

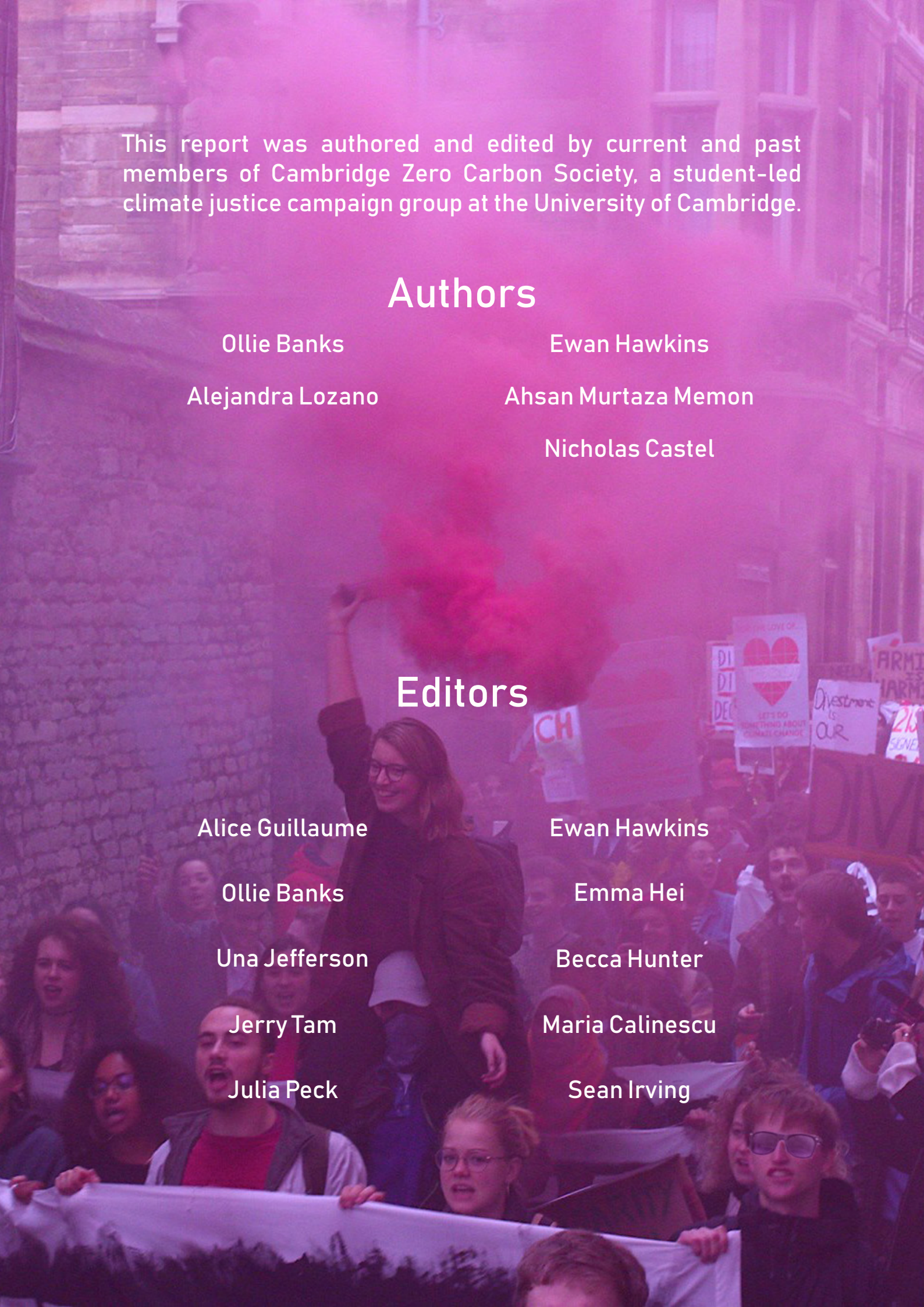
# DISMANTLING THE FOSSIL FUEL UNIVERSITY



The Entanglement of the  
University of Cambridge  
and the Fossil Fuel Industry







This report was authored and edited by current and past members of Cambridge Zero Carbon Society, a student-led climate justice campaign group at the University of Cambridge.

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# FOREWORD

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At this time of climate crisis, the web of capital fuelling the ecological and social catastrophes of our time has never been more visible. Once any institution is made aware of the trail of its capital to the corporations that are driving the devastation of our ecosystems and social structures and threatening our democracies at this unprecedented time, it is essential as morally accountable agents that they reevaluate the social license that the institution is providing to the perpetrators of climate chaos and the furthering of global social instability.

This report details with clarity and precision how the University of Cambridge can take radical, ambitious and comprehensive action on the climate emergency by cutting ties with BP, Shell, ExxonMobil, Schlumberger, Total and other oil majors who are knowingly pushing our climate towards a five degrees Celsius increase in temperature. As outlined, fossil fuel companies like BP and Shell rely on universities like Cambridge to maintain and bolster their social licence to operate. This licence allows the industry to continue pursuing extractive projects and is produced by disseminating the belief that it is a legitimate and socially conscious industry.

Professorships allow fossil fuel companies to gain a veneer of social legitimacy and indicate a deeper perversion of academic research towards achieving industry goals. In most cases the professorships are associated with the establishment of a trust fund in the form of a capital endowment with its income used to fund expenditure. The University takes a small income from this process, and in return it greenwashes the fossil fuel industry. At this unprecedented time of crisis, knowledge and science are being held captive to the same industries that are knowingly driving climate meltdown that we see is already claiming the lives of millions.

Since 2009, as the co-founder and director of the UK Tar Sands Network I have worked with a broad coalition of stakeholders to divest billions of pounds out of the Canadian Tar Sands in Alberta, deep sea drilling in the Gulf of Mexico and most recently calling for insurers such as Lloyd's of London to end underwriting and insuring new coal-fired projects. Divestment has a long history in the fight for community justice and has been a powerful and effective strategy for the last decade in the frontline resistance to extractivism, ecocide and the intentional commitment of corporations such as BP and Shell to pushing the global climate into irreversible chaos.

I urge the University of Cambridge to read this report while thinking several generations ahead and make the decisions to act with moral clarity at this time of climate crisis. How will you answer your children, friends, families when they ask how you responded to the climate crisis? When you were faced with the exact knowledge of how your institution, a beacon for science and knowledge, responded to the clear connections of your collusion with climate deniers such as BP and Shell at an unimaginably pivotal moment in the history of the future of humanity and our planet as we know it, how did you respond?



# EXECUTIVE SUMMARY

The University of Cambridge legitimises and provides practical support to the fossil fuel industry through extractive research, investments, naming opportunities and new talent recruitment. These activities have been shown to bolster the extractive capabilities of fossil fuel companies, yielding intellectual rights on technology for enhanced oil exploration and extraction, a greenwashed social license to legitimise their operations, and a consistent recruitment and training opportunity for new oil executives. Donations from the fossil fuel industry not only distort the direction of University research, money and personnel towards the fossil fuel industry, they also legitimise the industry at a time when its central role in the creation and perpetuation of the climate crisis is undeniable.

## INVESTMENTS



- In 2014, it was estimated that 6.4% (over **£377 million**) of the the University and Colleges endowment was invested in fossil fuels.
- A concerted campaign spanning several years has culminated in University Council being mandated by a 324-signatories Grace (binding motion) to produce a report looking into the advantages and disadvantages of divestment, with the final report due for July 2020.

## GREENWASHING

Fossil fuel companies rely on universities like Cambridge to maintain and bolster their social licence to operate. The University takes relatively small sums of money in exchange for greenwashing the industry, allowing it to co-opt the University to portray an image of an industry that is prestigious, charitable and scientifically rigorous.



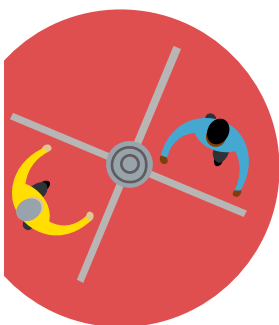
- Named **professorships** like the BP Professorship of Chemistry, Shell Professor of Chemical Engineering, and Schlumberger Professorship of Complex Physical Systems allow fossil fuel companies to portray themselves as respectable and academically necessary.
- **Awards and prizes** such as The ExxonMobil Prize and BP Chemistry Prizes are relatively cheap attempts by fossil fuel companies to greenwash and funnel students into fossil fuel jobs on graduation.
- The Shell Annual Lecture is indicative of a much wider process of fossil fuel executives being given **prestigious platforms** and sponsoring University **events**.
- Handing out **honorary awards** to fossil fuel executives and branding like The Shell Energy Transition Game paints a picture of a charitable and necessary industry.
- There is branded equipment like BP lab coats for Chemistry undergraduates and branded buildings like the BP Institute.



## EXTRACTIVE RESEARCH

More than legitimising the fossil fuel industry, Cambridge University has received over **£18 million in research funding** from it since 2001. The University continues actively to undertake the work of finding and characterising fossil fuel reserves, as well as making their extraction more efficient.

- The **BP Institute** is a large research institute with an explicit focus on multiphase flow in oil pipes which “has helped enhance recovery from challenging and mature reservoirs and avoid hydrate build-up in pipelines”. Technology developed at the Institute has contributed to increased profits from fossil fuel extraction of **\$300-3000 million** per year.
- **CASP** is a research group of the Department of Earth Sciences whose primary goal is finding and characterising new oil reserves across the globe. They have active projects around the world including in the Arctic, all of which are annually funded by fossil fuel companies.
- One research focus of the **Shell Laboratory** for Magnetic Resonance Imaging of the Department of Chemical Engineering is transport in porous media, which includes oil-field reservoir rocks.
- Several University researchers, usually funded by the fossil fuel industry, have invented **patents** that are owned by the fossil fuel industry. Patents are a testimony that University research underpins technology that the fossil fuel industry is using to enhance oil exploration and extraction.
- **Cambridge Enterprise** is the commercialising arm of the University and it has targeted fundamental research for the industrial needs of fossil fuel companies. For example, it has facilitated the commercialisation of sensors that “enhance oil recovery” and frameworks that improve the separation of petrochemicals, which “BP has strong interest in”.<sup>1,2</sup>
- **Bullard Laboratories** at the Department of Earth Sciences has developed new oil exploration technologies that have been used by fossil fuel companies for deep-water exploration which has led to increased production in off-shore basins in South America, Greenland, India and West Africa.



## THE REVOLVING DOOR

- Executives of fossil fuel companies are moved into positions at the University while at the same time University members are moved into fossil fuel companies, creating a **revolving door**.
- The University sustains the fossil fuel industry by providing a steady stream of educated and trained graduates, facilitated by supporting **recruitment events**, advertising, and sponsored **studentships and scholarships**.
- The University offers various **training and consultancy services** to fossil fuel companies. This both works to engage their profit-driven functions and to enliven exchanges between the University and the companies.

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# INTRODUCTION

In the context of ongoing marketisation of the British higher education system, we have seen the processes and functions of our Universities become increasingly perverted by the influence of fossil fuel companies.<sup>3</sup> The fundamental incompatibility of fossil fuel companies with combating climate change is well understood. Positioning itself as a “social leader”,<sup>4</sup> the University of Cambridge must start a process of transformation of its structures to respond to the climate crisis in the strongest terms. Accordingly, this report firstly sets out to outline the ways in which fossil fuel companies are entangled with the structures and activities of the University. Secondly, we provide actionable immediate and medium-term (by 2021) demands to the University on how it can recognise its continued role in the deepening of the climate crisis and achieve a just transition away from the industry that is fueling it.

This report is centred on three principles. (1) We appreciate the achievements of divestment and carbon-reduction campaigns across the University but recognise that the climate crisis calls for more radical, ambitious and comprehensive action. (2) The University historically and contemporarily has supported colonial and neo-colonial practices that have driven the environmental crisis and which continue to disproportionately affect the communities least responsible for it. Those most

vulnerable are communities in the Global South, especially people of colour, women, disabled people and the working class. (3) Dismantling fossil fuel infrastructure requires the simultaneous growth in renewable energies. Accordingly, a just transition requires that shrinking extractive research be combined with supporting researchers with socially positive alternatives, in particular those that mitigate the effects of climate change.

The entanglement of fossil fuel companies in higher education institutions such as the University of Cambridge brings a number of benefits for the industry. First, universities finance the fossil fuel sector through their investments. Second, universities conduct research for fossil companies. Third, universities educate and train people to work in the fossil fuel industry. Fourth, universities reinforce the public perception that fossil fuel companies are socially acceptable entities, providing the industry with a ‘social license’ to continue to operate as they currently do. This report sets out to demystify both the practical and legitimising support that the University gives to fossil fuel companies, in conjunction with recommendations for how this support can be dismantled as part of a just transition, in which affected staff are remobilised to research and teach mitigation and adaptation solutions to the climate crisis.

## The Climate Context

The latest IPCC report found that there are now eleven years to stop global temperatures rising above 1.5°C.<sup>5</sup> Above this, there is a growing and massive body of work warning of irreversible climate change causing lasting droughts; rising seas that will inundate vulnerable coastal communities; natural disasters occurring more frequently and with more devastation; food supplies on land and in oceans plummeting; and water shortages, disease and conflict spreading.<sup>6</sup> It is in this context of resituating climate change as a process that has already been causing loss of life (March 2019's Hurricane Idai has been classified as the second deadliest storm to hit the Southern Hemisphere) that the urgency of reassessment of the University's links with fossil fuel companies must be understood.<sup>7</sup>

Arguments that fossil fuel companies have a role in the just transition have repeatedly been shown to be greenwashing. All the carbon held in already-claimed reserves amounts to five times the amount that can be released into the atmosphere whilst limiting global warming to 2°C.<sup>8</sup> A recent landmark study found that to limit warming to 1.5°C (in line with the IPCC report), it is not enough that no new fossil fuel-burning infrastructure is built but some currently-running power plants need to be shut down.<sup>9</sup> This is in the context of sustained power plant and pipeline construction, ever-riskier conditions of fossil fuel extraction, and continued exploration of new oil and gas reserves. The extractive model of fossil fuel companies is structurally incompatible with climate action and the University must therefore have a just transition away from the fossil fuel industry.



## The Just Transition

Throughout the report a framework of a just transition is drawn upon to inform our outline of the process by which the University might disentangle itself from the fossil fuel industry. A 'just transition' is defined by the International Trade Union Confederation (ITUC) as a tool "aimed at smoothing the shift towards a more sustainable society and providing hope for the capacity of a green economy to sustain decent jobs and livelihoods for all."<sup>10</sup> The transition will impact those workers employed in the fossil fuel industry the most but the change required will potentially impact all workers. As the Public and Commercial Services Union pamphlet *Just Transition and Energy Democracy* puts it, "every sector of the economy will be affected by the energy

transition – energy, manufacturing, heavy industries like steel, transport, construction, health, education and so on".<sup>11</sup>

In the context of the University of Cambridge those working in areas directly related to the extraction, production, and consumption of fossil fuels will be disproportionately affected and as a result our analysis will focus on these parties. Nevertheless, the just transition to a sustainable economy must be a collective endeavour supported by the University itself, as well as all colleges and departments. The just transition is therefore key to ensuring the University of Cambridge can cut ties with the fossil fuel industry without harming learning, teaching, or research conditions.



# GREENWASHING

## Introduction

Fossil fuel companies rely on universities like Cambridge to maintain and bolster their social licence to operate. Money is exchanged for credibility, placing branded professorships, awards and events across as many areas of the University as possible, in order to paint a picture of an industry that is prestigious, charitable and intellectually credible. Offering platforms to fossil fuel companies and awarding honorary fellowships to their executives is also part of a careful recruitment strategy. The University takes a small income from this process, and in return it greenwashes the fossil fuel industry.

A member of the BP Board said that the aim of sporting, cultural, and academic sponsorship was “brand projection and connection with customers and society”, and to “enhance their relationship with strategic commercial partners”.<sup>12</sup> In other words, this isn’t about supporting sport, culture, or academia, but defending the company’s public reputation whilst continuing to engage in even more destructive activities around the world.

## Professorships

Professorships allow fossil fuel companies to gain a veneer of social legitimacy and indicate a deeper perversion of academic research towards the realisation of industry goals. In most cases the professorships are associated with the establishment of a trust fund in the form of a capital endowment invested with the income used to fund expenditure. This places a binding obligation upon the University to use the money in accordance with the terms of the bequest. Probing the history of these named chairs makes clear their transactional nature.

### **Shell Professor of Chemical Engineering**

This professorship was created thanks to a £450,000 donation made by Shell in 1945. Further gifts from Shell to the University led to the creation of the Shell Fund for Chemical Engineering; the managers of the fund include an appointee of the Shell Group of Oil Companies.<sup>13</sup> The opening balance on 1 August 2017 was nearly £16 million.<sup>14</sup>

### **Schlumberger Professorship of Complex Physical Systems**

In December 1998, Schlumberger donated £2 million for the endowment of a Professorship of Complex Physical Systems in the Department of Applied Mathematics and Theoretical Physics.<sup>15</sup> The Fund had an opening balance on 1 August 2017 of £3,678,059.<sup>16</sup>

### **BP Professorship of Chemistry**

Between 1990 and 1995, BP donated £1.5 million to endow a professorship and support teaching and research in Chemistry.<sup>17</sup> The University established the British Petroleum Chemistry Fund in 1991 for this purpose and, in recognition of the donation, named the BP Professorship of Chemistry. The Fund had an opening balance on 1 August 2017 of over £3 million.<sup>18</sup> At each election of the Professorship, BP nominates one person for inclusion among the General Board's three nominees to the Board of Electors.

In November 2018, a benefaction of £2.5m from the Yusuf and Farida Hamied Foundation to support the Professorship of Chemistry led to the Professorship being renamed the Yusuf Hamied 1702 Chair.

## **Awards and Prizes**

Academic prizes and awards are relatively cheap attempts to portray themselves as socially acceptable companies to students, fossil fuel companies facilitate various awards in the University. This greenwash project also works to funnel students into fossil fuel jobs on graduation.

### **BP Achievement Award**

The prize of £300 is offered to each student who gets a 1st in first year Earth Science and will take the course in the second year.

of Chemistry. The name change did not end the relationship between BP and the Department of Chemistry; as the University noted: "BP is continuing its long association with Chemistry at Cambridge".<sup>19</sup>

### **The BP Foundation McKenzie Professorship of Earth Sciences**

In May 2010, the BP Foundation donated £4.15m to support research in the area of quantitative physical Earth Sciences. The University established the BP Foundation Fund for Earth Sciences for this purpose and, in recognition of the donation, established the BP Foundation McKenzie Professorship of Earth Sciences.<sup>20</sup> The Fund had an opening balance on 1 August 2017 of over £7 million.<sup>21</sup>

### **The BP Professorship on Petroleum Science**

From a donation and grant from BP to create the BP Institute (see page 19), the University established the BP Fund, which included establishing the BP Professorship of Petroleum Science and four University Lectureships. The Fund had an opening balance on 1 August 2017 of almost £32 million.<sup>22</sup>

### **Shell Churchill Research Prize**

The Shell Churchill Research Prize gives the opportunity for final year undergraduate or first and second year graduate students in STEM subjects to win a prize of £3,000 by submitting the best research proposal. The College stated that it was "pleased to continue to work with Shell, as an original benefactor to the College, and is grateful for its support of students' research through funding this prize".<sup>23</sup>

### The BP Chemistry Prizes

BP sponsor a series of prizes awarded across all four years in recognition of outstanding performance in Chemistry Tripos Exams.<sup>24</sup> These prizes are awarded by the examiners. In 2017, examiners awarded 19 BP prizes in recognition of excellence in the overall examination in Part 1A, Part 1B, Part II and Part III of the Chemistry Tripos. The University makes explicit the links between these prizes and career progression at BP, encouraging users to “Find out more about careers with BP” through a hyperlink to the BP Careers Page on the award page.

## Events

Denying prestigious platforms to speakers from tobacco companies was a key strategy for eroding their social license. Events are sponsored by fossil fuel companies to put forward an image of themselves as an exciting and necessary part of the academy, as well as to provide plentiful opportunities for greenwashing.

### The Shell Annual Lecture

The Shell Annual Lecture is organised by the University for several Shell-funded PhD students and early-career researchers to present their research to Shell’s high executives and personnel, as well as to the academic community interested in the field. The 2014 Shell Lecture was on the theme of ‘Deploying gas technology for a sustainable

### The ExxonMobil Prize

The prize is awarded annually by the Examiners for Part IIA of the Chemical Engineering Tripos to the candidate (a third year undergraduate) who has shown the greatest distinction in that examination.<sup>25</sup>

### The BP Nevill Mott Prizes

The 2 BP Nevill Mott Prizes are awarded by the examiners of Experimental and Theoretical Physics in Part III of the Natural Sciences Tripos to the two candidates who achieve the greatest distinction in project work in that examination each year.<sup>26</sup>

energy future’ and featured Andy Brown, Upstream International Director at Shell.<sup>27</sup> At the 2015 and 2016 Shell Lectures, Andy Brown presented lectures and delegations of Shell employees met with Shell-funded PhD students who presented their research.<sup>28</sup>

The 2017 annual lecture saw Andy Brown deliver a lecture titled ‘Our place in the future energy landscape’. When asked by the host whether he was proud of what Shell had “done over the years in Nigeria”, Brown replied that “I am, I’m fundamentally proud of what happened in Nigeria”.<sup>29</sup> This despite Shell being accused by various groups, including Amnesty International, of instigating human rights abuses against the Ogoni people in Nigeria in the 1990s.<sup>30</sup>



Photograph: Student campaigners disrupted the 2018 Shell Annual Lecture



### **BP and Clare Hall Gender Equality and Inclusive Leadership Symposium**

There have been three editions of the BP and Clare Hall Gender Equality and Inclusive Leadership Symposium. The Symposium aims to develop ideas and strategies on gender equality and inclusive leadership, as well as to assess within this framework perspectives on ethnicity awareness.<sup>31</sup>

There is also a huge number of non-branded events that provide platforms to speakers from the fossil fuel industry:

### **The Outlook for Gas: short-term evolution, long-term revolution?**

This event, which took place in 2018 in London, featured speakers from Shell, BP and the University of Cambridge, and was advertised on the Energy Research at the University of Cambridge website.<sup>32</sup> The seminar was introduced by a member of the Shell Scenarios Team, and audience debate was moderated by a Senior Energy Adviser at Shell Scenarios Team. Speakers included BP's head of gas analysis speaking

on 'BP's energy outlook and its implications for natural gas' and the Research Associate & Director of Energy Policy Forum from Cambridge University speaking on 'UK & European gas markets: taking stock and looking forward'.<sup>33</sup>

### **CUEN Energy Conference**

The theme of the Cambridge University Energy Network's 2018 conference was "How is Technology Influencing the Energy Landscape?".<sup>34</sup> The final speaker was from Shell, presenting on "Key Next Steps". The conference purported to discuss recent energy and sustainability trends, and provide networking opportunities, and was featured on the Energy Research at the University of Cambridge website.<sup>35</sup>

### **Energy for Transport Lecture: Saudi Aramco**

The University of Cambridge Engineering Department hosted a lecture in July 2017 by Professor Kalghatgi, a Principal Professional at Saudi Aramco - a Saudi Arabian national petroleum and natural gas company.<sup>36</sup>

## **Other**

### **Shell Energy Transition Game**

This Game in February 2018 was a partnership between Cambridge University Engineering Society and Shell.<sup>37</sup> It is a simulation exercise that allows the player to make decisions concerning the energy transitions unfolding across the globe over the coming decades.

### **Syllabus Bias**

Testimonials from multiple students of Earth Sciences points towards a course structured to greenwash the fossil fuel research going on in the department. One

student notes a second-year lecture titled 'Petroleum Perspectives'. The lecturer said, "Whatever the controversies surrounding our dependency upon fossil fuels, one issue is very clear. There is a finite amount of hydrocarbon left to discover."<sup>38</sup> Another student remembers a first-year lecture on 'Energy Issues - the role of the geologist', which highlighted the role of geology students in sustaining fossil fuel companies. Furthermore, all third year students must attend a three hour compulsory lecture on Petroleum Geology delivered by Andy Bell, a representative from Shell.

## Honorary Awards

The University has continually given honorary awards to fossil fuel executives. Lord John Browne (the BP chief executive between 1995 and 2007) and Hector Laing (Director of the Exxon Corporation between 1984 and 1994) hold honorary fellowships of St John's College and Jesus College respectively. Lord Simon of Highbury (the BP chief executive between 1992 and 1995) is an Honorary Fellow of Gonville and Caius and was a member of the University Council from 2005 to 2012.<sup>39,40</sup> Dr Simon Bittleston PhD (Vice-President of Research for Schlumberger) is an honorary fellow of Darwin College.<sup>41</sup>

## Cambridge University Chemical Engineering Society (CUCES)

CUCES "organise a yearly programme of educational and social events for our students in the Department".<sup>42</sup> These include career events, visits to company sites and an annual dinner at the Cambridge Hotel sponsored by BP.

## BP-branded Equipment

BP also sponsors branded lab coats for first-year Chemistry students and BP branded hard hats in the Department of Earth Sciences, whilst Shell sponsored branded folders for reading materials in the Department of Engineering.



## We call on Cambridge University to

- Stop accepting sponsorships and advertising from fossil fuel companies
- Stop inviting fossil fuel companies to careers fairs hosted by the University or its constituent faculties
- Stop awarding honorary fellowships and inviting fossil fuel executives to speak with academic platforms
- Remove named branding of fossil fuel companies in buildings, departments, prizes, scholarships and academic appointments

# EXTRACTIVE RESEARCH

## Introduction

This section shows how the University not only offers credibility to fossil fuel companies, but also explicitly acts to advance their extractive projects. Firstly, an overview of the extent to which academic research has been directed by the fossil fuel industry is offered, looking at research grants and donations over the past four years. The case studies of the BP Institute and CASP Research Group specifically demonstrate

how fossil fuel companies shape and influence the direction of academic research. Various other research ventures and collaborations between the fossil fuel industry and Cambridge University are then outlined to indicate the extent to which these relationships are, as a Cambridge academic noted, “blurring altogether the boundary between commerce and academe”.<sup>43</sup>

## Research Grants and Funding

Sponsors of research projects provide the single largest source of income for the University accounting for 27% of total income in 2017-18. Fossil fuel companies represent a small source of private research grants and contracts, estimated at 0.04%

of overall research funding (in 2015/2016).<sup>44</sup> The relative contributions of research funding from the fossil fuel industry, public research funding into the industry, and funding into renewables since 2001 is shown in Figure 1.



Figure 1: Chart comparing the University of Cambridge’s research into the fossil fuel industry and research funding received from the fossil fuel industry with research funding into renewables since 2001. Data from People & Planet.<sup>45</sup>



## RESEARCH GRANT FUNDING FROM FOSSIL FUEL COMPANIES

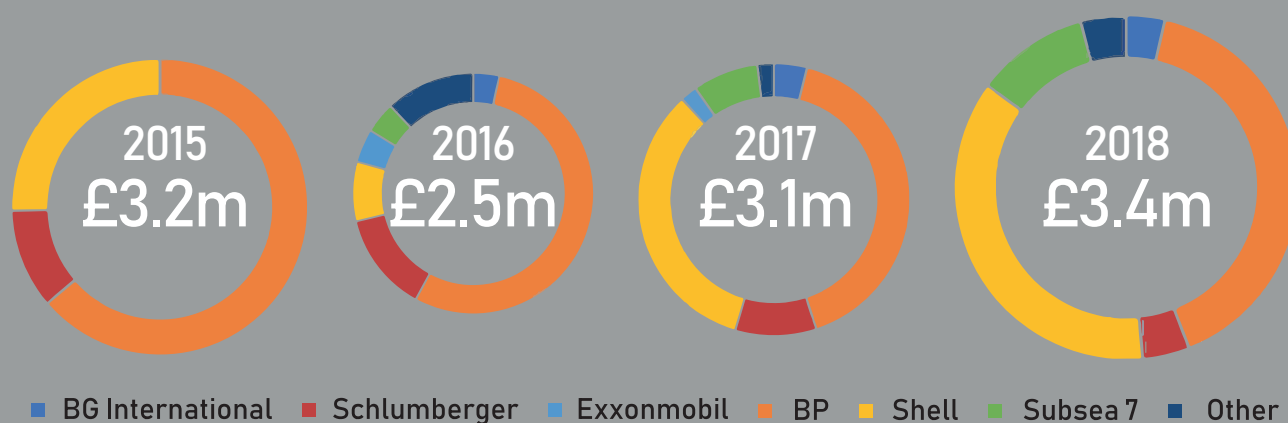


Figure 2: Charts comparing the amount of research funding accepted by the University of Cambridge from fossil fuel companies between 2015 and 2018. Other: BHP Billiton, Japan Oil, Gas and Metals National Company, Ras Gas, Sulnox Research and Development. Each year accounts for the period up until July 31st of that year. The estimates were created from data in the 'Research grants and contracts' sections of the annual Financial Management Information Reports published in the University Reporter.

### The BP Institute

The BP Institute (BPI) was established in 2000 by a £22 million donation endowment from BP to support the formation of an interdisciplinary research institute.<sup>46</sup> The research conducted by the BPI centres on fundamental problems in multiphase flow, which arise in situations with more than one fluid phase. In particular, the research serves to improve the efficiency of oil and gas recovery in pipes and from basins, in other words improving the profitability of fossil fuel extraction.<sup>47</sup>

BP openly acknowledge that the research of the BP Institute furthers the activities of fossil fuel companies such as BP, stating that "[the BP Institute's] research has helped enhance recovery from challenging and mature reservoirs and avoid hydrate build-up in pipelines".<sup>48</sup> In their 2016 annual report they describe how "long-term research is vital to BP's capacity to adapt and grow. For example, the BP Institute for Multiphase Flow at the University of Cambridge has examined

a range of complex and challenging problems associated with the flow of matter for the past 15 years. Our research into rock and fluid interactions has led to significant developments in the use of low-salinity water to improve oil recovery from our fields".<sup>49</sup> A 2009 University press release was even more frank, noting "multiphase flow is an area of great interest to BP as it underpins all parts of its business: from enhancing oil recovery to delivering it to customers, and from refining hydrocarbons to investing in a low-carbon future".<sup>50</sup>

An Earth Sciences Department REF2014 Impact Case Study stated that "optimising the injection of [thermally sensitive] polymers", a project developed at the BP Institute by Professor Andy Woods group, "increases oil production by several [percent] to several [tens of percent], which increases the value of the production by [...] \$300-3000 million per year."<sup>51</sup>

The running costs of the Institute are met by the BP Institute Fund, categorised as an Earth Sciences Trust Fund, which had an opening balance on 1 August 2017 of over £30 million in permanent capital and £3 million in current accounts, with expenditure of £835,978 annually.<sup>52</sup> The Institute has seven people working as faculty staff (the head of the Institute, three Professors, one Lecturer, and two Readers), as well as two Senior Researchers and 44 researchers. The research is carried out across five different University Departments. The BP Institute has also created the new fully funded iCASE PhD award that will cover all the expenses of PhD students working in the fluid dynamics of Carbon Sequestration for 3.5 years starting in October 2019.

The BP Institute was explicitly established with the purpose of deepening links between BP and the University of Cambridge. As the General Board reported to the University, “a programme of scientific interchange should be established between BP and the Departments, going significantly beyond existing contacts between the company and individual research groups. For example, such a programme might entail further collaborative projects, interchange of staff at many levels, invitations to BP personnel to contribute to the teaching programmes of the participating Departments, and student placements with the company”.<sup>53</sup> The BP

Institute therefore acts as a springboard for deeper and more opaque connections between the University and BP that further its extractive business practices.

The BP Institute is also not independent of BP influence. The General Board invites BP to suggest two candidates for appointment as managers of the fund. The Director of the BP Institute, Professor Andy Woods, explained how the “close working relationship with BP gives us in-depth exposure to technical challenges in the industry”. He went on to say that “this means that we can frame research directions that are fundamentally interesting to us as academics and can also solve problems that are of relevance to the industry”.<sup>54</sup> He uses the example of analysing interactions between fluids and solids in oil fields to understand the physical chemistry that controls how much oil can be recovered as a function of the salinity of the water used to pump it from the well.

In 2010 Gillian Evans, Professor of Theology at Cambridge, criticised the University’s relationship with BP, saying: “There may be reputational damage in store for the university. That would be bad enough in any case, even if the connection were merely financial, but it is surely much worse if BP is engrafted into the academic fabric of the institution.”<sup>55</sup>

Photograph: Student campaigners blockaded the BP Institute in February 2019



A startling 2010 interview with Cambridge University Professor Dan McKenzie reveals the origins of the BP Institute. McKenzie describes how he had been working on a theory of sedimentary basins and explains how it “caught on with the oil companies instantly, and even before the paper was published, all their research groups coded this up and used it to think about the sedimentary basins.” He spoke in detail about how he couldn’t immediately identify “what [was] going to be the most commercially important part of [the theory].” Out of his original work came “an understanding which has probably saved the oil companies, you know, £5 billion, something like that, because they’ve got an understanding both of the substance, also of, of the, the temperature evolution of these basins. And they exploit it all the time, right.”

Dan McKenzie is a Professor of Geophysics, Geodynamics and Tectonics at the University of Cambridge. His landmark research into the formation of sedimentary basins details the formation of fossil fuels, now understood as the McKenzie Model of Sedimentary Basins.

McKenzie then described the ‘commercial rewards’ that came from this. He spoke of monetary rewards from winning prizes and the establishment of the BP Institute arising from his theory:

“For eight years I was on the Technology Advisory Council at BP, and BP also set up a, well gave, and it was one of the people I worked with actually, Andrew Mackenzie in BP, and John Browne, they endowed a professorship and four lectureships here in the university, in what’s called the BP Institute, right, which I then built and set up. So, I mean, I personally have got quite a lot of money out of this, but in a very indirect way, and the university has done extremely well out of it.”<sup>56</sup>

## CASP Research Group

CASP (formerly called Cambridge Arctic Shelf Programme) is “a not-for-profit charitable trust carrying out field, literature and analysis-based geological research in prospective hydrocarbon basins”.<sup>57</sup> They are a registered charity with the objective of “the advancement of education for the public benefit by conducting research into the geology of sedimentary basins of the world and the publication of the results of such research”. The website for the Department of Earth Sciences at Cambridge University lists CASP as one of its research groups (accessed 20 Oct, 2019).<sup>58</sup>

The primary research of CASP is finding and characterising new oil reserves across the globe. The extractive core project of CASP is summarised on their website, which states

that “No doubt more oil and gas remains to be found”.<sup>59</sup> Regions of CASP research include: Adriatic, Black Sea and Caspian regions, the Arctic, China, East Africa, North Africa and Middle East, North Atlantic, Russia, and the South Atlantic.

Projects in the Arctic have included “[recent] discoveries such as Goliath and on-going development of the Snøhvit gas field [and] have increased optimism for future exploration success in this environmentally sensitive region.”<sup>60</sup> Extractive activity in this region is controversial beyond the climate impact of burning further oil reserves, with strong warnings being given for both the likelihood of oil spills and the difficulty of their containment.<sup>61</sup>



Funding for research conducted by CASP comes entirely from fossil fuel companies' annual subscriptions, which provides them with privileged access to research and samples. During the most recent report (ended 31 January 2018) "12 companies supported CASP's research and a total of £1,456,602 was raised through subscriptions compared to £1,741,662 for the previous year".<sup>62</sup> The subscribing companies for the year 2017-2018 were:

Anadarko, BP, Chevron, DNO, ENI, ExxonMobil, GGO, JOGMEC, Nexen, Shell, and Statoil. As of 21 January 2018 they also have over £152,000 in tangible assets and £8.5 million in investments.

Companies on their Scientific Advisory Board include BP, Shell, Exxon, Total, Chevron, Eni and Statoil. The current chairman of the trustees, Philip Hirst, worked for BP for 32 years.<sup>63</sup>

## Schlumberger Research Centre

Founded in 1981, Schlumberger Cambridge Research (SCR) is one of the key research centres for Schlumberger, the largest supplier of technical services to the oil and gas industry. While not directly managed by the University, when in 1985 the SRC moved to a new centre in West Cambridge, various strategic University-centre interfaces were constructed. It was renamed the Schlumberger Gould Research Centre and brings together laboratories and offices with fluid flow loops and a drilling test station.<sup>64</sup>

The key research interests of the Centre are drilling, pumping and testing services in the oilfield. Several Schlumberger annual reports highlight the importance of fundamental research in drilling technology conducted at the Cambridge Centre for improving the efficiency of oil drilling projects.<sup>65</sup> Indeed, the Department of Applied Mathematics and Theoretical Physics committed

"to facilitate scientific interchange with Schlumberger Cambridge Research" on "a range of important problems in oil reservoir characterization and multiphase flow modelling, with particular reference to problems linking processes and measurements taking place at reservoir, wellbore, and pore scales".<sup>66</sup>

In 2017, the Schlumberger Gould Research Centre collaborated with the Isaac Newton Institute of the University of Cambridge "to bring academics and industrial researchers together under a series of workshops to explore the potentials of emerging methods in large-scale optimisation, optimal transport and machine learning for oil and gas industry".<sup>67</sup> Speakers included multiple Schlumberger affiliates and University of Cambridge academics, raising serious questions about the independence of academic research.

## Bullard Laboratories

The scientists and researchers from Bullard Laboratories based in the Department of Earth Sciences have historically helped fossil fuel companies find oil in deep-water continental margins. In particular Prof. White has lead projects funded by BP to study the deep-sea oil exploration. In an interview, Prof. White states that his group is providing invaluable new understandings for oil exploration in Earth's most hostile environments.<sup>68</sup> Cambridge University also stated that Prof. White's research played key role in decision-making for BP Exploration, regarding oil discovery in regions of high exploration risk.<sup>69</sup> Furthermore Prof. White developed an imaging technique which has been widely adopted by oil industry, particularly for oil corporations like Amerada Hess expanding exploration into deeper waters including the north-western Europe, the South American coast of Brazil and the continental margins of India.<sup>70</sup>

Prof. White also joined Dr Philip Christie from Schlumberger Cambridge Research (SCR) who established and led Schlumberger's research and development of multiple centres including the one in Cambridge, before temporarily joining BP to coordinate monitoring of Foinaven reservoir, which later became Foinaven BP oil field.<sup>71</sup> To acquire data for sub-salt and sub-basalt explorations, Prof. White and Dr Christie deployed hydrophones and ocean bottom seismometers generating long-offset low frequencies that are fatally hazardous to aquatic marine life. The methods were patented by Schlumberger and WesternGeco.<sup>72</sup> The main beneficiaries of the research have been oil companies exploring more places for further extended drilling.

These methods have translated to financial gains of approximately \$80 million for the seismic contractors in the European continental margin alone, and has led to increased industrial activity to exploit sub-basalt oil reservoirs including offshore South America, West Africa, Greenland and India. On land the Siberian Traps, Karoo, Columbia River and Parana basins.<sup>73</sup>

By 2013, BP had given Prof. White almost £1.5 million in grants which resulted in numerous benefits for BP to continue fracking and drilling. These benefits included developing and supplying electronic atlas for BP's internal usage, quarterly reports and presentations sent directly to BP management, and an excursion to teach BP personnel the principles of dynamic topography and basin dynamics. These grants also ensured that the research conducted at the University was for BP alone and also that the Cambridge researchers joined BP after completing their for-BP research at Cambridge. Over the years Prof. White has co-authored at least eight papers with then-Cambridge graduate who are now BP employees.

Of particular interest are the papers he co-authored with Dan McKenzie (credited for forming the BP Institute, see page 17), all of which acknowledge support from BP Exploration.<sup>74,75</sup> Another example is Jeff Winterbourne who Prof. White supervised for his BP-funded PhD in Basins Analysis, who went on to work in BP and "help lead graduate recruitment for Earth Sciences at the University of Cambridge".<sup>76</sup> Three out of four postdocs employed on the sub-basalt research at Cambridge University now work in the hydrocarbon industry.<sup>77</sup>

## Shell Laboratory

Shell financed the establishment of the Laboratory for Magnetic Resonance Imaging in the Department of Chemical Engineering and Biotechnology through a donation of £3.8 million in 2014.<sup>78</sup> A further benefaction of \$240,000 from Shell to support the Shell Laboratory was announced in February 2018.<sup>79</sup>

The Laboratory is part of the Magnetic Resonance Research Centre in the University.<sup>80</sup> The research includes

“Transport in Porous Media” that involves a range of MR techniques to “probe the physics dictating single and multi-phase fluid transport through a range of porous media, including oil-field reservoir rocks.” The Centre also uses “magnetic resonance techniques” “to explore the relationship between processing conditions and micro-structure development for a range of materials” including “emulsions (e.g. agrochemicals, oil field emulsions)”.<sup>81</sup>

## Commercialisation of Research

Cambridge Enterprise is the arm of the University that “helps the University of Cambridge’s researchers and academics to commercialise their ideas”.<sup>82</sup> Fundamental research by Cambridge Enterprise has been used by the fossil fuel industry as the following examples illustrate.

### **Silicon Microgravity (SMG)**

SMG is a Cambridge University spin-out company based on a decade of research in the Department of Engineering, in collaboration with BP. The primary research conducted by SMG uses gravitational sensors created at Cambridge University, which have several applications for the oil companies including engineering and reservoir surveillance used to “enhance oil recovery” and monitor CO<sub>2</sub> storage.<sup>83</sup> SMG acknowledges that the research “is of significant commercial interest to oil/gas companies as it will enable the more efficient and cost-effective surveillance of their oil and gas reservoirs as well as CO<sub>2</sub> storage, so that our clients can achieve real efficiencies”.<sup>84</sup>



“I look forward to building a business that can help oil companies enhance oil recovery from their major assets.” Chairman and co-founder of Silicon Microgravity.<sup>86</sup>

“This innovation could revolutionise oil well recovery and is an example of exactly the sort of innovation we are committed to supporting.” Stephen Tetlow, Chief Executive of the Institution of Mechanical Engineers.<sup>85</sup>

It has undergone several rounds of investment following successful testing, including \$3 million in 2016 and \$7 million in 2018. Both funding rounds included investments from Cambridge Enterprise, which also invested and licenced the technology to SMG. The investments have driven the commercialisation of the oil recovery technology with the research phase and successful testing being complete.

## Immaterial Labs Ltd

Immaterial is a Cambridge spin-out that develops monolithic metal-organic frameworks and is headed by Dr David Fairen-Jimenez of the Department of Chemical Engineering and Biotechnology. An initial investment from Cambridge Enterprise's seed-funds was awarded to Immaterial to "scale up our reaction" and "meet early demands from industrial partners".<sup>87</sup> Immaterials has secured further funding including a £300,000 grant from Innovate UK and which was matched by BP "for innovative research into the separation and storage of gases".<sup>88</sup> A Research Programme Manager at BP stated that "BP has a strong interest in the separation of petrochemicals, small molecules and gases, and in the natural gas value chain... and we hope there will be some relevant applications for the oil and gas industry."<sup>89</sup>

Immaterial is also a member of Accelerate Cambridge at the Judge Business School, Cambridge University, which "offers a structured approach of three-month programmes that combine entrepreneurship training, regular coaching and mentoring, as well as access to shared workspace" to "enable and nurture venture creation out of Cambridge."<sup>90</sup>

## The BP Foreseer project

The Foreseer project is run by researchers at the University of Cambridge who have expertise in water, energy, land and emissions. It is currently being funded by BP with an initial investment of £1.2 million.<sup>91</sup> The Foreseer tool is a scenario-based tool that integrates various resources to see how they interact. It involves generating different outcomes based on factors such as fuel extraction patterns, refining and desalination efficiency, and energy transportation. The basis of the tool is a set of linked physical models for these resources plus the technologies that transform these resources into final services.<sup>92</sup>

The project spans seven Cambridge Departments and involves nine co-investigators together with several PhD students and post doctoral research associates. One University of Cambridge PhD candidate on the Foreseer project spun his work out into a commercial venture co-owned by BP and the University of Cambridge called Foreseer Ltd.

## EXPLAINER: CARBON CAPTURE

SMG can be applied to monitoring Carbon Capture and Storage which is a technology that consists of trapping carbon dioxide from the atmosphere or directly from power stations and storing it underground. Although this technology has been enthusiastically backed by fossil fuel companies for some time it is not proven to be scalable.<sup>93</sup> The long term effects of carbon storage are also unknown,<sup>94</sup> for example studies have been released

indicating possible biota disturbance due to the carbon dioxide injections into basalt formations.<sup>95</sup> The lifetime, mobility and thermodynamic stability of microbial carbon storage is not comparable with that of mineral storage, and the impact on deep water ecosystems is not certain. Therefore, although SMG could play an important role in monitoring the behaviour of carbon stored at depth this should not be allowed to justify the use of SMG for extractive purposes.



## Participation in Consortiums

The University leads or takes part in multiple industry-academic consortiums that provide unique interfaces where the functions of the University can be aligned with those of the fossil fuel industry, as well as making it easy for academics and researchers to move between both institutions. There is the UK Fluids Network, a “network of academic and industrial research groups, focused on innovative developments and applications in Fluid Mechanics” including BP and Schlumberger and led by Cambridge University. Similarly, the Isaac Newton Institute for Mathematical Sciences, also led by the University of Cambridge and partnered to Schlumberger, “[enables] the formation of new relationships on the business-academic interface and to assist in identifying the common challenges”.<sup>96</sup>

ICAM is a collaboration between four universities including the University of Cambridge and BP. It was established in 2012 with a \$100 million investment from BP

along with their “expertise in oil and gas to create an international centre of excellence in advanced materials research”.<sup>97</sup> Its management board includes several members of Cambridge University.

A BP grant application highlights the benefits for the fossil fuel industry from the consortium: “Cambridge were selected as a founder member of ICAM on the basis of their capability to carry out groundbreaking research in the area of alloy design and smart materials and surface science for fouling mitigation, and we expect to take up a number of opportunities to do further research in the area of surface science and other areas with Cambridge through ICAM.” Further from technological knowledge production, ICAM aims “to become an international benchmark for university-industry partnerships”. ICAM is also seen as a strategy “to access and develop the skills of young researchers primarily to benefit BP”.<sup>98</sup>



## We call on Cambridge University to

- Stop accepting donations and research grants from fossil fuel companies
- Cut all extractive research it conducts
- Establish a programme to find alternative modes of funding for researchers

# PATENTS

Patents are a common resource to transfer knowledge from higher education institutions to private companies. They draw on the basic research and knowledge of the scientific endeavour to describe and legally protect intellectual knowledge for its owner. Technologies with important commercial and strategic interest are filed as patents by the fossil fuel industry to protect their position within a competitive market. It is a common feature to see Cambridge Researchers, usually funded by fossil fuel donations or grants, to be recorded as the inventors of patents owned by big oil multinationals. The amount of patents we have been able to find is testimony that the research conducted at Cambridge University is used by the fossil fuel industry to enhance oil exploration and extraction.

- The head of BP Institute, Andrew William Woods invented a mechanism to estimate fluid (oil) flow rates from multiple hydrocarbon reservoir layers to production well. This invention to maximize extraction was filed as a patent by BP Exploration Operating Company.<sup>99</sup>
- Cambridge's Shell Professor Lynn Faith Gladden invented a method to image fluid in a subsurface formation. This invention was filed as a patent by Shell International Research.<sup>100</sup>
- In addition she invented a magnetic resonance measurement method to determine pore size distribution in granular materials, which are the rocks in the subterranean reservoir that may contain oil and gas.<sup>101</sup> This was filed as a patent by Schlumberger Technology Corporation.<sup>102</sup>
- She invented a method of dehydrogenating a hydrocarbon, which she filed as a patent together with Cambridge Enterprise LTD and Johnson Matthew PLC.<sup>103</sup> Johnson Matthew company is a multinational company that has been fined millions of dollars for violating the Clean Water Act.<sup>104</sup>
- Silicon Microgravity (SMG), a spin-out from Cambridge University, led by Professor Ashwin Arunkumar Seshia with other Cambridge scientists developed sensors in partnership with BP to interrogate oil wells. Cambridge Enterprise LTD has facilitated this endeavour by filing patents for technology arising from SMG research.<sup>105,106,107,108,109,110,111,112</sup>
- Schlumberger Cambridge Research has filed patents for the inventions of Annie Audibert (the General Secretary of Total, one of the world's largest oil and gas companies), which range from controlling dispersions to reducing fluid (oil) loss, but all focus on the "applications of drilling".<sup>113,114,115,116,117</sup> In addition, they have filed multiple patents with Cambridge Enterprise.<sup>118,119</sup>

# THE REVOLVING DOOR

## Introduction

One key structural way in which the University supports and bolsters fossil fuel companies is through interchanges of people. Executives and affiliates of these companies are given positions in the University while at the same time students

and University members are targeted to be funnelled into the fossil fuel companies. This creates a revolving door between the University and fossil fuel industry, an active strategy for the renewal of fossil fuel companies' functions.

## University Management

With one hand moving members of the University into fossil fuel companies, the other moves executives and affiliates of these companies into University structures in an active attempt to align the interests of both institutions.

5

members of the  
Finance Committee  
have fossil fuel  
links

2

members of the  
Research Policy  
Committee have  
fossil fuel links

## Investment Office

In September 2018 the University's Chief Investment Officer (CIO), and half of his team resigned over alleged fossil fuel divestment pressure.<sup>120</sup> Last August 2019, University Council announced its appointment of Tilly Franklin to the CIO position starting on January 2020.<sup>121</sup> She headed Celtique

Energie Petroleum (2011-2013) and Chrysaor Holdings (2013), a holding company incorporated in the Cayman Islands which oversees the Chrysaor Group with business operations focused on "Exploration and Production" in the North Sea.<sup>122,123</sup>

## Finance Committee

The Finance Committee is tasked with advising the University on the management of its assets, including real property, moneys, securities, investments, research, income and expenditure. Five of its fourteen members have links to the fossil fuel industry:

- Ruth Cairnie - worked at Shell, including time as an Executive Director.<sup>124</sup>
- Richard Anthony - worked for the energy

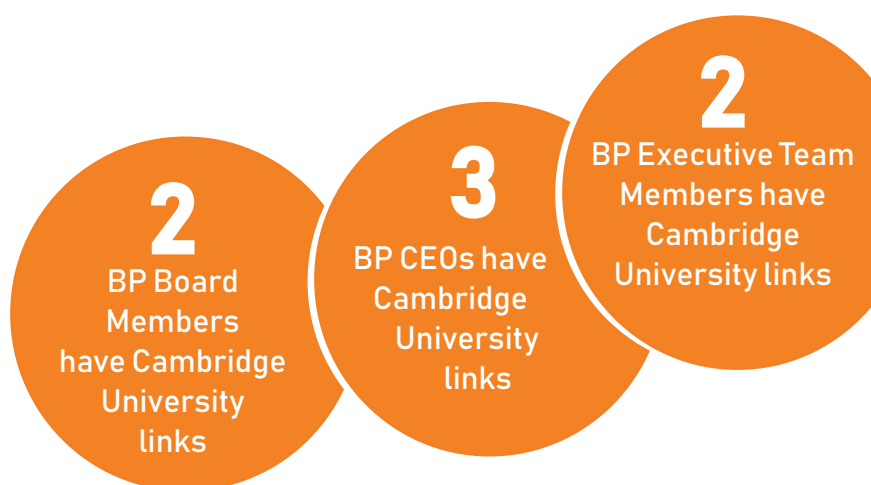
## Research Policy Committee

The Research Policy Committee is responsible for research policy, cross-School research initiatives and for advising on strategic matters relating to the research activities of the University. Its members include:

- company EDF Energy.<sup>125</sup>
- Rory Landman - member of the investment committee of Baring Vostok, an investment fund with a focus on the oil and gas industry.<sup>126</sup>
- David Cardwell - a judge on an investment fund run by Shell.<sup>127</sup>
- David Hughes - Director of Finance for Cambridge University. He previously worked at the BG Group for 12 years.<sup>128</sup>
- Andy Neely - the Pro-Vice-Chancellor of Enterprise and Business Relations and a consultant to BP.<sup>133</sup>
- Prof Lindsay Greer - a Professor of Materials Science and the Head of Department of Materials Science & Metallurgy. Prof Greer is also on the BP-ICAM Programme Management Board.<sup>134</sup>

## BP Management

Exemplifying a wider trend, analysis of BP management personnel structures shows how deeply Cambridge University members are embedded in the fossil fuel company.



## The BP Board

- Prof. Dame Ann Dowling - an independent non-executive director of BP and chair of BP's technical advisory council. She is also a Deputy Vice-Chancellor and was previously head of Department of Engineering (2009-2014).<sup>129</sup>
- Ian Davis - a Senior Independent Director of BP and formerly a member of the Judge Business School Advisory Board.<sup>130</sup>

## The BP Executive Team

- David Eyton - the BP Group Head of Technology and Executive Sponsor for Cambridge. Eyton is a Cambridge alumnus and gave a talk at Cambridge in March 2016.<sup>131</sup>
- Dame Angela Strank - BP chief scientist and head of technology, gave a keynote presentation at the BP - Clare Hall Inclusive Leadership Symposium 2017.<sup>132</sup>



## BP CEOs

- Bob Dudley - the BP chief executive urged Cambridge not to divest from fossil fuels, telling an industry conference in 2018 that we “donate and do lots of research at Cambridge so I hope they come to their senses on this.”<sup>141</sup>
- Lord John Browne - the chief executive of BP between 1995 and 2007. Browne

is a Cambridge alumnus and St John’s College Honorary Fellow.<sup>142</sup>

- Lord Simon of Highbury - the BP chief executive between 1992 and 1995. He was also one of the first external members of Cambridge University Council and is an Honorary Fellow of Gonville & Caius.<sup>143</sup>

## Recruitment

The University of Cambridge plays a key role in sustaining the fossil fuel industry by providing a steady stream of educated and trained graduates. It facilitates the recruitment of students and staff to the fossil fuel industry through supporting recruitment opportunities, events, and advertising.

### BP Recruitment Case Study

In 2009, BP’s relationship with the University was formalised by the signing of a Memorandum of Understanding. The document describes how “recruitment is very much part of the strategic relationship with Cambridge”. Andy Leonard, BP’s Vice-President for Cambridge explained the “need to ensure the highest quality students are exposed to the range of employment opportunities with BP”. The piece also highlighted the “importance, partly from a recruitment perspective” of “the large number of scholarship programmes BP runs for research students”.<sup>135</sup> They noted that in 2009 BP had offered 20 jobs to graduates and 17 interns in Cambridge, as well as partially funding 49 research scholarships.

### The University of Cambridge Careers Service (CCS)

The CCS is the central point of recruitment in the University, recently stating that over 60% of Cambridge first year students have registered with them.<sup>136</sup> The CCS stimulates recruitment by the fossil fuel industry in several ways:

- **The CCS Supporters Club**

Set up in 1987, it helps over 130 members organisations (including BP and Shell) and the CCS keep in touch with each other.<sup>137</sup>

- **Advertising**

In Engineering, “Destinations of Cambridge engineers” include BP and Shell, while in the Engineering Science and Technology Event, a sample booklet with a full page advert for Shell (costing £875) and BP (costing £1075) was handed out.<sup>138,139</sup>

- **Governance**

Mr Ian Duffy from BP Ltd was co-opted as an external member of the governance body of the Careers Service Syndicate until 2012.<sup>140</sup>

## Studentships and Scholarships

Studentships and scholarships sponsored by the fossil fuel industry put forward an image of a charitable, prestigious industry, whilst also directing students into extractive research and jobs in the industry.

### Jafar Studentship in Petroleum Engineering or Earth Sciences

Churchill College works with the Cambridge Trust to offer this research studentship sponsored by Crescent Petroleum which

fully funds a student for a PhD programme in this field. This is only tenable at Churchill College, and is not awarded each year. The studentship covers university tuition fees and an annual stipend sufficient for a single person.<sup>144</sup>

### **Schlumberger Studentship**

The Schlumberger studentship aims to support graduate students undertaking PhDs in Engineering, Science, Computing or Mathematics at Churchill College. This fund was set up in memory of Yuchen Li (G09) by Schlumberger Cambridge Research Ltd in 2015.<sup>145</sup>

### **BP and Clare Hall India Innovations Masters Programme**

This programme is a collaboration between Clare Hall, the University of Cambridge and BP which supports graduate students from India who want to develop their academic career in the energy sector. The programme enables students to study for a Master's degree in any of the STEM subjects related to the energy sector for up to one year at the University of Cambridge. This scholarship will provide funding up to

a maximum of £30,000 towards course fees and maintenance. According to Clare Hall, "BP will work with Clare Hall to shortlist successful applicants".<sup>146</sup>

### **BP Cambridge Scholarships for Egypt**

In collaboration with BP Egypt, the Cambridge Commonwealth, the European and International Trust offers a number of scholarships annually to enable graduates of outstanding academic merit to pursue a one year postgraduate study at the University of Cambridge. Preference is given to candidates seeking master's degrees in petroleum related studies. Other studies such as business, economics and development studies are also considered.<sup>147</sup>

### **Schlumberger Cambridge International Scholarship**

This is a PhD scholarship covering university tuition fee and annual stipend. The scholarship is available to PhD applicants in subjects relevant to the work of the Schlumberger Gould Research Centre in Cambridge.<sup>148</sup>

## **Consultancy**

As an additional element in the mechanics of the revolving door, the University offers various training and consultancy services to fossil fuel companies. This both works to engage their profit-driven functions and to intensify exchanges between the University and the companies.

The Education and Consultancy Services of the Institute for Manufacturing (IfM ECS) make this relationship most clear. The IfM ECS offer roadmapping training, which is "a powerful strategic planning technique that is integral to creating and delivering strategy and innovation in many organisations."<sup>149</sup> In essence, roadmapping is a tool used to

construct the best pathways for technology development for companies. Among the companies the IfM ECS works with are: BP, Shell, Schlumberger and Subsea 7. The following case studies show how the IfM ECS directly engage with the goals of fossil fuel companies:

### **Kazakhstan upstream oil and gas technology and R&D roadmap**

The roadmapping services were part of a large project to create a roadmap of Kazakhstan's oil and gas industry and was led by Shell. The Projects & Technology Director for Shell outlined the practical

uses of roadmapping, “I firmly believe that technology roadmapping should be adopted by the industry as an integral part of the planning process. It provides decision-makers with a means to identify, evaluate and select the strategic technological objectives that will deliver most value to Kazakhstan.”<sup>150</sup>

The services provided by the IfM led to a roadmap of Kazakhstan upstream oil and gas being compiled, with four IfM researchers being noted as key contributors, alongside Shell, Schlumberger, BG, Statoil, Total and ExxonMobil. Sections of focus in the roadmap include ‘reservoir characterisation’, ‘fluid flow and processing’ and ‘wells and field management’.<sup>151</sup>

### **Strategic Roadmapping techniques for Subsea 7**

Subsea 7 is “a global leader in the delivery of offshore projects and services for the evolving energy industry”, in particular for offshore drilling.<sup>152</sup> The IfM ECS provided roadmapping training to a software developer for Subsea 7, “finding new, innovative ways of working” and becoming “the first organisation to successfully combine IfM’s road-mapping techniques”.<sup>153</sup> Subsea 7 acknowledged in a 2017 report that “[through] Company-wide engagement and strategic road-mapping, we have successfully implemented a new, more client-responsive technology development process which is already paying dividends: we are delivering technological innovations

and solutions to the market that create real value.”<sup>154</sup>

### **Industry-University Research Alignment Facilitated by Roadmapping**

In the IfM provided case study document, the authors discuss how the IfM assisted the commercialisation of Cambridge-developed gravitational sensors, the exact same technology that drove the formation of Silicon Microgravity (detailed in the Extractive Research Section). In other words, it can be assumed this case study relates to Silicon Microgravity. At the stage where SMG was struggling to plan for the high economic costs of field testing in oil and gas, the IfM provided a day-long workshop with “the objective of reviewing the development plan for the technology” and “explored the different commercialisation options that presented themselves to the client [SMG].”<sup>155</sup>

In the workshop, “[development] routes such as a joint venture or formation of a spin out company were discussed in depth.”<sup>156</sup> The research being discussed ultimately drove the spin-out company Silicon Microgravity.

### **BP**

A 2017 workshop coordinated by the IfM ECS aimed to assist BP with roadmapping and scenario planning “to analyse future scenarios, derive new insights and elicit the emerging technologies that would play a critical role in the future”.<sup>157</sup>

## **We call on Cambridge University to**



**End formal consultancy and training of fossil fuel companies and halt fossil fuel commercialisation of academic research**

# INVESTMENTS

£377million  
invested in  
fossil fuels

## Introduction

To maintain levels of global warming below 1.5°C, it is imperative that fossil fuel companies that continue to drive fossil fuel production and that drive the greenwashing of harmful activities should lose their social licence. This delegitimation is essential to give way to government policies that combat the climate crisis, as it is above all the political lobbying power of the fossil fuel industry that prevents governments taking serious action on global warming.

The fossil fuel divestment movement began in 2012. Since then, it has persuaded more than 1000 institutions - ranging from

universities, pension funds, cities, and even states - to divest their assets from the fossil fuel industry. These institutions combined represent over \$11 trillion in assets. This is the fastest growing divestment movement in history.<sup>158</sup>

The threat of the divestment movement is recognised by the fossil fuel industry. The 2018 Shell Annual Report described groups “pressuring certain investors to divest their investments in fossil fuel companies”, which “could have a material adverse effect on the price of our securities and our ability to access equity capital markets”.<sup>159</sup>

## Divestment Campaigning at Cambridge University

Divestment from fossil fuels is the withdrawal of an institution’s financial assets from the fossil fuel industry. It is a global movement and a key strategy in combating climate change. The Cambridge community has long called for the University of Cambridge to acknowledge the urgency of the climate crisis and its contribution to the crisis through its investments in the fossil fuel industry, particularly through the Cambridge University Endowment Fund (CUEF). Since 2015, The Cambridge Zero Carbon Society - a student-led climate change action group supported by community members, scientists and economists - has repeatedly

called on the University to divest. In 2017, 140 fellows in the Cambridge University Regent House submitted a Grace requesting the University to divest from fossil fuels. This Grace was accepted by the University Council and was automatically passed by Regent House. Despite the binding nature of a Grace passed through Regent House, the University Council determined that the Grace was only advisory and avoided taking action by establishing a working group to further investigate the advantages and disadvantages of divestment, despite a comprehensive case having been presented.<sup>160</sup>



After the University Council rejected divestment, the Zero Carbon Society escalated pressure to promote divestment. Their student petition collected 1,424 signatures; they authored an Open Letter signed by 360 Cambridge academics; and they conducted several acts of peaceful civil disobedience calling on the University Council to acknowledge the voices of the members of Regent House, Cambridge academics and students, and divest from fossil fuels.<sup>161,162</sup> Despite this immense support, and members of the University diplomatically pursuing every formal avenue available to them, the

University again rejected divestment in 2018. In 2019, following the submission of a Grace signed by 324 members of Regent House, the University Council committed to producing a report looking “more deeply” into the advantages and disadvantages of divestment, with the report or a progress update to be delivered by October 2019.<sup>163</sup> As the University again considers divestment, this report shows why divestment can only be the beginning. The University of Cambridge must disengage from all interactions with fossil fuel companies.

Photograph: Student campaigners launched a banner drop over the River Cam in 2018 in attempt to push the University to divest from fossil fuels.



## Investments

Cambridge has the largest University endowment in Europe. The Cambridge University Endowment fund (CUEF) manages £3.4 billion. Some of these assets are held directly in stocks and shares and in the ownership of property, but most are held indirectly via investment fund managers. The CUEF constitutes the vast majority significant pool of assets. It is managed by the University Investment Office and mostly invests through a range of externally-managed funds. Individual colleges also have their own endowments of which some are managed independently and some are amalgamated into the CUEF.

In 2014, it was estimated that 6.4% (£377,431,354) of the University and Colleges endowment was invested in fossil fuels. Cambridge's Director of Finance at the time claimed that the number was less than 3.5%.<sup>164</sup> The discrepancy can be put down to how broadly one defines 'the fossil fuel industry'.

The claim made by the Director of Finance has not been verified because the CUEF investments are completely opaque, even to the board of trustees of the University.<sup>165</sup> Very little information is publicly available about how and where the University

invests. At least five separate Freedom of Information requests have asked for a transparent breakdown of the investment portfolio but have been rejected on the grounds that disclosure of such information may "prejudice the commercial interests of the University". Freedom of Information, in this case, has been decided not to be in the 'public interest'. Many other universities, such as Newcastle, Glasgow, and Edinburgh have provided this information in full.

In 2016, the University publicly declared having no exposure to coal and tar sands in its direct investments, negligible exposure in its indirect holdings and no expectation to invest in such fossil fuels in the future. This announcement, though welcome, involved no substantial transfer of funds and no commitment to divestment from all fossil fuel industries. Leaks in the so-called 'Paradise Papers' revealed that the University holds substantial investments in offshore funds, avoiding taxes on hedge funds as well as investing in oil exploration and deep-sea drilling. For example, they highlighted significant past exposure to Collier International, a fund that had invested almost a quarter of its capital in Royal Dutch Shell.<sup>166</sup>



## We call on Cambridge University to



**Divest fully from fossil fuels and reinvest in climate solutions**



# Conclusion

It is clear that the University of Cambridge provides the fossil fuel industry with profound legitimising and practical support structures. The University's decision to continue investing in fossil fuel companies can be understood through the context of its members becoming embedded in fossil fuel companies and fossil fuel executives in University positions. This aligning of interests begins to explain why the University continues to undertake directly extractive research at the same time as it initiates research to show the devastating effects of climate change in the Global South. The branding of buildings, professorships and awards appears to sit comfortably with climate change research, presenting the fossil fuel industry as rigorous, necessary and generous. The University offers prestigious platforms to fossil fuel executives with clear greenwashing agendas, and plays a key role in sustaining the fossil fuel industry by providing a steady stream of educated and trained graduates. The receptiveness of these graduates to recruitment is supported through the links documented in this report, from branded equipment and scholarships to invitations to careers events. In addition, forms of research collaboration, such as grants, allow individuals to work simultaneously for the University and the fossil fuel industry. This allows individuals to

move easily between the two sectors and is part of a larger revolving door outlined in this report.

This report illuminates a process that has been operating in the University of Cambridge for over a century. It is a process by which the University and fossil fuel industry have collaborated to erect and embed structures that support and bolster the extractive capabilities of fossil fuel companies. The structures force open streams for the exchange of people, knowledge and money, each exchange further entangling the functions of the University and the industry. More than distorting the direction of University research, money and personnel towards the fossil fuel industry, this process legitimises the industry at a time when its central and continued role in the creation of the climate crisis is undeniable. On the one hand the structures illuminated by this report have purposely made it difficult to see where the fossil fuel industry begins and the University ends. On the other hand, it is now clearer than ever the unsettling work that needs to be done to dismantle these structures, which are overwhelmingly built on the backs of Black and Brown communities in the Global South.







# Demands

We therefore recommend the following list of immediate and medium-term (by-2021) demands to the University of Cambridge. It must actively recognise its historical and continuing contribution to the climate crisis,

as well as the oppression of marginalised communities in the Global South. As such, we call on the University to respond radically and directly to our demands and draw its complicity to the climate crisis to a halt.

## IMMEDIATE

### **1 Stop accepting donations and research grants from fossil fuel companies**

Accepting donations and grants legitimises fossil fuel companies as acceptable companies to associate with. This credibility gives fossil fuel companies 'social licence', allowing them to keep extracting.

### **2 Stop accepting sponsorships and advertising from fossil fuel companies**

For the first time, fossil fuel companies are "struggling to recruit" young people. As a result, fossil fuel companies are increasingly looking to sponsor and advertise events to present a respectable image to students. This form of greenwashing effaces the experiences of communities at the frontlines of climate change.

### **3 Stop inviting fossil fuel companies to careers fairs hosted by the University or its constituent faculties**

Stopping inviting fossil fuel companies to careers fairs acknowledges that these companies are fundamentally incompatible with combating climate change, as they continue to drive the environmental crisis. Rather than limiting students' opportunities, fossil fuel companies would join the many other companies not represented at careers fairs, which students have to approach at their own discretion.

## **4 Stop awarding honorary fellowships and inviting fossil fuel executives to speak on academic platforms**

These are used as opportunities by fossil fuel companies to paint a picture of an industry which is charitable, thoughtful and intellectual, all the things which help them recruit graduates and continue to make their business profitable. Rather than limiting free speech, stopping fossil fuel personnel from speaking repositions these personnel from “distinguished leaders” to complicit leaders of the environmental crisis.

## **MEDIUM-TERM (BY 2021)**

## **5 Remove named branding of fossil fuel companies in buildings, departments, prizes, scholarships and academic appointments**

Fossil fuel companies use branding to retain their social licence; this includes buildings, professorships, scholarships/studentships, and awards. As well as bolstering their social licence, this branding works to funnel students into the fossil fuel industry, putting out a socially and academically positive image.

## **6 Cut all extractive research conducted by the University**

The climate crisis cannot be meaningfully addressed while we are still extracting fossil fuels from the ground. Direct extractive research is being undertaken by multiple research groups at the University. This research must stop, and alternative routes for academic research must be opened up.

## **7 Establish a programme to find alternative modes of funding for researchers**

As the extractive research of the University shrinks, research around climate solutions and renewables will grow. This programme will be a crucial part of the just transition, finding alternative modes of funding for researchers, especially into climate solutions and renewables.

## **8 Divest fully from fossil fuels and reinvest in climate solutions**

More than listening to the voices of staff and students who are demanding divestment from the fossil fuel industry, this recommendation asks that we hear the voices of those most affected by climate change, in particular, women, the working class and communities of colour in the Global South. As we are sure the divestment report being compiled will reach the same conclusion, the University of Cambridge must fully divest from fossil fuels at the same time as it reinvests in climate solutions.

## **9 End formal consultancy and training of fossil fuel companies and halt fossil fuel commercialisation of academic research**

Cambridge Enterprise must pledge to stop facilitating the commercialisation of academic research for fossil fuel applications, while the Institute for Manufacturing must pledge to stop lending its training and consultancy services to fossil fuel companies and personnel.

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