Emissions

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO_2.



Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods.



Technical Information

This tells you technical information about how energy is used in this building. Consumption data based on actual meter readings.

Main heating fuel: Natural Gas
Building environment: Heating and Natural Ventilation
Total useful floor area (m²): 5193
Asset Rating: Not available

	Heating	Electricity
Annual Energy Use (kWh/m²/year)	97	121
Typical Energy Use (kWh/m²/year)	242	101
Energy from renewables	0.0%	0.0%

Administrative Information

This is a Display Energy Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software: SystemsLink, ORToolkit, v3.6
Property Reference: 519221360000
Assessor Name: Simon Chandler
Assessor Number: STRO004840
Accreditation Scheme: Stroma Certification Ltd
Employer/Trading Name: 1st For Energy
Employer/Trading Address: Gillespie House, 12 Chapel St, Dunfermline, Fife. KY12 7AW
Issue Date: 07-11-2019
Nominated Date: 31-10-2019
Valid Until: 30-10-2020
Related Party Disclosure: Not related to the occupier.

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report - .
You can obtain contact details of Stroma Certification Ltd at www.stroma.com.

Display Energy Certificate

HM Government

How efficiently is this building being used?

Sackler Building
14-22, Howie Street
LONDON
SW11 4AY

Certificate Reference Number:
9000-9946-0161-8870-1080

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building including for lighting, heating, cooling, ventilation and hot water. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information in the guidance document *Display Energy Certificates and advisory reports for public buildings* available on the Government's website at: www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Operational Rating

This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.

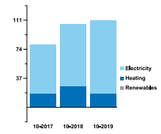
More energy efficient

- A 0-25
- B 26-50
- C 51-75
- D 76-100 ◀ 82
- 100 would be typical
- E 101-125
- F 126-150
- G Over 150

Less energy efficient

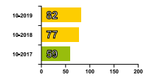
Total CO_2 Emissions

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO_2.



Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods.



Technical Information

This tells you technical information about how energy is used in this building. Consumption data based on actual meter readings.

Main heating fuel: Natural Gas
Building environment: Heating and Natural Ventilation
Total useful floor area (m²): 1480
Asset Rating: Not available

	Heating	Electricity
Annual Energy Use (kWh/m²/year)	61	116
Typical Energy Use (kWh/m²/year)	205	96
Energy from renewables	0.0%	0.0%

Administrative Information

This is a Display Energy Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software: SystemsLink, ORToolkit, v3.6
Property Reference: 986461780000
Assessor Name: Simon Chandler
Assessor Number: STRO004840
Accreditation Scheme: Stroma Certification Ltd
Employer/Trading Name: 1st For Energy
Employer/Trading Address: Gillespie House, 12 Chapel St, Dunfermline, Fife. KY12 7AW
Issue Date: 07-11-2019
Nominated Date: 31-10-2019
Valid Until: 30-10-2020
Related Party Disclosure: Not related to the occupier.

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report - 9988-2070-0416-0190-8601.
You can obtain contact details of Stroma Certification Ltd at www.stroma.com.

Display Energy Certificate

HM Government

How efficiently is this building being used?

Royal College of Arts
11 Dorando Close
LONDON
W12 7FN

Certificate Reference Number:
0590-0818-3289-4799-6096

This certificate indicates how much energy is being used to operate this building. The operational rating is based on meter readings of all the energy actually used in the building including for lighting, heating, cooling, ventilation and hot water. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information in the guidance document *Display Energy Certificates and advisory reports for public buildings* available on the Government's website at: www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Operational Rating

This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.

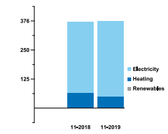
More energy efficient

- A 0-25
- B 26-50
- C 51-75
- D 76-100
- 100 would be typical
- E 101-125 ◀ 104
- F 126-150
- G Over 150

Less energy efficient

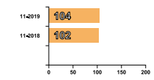
Total CO_2 Emissions

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO_2.



Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods.



Technical Information

This tells you technical information about how energy is used in this building. Consumption data based on actual meter readings.

Main heating fuel: Natural Gas
Building environment: Heating and Mechanical Ventilation
Total useful floor area (m²): 4190.23
Asset Rating: 39

	Heating	Electricity
Annual Energy Use (kWh/m²/year)	60	142
Typical Energy Use (kWh/m²/year)	216	80
Energy from renewables	0.0%	0.0%

Administrative Information

This is a Display Energy Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software: SystemsLink, ORToolkit, v3.6
Property Reference: 948268730000
Assessor Name: Simon Chandler
Assessor Number: STRO004840
Accreditation Scheme: Stroma Certification Ltd
Employer/Trading Name: 1st For Energy
Employer/Trading Address: Gillespie House, 12 Chapel St, Dunfermline, Fife. KY12 7AW
Issue Date: 07-11-2019
Nominated Date: 01-11-2019
Valid Until: 31-10-2020
Related Party Disclosure: Not related to the occupier.

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report - .
You can obtain contact details of Stroma Certification Ltd at www.stroma.com.

HESA

Buildings and spaces

Academic years 2015/16 to 2017/18

Show: Overview

Search by HE provider

Country of HE provider: Choose a value... Region of HE provider: Choose a value...

Academic year: 2017/18

	Total number of sites	Total number of buildings	Total site area (hectares)	Total grounds area (hectares)	Total playing fields area (hectares)	Total gross internal area (m2)	Total number of car parking spaces	Total number of cycle spaces
Ravensbourne University London	2	3	0	0	0	14,445	8	100
The University of Reading	3	181	131	123	23	202,464	2,256	3,362
The Robert Gordon University	2	29	56	17	0	107,218	1,112	288
Roehampton University	4	51				112,510	392	
Rose Bruford College of Theatre and Performance	2	9	6	2	2	13,246	116	140
Royal Academy of Music	4	5	0	0	0	14,504	0	78
Royal Agricultural University	3	31				23,588	745	75
Royal College of Art	3	12	1	0	0	34,656	25	290
Royal College of Music						12,262		
The Royal Central School of Speech and Drama	3	8	1	1	0	12,309	2	40
Royal Holloway and Bedford New College	3	124	78	69	3	187,734	1,438	883
Royal Northern College of Music	1	1	1	0	0	18,274	160	126

Reset filters | Reset sort | Download table (csv) | Download source data (csv) | About DT042 Table 1

Finances and people

Academic years 2015/16 to 2017/18

Show: Finances

Search by HE provider

Country of HE provider: Choose a value... Region of HE provider: Choose a value...

Academic year: 2017/18

	Total income (£)	Teaching income (£)	Research income (£)	Other non-residential income (£)	Non-residential income total (£)	Total expenditure (£)
University of Plymouth	248,693,000	184,372,000	21,438,000	32,733,000	238,543,000	245,602,000
The University of Portsmouth	245,652,000	212,133,000	14,307,000	9,219,000	235,659,000	238,897,000
Queen Margaret University, Edinburgh	37,034,000	26,878,000	3,413,000	1,710,000	32,001,000	42,407,000
Queen Mary University of London	461,916,000	271,214,000	138,327,000	35,492,000	445,033,000	448,684,000
Ravensbourne University London	26,971,000	25,687,000	121,000	1,163,000	26,971,000	26,622,000
The University of Reading	317,175,000	195,388,000	56,186,000	55,016,000	306,590,000	348,909,000
The Robert Gordon University	93,383,000	74,080,000	4,223,000	6,794,000	85,097,000	105,989,000
Roehampton University	134,636,000	106,889,000	5,500,000	5,703,000	118,092,000	133,632,000
Rose Bruford College of Theatre and Performance	9,428,000	7,627,000	63,000	540,000	8,230,000	9,705,000
Royal Academy of Music	33,872,000	15,975,000	332,000	16,860,000	33,167,000	22,375,000
Royal Agricultural University	23,496,000	14,492,000	169,000	5,080,000	19,741,000	20,547,000
Royal College of Art	61,080,000	45,340,000	5,491,000	9,610,000	60,441,000	53,938,000
Royal College of Music	34,914,000	18,256,000	862,000	15,410,000	34,528,000	24,483,000
The Royal Central School of Speech and Drama	19,141,000	17,224,000	756,000	1,054,000	19,034,000	17,634,000
Royal Holloway and Bedford New College	173,828,000	113,146,000	26,791,000	9,093,000	149,030,000	169,581,000
Royal Northern College of Music	23,062,000	15,930,000	513,000	5,459,000	21,902,000	22,328,000
The Royal Veterinary College	91,238,000	44,627,000	15,488,000	28,225,000	88,340,000	83,325,000
The University of St Andrews	250,913,000	118,646,000	61,096,000	22,883,000	202,625,000	227,389,000

Reset filters | Reset sort | Download table (csv) | Download source data (csv) | About DT042 Table 5

Emissions and waste

Academic years 2015/16 to 2017/18

Show: Overview

Search by HE provider

Country of HE provider: Choose a value... Region of HE provider: Choose a value...

Academic year: 2017/18

	Total scope 1 and 2 carbon emissions (Kg CO2e)	Total volume of wastewater (m3)	Total scope 3 carbon emissions from waste (tonnes CO2e)	Total scope 3 carbon emissions from water supply (tonnes CO2e)	Total scope 3 carbon emissions from wastewater treatment (tonnes CO2e)	Total waste mass (tonnes)
The University of Reading	11,292,451.102	132,541.156	22.439	53.480	120.723	9,955.245
The Robert Gordon University	6,173,293.787	65,420.000	16.800	23.802	46.317	580.743
Roehampton University	5,765,324.171	119,803.000		41.212	84.821	4,578.080
Rose Bruford College of Theatre and Performance	567,002.364	5,238.000	22.000	1.801	3.709	157.000
Royal Academy of Music	753,908.781	8,089.000		2.783	5.727	137.294
Royal Agricultural University	982,799.645	21,196.070	12.460	7.675	15.149	215.980
Royal College of Art	2,269,213.893	26,041.000	9.617	8.958	18.437	503.796
Royal College of Music	554,938.427	5,914.000		2.034	4.187	31.158
The Royal Central School of Speech and Drama	475,338.114	6,009.500	0.000	2.067	4.255	135.077
Royal Holloway and Bedford New College	10,105,711.233	175,335.980		55.244	124.138	1,645.329

Reset filters | Reset sort | Download table (csv) | Download source data (csv) | About DT042 Table 3

Energy

Academic years 2015/16 to 2017/18

Show: Overview

Search by HE provider

Country of HE provider: Choose a value... Region of HE provider: Choose a value...

Academic year: 2017/18

	Total energy consumption (kWh)	Total fuel used in HE provider owned vehicles (litres)	Total generation of electricity exported to grid (kWh)	Total water consumption (m3)	Total renewable energy generated onsite or offsite (kWh)
Ravensbourne University London	4,319,032.750	0.000	0.000	1,641.945	
The University of Reading	48,188,520.324	12,013.905	0.000	155,463.930	107,353.089
The Robert Gordon University	27,682,840.087	5,416.070	0.000	69,193.000	29,668.000
Roehampton University	26,324,166.000	6,047.000	0.000	119,803.000	30,300.000
Rose Bruford College of Theatre and Performance	2,596,675.000	0.000	0.000	5,238.000	1.000
Royal Academy of Music	3,253,018.160	2,648.140	0.000	8,089.000	0.000
Royal Agricultural University	4,609,279.240	3,880.490	2,080.500	22,311.650	840,127.190
Royal College of Art	10,150,417.000	0.000	0.000	26,041.000	
Royal College of Music	2,344,583.410	0.000	0.000	5,914.000	
The Royal Central School of Speech and Drama	1,962,149.500	0.000	0.000	6,009.500	0.000
Royal Holloway and Bedford New College	45,378,910.000	15,076.000	0.000	160,594.170	51,932.000
Royal Northern College of Music	4,236,726.600	0.000	0.000	10,841.000	0.000
The Royal Veterinary College	19,796,956.200	36,279.610	0.000	84,272.000	0.000

Reset filters | Reset sort | Download table (csv) | Download source data (csv) | About DT042 Table 2

Transport and environment

Academic years 2015/16 to 2017/18

Show: Overview

Search by HE provider

Country of HE provider: Choose a value... Region of HE provider: Choose a value...

Academic year: 2017/18

	Total number of cycle spaces	Total number of car parking spaces	Total renewable energy generated onsite or offsite (kWh)
Roehampton University		392	30,300.000
Rose Bruford College of Theatre and Performance	140	116	1.000
Royal Academy of Music	78	0	0.000
Royal Agricultural University	75	745	840,127.190
Royal College of Art	290	25	
Royal College of Music			
The Royal Central School of Speech and Drama	40	2	0.000
Royal Holloway and Bedford New College	883	1,438	51,932.000
Royal Northern College of Music	126	160	0.000
The Royal Veterinary College	91	784	0.000
The University of St Andrews	1,869	1,250	68,412.000
St George's, University of London	409	86	0.000
St Mary's University College		184	
St Mary's University, Twickenham	247	274	
The University of Salford	410	2,390	10,681.000
SOAS University of London	147	4	25,278.000
SRUC			
Sheffield Hallam University	692	392	31,242.000
The University of Sheffield	2,200	2,200	1,414,488.000
Solent University	487	934	0.000

Reset filters | Reset sort | Download table (csv) | Download source data (csv) | About DT042 Table 4

Carbon Management Plan (draft 2011)

Royal College of Art
Carbon Management Programme

Carbon Management Plan (CMP)

Date: 25 February 2011
Final version
Owner: Mike Alexander – Project Leader
Approval route: Nick Cattermole – Project Sponsor, Project Board
Approval status: Draft

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Foreword from Dr Paul Thompson, Rector

Climate change is one of the greatest challenges facing society today and the College recognises that it has a responsibility to contribute to the commitments made by the HE sector and the UK national commitments to reduce carbon emissions. The College has made significant progress in recent years in raising the profile of sustainability in all areas of our activity and in the operation of our estate. Participation in the Higher Education Carbon Management Programme has provided a great opportunity to map out how we can further reduce the environmental impact of these activities.

Most of our carbon emissions come from our consumption of gas and electricity. We can expect energy prices to continue to rise in future years, so reducing the amount that we use also makes sound financial sense, saving resources for our core activities.

The development of this Carbon Management Plan not only commits the College to a practical target of a 25% reduction in our CO_2 emissions by 2015 but also provides a clear demonstration that we are prepared to lead by example. This will present a significant challenge against a background of planned College growth and a very challenging financial climate. Meeting this challenge will require ongoing commitment from our Carbon Management Team and support from staff and students. This plan is only the start of the process – we now move forward to the implementation stage.

Dr Paul Thompson
Rector, Royal College of Art

Foreword from the Carbon Trust

Cutting carbon emissions as part of the fight against climate change should be a key priority for Universities and Colleges - it's all about getting your own house in order and leading by example. The UK government has identified the Higher Education sector as key to delivering carbon reduction across the UK in line with the Climate Change Act targets, and the HE Carbon Management programme is designed in response to this. It assists Higher Education institutions in saving money on energy and putting it to better use elsewhere, whilst making a positive contribution to the environment by lowering carbon emissions.

The Royal College of Art partnered with the Carbon Trust on this ambitious programme in 2010 in order to realise substantial carbon and cost savings. This Carbon Management Plan commits the RCA to a target of reducing CO_2 by 25% by 2014/15 and underpins potential financial savings to the institution of around £147,000 per year by that date.

There are those that can and those that do. Higher Education Institutions can contribute significantly to reducing CO_2 emissions. The Carbon Trust is very proud to support the Royal College of Artin their ongoing implementation of carbon management.

Richard Rugg
Head of Public Sector, Carbon Trust

Management Summary

The Royal College of Art acknowledges that climate change is a significant issue for the global and UK environment, the UK economy, and organisations in the public and private sector. The vast majority of scientists and informed observers accept that evidence shows the Earth is warming and that human activity is making a significant contribution to this. By working with the Carbon Trust and participating in Phase 6 of the Higher Education Carbon Management (HECM) Programme, the College is taking the opportunity to make significant efforts to reduce the impact that its activities have on the local and global environment. By a setting reduction target the College is contributing to national and HE sector commitments to reduce emissions of carbon dioxide (CO_2).

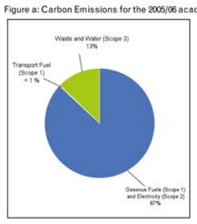
The HECM Programme is based around a proven five-step process leading to emissions reductions that will maximise benefits to the College and its stakeholders. The first four steps in the process have been undertaken systematically by the College over a ten month period from April 2010 to February 2011. The process has led to the production of this Carbon Management Plan (CMP) which sets out an organisation-wide strategy for managing carbon emissions during the next five years, including a key carbon reduction target and specific actions through which this target can be met.

The Royal College of Art has set a target to reduce annual CO_2 emissions by 25% (in absolute terms) by the end of 2014/15 academic year, compared to the 2009/10 emissions baseline of 2,353 tonnes of CO_2.

The final stage of the HECM Programme will be the implementation of the CMP up to the end of the 2014/15 academic year. Governance of the programme, as well as the strategic ownership of the carbon reduction target, rests with the Programme Board, composed of members of the College Senior Management Team including the Rector of the College. The College has also set an **aspirational target of reducing Scope 1 and 2 CO_2 emissions by 30% by 2020 compared to the 2005/06 baseline of 2,808 tonnes CO_2.** In order to make further progress to meet this target the development of further carbon reduction projects will be linked in to the College strategic planning process.

The carbon emissions baseline for the College was calculated using data from the 2005/06 to the 2009/10 academic years (1st August to 31st July) including emission sources from gas and electrical utilities, college vehicles, non-recycled waste and water for campuses at both Kensington and Battersea. Figure a below shows the typical breakdown for these emissions.

Figure a: Carbon Emissions for the 2005/06 academic year:

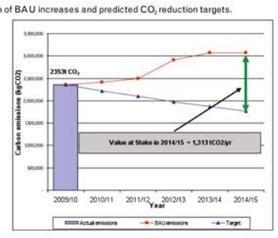


Based on the emissions baseline, two different consumption scenarios have been projected: **The Business As Usual (BAU) scenario** predicts the effect on cost and carbon emissions of taking no action to limit the organisations increasing consumption of energy, while **the Reduced CO_2 Emissions Scenario (RES)** predicts the effect on cost and carbon emissions of reducing the emissions baseline by the targeted 25% over 5 years, from 2009/10 to 2014/15 (5.9% per annum), assuming that the reduction is achieved through reduced energy consumption alone.

Under the BAU scenario carbon emissions are expected to rise significantly from 2353 tonnes CO_2 in 2009/10 to 3077 tonnes CO_2 in 2014/15. This growth includes a predicted increase in student numbers of 53% and an increase in the size of the College Estate of 19% in the 2012/13 academic year, when the Dyson Building in Battersea is completed (see Appendix A). In the same period annual energy costs could be expected to rise from £427k in 2009/10 to £618k.

The Value at Stake (VAS) is the difference in emissions or costs between the BAU and the RES; that is, the hypothetical potential value that could be obtained by undertaking a carbon management approach and implementing emissions reductions initiatives in order to reduce baseline emissions by the target, not including the cost of implementing the measures. Figure b shows a comparison of **BAU increases and predicted reduction targets.**

Figure b: Comparison of BAU increases and predicted CO_2 reduction targets.



Achievement of the 25% target would result in a reduction of 1,313 tonnes CO_2/yr by 2014/15 (the Value at Stake).

This would correspond to a £273k reduction in the annual energy billin 2014/15 against the BAU projection of £618k.

To meet the carbon reduction target, a series of specific carbon saving projects and initiatives have been generated and developed into fully costed projects by the Carbon Management Project Team, including:

- A college-wide awareness campaign for staff and students;
- Upgrading lighting and installing automatic sensors and controls;
- Replacement heating system for the Darwin Building;
- Replacement hot water boiler for the Darwin Building;
- A sustainable procurement campaign for electrical equipment;
- Introducing automatic half-hourly sub-metering of utilities in College buildings;
- Installing Voltage Optimisation equipment on electrical intakes within the Darwin Building;

- Expansion of building energy management systems.

The reduction in emissions for the 2014/15 academic year is 947t CO_2/yr as a result of the projects in the plan.

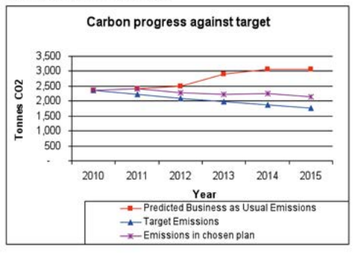
Taking into account the significant BAU growth up to 2014/15 this represents a 9.4% decrease against the 2009/10 baseline year.

The projects identified in the plan account for 72% of the carbon value at stake in 2014/15.

Figure c shows progress against 25% reduction target and the BAU scenario. The College recognises that there is a potential shortfall against the 25% target however this is against a backdrop of significant BAU growth due to increases in student numbers and in the size of the College Estate. Further carbon reduction projects will need to be identified throughout the implementation phase of the Carbon Management Program in order to this address this shortfall.

When compared to the **2005/06 baseline** of 2,808 t CO_2 the emissions in the chosen plan represent a reduction of 24% taking into account the growth in the BAU scenario.

Figure c: CO_2 Emissions progress against Target



The overall cost of implementing the carbon reduction projects between 2010/11 and 2014/15 will be £649k

The figure includes agreed capital funding of £161,200 for 2011/12 and £149,000 for 2012/13.

Financial savings of £147k are predicted for the 2014/15 academic year as a result of the projects in the plan.

The total financial savings from the identified projects throughout the five years of the Carbon Management Plan are predicted to be £415k.

The average simple payback for the projects in the plan is 4.4 years.

1. Introduction

The Royal College of Art is the only wholly postgraduate art and design institution in the world. The College has around 300 staff and over 1000 full time students studying MA and research programmes in a wide range of art and design disciplines. Situated in Central London the main College campus is located in Kensington and comprises four buildings the largest of which is the Grade II listed Darwin Building opened in 1962. The Darwin Building contains a number of energy intensive processes including workshops, kiln rooms and glass furnaces. This building also incorporates gallery spaces which are open to the public for College shows and other events. A second campus is located in Battersea and comprises three buildings including the Sculpture Building and the Sackler Building which is home to the Painting Department and opened in 2009. The total size of the College estate is currently 24,681 m^2. The College has started work on an additional building in Battersea (the Dyson Building) which will add an additional 4750 m^2 of space opening in the 2012/13 academic year.

The College along with most Higher Education Institutions (HEIs) acknowledges that climate change is a significant issue for the global and UK environment, the UK economy, and organisations in the public and private sector. The College is also committed to HE Sector and UK national commitments to reduce carbon emissions. By signing up to the Higher Education Carbon Management (HECM) Programme and working with the Carbon Trust the College will have a clear plan for reducing carbon emissions across our estate. This will help to fulfil the stated intentions within the College Environmental Policy to reduce carbon emissions in addition to a number of other key benefits:

- Reducing operational costs from electricity, gas and other energy sources which is particularly important during the current difficult funding climate;
- Generating greater awareness of sustainability and the environmental impact of carbon emissions throughout the College;
- Enhancing the reputation of the College with staff, students and other stakeholders and across the HE sector;
- Strengthening the work carried out by the College Environmental Committee.

The HECM Programme is based around a five-step process through which the College can create an organisation-wide carbon management strategy:

Figure 1: Diagram of HECM Process:

The first four steps in the process have been undertaken by the College over a ten month period from April 2010 to February 2011, culminating in the production of this Carbon Management Plan (CMP) which sets out a strategy for managing carbon emissions, including emission reduction targets and specific actions by which those targets can be

met. Step 5 will see the college implementing the CMP between April 2011 and the end of the 2015/16 academic year.

The College has been steadily strengthening its focus on sustainable development and environmental management over recent years. Key milestones in sustainability and carbon management are listed below:

2004: Sustainability working group formed.

2005: Carbon Trust Survey carried out.

2006: Windows replaced in the Darwin Building (double glazed units).

2007: GreenRCA working group formed;
College wide recycling schemes implemented;
Participation in South Kensington 1851 Estate 'Invest to Save Project';
Sculpture Building re-furbished to Building Regulations Part L.

2008: Environmental policy approved;
Post of Health, Safety and Environmental Officer agreed;
Awareness campaign for energy efficiency.

2009: Environmental policy reviewed and updated;
Baseline Environmental Review carried out;
Environmental goals and objectives agreed by Senior management Team;
Additional Carbon Trust Survey to identify carbon reduction opportunities;
Initial calculation of carbon emissions baseline;
Introduction of Display Energy Certificates;
Sackler Building redevelopment to Building Regulations Part L.

2010: College Environmental Committee formed.

2. Carbon Management Strategy

2.1 Context and drivers for Carbon Management

Global climate change is recognised as the key environmental threat facing the world. Concerns over fossil fuel depletion, security of energy supplies and rising energy costs are focusing the attention of individuals, organisations and governments on the need for energy conservation and carbon emission reduction. There are a number of key drivers that have led to the College developing a Carbon Management Strategy. These include national legislation and policy, financial risks, College environmental policies, and reputation and stakeholder issues.

National Legislation and Policy

The UK Government has placed an emphasis on the public sector setting a leading example on Climate Change. Through the **Climate Change Act 2008** the UK government has set a goal of a 34% reduction in carbon emissions by 2020 and a long term reduction goal of 80% by 2050. Public sector leadership will be critical to the achievement of the Government's climate change objectives. This has resulted in a number of legislative and policy drivers for public bodies to reduce carbon emissions:

Higher Education Funding Council for England (HEFCE) - In January 2010 HEFCE issued a Carbon Management Strategy for Higher Education Institutions in England. The strategy includes the following carbon baseline reduction targets for the sector in accordance with those set by the Climate Change Act. A 34% reduction by 2020 against 1990 baseline year (academic year 1990/91), which equates to a 43% reduction against a 2005 baseline year (academic year 2005/06). HEFCE have also established a link between future capital funding and carbon reduction through the Capital Investment Framework (CIF2) assessment process.

Display Energy Certificates (DECs) – Since 1st October 2008 under the Energy Performance of Buildings Directive (EPBD) there has been a legal requirement for all public sector buildings with a total useful floor area of over 1,000m^2, to show a Display Energy Certificate (DEC) in a prominent place, clearly visible to the public.

Carbon Reduction Commitment (CRC) – The CRC is a mandatory emissions trading scheme for organisations whose total electricity consumption for 2008 was greater than 6,000 Mega Watt Hours or approximately £500k. These organisations will be required to buy carbon allowances annually, based on consumption, to cover their carbon emissions. Organisations will be benchmarked against each other and the results published in a CRC League Table. Poor performance will result in a potentially significant financial impact as well as affecting reputation.

The Royal College of Art is not currently obligated to participate in the initial CRC scheme because our electricity consumption is below the 6,000MWh threshold however it is widely anticipated that this threshold may be reduced in the future.

Other legislative drivers include the 2010 Building Regulations Part L (Conservation of fuel and power) for new and refurbished buildings and policy levers such as the landfill tax and planning conditions for new developments which require Travel Plans.

Financial Risks

Electricity and gas prices have seen significant volatility recently, partly in response to increased climate change regulation. The volatility of energy markets and high cost of utilities is also a key driver. In order to manage the risk associated with volatile energy markets and reduce costs it is necessary to ensure that all energy is used as efficiently as possible.

Reputation and Stakeholder Issues

A key reputational driver is performance in the People and Planet Green League, which now includes a number of measures relating to carbon management. There is also potential stakeholder interest in carbon management from prospective and current students, staff, members of the public and also individuals and organizations who support the College financially. The development of a comprehensive Carbon Management Plan will help to address the concerns of these stakeholders.

2.2 Strategic themes

The following strategic themes arising from the HECM programme will consolidate the College's focus on carbon reduction, energy efficiency and wider sustainability issues:

The role of the Carbon Management Plan within the College – To provide a plan with clear guidance on carbon reduction and emission targets which can be integrated into the culture of the College through wider academic, sustainability and estate management strategies.

Policy review – To continue to review and develop the College Environmental Policy and create additional policies and procedures to ensure that there is effective support for ongoing reductions in carbon emissions.

Investment and financial planning – To ensure that existing budgets are maintained to promote a cost efficient and energy saving maintenance regime and contribute to reduction targets. To include where possible, identified CMP opportunities within capital budgets and if necessary to look to external funding for CMP projects if appropriate.

Stakeholder Engagement – To provide a plan that is effectively communicated throughout the College in order to promote continued input from and engagement with staff, students and other stakeholders..

Benchmarking Performance – To continue to actively contribute to benchmarking activities, such as the Estates Management Statistics and People and Planet Green League and other sector wide initiatives in order to demonstrate progress and learn from the best practice within the Sector.

Local Metering – To ensure that carbon savings are measurable through a range of technical infrastructure improvements (local metering). This will facilitate the communication of progress towards carbon reduction targets and promote the involvement of staff, students and visitors through behaviour change campaigns.

Strategic Partnerships – To work with HEIs and other public sector bodies in the London area (and the wider HE sector) on policy initiatives and where appropriate infrastructure projects to help achieve reduction targets.

2.3 Targets and objectives

The Royal College of Art has set a target to reduce CO_2 emissions from those activities identified in the scope of the Carbon Management Programme by 25% (in absolute terms) by the end of the 2014/15 academic year, compared to the baseline year of 2009/10.

The College has also set an aspirational target to reduce Scope 1 and 2 CO_2 emissions by 30% (in absolute terms) by the end of the 2019/20 academic year, compared to the baseline year of 2005/6.

3. Emissions Baseline and Projections

3.1 Scope

Calculating an emissions baseline is the first step in enabling the College to quantify its carbon footprint and to gain a better understanding of its overall carbon contribution. This section will detail the sources that have been included and how the emissions baseline has been calculated. The baseline will be used to measure the College's emissions reduction performance as carbon-saving initiatives are implemented during future years.

In accordance with HEFCE guidance all Scope 1 and 2 Emissions are included in the baseline.

Scope 1 emissions are defined as direct emissions occurring from sources that are owned or controlled by the College:

- Natural gas used for heating.
- Liquid Petroleum Gas (Acetylene and Propane) used for processes.
- Transport fuel used in College owned vehicles including the Student Union Mini-bus.

Scope 2 emissions are defined as indirect emissions from the generation of electricity consumed by the College.

1. Purchased electricity from the National Grid.

Scope 3 emissions are defined as those arising as a consequence of the activities of the College but occurring from sources not owned or controlled by the College. The following Scope 3 emissions have been included in the baseline:

- General Waste (this includes landfill waste but not incineration or recycling).
- Water consumption.

The following Scope 3 emissions have not been included in the baseline however they may be considered in future baseline calculations and carbon reduction projects may be identified in the CMP which address these emissions:

1. Staff and student business travel (including student placements).
2. Staff and student commuter travel.
3. Procurement.

3.2 Baseline

The College carbon emissions baseline was calculated using data for the 2005/06 academic years (1st August 2005 to 31st July 2006). The College's financial year also runs concurrently with the academic year from 1st August to 31st July so resource implications and financial savings will be reported concurrently. The utilities consumption, LPG usage, transport fuel, waste and water data was fed into an Emissions Baseline Tool

provided by the Carbon Trust. Emissions expressed in tonnes of CO_2 were calculated using conversion factors embedded within the baseline tool.

Figure 2 shows that in 2005/06 the highest proportion of the carbon emissions baseline (87%) is from Gaseous Fuels (Scope 1) and electricity (Scope 2) with waste and water (Scope 3) at 13%. The contribution of fleet transport fuel for the College (Scope 1) is less than 1%.

Figure 2: Carbon Emissions for the 2005/06 academic year:

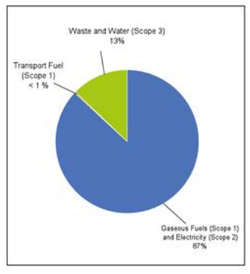


Table 1: Breakdown of baseline CO_2 emissions for the 2005/6 baseline year:

	Gaseous Fuels (Scope 1) and Electricity (Scope 2)	Transport Fuel (Scope 1)	Waste and Water (Scope 3)	Total
Baseline CO_2 Emissions (tonnes CO_2)	2441	9	358	2,808 tonnes

Total Carbon footprint for the 2005/06 baseline year = 2,808 tonnes CO_2

Figure 3 below shows carbon emissions for the period from the 2005/06 baseline year to the last academic year (2009/10) for which data is available. The graph shows an absolute reduction in carbon emissions for this period and also demonstrates year on year reductions.

The percentage reduction in total emissions from 2005/06 to 2009/10 is 16%. This includes a 73% decrease in Scope 3 emissions arising from waste and was the result of a significant change in the way that waste from the College was processed with a large proportion that used to be disposed of to landfill being sent for incineration with energy recovery.

When emissions from Gaseous Fuels (Scope 1) and Electricity (Scope 2) are considered the percentage reduction is 8.5%.

Absolute reduction in CO_2 emissions from 2005/06 to 2009/10 = 16%.

Figure 3: Carbon Emissions for the 2005/06 to 2009/10 academic years:

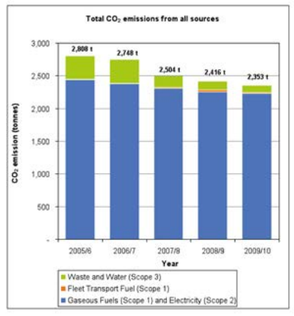


Table 2: Breakdown of baseline CO_2 emissions for the 2009/10 academic year:

	Gaseous Fuels (Scope 1) and Electricity (Scope 2)	Transport Fuel (Scope 1)	Waste and Water (Scope 3)	Total
Baseline CO_2 Emissions (tonnes CO_2)	2,232	17	104	2,353 tonnes
Baseline Cost (£)	£372,418	£7,533	£46,556	£427k

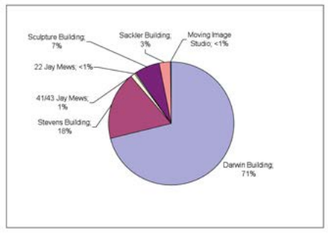
Total Carbon footprint for the 2009/10 baseline year = 2,353 tonnes CO_2

Table 2 above shows that the total financial cost of these emissions. This was calculated using the Emissions Baseline Tool provided by the Carbon Trust. The price conversion factors (p/kWh) for grid electricity and natural gas were average figures calculated based on actual expenditure for the 2009/10 academic year (see below). Other price conversion factors used average values provided by the baseline tool. The calculated total financial cost for the 2009/10 academic year was £426,505.

Average Cost of electricity: 10.16 p/kWh	Average Cost of gas: 2.38 p/kWh

Figure 4 below shows the breakdown of emissions from energy utilities (gas and electric) and LPG by College Buildings for the 2009/10 academic year. The graph shows that the Darwin Building accounts for by far the highest proportion of emissions with 71% followed by Stevens Building at 18% and Sculpture Building at 7%.

Figure 4: Breakdown of carbon emissions from utilities (gas/electric) and LPG for the 2009/10 academic year:



3.3 Projections and Value at Stake

Having established an emissions baseline, it is possible to estimate what the Colleges year on year increases in emissions will be if no further action is taken to limit carbon emissions. This Business as Usual (BAU) scenario, which predicts the effect of taking no action to limit the Colleges increasing consumption of energy, can then be modelled against carbon reduction targets to identify potential savings, in terms of both carbon emissions and financial savings.

For the College the BAU analysis has taken into account step change increases over the next four years. This includes a predicted increase in student numbers of 53% and an increase in the size of the College Estate of 19% in the 2012/13 academic year when the Dyson Building in Battersea is completed (see Appendix A). As the growth is student numbers and the College estate is accounted for by step changes the BAU demand increase in the baseline tool has been assumed to be zero.

The Reduced Emissions Scenario (RES) predicts the effect on cost and carbon emissions of reducing the emissions baseline by the programme targets while off-setting this against the extra cost of energy associated with inflation and market related increases.

The Value at Stake (VAS) is the difference in emissions or costs between the Business as Usual Scenario (BAU) and the Reduced Emissions Scenario (RES) (based on the targets set); that is the potential value that could result from carbon reduction measures that reduce baseline emissions by the specified targets.

Table 3: Carbon Emissions (tonnes CO_2) Value at Stake

(tonnes CO_2)	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
BAU Emissions	2,353	2,409	2,492	2,911	3,077	3,077
RES Emissions	2,353	2,221	2,097	1,980	1,869	1,765
Total Value at Stake	-	187	395	931	1,208	1,313
Cumulative Value at Stake	-	187	582	1,513	2,721	4,034

Table 3 and Figure 5 below show that when growth in student numbers and an increase in the size of the College Estate. The carbon emissions value at stake for 2014/15 is 1313 t CO_2.

Achievement of the 25% target would result in a reduction of 1313 tonnes CO_2/yr by 2014/15.

Figure 5: Comparison of BAU increases and predicted reduction targets for CO_2 emissions.

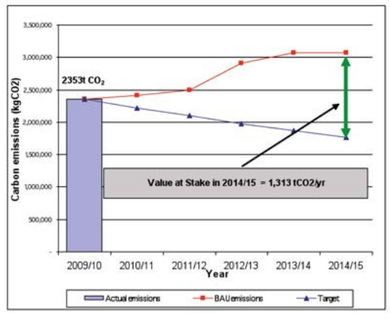


Figure 6: Comparison of BAU increases and predicted reduction targets – financial.

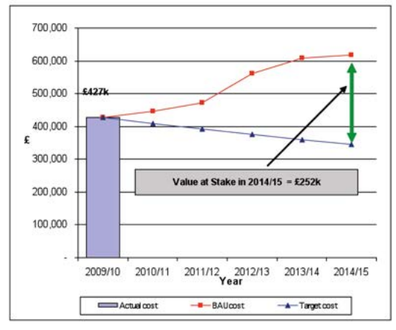


Table 4: Financial Value at Stake

£	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
BAU Emissions	£427k	£446k	£473k	£561k	£609k	£618k
RES Emissions	£427k	£409k	£392k	£375k	£360k	£345k
Total Value at Stake	-	£37k	£81k	£185k	£249k	£273k
Cumulative Value at Stake	-	£37k	£118k	£303k	£552k	£825k

Figure 6 and Table 4 show that the financial value at stake for 2014/15 is £272k against the BAU projection of £618K. This represents the amount of money which could be saved for the whole of that period if the target is met. An inflation figure of 1.7 % has been assumed for energy prices in the Emissions Baseline Tool provided by the Carbon Trust.

4. Carbon Management Projects

There has been increased focus on sustainability and carbon management throughout the College in recent years. A Sustainability Working Group was formed in 2004 working closely with the Students Union on recycling initiatives. This was replaced by the GreenRCA group in 2007. A number of departments and in particular Buildings and Estates and Information Learning Services (Computing Services) have implemented projects and initiatives which have led to potential reductions in carbon emissions. This is reflected in the absolute reduction in emissions from 2005/06 to 2009/10 (see Figure 3 in section 3.2 above). The projects and initiatives are as follows:

- Initial Environmental Audit Review carried out by external consultants and goals and objectives set for Energy Management;
- Energy awareness information for staff and students on GreenRCA intranet pages;
- Formation of formal Environmental Committee to replace Green RCA working group;
- Improved recycling facilities throughout the College;
- Formalisation of Energy Managers role within existing role of Chief Engineer;
- Re-fenestration of the Darwin Building and Common Room Block to improve comfort and thermal performance;
- Replacement of main air compressor for the Darwin Building to save energy by reduced inductive loads;
- Production of Display Energy Certificates for College Buildings under the Energy Performance of Buildings Directive (EPBD);
- Refurbishment of Sculpture Building in Battersea with improved thermal efficiency and modern building services to comply with Building Regulations Part L;
- Refurbishment of industrial unit in Battersea to form Moving Image Studio with greater thermal efficiency than existing space to comply with Building Regulations Part L;
- Sackler Building redevelopment opened for Painting Department with greater thermal efficiency than existing space and improved environmental performance to comply with Building Regulations Part L;
- Additional bike racks installed in partnership with Westminster City Council;
- Survey of air conditioning systems for all College Buildings under EPBD;
- Partial sub-metering of Darwin Building and Common Room Block as part of LV infrastructure replacement works;
- Installation of efficient lighting and controls during refurbishments and through ongoing maintenance programmes;
- Sustainable publishing policy including guidance for minimising waste when printing and photocopying;
- Server virtualisation within main ICT Data Centres;
- Daytime backups and automatic shutdowns for PCs.

In order to identify additional carbon saving opportunities the Carbon Management Project Team:

- Reviewed recommendations from Carbon Trust Opportunities Assessment Surveys undertaken in 2005 and 2009 and a consultants report from a potential Salix Finance bid in 2010;
- Used the process of producing Display Energy Certificates and associated advisory reports to assist in the development of opportunities;
- Undertook Opportunities Workshops to enable project team members and other stakeholders to generate and log carbon saving ideas;
- Used a
- Prioritised all opportunities using a Carbon Management Project Register (CMPR) provided by the Carbon Trust allowing prioritisation based on cost, cost saving, carbon saving, practicality, persistency and qualitative benefits.

The most beneficial emissions saving opportunities, plus some existing projects, were then developed into individual projects by the team, so that the overall cost, annual savings and paybacks were available as shown in the tables below. Detailed analysis of each project can be found in Appendix B.

Existing projects

The following projects are existing from the 2009/10 academic year or ongoing during 2010/11. The £25,000 capital costs for Project 15 (Darwin Building sub metering of >100amp supplies) were as part of a larger project to renew the electrical intakes for parts of the Darwin Building. This larger project was financed through minor works capital funding. The revenue costs for these projects are currently financed through operational budgets from various departments.

Ref	Project	Lead	Cost		Annual Saving		Life	Pay back	NPV	Year
			Cap'l	Rev'ue pa	Fin Gross	t CO_2				
04	Environment Committee formalised	Mike Alexander SHE Officer	£0	£0	£332	2.3	6	n/a	£1,711	2009/10
30	Improved re-cycling facilities to reduce waste to landfill	Chris Franklin Facilities	£0	£2000	£897	4.8	6	does not payback	-£5,876	2010/11
05	Energy Manager's Role formalised	Simon Levine Estates	£0	£0	£6,537	44.3	6	n/a	£34,830	2010/11
15	Darwin Building sub metering of >100amp supplies	Alan Beacon Maintenance	£25,000	£0	£3,297	20.8	15	7 years 7 months	£12,969	2010/11
	TOTAL		£25,000	£2000	£11,063	72.2				

Planned / funded projects

The following projects will be implemented during the remainder of the current academic year (2010/11). The capital and revenue costs for these projects will be financed through operational budgets from various departments.

Ref	Project	Lead	Cost		Annual Saving		Life	Pay back	NPV	Year
			Cap'l	Rev'ue pa	Fin Gross	t CO_2				
03	Energy Management Policy	Simon Levine Estates	£3,000	£0	£6,537	44.3	6	6 months	£31,830	2010/11
07	WC Cistern Hippos	Simon Levine Estates	£100	£0	£396	0.1	5	4 months	£1,689	2010/11
31	41-43 Jay Mews – Replacement Boiler	Alan Beacon Maintenance	£2,500	£100	£218	1.7	15	does not payback	-£1,146	2010/11
32	Computer Rooms – auto shutdowns	Jonathan Warner Computing	£0	£500	£5,799	36.6	6	n/a	£28,238	2010/11
	TOTAL		**£5,600**	**£600**	**£12.950**	**82.7**				

Near term projects

The following projects have been agreed for the next two academic years (2011/12 and 2012/13). The capital costs will be financed through agreed minor works capital funding. The revenue costs for these projects will be financed through operational budgets from various departments.

Ref	Project	Lead	Cost		Annual Saving		Life	Pay back	NPV	Year
			Cap'l	Rev'ue pa	Fin Gross	t CO_2				
001	College wide awareness campaign	Mike Alexander SHE Officer	£4,000	£1,000	£12,852	86.3	6	4 months	£59,153	2011/12
002	Electrical Procurement Campaign for staff	Mike Alexander SHE Officer	£1,000	£100	£1,191	7.5	6	11 months	£4,813	2011/12
009	Lighting Controls Kensington	Alan Beacon Maintenance	£48,600	£0	£10,532	66.4	15	4 years 7 months	£72,702	2011/12
016	Darwin Bldg T5 Fluorescent tubes	Alan Beacon Maintenance	£51,000	£0	£31,931	201.3	15	1 year 7 months	£316,762	2011/12
017	Stevens T5 Fluorescent tubes	Alan Beacon Maintenance	£6,400	£0	£3,366	21.2	15	1 year 11 months	£32,364	2011/12
018	Kensington LED lamp replacement	Alan Beacon Maintenance	£15,200	£0	£9,838	62.0	5	1 year 6 months	£29,220	2011/12
019	BMS Expansion	Alan Beacon Maintenance	£35,000	£0	£10,527	74.2	10	3 years 4 months	£52,551	2011/12
010	Lighting Controls Battersea	Alan Beacon Maintenance	£5,400	£0	£1,170	7.4	15	4 years 7 months	£8,078	2012/13
011	Darwin Building Voltage Optimisation	Alan Beacon Maintenance	£79,000	£0	£21,249	134.0	25	3 years 8 months	£271,224	2012/13
033	Local metering sub 100 amp supplies Kensington	Alan Beacon Maintenance	£50,000	£0	£975	6.1	25	does not payback	-£33,927	2012/13
034	Local metering sub 100 amp supplies Battersea	Alan Beacon Maintenance	£15,000	£0	£406	2.6	25	does not payback	-£8,315	2012/13
	TOTAL		**£310,600**	**£1,100**	**£104,037**	**669**				

Medium- to long-term projects

The following projects have been programmed for the last two years of the carbon Management Programme (2013/14 and 2015/16). The capital costs for these projects have not been allocated however it is assumed that the revenue costs for these projects will be financed through operational budgets from various departments.

Ref	Project	Lead	Cost		Annual Saving		Life	Pay back	NPV	Year
			Cap'l	Rev'ue pa	Fin Gross	t CO_2				
012	Darwin Power factor Correction	Alan Beacon Maintenance	£5,000	£200	£910	5.7	12	7 years	£1,857	2013/14
013	Installation of variable speed drives	Alan Beacon Maintenance	£54,000	£450	£2,913	18.4	15	does not payback	-£25,637	2013/14
023	Darwin Cavity Wall Insulation	Peter Hovell Maintenance	£25,000	£0	£1,164	9.3	40	21yrs 6 months	-£5,812	2013/14
026	Darwin Server virtualisation	Jonathan Warner Computing	£5,900	£400	£824	5.2	6	n/a	-£3,641	2013/14
027	Stevens Server virtualisation	Jonathan Warner Computing	£3,400	£300	£824	5.2	6	n/a	-£608	2013/14
035	Stevens & Sculpture Voltage Optimisation	Alan Beacon Maintenance	£38,000	£200	£6,939	43.8	25	5 years 6 month	£76,372	2013/14
036	Darwin Hot water Boiler Replacement	Alan Beacon Maintenance	£50,000	£0	£4,389	35.0	25	11yrs 5months	£22,337	2013/14
021	Darwin - Rooftop Tower insulation	Simon Levine Estates	£14,000	£0	£236	1.9	25	does not payback	-£10,117	2014/15
022	Common Room Block - Rooftop insulation	Simon Levine Estates	£7,500	£0	£120	1.0	25	does not payback	-£5,520	2014/15
025	Darwin Drawing Studio PV Array	Simon Levine Estates	£90,000	£0	£1,467	9.3	15	does not payback	-£73,103	2014/15
028	Administration print consolidation	Jonathan Warner Computing	£300	£200	£83	0.5	6	does not payback	-£922	2014/15
029	Academic print consolidation	Jonathan Warner Computing	£300	£200	£83	0.5	6	does not payback	-£922	2014/15
	TOTAL		**£293,400**	**£1,950**	**£18,485**	**135.8**				

Projected achievement towards target

	2010/11	2011/12	2012/13	2013/14	2014/15
Annual saving t CO_2/yr	2.3	221.4	667.7	820.4	946.9
% of target achieved against BAU for 2014/15 academic year	0.2%	16.8%	50.9%	62.5%	72.1%

The reduction in emissions for the 2014/15 academic year is 947t CO_2/yr as a result of the projects in the plan.

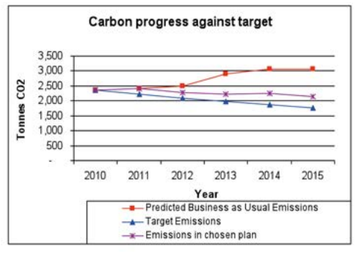
Taking into account the significant BAU growth up to 2014/15 this represents a 9.4% decrease against the 2009/10 baseline year.

The projects identified in the plan account for 72% of the carbon value at stake in 2014/15.

Figure 7 below shows progress against the 25% reduction target for the chosen projects in the Carbon Management Plan. Taking into account the significant BAU growth up to 2014/15 this represents a 9.4% decrease against the 2009/10 baseline year. The projects identified in the plan account for 72% of the carbon value at stake in 2014/15.The College recognises that there is a potential shortfall against the 25% target however this is against a backdrop of significant BAU growth due to increases in student numbers and in the size of the College Estate. Further carbon reduction projects will need to be identified throughout the implementation phase of the Carbon Management Program in order to this address this shortfall.

When compared to the 2005/06 baseline of 2,808 t CO_2 the emissions in the chosen plan represent a reduction of 24% taking into account the growth in the BAU scenario.

Figure 7: CO_2 Emissions progress against Target



Implementation Plan

5.1 Financing

The overall cost of implementing the carbon reduction projects between 2010/11 and 2014/15 will be £649k

5.1.1 Benefits / savings – quantified and un-quantified

Financial savings of £147k are predicted for the 2014/15 academic year as a result of the projects in the plan.

The total financial savings from the identified projects throughout the five years of the Carbon Management Plan are predicted to be £415k.

The average simple payback for the projects in the plan is 4.4 years.

	2010/11	2011/12	2012/13	2013/14	2014/15
Annual cost saving	£332	£34,545	£105,420	£128,050	£146,656

Additional unqualified benefits will include:

- Improved utilities consumption data shown in HEFCE Estates Management Statistics.
- Improved standings in benchmarking exercises such as in People & Planet Green League.
- Improved potential success for application in Capital Investment Framework.
- Improved comfort and environmental conditions in College Buildings.
- Reduction in maintenance and extended plant and equipment life.

5.1.2 Financial costs and sources of funding

Figures in £ 1000's	2010/11	2011/12	2012/13	2013/14	2014/15
Annual costs:					
Total annual capital cost	£30,600	£161,200	£149,400	£181,300	£112,100
Total annual revenue cost	£0	£2,600	£3,700	£3,700	£4,750
Total costs	£30,600	£163,800	£153,100	£185,000	£116,850
Committed funding:					
Committed annual capital	£30,600	£161,200	£149,400	£0	£0
Committed annual revenue	£0	£2,600	£3,700	£3,700	£4,750
Total funded	£30,600	£163,800	£153,100	£3,700	£4,750
Unallocated funding					
Unallocated annual capital	£0	£0	£0	£181,300	£112,100

Unallocated annual revenue	£0	£0	£0	£0	£0
Total unfunded	£0	£0	£0	£181,300	£112,100

The following assumptions were used:

Average Cost of electricity: 8.63 p/kWh	Average Cost of gas: 2.31 p/kWh
All costs for future carbon saving projects are quoted at 2010 prices.	

Sources of Funding:

2010/11: £25,000 for sub-metering project already committed and spent. Additional £5,600 capital costs to be taken from existing operational budgets (see Tables in Section 4.1 and 4.2).

2011/12: £161,200 capital funding agreed from minor works budget. £2,600 revenue costs to be taken from existing operational budgets (see Table in Section 4.3).

2012/13: £149,000 capital funding agreed from minor works budget. £3,700 revenue costs to be taken from existing operational budgets (see Table in Section 4.3).

2013/14: £181,300 capital funding not allocated. £3,700 revenue costs to be taken from existing operational budgets (see Table in Section 4.4).

2014/15: £112,100 capital funding not allocated. £4,750 revenue costs to be taken from existing budgets (see Table in Section 4.4).

5.2 Actions to Embed Carbon Management

Appendix C shows a Carbon Management Embedding Matrix. The matrix shows seven areas of carbon management (embedding factors) ranked in five levels from worst to best practice. For each level there are a number of indicators which have been used to assess the position of the College at the start of the Carbon Management Program. These are highlighted in grey. Further discussion of each area of carbon management along with plans and actions to improve the position of the College in the matrix are detailed below:

Policy

The College is currently at level 4 of this embedding factor.

The College Environmental Policy states that 'the College recognises responsibilities to reduce the environmental impact of its activities and is committed to improve continuously its sustainability performance.' The policy statement also makes the following commitments which relate to carbon management:

- Producing and implementing a Carbon Management Plan to improve energy and water efficiency, increase recycling and minimise waste.
- Considering sustainability as part the College's purchasing processes.
- Ensuring that new buildings and refurbishments take into account sustainability principles.
- Producing and implementing a Travel Plan to encourage more sustainable commuting and business travel.

Environmental objectives and targets have been set for waste management, energy management, water, sustainable procurement, community involvement and biodiversity and sustainable construction. This includes performance targets for key environmental aspects including carbon emissions and percentage of waste recycled. These are reviewed

on an annul basis by the Environmental Committee and signed off by the Senior Management Team.

The new Strategic Plan for the College for 2011-16 was approved by the College council in December 2010 and includes aims and objectives on carbon management. With the completion of this Carbon Management Program and the publication of this Carbon Management Plan the College should achieve level 5 for this embedding factor.

Responsibility

The College is currently at level 3 of this embedding factor.

The responsibility for carbon management is currently divided between several members of staff who have part time responsibility in this area. Energy management is the responsibility of the Chief Engineer who reports to the Head of Buildings and Estates. Strategy and policy are the responsibility of the Safety, Health and Environmental Officer who reports to the Registrar.

Carbon Management Project 4 (see Appendix B) is concerned with formalising the Energy Management as a part-time function within the role of the Chief Engineer. Due to the size of the College it is unlikely that carbon management will be the full-time responsibility of an individual member of staff or multiple members of staff. This precludes the College from moving to level 4 or 5 for this embedding factor. It is also intended that carbon management will be integrated into the responsibilities of Departmental Managers in the future which would move the College to level 4 for this specific indicator. Senior Managers including the Rector are involved in the Carbon Management programme through their membership of the Programme Board.

With the completion of this Carbon Management Program and the publication of this Carbon Management Plan the College will remain at level 3 for this embedding factor.

Data Management

The College is currently at level 3 of this embedding factor.

The College has remotely read half-hourly electricity meters in the Darwin Building, the Stevens Building and Sculpture. Selected newer gas and water meters can also be read remotely. At the moment the data from these meters is read remotely by the utility companies and made available to the College. This data is reviewed internally on a monthly basis and presented graphically. This assists in the early identification of anomalies. Electronic bill validation is also undertaken. From 2010 onwards a sub-metering strategy will be developed which will allow much more detailed analysis of energy consumption data and CO_2 emissions. It is intended that this data will be made available to staff and/or students in individual areas such as workshops or studios which will assist greatly in the process of awareness raising and behaviour change (see Appendix B - Carbon Management Project 1).

The installation of local metering with remote reading will enable energy usage to be monitored on a monthly basis by the Carbon Management Project Team throughout the implementation phase of the identified projects and initiatives. This will assist with monitoring progress against the carbon reduction target (see Section 5.3.2).

From 2011 it is intended that data on all waste streams will be collated on a monthly basis to allow more detailed analysis of trends (see Appendix B - Carbon Management Project 30).

For transport emissions data for College fleet vehicles is currently available and this has been included in the baseline for this Carbon Management Plan. Data for other forms of business travel is not collated at present. Travel costs are combined with subsistence costs and so cannot be easily extracted from expenses claims. In 2011 a more accurate system will be introduced for recording staff and student business travel (including student placements) for each administrative and academic department.

With the completion of this Carbon Management Program the College should achieve level 4 for this embedding factor.

Communication and Training

The College is currently at level 2 of this embedding factor.

In the past information regarding carbon reduction and energy awareness has been communicated to staff and students by the Safety, Health and Environmental Officer via the GreenRCA pages of the College Intranet system. These pages are updated on a regular basis along with e-mail updates. In 2009 'Sustain' was launched to promote art and design exhibits and projects with a sustainability theme. In the College Summer Degree Show exhibits with a sustainability theme were curated in an on-line exhibition. For the start of the 2010/11 academic year a Sustain exhibition was held to promote sustainability issues to new and existing students. This exhibition was also open to the public. During the year a series of Sustain lectures will be held in association with the Students Union to promote discussions on sustainability.

In preparation for the start of the 2010/11 academic year a former student was commissioned to create a new brand/image for GreenRCA. The result was a logo in a series of colours to represent different areas of sustainability. Ink stamps were created for these logos to promote more sustainable printing/publishing. A series of posters and leaflets were created to promote GreenRCA to students during registration and throughout 'Freshers Week'. Carbon Management Project 1 (see Appendix B) is a comprehensive awareness and behaviour change campaign for staff and students. This will use a range of media including, student designed posters, internet pages and e-mail communications. Training and induction programs for staff and students will also be reviewed to include more focus on Carbon Management. This will be launched by the Safety, Health and Environmental Officer in the 2011/12 academic year.

With the completion of this Carbon Management Program the College should achieve level 4 for this embedding factor.

Finance and Investment

The College is currently at level 3 of this embedding factor.

This aspect of embedding Carbon Management is covered in Section 5.1 of this Carbon Management Plan. With the completion of this Carbon Management Program the College should achieve level 4 for this embedding factor.

Procurement

The College is currently at level 2 for this embedding factor.

The College Environmental Policy includes a commitment to considering sustainability as

part of College purchasing processes. To assist in this the College has set objectives to produce a basic sustainable purchasing policy and associated procedures and to Use the Governments' Flexible Framework on Sustainable Purchasing as a basis for improving the sustainability of the purchasing process. Carbon Management Project 2 (see Appendix B) for the 2010/11 academic year is an initial project to facilitate sustainable purchasing for all electrical appliances. It intended to extend this to all areas of procurement and to look at ways of measuring the indirect (Scope 3) carbon emissions from these transactions.

With the completion of this Carbon Management Program he College should achieve level 3 for this embedding factor.

Monitoring and Evaluation

The College is currently at level 3 of this embedding factor.

This aspect of embedding Carbon Management is covered in Section 5.3 of this Carbon Management Plan. With the completion of this Carbon Management Program the College should achieve level 4 for this embedding factor.

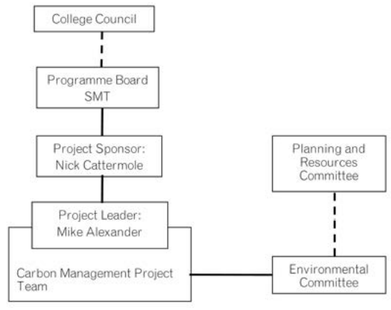
5.3 Programme Management

The following management process will be established to monitor the progress of the Carbon Management Programme (see Figure 10 below):

The Project Leader will chair regular meetings of the Carbon Management Project Team to review progress on activities and projects, identifying any problems that need to be raised with the Program Board.

- Minutes will be taken from these Project Team meetings and circulated to the Project Team members and Project Sponsor.
- The Project Leader will meet at once a term with the Project Sponsor to discuss progress.
- The Project Sponsor will act at the champion for the project and make regular reports to the Project Board (Senior Management Team).
- Progress reports will also be made to the College Council
- The Project Leader will give a summary report to the College Environmental committee each Term.
- Minutes from the College Environmental committee will be circulated to members of the Planning and Resources Committee.

Figure 10: Organisational Structure for Carbon Management Programme



5.3.1 The Programme Board– strategic ownership and oversight

The Programme Board will be formed from the membership of the existing Senior Management Team SMT) which meets every 2 weeks during Term time. Regular reports will be made to SMT by the Project Sponsor throughout the Carbon Management Programme. The current membership of SMT is as follows:

- Doctor Paul Thompson, Rector;
- Professor Alan Cummings, Pro-Rector;
- Nick Cattermole, Director of Finance and Estates;
- Alan Selby, Registrar;
- Professor Jeremy Aynsley, Director of Research / Head of School of Humanities;
- Professor Jeremy Myerson, Helen Hamlyn Institute / Director, InnovationRCA;
- Professor Wendy Dagworthy, Head of School of Fashion and Textiles;
- Professor David Rayson, Head of School of Fine Art.

5.3.2 The Carbon Management Team – delivering the projects

The Carbon Management Project Team will meat at least once per Term and will be chaired by the Safety, Health and Environmental Officer (the Project Leader). Details of the team are shown below. As individual projects are implemented smaller working groups will be formed which may incorporate other staff from the College. The responsibilities of the team will include:

- Assisting in the delivery of the projects/initiatives defined within this carbon Management Plan.
- Reviewing and updating the plan on an annual basis.

- Monitoring carbon emissions, reviewing progress against the carbon reduction target and producing an annual progress report.
- Communicating the progress of the plan both internally and externally.

Role in Carbon Management Programme	Name and position in the College	Contact details
Project Leader	Mike Alexander Safety, Health and Environmental Officer	0207 590 4175 mike.alexander@rca.ac.uk
Deputy Project Leader	Simon Levine, Head of Buildings and Estates (Travel Plan Co-ordinator)	0207 590 4170 simon.levine@rca.ac.uk
Project Team	Alan Beacon Chief Engineer	0207 590 4172 alan.beacon@rca.ac.uk
	Chris Franklin Facilities Manager	2027 590 4118 Chris.franklin@rca.ac.uk
	Jonathan Warner Computing Services Manager	0207 590 4231 Jonathan.warner@rca.ac.uk
	Octavia Reeve Publishing Manager (Internal Communications)	0207 590 4122 octavia.reeve@rca.ac.uk
	Cordelia Cembrowicz Students Union Vice President	0207 590 4211 cordelia.cembrowicz@rca.ac.uk
	Caroline Melrose Personnel Manager	0207 590 4133 Caroline.melrose@rca.ac.uk

5.3.3 Succession planning for key roles

The role of Project Leader will be undertaken by the Head of Buildings and Estates if the Safety, Health and Environmental Officer is unable to undertake the role at any time. The role of Project Sponsor will be undertaken by the Registrar if the Director of Finance and Estates is unable to undertake the role at any time. All information relating to the Carbon Management programme will be kept on the Buildings and Estates department shared computer drive which can be made available to new staff if the project roles were to change.

Appendix A: Business as Usual Step Change Factors

	2010/11	2011/12	2012/13	2013/14	2014/15
Stationary Sources					
Grid electricity	3.10%	4.50%	16.29%	7.50%	
Gaseous fuels (e.g. natural gas)			17.60%		
Transport					
Fleet	8.10%	11.30%	18.60%	15.70%	
Business					
Commuting					
Further sources					
Refrigerant gas					
Waste	8.10%	11.30%	18.60%	15.70%	
Water	8.10%	11.30%	18.60%	15.70%	
Other					

Predicted Growth in Student Numbers

Year	2010/11	2011/12	2012/13	2013/14	2014/15
Additional Students	73	109	200	200	0
% Growth	8.10%	11.30%	18.60%	15.70%	0%

Predicted Growth in the College Estate

Year	2010/11	2011/12	2012/13	2013/14	2014/15
% Growth in College Estate	0%	0%	19.2%	0%	0%
% growth in Grid Electricity	0%	0%	8.29%	0%	0%
% growth in Natural Gas	0%	0%	17.6%	0%	0%

For grid electricity the step change growth attributable to increased student numbers has been calculated on the basis that each extra student will consume an additional 35% of current electrical consumption per student (based on 2009/10 figures). For 2012/13 an additional enhancement of 8.29% has been added for the growth in the College Estate from the opening of the Dyson Building (based on electrical consumption per sq m GIA for 2009/10).

For natural gas a step change of 17.6% in 2012/13 has been added for the growth in the College Estate from the opening of the Dyson Building (based on natural gas consumption per sq m GIA for 2009/10).

For Fleet Transport, Waste and Water the step change growth has been attributed directly to the growth in student numbers.

Appendix B: Carbon Management Projects

Project:	Education and Awareness Programme for Staff and Students
Reference:	CMP001
Location:	Kensington and Battersea
Owner	Mike Alexander
Department	Health Safety & Environment
Description	Varied environmental awareness surveys, campaigns, environmental champion recruitment.
Benefits	Immediate benefit of reduced consumption of gas, water and electricity anticipated to be circa 5% of electricity. At 2010 consumption that equates to 138,000 kWh or 72 tonnes of CO. A perceived reduction in gas consumption of 1% or 40,800kWh or 7.5 tonnes CO^2 Sustainable procurement and reduced waste streams Improved re-cycling to incineration ratio Forward benefit of an motivated student body and an environmentally aware staff.
Funding	Generally to be funded from recurrent monies
Resources	Existing Environmental and Estate staff supplemented with consultants as required
Ensuring Success	Campaign material procured, written and available in time and sufficient funding allocated Time within registration allocated
Measuring Success	Check against monitored energy consumption and waste streams
Timing	Initial campaign to coincide with Academic year 2010/2011 and to commence at time of Registration in early October 2010. This will be an ongoing regime to take account of our short tenure student population.
Notes	* DEFRA conversion factor for grid electricity of 0.523kg per kWh and 0.185kg per kWh for natural gas

Project:	Procurement Awareness Programme for Staff
Reference:	CMP002
Location:	Kensington and Battersea
Owner	Mike Alexander
Department	Health Safety & Environment
Description	Development of procurement register with approved suppliers/contractors who have demonstrated environmental awareness in their products and distribution. Lobby LUPC and OGC to publish similar environmental credentials for framework suppliers. Consider a locality score for suppliers and use of locally employed contractors such as those on framework agreements at Imperial College or the RAH. Procurement guidance on sustainable buying particularly electrical products
Benefits	Hidden carbon saving from the College supply chain, nevertheless evidence that supply is sought from approved suppliers with some audit check on sustainability. Modest carbon saving anticipated at 0.5% of grid electricity or 13,800kWh
Funding	Generally to be funded from recurrent monies. It would be hoped that local suppliers may return cheaper prices because of proximity.
Resources	Existing Environmental and Estate staff supplemented with consultants as required
Ensuring Success	Workable register shared by the whole College community
Measuring Success	Complete register of approved suppliers. Consider collecting data from purchasing ledger on supply from approved sources by number of transactions or other performance indicator
Timing	Suggest some initiative in place before academic year 2011.
Notes	

Project:	Energy Management Policy including organisational structure
Reference:	CMP003
Location:	Kensington and Battersea
Owner	Simon Levine
Department	Buildings & Estates
Description	Complete energy management strategy and policy statement to define future provision and provide a mandate for building construction and refurbishment designers.
Benefits	Consistency in project briefing for proven sustainable technologies and acceptance of these technologies within approved schemes of new build or refurbishment. Same consistent approach with building maintenance and control engineering and a College wide acceptance of energy management control parameters. Savings seen through minimised heating periods and heating levels, restrictions on portable heating appliances, reduction in the amount of central and local cooling plant, reduced local environmental control estimated to amount to 4% p.a. or 271,000kWh at a cost of £14,905. all shared with CMP005
Funding	Funded essentially through existing staff time and recurrent funds
Resources	Existing Environmental and Estate staff. Policy to be verified by senior management team.
Ensuring Success	Completion of Energy Management strategy Implementation of Energy Management plan
Measuring Success	Carbon reduction against baseline figures Gradual rationalisation of building services in line with strategy.
Timing	Draft plan for approval by end 2010
Notes	Total energy use and cost for academic year to Aug 2010 was 6,775,038kWh and £372,621

Project:	Formalised Environmental Committee
Reference:	CMP004
Location:	Kensington and Battersea
Owner	Nick Cattermole
Department	Finance & Estates
Description	Environmental Committee with approved terms of reference for all environmental issues affecting College business to report to Council through the Buildings & Estates Committee. Committee to have a mixture of ex officio officers in attendance as well as academic, technical and student stakeholder members.
Benefits	To provide a focused College forum for all environmental matters. To provide College officers with a mandate to progress with environmental initiatives and a forum for performance reporting and checks. Modest carbon saving anticipated at 0.1% of grid electricity or 2,760 kWh and 0.1% of natural gas or 4,080 kWh
Funding	Funded essentially through existing staff time and recurrent funds
Resources	Existing Environmental, Finance & Estates staff together with other College staff making up the membership. Reporting line through Buildings & Estates Committee to Council
Ensuring Success	Terms of Reference agreed Committee incorporated into College committee structure and time table.
Measuring Success	Meeting minutes. Proven list of completed environmental projects
Timing	Completed
Notes	Initial Environment Committee met on 30th March 2010.

Project: Reference:	Formalise Energy Manager's Role CMP005
Location:	Kensington and Battersea
Owner	Simon Levine
Department	Finance & Estates
Description	Embed energy management duties within the Chief Engineers job description. Manage Chief Engineers performance on energy management
Benefits	To ensure professional in house advice for energy management, monitoring, validation and control Dedicated professional time for the design, specification and procurement of energy saving projects. For savings assume these are shared with the 4% quoted for the energy management policy in CMP004 comprising 53,900kWh of grid electricity and 81,600kWh of natural gas. 4% of annual energy bill would be £14,904
Funding	Funded through existing staff time
Resources	Existing Finance & Estates staff
Ensuring Success	Job description written agreed and incumbent now in post Incumbent working towards energy management tasks
Measuring Success	Energy management policy and strategies in place Proven list of completed environmental projects
Timing	Ongoing performance
Notes	Chief Engineer in post under revised job description Total energy use and cost for academic year to Aug 2010 was 6,775,038kWh and £372,621

Royal College of Art Carbon Management Programme
Carbon Management Plan
Royal College of Art working with CARBON TRUST

Project: Reference:	Introduce toilet cistern hippos CMP007
Location:	Kensington and Battersea
Owner	Simon Levine
Department	Finance & Estates
Description	Supply and installation of cistern hippos to reduce flush volume and water usage to 76 No. wc cisterns
Benefits	Water saving to 76 No cisterns average saving 1.5 litres per flush x 0.6 flushes per hr occupancy (5,000hrs) expected to save 342 M^3 of water 2% of annual consumption). Annual CO^2 reduction of 342 M^3 x 0.404* = 138 kg per annum Capital cost of c £100 Payback period is £100 /(£578/365) = 9 weeks
Funding	Recurrent cost from 1401 Premises running costs Life Cycle Cost per tonne of CO_2 saved = £144.92 based upon a 5 yr life.
Resources	Existing Finance & Estates operatives who do daily wc checks would install the hippos
Ensuring Success	Management of maintenance or cleaning staff to ensure wc's do not become blocked as a result of lower flush volumes
Measuring Success	Measured reduction in water consumption by at least 2%
Timing	Immediate
Notes	Operating Hours = 40 weeks x 7 days x 15hrs + 12 weeks x 7 days x 10hrs – 12 days x 10hrs 4,920 hrs say 5,000hrs. * 0.404kg CO^2 per M^3 of water

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Project: Reference:	Lighting controls to toilets, seminar rooms and store rooms CMP009 and CMP010
Location:	Kensington and Battersea
Owner	Simon Levine
Department	Finance & Estates
Description	Supply and installation of pir or individual motion sensor and timing controls or photo electric cells to internal and external lighting installations
Benefits	• Approximately 5,532M^2 of accommodation affected totalling 452 separate spaces*. Average 12M^2 each or 1 device at c £120inc each. Assume 200 watts per space x 5,000hrs = 452,000 kWh and savings potential of 30% or 135,600kWh • Annual CO^2 reduction of 135,600 x 0.523kg/CO^2 = 71 tonnes CO^2 p.a. • Capital cost say £54k representing 568,000 kWh of electricity at current (2010) prices. • Payback period is £54k capital cost / £12,882 annual saving = 4 years 2 mths
Funding	• Capital cost from 1401 Premises running costs • Life Cycle Cost of each tonne of CO^2 saved = £50.70 based upon a 15 yr life
Resources	• Costings based upon contractor installation costs. Internal installation will reduce costs and improve project viability by about 2.5 years. • Where direct labour is used this will take them away from routine maintenance.
Ensuring Success	• Funding £54k for an extended payback period • Determine a more accurate average annual consumption for lighting these areas and the potential for savings. • Consider a ip feed roll out of devices using directly employed labour
Measuring Success	• Measured reduction in power consumption for lighting by at least 30%
Timing	Commence 2010/2011
Notes	See CMP007 for analysis of operating hours (5,000hrs) • Recognised spaces include WC's, Corridors, Stairwells, Kitchens, Meeting & Seminar rooms only. • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

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Project: Reference:	Darwin - Voltage Optimisation CMP011
Location:	Kensington
Owner	Simon Levine
Department	Finance & Estates
Description	Supply and installation of solid state voltage optimisation equipment onto building incoming mains
Benefits	• Savings range between 9% of power consumed at Sculpture to 12% in Darwin and Stevens. Total estimated savings 246,228 kWh • Annual CO^2 reduction of 134 tonnes CO^2 p.a.* • Capital cost estimated at £79k representing 743,400kWh of electricity at current (2010) prices. • Payback period is £79k capital cost / £21,249 annual saving = 3.7 yrs
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £26.29/tonne based upon a 25 yr life.
Resources	• Costings based upon contractor installation quotation and may be subject to uplift. • There will be some short power down times during installation • Suitable locations and space will have to be allocated for the equipment. • Project to be divided between Darwin £79k and Stevens/ Sculpture £38k. Projected savings split on Carbon Management Project Register
Ensuring Success	• Funding £79k for 2 devices. Individual appraisals for each incomer have been made. • Sufficient secure space made available adjacent to existing LV panels
Measuring Success	• Measured reduction in power consumption across Darwin and Kensington of 12% and Sculpture of 9%.
Timing	Commence 2010/2011
Notes	Original supplier feasibility was based upon 2008/9 electricity tariff of 13p per kWh now reduced to 8 pence per kWh which has adversely affected the pay back period. Detailed contractor analysis of voltage levels and installation survey completed. • DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

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Project: Reference:	Darwin Power Factor Correction CMP012
Location:	Kensington Darwin Building
Owner	Simon Levine
Department	Finance & Estates
Description	Supply and installation of power factor correction equipment within LV panels in all buildings.
Benefits	• Savings to be made from a reduction in reactive charges from suppliers (c£1k in 2010) • Energy saving through reduced voltage drop • Heat reduction and therefore equipment life.
Funding	• Capital cost from 1405 Minor Works
Resources	• Capital funding of say £5k • Recurrent funds for maintenance but these are not expected to be large.
Ensuring Success	• Suitable location for power factor capacitors adjacent to existing incomers will be required • Identify a best supplier / installer
Measuring Success	• Reduction in reactive power charges of £1k p.a. • Measured reduction in overall power consumed
Timing	Commence 2010/2011
Notes	* DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 Suggested savings against 600kVA MD at 0.92 PF is 5.5 tonnes CO_2 and a cost saving of £1,112 p.a

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Project: Reference:	Electric motor variable speed drives CMP013
Location:	Kensington and Battersea
Owner	Simon Levine
Department	Finance & Estates
Description	Supply and installation of speed control devices onto electric motors that don't have these.
Benefits	• Savings Total estimated savings 33,750 kWh • Annual CO^2 reduction of 17.65 tonnes CO^2 p.a.* • Capital cost estimated at £1.2k each x representingo.699,000kWh of electricity at current (2010) prices. • Payback period is £54k capital cost / £2,609 annual saving = 20 yrs 8mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £204 based upon a 15 yr life.
Resources	• Costings estimated at £1,200 per unit.. • There will be some short plant down times during installation • Suitable locations and space will have to be allocated for the equipment.
Ensuring Success	• Funding £54k • Motors controlling plant that cycles on and off throughout the day. Plant that switches on and off twice a day and runs at optimum speed through the day may not be viable, such as LEV fans and boiler pumpsets.
Measuring Success	• Measured reduction in power consumption across all buildings
Timing	Commence 2010/2011
Notes	• DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • Assume LEV, AHU, CT Pumpsets in Darwin and Stevens number 45 at an average 3kW each and 50% run at any time for occupational time of 5,000hrs heating and cooling cycle and the VSD will provide a 10% saving or 33,750kWh

Project: Reference:	Darwin >100amp sub meters CMP015
Location:	Kensington
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of local pulsed output meters together with data capture software
Benefits	• Total estimated savings from a managed exception reporting of waste estimated at 2% amounting to 38,200kWh p.a. ` • Annual CO^2 reduction of 20 tonnes CO^2 p.a.* • Capital cost estimated at £25k.inc representing 263,000 kWh of electricity at current (2010) prices. • Payback period is £25k capital cost / £3.629k annual saving = 6yrs 11mths.
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £50 based upon a 25 yr life.
Resources	• Costings based upon quotation dated 3rd July 2008 • Suitable locations and space allocated for the equipment. • Active monitoring, reporting and follow up time allocated by existing personnel.
Ensuring Success	• Personnel time allocated • £25k capital spend allocated to project
Measuring Success	• Measured reduction in power consumption across all buildings. • Detailed consumption reporting routinely sent to client departments and behaviour change followed up.
Timing	Commence 2011/2012
Notes	• *DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

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Project: Reference:	High frequency T5 lighting alterations CMP016
Location:	Darwin Building Only
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of fluorescent light fitting adaptors or replacement fittings to accept low energy T5 lamps.
Benefits	• Total estimated savings 370,000kWh p.a. ` • Annual CO_2 reduction of 231.6 tonnes CO_2 p.a.* • Capital cost estimated at £51k.inc representing 533,000 kWh of electricity at current (2010) prices. • Payback period is £51k capital cost / £35.1k annual saving = 1yr 5mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO_2 saved = £11.01 based upon a 20 yr life.
Resources	• Costings based upon quotation dated 19th April 2010
Ensuring Success	• £43k capital spend allocated to project • Project to be undertaken during a summer recess • Evidence of cost in use of approved adaptor and proposed replacement luminaire • Guarantees over illuminance levels
Measuring Success	• Measured reduction in power consumption across all buildings. • Project could be phased floor by floor
Timing	Commence 2011/2012
Notes	. • *DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

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Project: Reference:	High frequency T5 lighting alterations CMP017
Location:	Stevens Building Only
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of fluorescent light fitting adaptors or replacement fittings to accept low energy T5 lamps.
Benefits	• Total estimated savings 39,000kWh p.a. ` • Annual CO^2 reduction of 24.5 tonnes CO^2 p.a.* • Capital cost estimated at £6.4k.inc representing 67,000 kWh of electricity at current (2010) prices. • Payback period is £6.4k capital cost / £3.72 annual saving = 1yr 9mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £13.06 based upon a 20 yr life.
Resources	• Costings based upon quotation dated 19th April 2010
Ensuring Success	• £6.4k capital spend allocated to project • Project to be undertaken during a summer recess • Evidence of cost in use of approved adaptor and proposed replacement luminaire • Guarantees over illuminance levels
Measuring Success	• Measured reduction in power consumption across all buildings. • Project could be phased floor by floor
Timing	Commence 2011/2012
Notes	. • *DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

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Project: Reference:	Replacement SELV halogen lamps with LED equivalent CMP018
Location:	Kensington only
Owner	Simon Levine
Department	Finance & Estates
Description	Replacement 12V LED lamps for 35/50W halogens including all show lights.
Benefits	• Total estimated savings 5,000hrs x 760 units x 0.03 = 114,000kWh p.a. ` • Annual CO^2 reduction of tonnes 59.6 tonnes CO^2 p.a.* • Capital cost estimated at £15.2k.inc representing 160,000kWh of electricity at current (2010) prices. • Payback period is £15.2k capital cost / £10,830 annual saving = 1yr 5 mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £25.50 based upon a 10 yr life.
Resources	• Cost excludes labour which would be in house resource.
Ensuring Success	• £15.2k capital spend allocated to project • Labour available
Measuring Success	• Measured reduction in power consumption across all buildings. • Project could be phased floor by floor or building by building.
Timing	Commence 2011/2012
Notes	. • *DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh. • Gallery lighting would add some 300 units but at reduced usage say 1,000 hours or 9,000 kWh saving

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Project: Reference:	Extension of BMS CMP019
Location:	Kensington and Battersea
Owner	Simon Levine
Department	Finance & Estates
Description	Extend BMS to cover Stevens and Battersea boiler and air handling plant to provide central control and minimise waste
Benefits	• Total estimated savings say 5% of total gas and 2.5% of total electricity 304,500 kWh p.a. ` • Annual CO^2 reduction of 80.7 tonnes CO^2 p.a.* • Capital cost estimated at £35k.inc representing 368,000 kWh of electricity at current (2010) prices. • Payback period is £35k capital cost / £12kannual saving = 2yr 10 mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £43.37 based upon a 10 yr life.
Resources	• Engineering expertise to run BMS within the Buildings & Estates Team • IP enabled controllers will require ethernet outlets and BMS schematics to allow for remote control • College already has Trend 63 software.
Ensuring Success	• £35k capital spend allocated to project • Structured ethernet capability in the correct locations
Measuring Success	• Measured reduction in power consumption across all buildings. • Project could be phased plant by plant although this is likely to be less cost effective.
Timing	Commence 2011/2012
Notes	. • *DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • DEFRA conversion factor for natural gas of 0.185kg per kWh • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh. • ++ Gas price 2010 inc CCL and VAT is 2.31 pence per kWh

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Project: Reference:	Darwin Tower Rooftop insulation CMP21
Location:	Kensington
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of shaped PI insulation below waterproof deck to the tower
Benefits	• Total estimated savings say 900m² x 0.54W/m² °C x 7°C x 3,000hrs = 10,200 kWh p.a. ` • Annual CO^2 reduction of 1.9 tonnes CO^2 p.a.* • Capital cost estimated at £14k.inc of VAT and profits and overheads, representing 606kWh of gas at current (2010) prices. • Payback period is £14k capital cost / £ 236 annual saving = 59 yrs 4mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £294.74 based upon a 25 yr life.
Resources	• Project dependent upon the need to renew the waterproofing membrane which is the primary driver and justification for the works • Project costs based upon units rate of £25 per sheet plus profit and ohds and a labour cost to lay of £2,500 plus VAT. This is not the cost of re-roofing which will be circa £90k.
Ensuring Success	• £90k capital spend allocated to project. • Work to be done in conjunction with a wholesale renewal of waterproofing.
Measuring Success	• Measured reduction in annual gas consumption for Darwin Building.
Timing	Commence 2013/2014
Notes	• DEFRA conversion factor for natural gas of 0.185kg per kWh • ++ Gas price 2010 inc CCL and VAT is 2.31 pence per kWh • 900 m² of roof surface. • PI insulations with R value 1.85m²K/W. • Total heating hours 15 x 200 days = 3,000hrs • Average degree day difference say 7° C

Project: Reference:	Common Room Block - Roof top insulation CMP022
Location:	Kensington
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of shaped PI insulation below waterproof deck to the common room block
Benefits	• Total estimated savings say 460m² x 0.54W/m² °C x 7°C x 3,000hrs = 5,200 kWh p.a. ` • Annual CO^2 reduction of 965kg CO^2 p.a.* • Capital cost estimated at £7.5k.inc of VAT and profits and overheads, representing 325kWh of gas at current (2010) prices. • Payback period is £7.5k capital cost / £ 120 annual saving = 62 yrs 6mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £310.88 based upon a 25 yr life.
Resources	• Project dependent upon the need to renew the waterproofing membrane which is the primary driver and justification for the works • Project costs based upon units rate of £25 per sheet plus profit and ohds and a labour cost to lay of £1,500 plus VAT. This is not the cost of re-roofing which will be circa £46k.
Ensuring Success	• £46k capital spend allocated to project. • Work to be done in conjunction with a wholesale renewal of waterproofing.
Measuring Success	• Measured reduction in annual gas consumption for Darwin Building.
Timing	Commence 2013/2014
Notes	• DEFRA conversion factor for natural gas of 0.185kg per kWh • ++ Gas price 2010 inc CCL and VAT is 2.31 pence per kWh • 460 m² of roof surface. • PI insulations with R value 1.85m²K/W. • Total heating hours 15 x 200 days = 3,000hrs • Average degree day difference say 7° C

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Project: Reference:	Darwin Building Cavity Wall Insulation CMP023
Location:	Kensington
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of blown fibre cavity fill into brickwork cavities
Benefits	• Total estimated savings say 3,0000m² x 0.8W/m² °C x 7°C x 3,000hrs = 50,400 kWh p.a. ` • Annual CO_2 reduction of 9.3 tonnes CO_2 p.a.* • Capital cost estimated at £25k.inc of VAT, representing 108,225kWh of gas at current (2010) prices. • Payback period is £25k capital cost / £1,164 annual saving = 21 yrs 6mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO_2 saved = £67 based upon a 40 yr life.
Resources	• Project costings do not allow for external access. This would be charged extra using cradles. • Works to be undertaken internally during the summer recess • Advance survey of cavity wall ties is recommended
Ensuring Success	• £25k capital spend allocated to project. • Cavity wall ties are inspected and confirmed sound. • Brickwork capable of resisting horizontal loads • Some brickwork repairs envisaged.
Measuring Success	• Measured reduction in annual gas consumption for Darwin Building.
Timing	Commence 2013/2014
Notes	• DEFRA conversion factor for natural gas of 0.185kg per kWh • ++ Gas price 2010 inc CCL and VAT is 2.31 pence per kWh • 3,000 m² of cavity walling. • Blown fibre insulations reducing U value by 0.8W/m²K • Total heating hours 15 x 200 days = 3,000hrs • Average degree day difference say 7° C as used on the refenestration project

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Project: Reference:	Darwin Building and Stevens Building Server Virtualisation CMP026 and CMP027
Location:	Kensington & Battersea
Owner	Jonathan Warner
Department	Computing Services
Description	Consolidation of server capacity
Benefits	• Total estimated savings say 11 machines redundant with a combined power draw of 2.18kWh x 24hrs x 365days = 2180 watts x 8,760hrs = 19,097kWh • Annual CO^2 reduction of 9.99t CO_2 p.a.* • Capital cost estimated at £5,900 + £3,400= £9,300.inc of VAT, representing 97,895kWh of electricity at current (2010) prices. • Payback period is £9,300 capital cost / £1,814 annual saving = 5 yrs 1mths
Funding	• Capital cost from Computing Services recurrent budget • Life Cycle Cost per tonne of CO_2 saved = £186 based upon a 5 yr life.
Resources	•
Ensuring Success	• £9,300 capital spend allocated to project. • Staff acceptance of change.
Measuring Success	• Measured reduction in number of individual printers. • Measured reduction in actual print output or paper purchased as behaviour changes..
Timing	Commence 2010/2011
Notes	• DEFRA conversion factor for grid electricity of 0.523kg per kWh • ++ Electricity price 2010 inc CCL and VAT is 9.5 pence per kWh

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Project: Reference:	Academic and Administrative print consolidation CMP028 & CMP029
Location:	Kensington & Battersea
Owner	Jonathan Warner
Department	Computing Services
Description	Reduction in local printer availability
Benefits	• Total estimated savings say 20 machines on standby power running 24/7 = 11 watts x 20 m/c x 8,760hrs = 1,927kWh • Annual CO^2 reduction of 1.05t CO_2 p.a.* • Capital cost estimated at £400.inc of VAT, representing 5,175kWh of electricity at current (2010) prices. • Payback period is £400 capital cost / £149 annual saving = 2 yrs 8mths
Funding	• Capital cost from Computing Services recurrent budget • ife Cycle Cost per tonne of CO_2 saved = £76.19 based upon a 5 yr life.
Resources	•
Ensuring Success	• £400 capital spend allocated to project. • Staff acceptance of change.
Measuring Success	• Measured reduction in number of individual printers. • Measured reduction in actual print output or paper purchased as behaviour changes..
Timing	Commence 2010/2011
Notes	• DEFRA conversion factor for grid electricity of 0.544kg per kWh • ++ Electricity price 2010 inc CCL and VAT is 7.73 pence per kWh

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Project: Reference:	College wide improved waste re-cycling facilities CMP030
Location:	Kensington & Battersea
Owner	Chris Franklin
Department	Facilities Management
Description	Series of initiatives centred on College waste streams to include installation of compactors and balers, waste food re-cycling, improved monthly reporting and awareness campaigns. College waste streams are almost 50% recycled but this should be bettered.
Benefits	• To improve on the 50% recycled waste up to 60% by the life of this plan. Present waste stream equals 505 tonnes. • Annual CO^2 reduction of 2.2t CO_2 p.a.. • Annual recurrent cost of £2000 offset by anticipated savings of £1,100
Funding	• Recurrent cost estimated at £2,000 pa from facilities recurrent budgets to pay for compactor and baler hire agreements • Life Cycle Cost per tonne of CO_2 saved = £909 based upon a 6 yr life.
Resources	• Recurrent funding of appliances
Ensuring Success	• Heightened student awareness • Installation of new compactors • Student awareness through training at registration, posters and web based campaigns as well as sustainability weeks
Measuring Success	• Measured reduction in waste to energy recovery or landfill
Timing	Commence 2010/2011
Notes	• HECM6 Baseline tool reference of 447 kg CO_2e per tonne collected

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Project: Reference:	41-43 Jay Mews Replacement Boiler CMP031
Location:	Kensington 41-43 Jay Mews
Owner	Simon Levine
Department	Finance & Estates
Description	Supply and installation of combination condensing boiler within the building
Benefits	• Total estimated savings say 12%** of 41-43 Jay Mews Boiler gas 9,420 kWh p.a. ` • Annual CO^2 reduction of 1.7t CO_2 p.a.* • Capital cost estimated at £2.5k.inc of VAT, representing 108,225 kWh of gas at current (2010) prices. • Payback period is £2.5k capital cost / £ 217.60 annual saving = 11yr 6 mths
Funding	• Capital cost from 1405 Minor Works
Resources	• Capital funding of say £2.5k • Recurrent funds for maintenance but these are expended anyway. No additional recurrent cost
Ensuring Success	• Suitable location for new boiler • Identify a best supplier / installer
Measuring Success	• Reduction in gas consumed
Timing	Commence 2010/2011
Notes	. • DEFRA conversion factor for natural gas of 0.185kg per kWh • ++ Gas price 2010 inc CCL and VAT is 2.31 pence per kWh • ** Energy Saving Trust quoted efficiency gain with condensing boilers • Project ready to go.

Project: Reference:	College wide computer room overnight shutdowns CMP032
Location:	Kensington & Battersea
Owner	Jonathan Warner
Department	Computing Services
Description	Computer room auto shutdowns overnight
Benefits	• Total estimated savings say 120 machines with a combined power draw of 29kWh x 10hrs x 231days = 67,200kWh • Annual CO^2 reduction of 35.1t CO^2 p.a.. • Annual recurrent cost of £500 offset by anticipated savings of £3,427 because savings are made exclusively on low night time tariff.
Funding	• Recurrent cost estimated at £500 pa from Computing Services recurrent budget • Life Cycle Cost per tonne of CO^2 saved = £14.20 based upon a 6 yr life.
Resources	• Computing staff time for software installation
Ensuring Success	• Student acceptance of change. • Completion and maintenance of software installation
Measuring Success	• Measured reduction in overnight base loads
Timing	Commence 2010/2011
Notes	• DEFRA conversion factor for grid electricity of 0.523kg per kWh • ++ Electricity price 2010 inc CCL and VAT is 9.5 pence per kWh but 5.1 pence per kWh overnight tariff used.

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Project: Reference:	Kensington sub 100amp meters CMP033
Location:	Kensington
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of local pulsed output meters together with data capture software
Benefits	• Total estimated savings from a managed exception reporting of waste estimated at 2% amounting to 11,300kWh p.a. ' • Annual CO^2 reduction of 5.9 tonnes CO^2 p.a.* • Capital cost estimated at £50k.inc representing 526,300 kWh of electricity at current (2010) prices. • Payback period is £50k capital cost / £1.073k annual saving = 46yrs 7mths.
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £339 based upon a 25 yr life.
Resources	• Costings based upon quotation dated 3rd July 2008 • Suitable locations and space allocated for the equipment. • Active monitoring, reporting and follow up time allocated by existing personnel.
Ensuring Success	• Personnel time allocated • £25k capital spend allocated to projec
Measuring Success	• Measured reduction in power consumption across all buildings. • Detailed consumption reporting routinely sent to client departments and behaviour change followed up.
Timing	Commence 2011/2012
Notes	. • *DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

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Project: Reference:	Battersea sub 100amp meters CMP034
Location:	Battersea
Owner	Simon Levine
Department	Finance & Estates
Description	Installation of local pulsed output meters together with data capture software
Benefits	• Total estimated savings from a managed exception reporting of waste estimated at 2% amounting to 4,700kWh p.a. ' • Annual CO^2 reduction of 2.46 tonnes CO^2 p.a.* • Capital cost estimated at £15k.inc representing 157,900 kWh of electricity at current (2010) prices. • Payback period is £15k capital cost / £446.5 annual saving = 33yrs 7mths.
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £244 based upon a 25 yr life.
Resources	• Costings based upon quotation dated 3rd July 2008 • Suitable locations and space allocated for the equipment. • Active monitoring, reporting and follow up time allocated by existing personnel.
Ensuring Success	• Personnel time allocated • £25k capital spend allocated to project
Measuring Success	• Measured reduction in power consumption across all buildings. • Detailed consumption reporting routinely sent to client departments and behaviour change followed up.
Timing	Commence 2011/2012
Notes	. • *DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

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Project: Reference:	Stevens and Sculpture – Voltage Optimisation CMP035
Location:	Kensington and Battersea
Owner	Simon Levine
Department	Finance & Estates
Description	Supply and installation of solid state voltage optimisation equipment onto building incoming mains
Benefits	• Savings range between 9% of power consumed at Sculpture to 12% in Darwin and Stevens. Total estimated savings 327,000 kWh of which 80,772kWh is attributable to Stevens and Sculpture • Annual CO^2 reduction of 44 tonnes CO^2 p.a.* • Capital cost estimated at £38k representing 491,600kWh of electricity at current (2010) prices. • Payback period is £38k capital cost / £6,244 annual saving = 6.1 yrs
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £34.55/tonne based upon a 25 yr life.
Resources	• Costings based upon contractor installation quotation and may be subject to uplift. • There will be some short power down times during installation • Suitable locations and space will have to be allocated for the equipment. • Project to be divided between Darwin £79k and Stevens/ Sculpture £38k. Projected savings split on Carbon Management Project Register
Ensuring Success	• Funding £38k for 3 devices. Individual appraisals for each incomer have been made. • Sufficient secure space made available adjacent to existing LV panels
Measuring Success	• Measured reduction in power consumption across Darwin and Kensington of 12% and Sculpture of 9%.
Timing	Commence 2010/2011
Notes	Original supplier feasibility was based upon 2008/9 electricity tariff of 13p per kWh now reduced to 8 pence per kWh which has adversely affected the pay back period. Detailed contractor analysis of voltage levels and installation survey completed. • DEFRA conversion factor for grid electricity of 0.523kg per kWh 2006/7 • + Electricity price 2010 excl CCL including VAT and ignoring reduced night time tariffs = 9.5 pence per kWh.

Royal College of Art Carbon Management Programme
Carbon Management Plan
Royal College of Art working with CARBON TRUST

Project: Reference:	Darwin Hot Water Boiler Replacement CMP036
Location:	Kensington
Owner	Simon Levine
Department	Finance & Estates
Description	Replacement hot water boiler plant to Darwin Building including the Common Room Block and considering combined heat and power engine
Benefits	• Total estimated saving of Water Heating gas 190,000 kWh p.a. ' • Annual CO^2 reduction of 35.15 tonnes CO^2 p.a.* • Capital cost estimated at £25k.inc of VAT, representing 1.08m kWh of gas at current (2010) prices. • Payback period is £25k capital cost / £4,389 annual saving = 5yr 8 mths
Funding	• Capital cost from 1405 Minor Works • Life Cycle Cost per tonne of CO^2 saved = £47.42 based upon a 15 yr life.
Resources	• In house project management for design and tender
Ensuring Success	• £capital spend allocated to project.
Measuring Success	• Measured reduction in annual gas consumption for Darwin Building.
Timing	Commence 2013/2014
Notes	. • DEFRA conversion factor for natural gas of 0.185kg per kWh • ++ Gas price 2010 inc CCL and VAT is 2.31 pence per kWh • Boiler operating hours say 3,800 per annum x 50kW /h saving

Baxter Storey's 5 Sustainability Game Changers

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we **love** this business

5 Sustainability Game Changers for 2020

baxterstorey
we **love** this business

Mike Hanson
Head of Sustainable Business

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SUMMARY

- WE CATER FOR MORE THAN **1 MILLION** PEOPLE EVERY DAY
- REDUCED FOOD WASTE BY **40%**
- COMMITTED TO **SINGLE WALL CUPS**
- WE ARE **GUESTS IN OUR CLIENTS' HOUSE**
- **OUR CLIENTS ARE LOOKING FOR LEADERSHIP AND A PROACTIVE APPROACH**

BOTTLED WATER

- WE BUY 5 MILLION BOTTLES PER YEAR
- HARROGATE IS **42%** LESS PLASTIC BY WEIGHT COMPARED TO OTHERS
- HARROGATE IS **50%** RECYCLED
- TO DATE, SAVED **90 TONNES** OF PLASTIC

BOTTLED WATER

1. **UK** SOURCED
2. **MAX.** 60 GRAMS CO2e (500ml)
3. **MIN.** 50% rPET
4. **RECYCLED** THROUGHOUT THE **UK**

Product	Size (ml)	Material	Source	Net Weight (g)	CO2e/g	Recyclability
Life	330	70% recyled aluminium	England	12	60	widely in UK
Cano water	500	68% recycled aluminium	Austria	22	106	widely in UK
Life water	500	50% rPET	England	11	34	widely in UK
Evian water	500	100% PET	France	43	111	widely in UK
Highland Spring	500	100% rPET	Scotland	34	68	widely in UK
Just Water	500	54% Paper, 28% bio-plastic, 18% PE and Aluminium	Ireland	20	50	only 1location in UK
Harrogate Spa	500	50% rPET	England	25	57	widely in UK
Glaceau Smart Water	600	100% rPET	England	28	56	widely in UK
One water	500	25% rPET	England	11	27	widely in UK

COFFEE CUPS

- **WE USE 23 MILLION CUPS A YEAR**
- SINGLE WALL CUP IS **33%** LESS WEIGHT THAN A DOUBLE WALL CUP
- TO DATE, SAVED **90 TONNES** OF PAPER AND **1220 TONNES** OF CARBON
- £0.05p CUP CHARGE TO COVER RECYCLING
- WE OWN THE WASTE STREAM

SIMPLY CUPS

COFFEE SOCIETY

DOWN TO EARTH
DEMAND GREAT COFFEE

55,500 TREES

FOOD WASTE

- TOTAL BSUK FOOD WASTE IS **2000 TONNES** PER YEAR
- CURRENTLY **40% RE-CYCLED** BY CLIENTS
- PROPOSED RE-CYCLE ALL FOOD WASTE VIA OLLECO (AD)
- **£10** PER 240 LITRE WHEELIE BIN (85 KG AV. PER BIN)
- 50% OF SITES WOULD NEED JUST **1 COLLECTION** A WEEK

FOOD WASTE
Costing the Earth

27,000 TREES

olleco

SINGLE USE PLASTIC

- WE USE **6 MILLION** SAUCE SACHETS
- **9 TONNES OF NON-RECYCABLE PLASTIC**
- CURRENTLY 218 SITES GENERATE £130K OF SALES (0.05%)
- **SAUCED ALTERNATIVES** - PRESENT AT CONFERENCE

NEXT STEPS

- Q4 ODs to communicate with clients
- Follow-up meetings by Ops with teams
- Planning in participating locations
- Customer communication – **Dec 19**
- GO LIVE **01.01.20**

SINGLE USE PLASTIC

- WE USE **2.7 MILLION** SALAD BOXES PER YEAR
- NOT RE-CYCLED - **55 TONNES** OF PLASTIC
- COST **£350K**
- **ALTERNATIVES -** METAL BOWL, CROCKERY, RE-USABLE TAKEWAY
- CHARGE 0.10p - 0.15p FOR DISPOSABLES

REDUCE BY 1 MILLION	REDUCE BY 2 MILLION	REDUCE BY 2.7 MILLION
6,500 TREES	**13,000 TREES**	**17,500 TREES**

RCA Environmental Policy

Royal College of Art
Postgraduate Art & Design

Royal College of Art Environmental Policy

The Royal College of Art educates 1600 students and employs 420 members of staff across its two London Campuses in Kensington and Battersea. The College has an international reputation for providing excellence in art and design education in a community focused environment. It recognises responsibilities to reduce the environmental impact of its activities and is committed to improve continuously its sustainability performance. This is demonstrated through:

- Meeting, and wherever possible exceeding environmental legislative and other requirements.
- Preventing pollution by managing and reducing emissions and discharges and using resources responsibly and efficiently.
- Producing and implementing a Carbon Management Plan to improve energy and water efficiency, increase recycling and minimise waste.
- Considering sustainability as part the College's purchasing processes.
- Ensuring that all construction and refurbishment work takes into account sustainability principles and that the BREEAM standard is applied to all new buildings.
- Producing and implementing a Travel Plan to encourage more sustainable commuting and business travel.
- Incorporating sustainability and promoting good environmental practice as part of learning and teaching activities.
- Protecting and enhancing biodiversity.
- Improving sustainability awareness amongst staff and students.
- Engaging with the local community and the Further and Higher Education Sector on sustainability issues.
- Regularly reviewing the Environmental Policy and setting objectives and targets for its implementation.

The College Council and the Rector have ultimate responsibility for improving sustainability performance within the College. Staff and students have an important role to play in this. They are supported by the Health Safety and Environmental Officer, the Department of Buildings and Estates and the Green RCA Group.

Paul Thompson.

Dr Paul Thompson, Rector

October2015

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