

GAMIFYING DECARBONISATION

2020 Cambridge Carbon Challenge
Brief!

CAMBRIDGE
ZERO₂



THE CAMBRIDGE *green*
CHALLENGE

Your challenge: How can we gamify decarbonisation?

We are looking for small inter-disciplinary teams of students and staff to enter this solution-finding competition that will look at how decarbonisation can be achieved using gamifying approaches. This could be decarbonising the University estate or reducing student or staff emissions, ideally ideas that could be scaled up to a societal level. The brief is deliberately broad, as solutions could involve anything from software solutions and apps to on the ground innovations that could drive systemic change.

Your challenge is to identify a way of using gamification techniques or game theory to reduce carbon emissions in an innovative and creative way.

We are looking for ideas that can be applied in the real world. Particularly projects that could be run in the University of Cambridge initially and then scaled up nationally or internationally.

Projects could be anything from the deeply practical, for example, an add-on to a banking app that calculates carbon emissions based on spend and compares it to a local average, through to much more creative ideas like a Pokémon Go inspired game to encourage waste reduction, an app dragon emerging every time waste goes into the wrong bin! Solutions can be tech-based but don't have to be, it could be a brilliant system for generating competition between neighbours to limit their household waste or even nudge unit inspired policy solutions.

Eligibility

Any member of staff or student at the University of Cambridge can participate and any student from Anglia Ruskin University. Teams should be of 4-6 people, and at least half the team members must be members of the University of Cambridge. This includes undergraduates, post-graduates, post-docs, academics and support staff. The more diverse the team, the better it is!

Prizes

First prize: £1000

Runner-up prizes: up to £500

Prizes will be shared evenly between all team members. We hope that the competition will develop ideas that could feasibly be implemented on the University estate, but the University may or may not choose to take ideas forward. For exceptionally tractable proposals, teams will be signposted to further funding opportunities within the University of Cambridge and/or further afield. See Terms and Conditions for more details on prizes.

How to get started

- Sign up for the [Ideas Jam](#) on Monday 10th February at the Student Services Centre.
- Register your team members with your (non-binding) outline idea by 23:59 on Monday 17th February so that we can assign you a mentor who matches up to your interests. Enter by emailing your outline idea and all team members' names and email addresses to Living.Laboratory@admin.cam.ac.uk.

An outline idea is a one pager or a two minute video describing what you think the format of the project you'd like propose is and briefly why you think it will work. So are you thinking of doing, an app, a boardgame or a policy intervention? It's non-binding so that as you explore the idea further with your team and mentor you have room to change it if you decide that something else would be more impactful.

How the Carbon Challenge works?

There will be several stages of the Carbon Challenge. The first one (which you've probably made it to if you're reading this!) is the **launch event on Tuesday 4th February**. This will be followed by an **Ideas Jam on Monday 10th February**. The Ideas Jam will be your opportunity to meet other people who may or may not already be part of a team. There will be a number of mentors on hand with different areas of expertise and a creative exercise to help get your ideas flowing! Whilst it's not compulsory to come to this session to take part in the carbon challenge it's strongly recommended.

A week after this, teams will **need to register** by submitting an outline idea **by 23:59 on the 17th February**, which can take the format of either one side of A4 with up to one graphic or a two-minute video. Please include all team members' names and email addresses at this stage.

Teams will then be assigned mentors who provide them with weekly mentoring sessions to help teams develop their ideas until the **stage 1 proposal deadline** at 23:59 on the last day of term (**23:59 Friday 13th March**). See Annex 1 for what needs to be included in the proposal.

Judging will take place over the Easter holidays and teams will be advised if they have reached the final and provided with feedback by the 10th April. All teams will be invited to the closing event in the week commencing 27th April where finalists will present their pitches and the final judging will take place. Winners will be announced at this event and all participants presented with certificates, if desired.

In keeping with the sustainable ethos of the competition no physical prize will be awarded and all participants can opt to receive a digital certificate rather than a physical one.

Benefits of being involved

- Contribute to the University's efforts to reduce greenhouse gas emissions.
- Develop an idea into a defined project that can be applied in a real-life context.
- Increase links and collaborations with others around the University.
- Develop experience in the practical implementation of projects.
- Enhance skills such as team work, project planning and management, and development of a business case.
- Receive expert input and mentoring support.
- Gain recognition for, and promotion of, your idea/proposal by a world-leading institution.

Timeline

Date	Time	Event	Location
Tuesday 4 th February	17:30 – 20:00	Carbon Challenge Launch	Babbage Lecture Theatre, David Attenborough Building
Monday 10 th February	17:30 – 20:00	Ideas Jam	Student Services Centre, New Museums Site
Monday 17 th February	23:59	Idea outline deadline	Living.Laboratory@admin.cam.ac.uk
Friday 13 th March	23:59	Stage 1 proposal deadline	Living.Laboratory@admin.cam.ac.uk
Friday 10 th April	17:30	All teams receive feedback for stage 2	NA
w/c 27 th April	17:30 – 20:00	Final Stage 2 pitches and awards ceremony	TBC

Judges

Professor Ian Leslie

Dr Emily Shuckburgh

Peter Hiscocks

Dr Chris Doran

(Dr Amy Munro-Faure – dependent on number of entries)

Annex 1

Structure of the stage 1 proposal

Deadline: Friday 13th March, 23:59, proposals to be emailed or transferred via wetransfer to Living.Laboratory@admin.cam.ac.uk

Structure: Teams are free to present their proposal as they please but must incorporate the following pieces of information.

Project name.

Team. Please include the names of all team members.

Proposal summary. Maximum 100 words.

Rationale. What are the key benefits that would be delivered by this project? Why is it relevant to your target audience? What added value does it give? What is the gap this is trying to fill? Are there similar things out there already or is this innovative?

How would it work? Please detail key steps involved in implementation, any assumptions made, what it involves, examples of artwork or demos.

Timescales. Please identify key milestones and time involved in each step.

Who is involved? Please identify who you have consulted with so far and their main feedback and who else you would need to speak with to take the proposal forwards.

Where will the proposal be implemented? Please explain where you envisage this proposal being implemented.

Carbon savings. Please give an estimate of the potential annual carbon savings generated by your proposal (and how you calculated this estimate)

Development costs. Please give an estimate of development costs required to develop this proposal to the point of implementation (and how you calculated this estimate). Ideally breaking this down between capital and staff costs.

Implementation costs. Please give an estimate of full implementation costs and annual maintenance costs, will this require staff time to support it? (And how you have calculated this estimate).

Further support needed. Please set out what additional resources, advice or consultation you need.

Risk assessment. Please set out the key risks associated with implementing your proposal and how you would mitigate against these risks, including risk of the project failing. What would your recovery plan be? For example, see below:

<i>Risk</i>	<i>Likelihood of occurring (high/medium/low)</i>	<i>Severity of harm associated with risk (high/medium/low)</i>	<i>How the risk will be mitigated</i>

Research links. Please explain how your proposal links with current research highlighting research taking place within the University (where applicable)

Certificate Preferences. Would you like a physical or digital certificate?

Annex 2

Competition terms and conditions

These terms and conditions apply to the Cambridge Carbon Challenge 2020 (“the Competition”). By submitting an entry to the Competition, entrants confirm that they have read and understood these terms and conditions and agree to be bound by them. Persons submitting entries to the Competition on behalf of teams must have authority from all team members to do so.

Organiser of the Competition

1. The organiser of the Competition is The Chancellor, Masters, and Scholars of the University of Cambridge (“the University”).

Eligibility

1. Entry is via team submission only. No individual entries will be accepted or considered. Teams must consist of a minimum of 4 members and a maximum of 6. All team members must satisfy the remainder of the eligibility requirements.
2. Subject to clause 3, the Competition is open to all staff and students of the University and its Colleges and students of Anglia Ruskin University.
3. Entrants must be UK residents (England, Scotland, Wales and Northern Ireland) and aged 18 years or over. Staff members within the Environment and Energy Section and staff directly employed or funded by Cambridge Zero and their immediate families are not permitted to take part in the Competition.
4. Any questions regarding eligibility shall be determined by the University, whose determination shall be final. If unsure of eligibility, entrants should contact living.laboratory@admin.cam.ac.uk before submitting an entry.
5. The University reserves the right to require reasonable evidence of eligibility before making payments of prizes.

General

6. The deadline for submission of entries is 23:59 GMT on Friday 13 March 2020.
7. Support can be sought from external bodies but a majority of the work must be completed by the team members. Please see the section on Intellectual Property in competition entries, below.
8. Teams must generate proposals for a specific technology, policy, intervention or campaign aimed at making carbon savings in accordance with the Competition brief (insert link).
9. To be judged as innovative, project proposals may have been trialled or implemented elsewhere, but they will not have been trialled previously by the University or on the University’s operational estate. Please note that University Colleges are not included in the University’s operational estate.
10. Carbon savings must be estimated through thorough theoretical calculations and/or physical trial and metering. All calculations should use the current year’s published carbon conversion factors at <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

11. The University reserves the right to hold void, suspend, cancel, or amend the Competition where it becomes necessary to do so.

Prize award and Funding

12. Proposals will be judged on the basis of the published judging criteria. The judges' decision is final and the University will not enter into correspondence regarding the outcome of the Competition. Feedback will be provided at the University's discretion. The University reserves the right to award prizes dependent on the quality of Competition submissions and may not award one or more prizes where entries do not meet requisite standards.
13. Prizes will be shared equally amongst the registered members of winning teams, up to a maximum of £250 per team member.
14. Payments to staff may be subject to deduction of applicable tax.
15. The University does not commit to taking forward any proposals but if it does go on to provide funding it further reserves the right to elect not to proceed further with and to cease funding a successful project at any time at its sole discretion.
16. Aside from the prizes, Teams will not be compensated for their time or costs incurred in developing proposals for the Competition.

Intellectual Property in Competition entries

17. Competition entries will not be treated as confidential. Entrants are responsible for ensuring that any intellectual property rights disclosed in their entries are appropriately protected before submitting their entries.
18. The University does not commit to taking forward proposals but must be satisfied that it has the necessary rights to take proposals forward if they prove to be viable on the University's estate. By submitting their proposal, entrants confirm that they have the necessary rights and permissions to submit their proposal and to grant the licences at clause 20 below.
19. Entrants must declare any third party interests or involvement in their entry to the University on submission of their proposal.
20. Entrants hereby agree that the University may, but is not required to, make entries available on its website and any other media and in connection with any publicity of the Competition. Entrants further grant the University a non-exclusive, worldwide, royalty-free, irrevocable licence (with right to grant sub-licences), for the full period of any intellectual property rights, to (i) copy, adapt and publish the Competition entry and any accompanying materials for publicity purposes; and (ii) develop, implement and use any project, invention, service, product or other content whatsoever disclosed by the Competition entry for the University's own purposes.
21. Entrants hereby agree to indemnify the University against all liabilities, costs, expenses, damages and losses (including but not limited to any direct, indirect or consequential losses, loss of profit, loss of reputation and all interest, penalties and legal costs (calculated on a full indemnity basis) and all other reasonable professional costs and expenses) suffered or incurred by the University arising out of or in connection with any claim made against the University for actual or alleged infringement of a third party's intellectual property rights

arising out of or in connection with the University's exercise of its rights under clauses 19 and 20.

Data protection

22. The University will process entrants' personal information for the purpose of administering the competition and contacting you as necessary. The University will not share entrants' personal information with third parties, although the University may wish to issue and manage publicity arising from the competition and the University will liaise with entrants about this as applicable. The University will retain entrant's personal information for 3 years after the end of the competition. By entering the competition entrants consent to these uses of their personal data. For more information about how the University handles entrants' personal information, and entrants' rights under data protection legislation, please see <https://www.information-compliance.admin.cam.ac.uk/data-protection/general-data>

Governing law and jurisdiction

23. These terms and conditions shall be governed by English law, and the parties submit to the non-exclusive jurisdiction of the courts of England and Wales.

If you have any questions, please email living.laboratory@admin.cam.ac.uk.

Annex 3 – Judging Criteria

Judging criteria**Judges' scoring of the proposal brief – stage 1**

Scoring: 1=poor, 2=average, 3=good

Proposal assessment	Score (1-3)	Notes
Evidence of clear opportunity for carbon emissions reduction		
Incorporation of “gamification” ideas		
Good potential for implementation on the University estate		
Good potential for implementation beyond Cambridge		
Innovative nature of the proposal		
Implementation of proposal clearly thought through		
Any assumptions made are stated within the application and are reasonable assumptions to make		
Visual presentation of the proposal		
Convincing description of benefits to be delivered		
Timetable clearly and realistically set out		
Clear evidence of consultation with relevant people, and future plans for gaining further input		
Realistic estimate of full implementation costs		
Clear evidence of thorough understanding of regulatory context		
Comprehensive consideration of risks associated with implementation and where risks have been identified, appropriate measures for effective mitigation have been identified		
Full consideration of risk of failure and clear recovery plan thought through		
Evidence that all team members have contributed to the project		
Relevant and substantiated links with academic research		

Judges' scoring of the presentation to the panel – stage 2

Scoring: 1=poor, 2=average, 3=good

Presentation assessment	Score (1-3)	Notes
Clearly set out idea		
Convincing 'pitch'		
Concisely conveyed		
Thorough understanding of the market at which the idea is pitched, including the University context.		
Evidence that feedback from stage 1 has been incorporated into the proposal		