

*Climate Opportunity Ideas Factory*

# **Round Table 5: The Green Recovery**

*5 November 2020*

Chaired By

*Dr Simon Gage OBE, CEO Edinburgh Science*

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# Edinburgh Science

*Edinburgh Science Foundation is an educational charity, founded in 1989, which operates Edinburgh Science's Learning and Festival programmes. We are best known for organising Edinburgh's annual Science Festival – the world's first public celebration of science and technology and still one of Europe's largest – our science education outreach programmes, Generation Science and Careers Hive and our community engagement work.*

*Our mission is to inspire, encourage and challenge people of all ages and backgrounds to explore and understand the world around them. As leaders in our field of Science Communication, we work year-round to create and deliver dynamic hands-on workshops and exhibitions and inspirational shows, discussions, debates and performances that continually push the boundaries of public engagement with science. Communication and engagement is at the core of all our work and we strive to ensure that this is embedded in all aspects of our organisation.*

*Edinburgh Science also operates a large-scale international programme of work under our Worldwide arm. It regularly presents events overseas and has been the Major Programming Partner of the annual Abu Dhabi Science Festival since 2011, helping to curate, produce and deliver the event. For international partners, the team at Edinburgh Science provide engaging content, curatorial advice on programming and business planning support, along with expert staff and training for local science communicators.*

*Our UK and international projects reach a combined audience of over half a million people each year.*

## The Climate Opportunity Ideas Factory

*Edinburgh Science coordinates and runs the Climate Opportunity Ideas Factory - a series of round table meetings for senior Scottish leaders to discuss ideas for action that will enable Scottish enterprises to respond to the climate emergency. The first meeting was in April 2019 when Edinburgh Science Festival awarded the Edinburgh Medal to Christiana Figueres, the Costa Rican Diplomat who was instrumental in bringing about the Paris Climate Agreement. We organised a round table on that day, with leaders of business, public sector, third sector and higher education present. They were challenged by Christiana to collaborate, to act, to not wait for anyone to give them permission, and to use the Climate Opportunity that presented itself for positive change.*

*Christiana was coming back to Edinburgh in two months and asked to meet again for an update on what this group had decided to do. Two months later, Baillie Gifford hosted a larger group of senior leaders who presented a number of ideas for discussion in this forum, with Christina Figueres and Roseanna Cunningham, Cabinet Secretary for Environment, Climate Change and Land Reform. Many of the ideas have been picked up by attending businesses and organisations to make an impact, and the attendees have told us that this group is of immense value to them, due to the diverse invite list and the facilitated discussions.*

The Climate Opportunity Ideas Factory now meets regularly. The purpose of the meetings is to generate new ideas that are then acted upon by those present to achieve steps towards reduced carbon emissions and greater environmental sustainability.

Edinburgh Science is in an exceptional position to bring together cross-sectoral leaders from diverse groups to gather views to identify new ways to work collaboratively to unlock ideas and create opportunities. The Climate Opportunity Ideas Factory has already provided a unique safe space for collaboration, resulting in major ideas for example; a national carbon reserve for offsetting which we know excited many organisations. With connections across industries and many sectors, and no agenda other than to share the science and to see a solution to the climate emergency, Edinburgh Science strongly believes that the time is right to harness the collective power of organisations and minds in Scotland to put Scotland at the forefront of this Climate Opportunity.

Through the Climate Opportunity Ideas Factory we are encouraging, supporting and facilitating these leaders as they address the challenges and opportunities that the climate revolution will bring. The Climate Opportunity Ideas Factory will continue meet regularly and we are excited to work towards bringing innovative ideas into reality as we approach COP26 Glasgow in November 2021.

We would like to thank the many organisations involved in supporting this exciting and unique project, particularly our 2020 Programme Supporters and Founder Members.

## Programme Supporters



## Founding Members



# Round Table Meeting 5: The Green Recovery

## Transcript of Zoom Meeting (Audio Recording and Text Side-Chat)

Please note that an audio recording of this meeting was made by Edinburgh Science to help create this report. A 45-page transcript of this recording and associated text side-chat is available upon request. Please note this transcript was generated automatically by Zoom and edited for inaccuracy, brevity and fluency, however there may be some errors still present in the text and we welcome any edits and amendments from participants. To request a copy please contact [hannah.schlesinger@scifest.co.uk](mailto:hannah.schlesinger@scifest.co.uk)

## Agenda

Date: 10:00 – 12:00, Thursday 5 November 2020, via Zoom

Chairs: Dr Simon Gage, Edinburgh Science

Speakers: Chris Stark, UK's Committee on Climate Change  
Kersti Berge, Director, Energy and Climate Change, Scottish Government

Agenda:

1. Welcome: Hannah Schlesinger, Edinburgh Science (1 min)
2. Introductions and updates: Simon Gage, Edinburgh Science (20 min)
  - Updates and re-cap on ideas and initiatives being progressed by group members.
  - Including mention of the Q4 2020 launch of a guide for SMEs to get on a path to net zero, an initiative that came from this group.
3. CCC's Progress Report: Chris Stark, CCC (40 min)
  - Overview of the CCC's recent update on the progress on emission reductions in Scotland.
  - Discussion.
4. Business mobilisation strategy: Kersti Berge, Scottish Government (20 min)
  - Presentation on the Scottish Government strategy for successful business mobilisation in the run up to COP26.
  - Discussion.
5. Ideas Factory Work plan for the year ahead: Simon Gage (30 min)
  - Call to action and mobilising for COP26.
  - Outline of proposed sector specific meeting programme and agreement on priorities.
6. AOB

## Participant List

Name	Position	Organisation
Lucy Stanfield	Chair of the Board of Trustees	2050 Group
Diane Esson	Investment Analyst	Baillie Gifford
Michael Pye	Investment Manager	Baillie Gifford
David Cameron	Head of Scottish Policy	EDF Energy

Simon Gage	Director and CEO	Edinburgh Science
Hannah Schlesinger	Director of Development	Edinburgh Science
Anne Johnstone	Founder	Fair Futures Partnership
Erika Cooper	Business Analyst	First Sentier Investors
Iain Russell	Partner and Chairman	Galbraith
Stephen Breslin	Chief Executive	Glasgow Science Centre
George Davidson	Regional Business Director	GlaxoSmithKline
James Oliver	Group Marketing Director	Hampden Group
Mercedes Maroto-Valer	Associate Principal – Global Sustainability	Heriot-Watt University
Zoe Laird	Regional Head of Communities	Highlands & Islands Enterprise
Graeme Dickson		Independent
Michael Brown		Independent (Founder, Delta Energy)
Clifton Bain	Director	IUCN UK Peatland Programme
Adam Liddle	Director of Sustainable Growth & Innovation	Jacobs
Clive Mitchell	Outcome Manager – People & Nature	NatureScot
Bridgit Hartland-Johnson	Integrations Systems Innovation Manager	Orsted
Richard Thompson	Architectural Director	Parabola
Gary Smith	Global Director of Client Experience	Prudential
Emma Bryden		Prudential
Stefanie O’Gorman	Director of Economic – Cities & Regeneration	Ramboll
Jaishree Nagarajan	Sustainable Banking	RBS
Alan Thornburrow	Country Director	Scottish Business In The Community
Gary Le Sueur	Partner	Scottish Equity Partners
Colin Seditas	Climate Change Division	Scottish Government
Graham Watson	Partnerships and Engagement	Scottish Government
Lucy Geoghegan	Climate Change Division	Scottish Government
Kersti Berge	Climate Change Directorate	Scottish Government
Miranda Jacques-Turner	Technical Lead Sustainability & Climate Change – Zero Emissions Team	Scottish Water
Victoria Sinclair	COP26 Programme Manager	Scottish Power
Jo Green	Chief Officer – Performance & Innovation	SEPA
Martin Valenti	Head of Strategic Initiatives	SEPA
Lukas Bergmann	Residential HVAC Product Manager	Sunamp
Andrew Bissell	CEO	Sunamp
Chris Hewitt	Investor Relations Director	Target Fund Managers
Tiahna Mathieson	Support Services Director	Target Fund Managers
Chris Stark	CEO	The Committee on Climate Change
Dave Reay	Executive Director, Edinburgh Centre for Carbon Innovation	University of Edinburgh
Valentina Kretschmar	Vice President, Corporate Analysis	Wood Mackenzie
Iain Gulland	Chief Executive	Zero Waste Scotland

## Executive Summary

The fifth round table meeting of the Climate Opportunity Ideas Factory took place on 5 November 2020, after a break due to the global coronavirus pandemic. The meeting chair was Simon Gage from Edinburgh Science, and presentations were given by Chris Stark, CEO of Committee on Climate Change as well as Kersti Berge, Climate Change Directorate at Scottish Government.

Simon Gage invited delegates to share updates on the initiatives and ideas being progressed by their organisations. Updates were given by Fair Futures Partnership, Wood Mackenzie, SEPA, Heriot Watt University, Ramboll and the Scottish National Investment Bank. Updates were also shared by GlaxoSmithKline, Scottish Power, Scottish Water, and Orsted through the Zoom chat. Links to some of these can be found in Links to Further Reading on page 17.

Simon Gage provided an update on the 'Mission Net Zero' toolkit - an idea that was generated in a previous meeting and is being taken forward by Edinburgh Science with funding provided by Baillie Gifford, which launches in early 2021. This website will support SMEs on their journey to reach net zero and we proceed with hopes to engage many of the participants and organisations in this meeting with the Mission Net Zero initiative.

Simon Gage welcomed Chris Stark, CEO of the Committee on Climate Change (CCC), who presented on the Scottish Progress Report 2020. Chris' speech can read in full in the Zoom transcript (pages 10-21) and the slides including key charts can be found in appendix 1.

### CCC Scottish Progress Report 2020 – Presentation Key Points:

- The next major report will be published on the 9 December 2020 (see Links to Further Reading page 17), which will look in much more detail at how you get to net zero, not just what the world looks like once you get there.
- This year the CCC will move as an institution to more sharply scrutinising progress – this is the last report without a climate change plan to assess. [Slide 1]
- Territorial emissions have fallen about a third in the time that Scotland has had the Climate Change Act. Scotland was better than any other UK nation, and better than any country in the G20, when it comes to territorial emissions. [Slide 3]
- In 2018, emissions grew by 2%, mostly due to Peterhead gas fired power station, and also the Beast from the East leading to extra heating. That year, in particular is a demonstration of the progress that we need to now make and how hard won that will be because the progress in that year was changed quite significantly by quite a minor set of events. [Slide 3 & 8]
- The power sector alone cannot be relied on for Scotland's progress and there is much more sedate progress in the other sectors, which are now the big strategic concern for Scottish Ministers when we talk about Net Zero. Emissions from power have fallen 85% in Scotland since 2008, meaning there is now very limited room to reduce direct emissions from the power sector any further and we will need to see progress on emissions outside the power sector soon. [Slide 8-9]
- Scotland has only marginally decreased its consumption footprint over the last 20 years. Around half of the total Scottish consumption footprint is attributed to emissions produced in the UK, the rest is from elsewhere in the world. When considering which goods and services that we consume are making up that total consumption, the largest of these is manufactured products. 90% of the emissions associated with Scotland's demand for manufactured goods occur outside of the UK. This raises questions about whether manufacturing can be decarbonized and reshored. [Slide 7]
- Last year, CCC set 11 milestones for Scottish Ministers to achieve this year, overall they achieved five of these. They were: buses and active travel, new standards for new homes, new targets for woodland and peatland, and seabed leasing for new offshore wind. The CCC endorsed the Scottish Government's decision to delay the update to the climate change plan to accommodate Covid. They recognised the central priority given by the First Minister and the cabinet to this work, with the

Scottish Government being the first of the UK nations to set the Net Zero goal. Chris recognised that the institution in Scotland is set up in a different way that allows integrated challenges like Net Zero to be handled better. [Slide 10]

- Policy progress has been better than the rest of the UK but it is still not sufficient. The progress on woodland creation and peatland restoration in Scotland has been implemented quickly, which is heartening. There are Scottish rural and agriculture strategy requires a fundamental shift in reforming agricultural support and land use which is yet to be seen. [Slide 10]
- Six principles for a resilient recovery from Covid-19 in a letter to Roseanna Cunningham, May 2020. The impact of Covid on the economy has been staggering and there has been an impact on emissions too, mainly due to the transport changes that we saw during lockdown. CO2 emissions down by about a third at the peak of lockdown was unprecedented, and this is down to the transport changes but also the behavioural change behind that. However the change in emissions in the first half of 2020 was temporary, now we're not using public transport, car use is growing etc. [Slide 11]
- In early 2020 the CCC laid out the policy priorities for a resilient recovery for the whole of the UK. These were categorised broadly as follows – 'Infrastructure Investment', 'Supporting People', 'Driving the Pace of Transition' and 'Taking a Global Lead'. The most important category being 'Infrastructure Investment' – i.e. what we you do to invest our way out of an economic crisis – as there are many green capital programmes available for this. Another important aspect is the steps we can take to support people through this crisis, particularly through reskilling and retraining, specifically in the skills and knowledge we require to reach net zero. Covid lockdowns mean that much of the population is working from home and has also inspired many to walk and cycle more. The challenge is supporting people in keeping these 'good' habits and building on them as we emerge from the worst of the pandemic. 'Driving the Pace of Transition' falls to the Government to not lose momentum and to introduce appropriate policies and funding and the CCC has given clear advice to the Government on this. It is then important to promote and share our progress on a global stage as we move forward. [Slide 12]
- Essentially, the CCC has recommend that the UK Government 'go for it!' and we look forward to seeing what action they will take and how the Scottish Government reacts too, and how these policy priorities might fall within the devolved competencies of the Scottish Parliament. Most do fall within devolved powers (indicated in bold on slide 13) so there is no good excuse for Ministers not to take recommendations forward. It is vital to drive real progress to grow the economy out from the economic crisis in such a way that we start to address net zero and the climate crisis at the same time. [Slide 12 & 13]
- What the CCC have seen so far from the Scottish Government is quite a good start, certainly in comparison to the UK Government. The Programme for Government outlines meaningful steps for several infrastructure investments including: maintaining commitment to spend additional £2 billion on low-carbon capital investment over next Parliamentary session; £70m to improve refuse collection infrastructure; £150m for flood risk management; increase heat and energy efficiency spend from £112m in 2019/20 to £398m in 2025/26. It also outlines actions to support people, such as £125m for Green Jobs Fund and National Transition Training Fund; expansion of apprenticeship and undergraduate schemes in public agencies; new £500m fund for active travel infrastructure; and more. [Slide 14]
- In wrapping up the presentation, Chris looks to the future, specifically the rate at which we need to reduce emissions to reach net zero by 2045 and the interim targets set out by the Scottish Government in 2019. We now understand more about the warming potential of some of the gases that are emitted in Scotland - especially methane. We also now understand that degraded peatlands are a much bigger source of emissions than previously thought. This new information makes a substantial difference to Scotland's current baseline and ambitions going forward therefore the update to the climate change plan needs to be consistent with this. This new information means we are in fact behind schedule and Government targets will be very hard to meet – especially 75% reduction by 2030 which actually equates to closer to 80-85% based on the new methodology. The CCC have fed back to Scottish Government and requested that they re-evaluate interim targets based on new information but nothing has changed yet. The CCC will continue to make recommendations on how to reach net zero by 2045 in line with Government targets but it's worth noting that challenges and pressures might mean that solutions are not always the most sensible or cost effective, and some measures will be difficult to implement. [Slide 15]
- Chris ended on the analysis for the 6<sup>th</sup> Carbon Budget (budgets are set every five years). The first five reports were set on a path to an 80% reduction, however now the report is working towards net zero in 2045 for Scotland and 2050 for the UK. It

is therefore much more ambitious than previous budgets and approaches the tackling emission reductions in quite a different way through three illustrative scenarios – ‘Widespread Engagement’, ‘Headwinds’ and ‘Widespread Innovation’. (Slide 16). ‘Headwinds’ is a familiar scenario that relies a lot on big infrastructure - lots of carbon capture, lots of hydrogen, lots of decarbonised power and renewables. There is more fossil fuel use in that than the other scenarios, but lots of carbon capture to offset it. ‘Widespread Engagement’ as a scenario where we see a sharp response from citizens and consumers in the transition to decarbonisation. Interestingly, the CCC has struggled to get this scenario to net zero, which is a clue that solutions are not all about behaviour change. Finally, ‘Widespread Innovation’ is a scenario where lots of technological innovation comes to fruition and we’re more ready to adopt those technologies – when we’re ready to adopt/implement, the costs fall. If we can get the best of all three scenarios, we reach a scenario called ‘Tailwinds’, and in this scenario we reach net zero ahead of schedule. The 6<sup>th</sup> Carbon Budget is probably going to be the most important thing the CCC has ever published. It will include advice for every sector, but crucially, this is a set of system changes. It is really exciting.

#### CCC Scottish Progress Report 2020 – Participant Discussion:

(Comments and Q&A edited for brevity)

**Question [Graeme Dickson]:** Good to see Scotland gets quite a good mark on the report card! The CCC has been saying for some time that Scotland has taken the easy route first through big reductions in power [electricity] and we need to get moving in other areas. How do we do this? A lot of the emissions in that target area are from heating and through transport. And some solutions, certainly in transport seem to be around electricity. Is this going to be part of the analysis, outlining whether that's achievable in that period? The twist in the tale is that low carbon electricity generations comes from two nuclear power plants which are reaching the end of their life and almost certainly be renewed. Can we meet this gap as well?

**Answer [Chris Stark]:** Firstly, a big part of the CCC advice this year is to look at strategies to achieve the emissions reduction. We will have all the analysis as you'd expect us to about the trajectory of admissions over time and we've really focused on the policies that might drive that too. One detailed section - already taken to UK ministers - is on heat:

- Window for a genuinely ambitious heat policy to be put in place for the UK and Scotland should benefit immensely.
- The CCC has looked not just at the trajectory of emissions, but the effort and investment that is necessary to deliver that what you see is a really front loaded energy efficiency program - investment combined with policies and how you can deliver new technology.
- Plan to focus on low carbon heat and electrified heat - there's room for the other technologies - but CCC is not being prescriptive on the heat technology, what we need is a set of regional plans for heat decarbonisation. From this basis, we could start immediately on off gas grid properties, but for cities and towns need to be broken down to a local level. Scotland is ahead on energy planning so a plan on network investment is the key thing.
- Key statistic coming out of this is that if you average out the costs across UK's 30 million buildings to get to [fully] zero carbon heat - it averages out at £10k per house. This seems like a lot of money but if you think about what would be spent on home improvements over the 30 years ahead of us it isn't such a large amount. In fact the overall cost of net zero is now going to be smaller than we thought even last year. It's a big investment cost, but the investment delivers you savings.
- The result over time is growth in capital and capital expenditure, teamed with impressive fuel savings across the country, improving the economy.
- There's no great secret for how you decarbonise an economy. The challenge is actually putting in place measures that allow that cost to be spread in such a way that those who are at least able to afford it aren't facing those costs.

**Question [Diane Esson]:** I just wanted to make sure I was understanding your data correctly with the aviation emissions reducing – how is that possible since the 1990s? My understanding was that aviation has increased over that time. On the power chart, the red line going down some enormous percent and then aviation emissions look like it was neutral.

**Answer [Chris Stark]:** Aviation emissions have increased over time but on the chart aviation emissions since 2008 are flat. Interestingly, although we've grown demands for aviation quite substantially but become much more energy efficient in using planes. i.e. we're stacking them full of people and they use the fuel much more efficiently than they used to. Please note this statistic is only true for Scotland, not the rest of the UK. We've got three broad strategies for aviation – demand, better efficiency and use of sustainable fuels. All three strategies need to be employed. We believe that aviation as a sector needs to get to net zero, we think is possible for them to very substantially reduce their emissions by mid-century. That's true in Scotland. It's true across the UK and it's also true around the world. But we don't think it's credible, at least, and the current assessment to get to zero emissions for aviation, so there's another question of what you do about greenhouse gas removals alongside that.

**Question [Michael Brown]:** Your consumption emissions data you showed at the beginning of the presentation, and you mentioned manufactured imported items was the biggest category I think second was household heating. A bit of background on that would be good to understand what's behind that.

**Answer [Chris Stark]:** It's imported gas.

**Question [Michael Brown]:** If you were in charge - you mentioned in Scotland 2030 looks very hard indeed, maybe too hard - what would you get going in the next 12 months?

**Answer [Chris Stark]:** Heat. There's a there's a very nice thing happening in the transport sector that which a few years ago would have been unthinkable – I think we're going to decarbonise transport very swiftly, therefore I think the thing that really needs the attention of Scottish Ministers is the plan for energy efficiency and low carbon heat. The UK needs to plan in such a way that we get to a genuinely decarbonised heat system over the next 20 years. There's a lot that can be done more rapidly but I'm afraid it does involve public expenditure and more creative use of building standards and the rules towards buildings more generally.

- There are lots of tools that we can use to decarbonise buildings that we're not using at the moment in the UK or Scotland and one of the big questions is whether we pass the responsibilities on to the owner occupiers, particularly at the point of sale – e.g. paying more tax if you haven't improved the energy efficiency of a building, or council tax incentives.
- In the EU, one of the policies that's been working really well in automotive manufacturing is applying an admissions factor across all vehicles produced that improves every year – i.e. if you're a car manufacturer in Europe, you've got to each year look across the fleet of cars that you produce and achieve a certain standard. Each year that gets harder, that it's been very, very effective at driving emissions down on road transport across the UK. A similar policy could be applied to mortgage providers. E.g. lenders must achieve a certain energy performance across the portfolio of mortgages offered each year, therefore achieving a particular standard through regulation, resulting in offering more affordable mortgages on energy efficiency improvements or low carbon properties.
- Underpinning all that is what we do about industrial emissions. In Scotland one really important and big source of industrial emissions is Grangemouth - there are others too. These places need to be decarbonised and this needs to be supported fully by Scottish Ministers. It involves up front expenditure but worth it longterm. If you can create low carbon industry in the UK, then we will be able to reshore those industries.
- Finally, Scotland is doing well on nature-based solutions and there has been some good investment here that we'd like to see in the rest of the UK. Absent is agriculture - another area where we really should see more improvement.

**Question [Clive Mitchell]:** As you said, land use is one of the three main challenges, looking ahead to net zero. It becomes more challenging as wetlands and wet and peatlands come into the inventory from 2022 but of course it's a triple challenge because we can't put a spade in the ground without doing something about mitigation adaptation and state of nature, all at the same time. Could you say something about the integration of those three things which might be of interest to this Ideas Factory?

**Answer [Chris Stark]:** The CCC and other institutions all used to focus on energy models, just lumping in nature stats at the end to make equations balance. I think there is a much more interesting and rich story to be told about the interaction between the climate objectives, biodiversity and nature. The CCC are still only at the foothills of getting to grips with climate mitigation objectives and our

climate change adaptation objectives. When it comes to the natural environment, the challenge of making natural environment well adapted to the change and climate itself, actually runs counter to some of the things that you would want to do if you really care about climate change mitigation. If you throw into the mix that we have all these new needs and environmental services that we need to take from the land beyond climate change, then you've got a real melting pot of new policy and ideas needed. I'm quite happy to say that I think we are still probably overly focused on emissions reduction and on natural carbon sequestration but what we're trying to do more and more in the CCC is lay out the kind of framework, a minimum that must be achieved, to get to net zero. We should not be growing species of trees just because of their carbon sequestration properties and how quickly you can grow them. We have to think about nature alongside that. For me, it's really exciting to think about that. I think we got our objectives on rewetting peatlands wrong in that report in January, I think we didn't go far enough. It's really, really important to restore peatland, to restore the soil as much as you can to be prepared for climate change because you know as you dry those soils out they're not going to be a store of carbon any longer so we have to work extra hard at making sure that they're ready for that. It is a huge challenge to bring this stuff together and as you get into the natural environment, there's less and less of that modelling and energy system stuff that makes sense. So I think that's quite an exciting set of things that they are, if I can put it that and an optimistic way but loads of territory that we aren't covering so I'm quite happy to make that a focus of our work over the next few years.

**Question [Iain Russell]:** We work in the rural sector throughout the UK and we do actually see a more developed agricultural rural strategy south of the border. Is there any particular reason why the Scottish Government is being slow in developing its approach to the agricultural sector? As you say, very encouraging work in peatlands and woodland, but for some reason farming seems to be very, very slow.

**Answer [Chris Stark]:** Speculating on politics, I think there is a feeling from the Scottish Government and Fergus Ewing in particular to preserve as much of the current arrangements. I can understand that but think it ignores the fact that there is a huge change required. Even if you don't care about climate change, there is huge change required as we come out of the EU support mechanisms for agriculture. From my perspective, what I think hasn't happened in Scotland is to embrace the idea of the need for that broad strategic shift, and that's the bit that I think England has done better. We need to identify a set of environmental services that people are willing to pay for – we've seen this in Scotland but it's piecemeal. I suppose what I would like to see happen is us embracing the idea that we have to actually reform the use of land at the core. There are a set of lifestyle issues that run alongside this but until you embrace the need for reform, then I think this piecemeal stuff is never going to work.

**Question [Adam Liddle]:** Taking Brexit into account, how much of an added challenge or opportunity for Scotland do you think that poses for decarbonising and reshoring manufacturing? Secondly, there's a whole section around innovation which relies on whether government support this at a national level - it relies on taking risks, in order to move really really quickly and scale things up across industry sectors, but you're essentially testing technical feasibility, business viability, customer desirability and all three of those things need to work for innovation to be scaled up across an industry sector. Two out of three just won't work. In your experience, is the government in Scotland in particular, or a UK level, willing to take the level of risks associated to drive innovation across industries to rapidly scale up to meet the net zero targets?

**Answer [Chris Stark]:** To answer your second question – no, I haven't seen any real record of that. I agree with you - innovation involves a certain amount of risk but crucially it involves disruption. The conditions for disruption are there now for decarbonisation if you look globally at what's happening with climate change and emissions, there's a tremendously optimistic and positive story emerging. I don't think that China signing up to a net zero goal a few weeks back was because they they've developed some philanthropic desire to address the climate. I think it's because they're really worried about climate change and they're exposed to some of the biggest risks that any country faces when it comes to changing climate. Secondly and much more importantly, there's now a trading block group of nations that are setting themselves with net zero goals. It looks like Biden's going to win the election and if the US come into the Paris agreement with a net zero goal by 2050 as Joe Biden has promised, then you're going to have something like two thirds to three quarters of global GDP under a mid-century net zero goal. The amount of positive disruption that comes with that is going to be immense. As you've probably already seen in the power sector, alternatives to fossil fuel generation are now are

cheaper than fossil fuel generation is what's driving a lot of the change in that sector. Look at the 'Scottish' companies [Scottish Power and SSE] – they're all renewable now - an amazing change over, over the last few years. That disruption doesn't stop in the power sector and the reason that we are talking about really advanced and ambitious targets for surface transport decarbonisation is because the massive disruption that comes from cheap low carbon power and really efficient batteries and cars and vans that go with that. On Brexit, I don't think it has any particular impacts one way or the other, though it does have one impact which is on one of the really big and important policy tools here – the EU trading scheme. The UK is currently out of that but perhaps we'll end up with a linked scheme or we may end up with a different sort of policy for the whole economy, which is a carbon tax. I don't want to see Brexit blamed as the reason that we miss these climate targets. We have no excuse not to meet them and Brexit may make it hard it may make them easier, but it doesn't matter, that's the scenario that we're in now so we've got to work hard.

Simon Gage thanked Chris for his inspirational input and the participants for a great discussion. He then welcomed Kersti Berge, Director of Energy and Climate Change at the Scottish Government. Kersti has been in this important role since 2008. Now that we all have COP26 in our sights, there is considerable effort required from the Government to mobilise the business community in this area as many people want to know how they can get involved. Kersti's speech can read in full in the Zoom transcript (pages 31-34) and request for participant feedback can be found in appendix 3.

### **Scottish Government Strategy for Successful Business Mobilisation in the Run Up to COP26 – Key Points:**

- In response to Chris Stark's presentation and group discussion, Kersti confirmed that the Scottish Government are focusing on the climate change plan update expected to be published in December, and are very well aware, and have been on some time, of the scale of the challenge all sectors now face. Alongside driving the emission reductions, the Scottish Government needs to ensure that this is a sustainable transition and that the public are on board. The CCC has therefore provided really good advice for ongoing conversations on the areas we need to work on and this is the Government's main focus right now.
- Green Recovery: Added pressures of economic and social recoveries from Covid-19 alongside the climate challenge transition that government were already in the processes of planning for. The Scottish Government set out information on plans to implement a green recovery in the Programme for Government, published at the start of September. One of the headline commitments is a £1.6 billion spend over the next Parliament on buildings and heat and energy efficiency, which is one of the key priority areas and one of the sectors where Scottish Government have strong powers. There are things that Scotland needs that the UK Government to do as well, including active travel, industrial and manufacturing transitions so that we can help businesses use this challenging situation to make that transition even faster. Green recovery measures and the longer term transition is a huge focus for the Scottish Government and reflected in planning for COP26 too.
- COP26: Great collection of people at this virtual round table meeting who Scottish Government are keen to work with to help deliver our objectives and to help make COP26 a success from Scotland's perspective. Scottish Government intends to use COP26 in three ways...
  1. To push for global ambition and action on emissions reductions, demonstrating leadership in the work that we do with our partners in that way.
  2. To work with partners to ensure there is a commitment to a just transition, a fair transition, both globally (as an important part of the UN negotiations) and also nationally so that we can bring people with us and manage the impact of this transition on people in Scotland in the best way possible.
  3. To make sure COP26 is an inclusive process. Negotiations are driven primarily by the UN member states but other parties have to play their part, and to do that successfully they need to be at the table and their voices need to be heard.
- Scotland is not currently a UN member and some Scottish political leadership feel we should be, and hope will be in the not too distant future. In the meantime it's worth flagging that Scottish Government has just been appointed co-Chair of [The Under2 Coalition](#), which is quite an important group. It has leaders at sub national level and it includes 227 national governments and accounts for 1.3 billion people - about 43% of the global economy. Scottish Government will be using that group quite actively in pushing our ambition in relation to COP.

- *Business Mobilisation: The Scottish Government have a huge job to do in terms of regulation, finance, etc but it requires action from individuals, businesses and the innovation community.*
  - *Firstly, to push ourselves to go further faster. A number of Scottish businesses are making good bold commitments to net zero. Some examples include Scottish Water who are looking to decarbonise investment, not just operations; Scottish Whisky Association have set out a roadmap of their net zero plans and moving forward to implementation phase; and companies like Brew Dog are using electricity/renewables for their production and working circular economy measures. The Scottish Government has also been working with the UNFCCC high level champions Nigel Topping and Gonzalo Muñoz who have set up the race to zero for subnational actors and companies and they're looking for parties to join their campaign and their pledge to achieve net zero targets by the 2040s [or sooner], taking immediate action and publicising plans. We encourage people here and their networks to think about joining the campaign and joining the pledge if you haven't already done so.*
  - *Secondly, and related to the just transition objective and COP26, the Scottish Government want to collaborate with yourselves and partners internationally to drive a just transition as part of the transition. This is partly about how to create new opportunities, new economic growth and the net zero transition, but also crucially, about how to bring people with us and support the training the skills transition that is required. A 'just transition' is enshrined in law in Scotland, alongside the emissions reduction targets.*
  - *Finally, in terms of business strategy, the Scottish Government are keen to work with COIF representatives to realise the economic opportunities in the net zero transition that comes from hosting COP26. There is an increasing global market for net zero low carbon goods and services, and increasing funding available for investment in these and COP26 is a great opportunity to showcase ideas and attract investment for Scotland. Scottish Government updates on this include:*
    - *Last week published an inward investment strategy of which net zero was a huge focus.*
    - *Scottish National Investment Bank (SNIB)*
    - *Developing a green investment portfolio to showcase projects that are low carbon or important to the net zero transition in Scotland.*
- *In the government's 'team Scotland' approach to COP26, they are working really closely with enterprise agencies and other core parties in designing the business mobilisation strategy and reaching out to stakeholders in the private sector and business sector. Martin Valenti is a key part of that coalition. In reality this will create a 'hub and spoke' approach where government and agencies drive some things but a lot will happen that is driven by others. The Scottish Government intend to stay informed to make sure that work is amplified and we each take a role in amplifying the work of others. How can COIF participants help to mobilise business and use networks to support this?*

#### **Scottish Government Strategy for Successful Business Mobilisation – Participant Discussion:**

*[Comments and Q&A edited for brevity]*

*Simon Gage thanked Kersti and repeated her two direct questions to the group - we all have our own connections into certain communities; we have clients; we have customers; we have our networks - how can we help the nation go faster be bolder; and how can we support mobilisation?*

**Clifton Bain:** *It's worth flagging up that the IUCN has been working very closely with both the United Nations and UK and Scottish Government on the agenda for COP26 and one of the themes, not surprisingly, for Scotland is going to be Peatlands. We're not yet sure what umbrella we present peatlands under but certainly one of the opportunities is around businesses, public private funding and opportunities around telling stories about how people benefit from this. We're busy gathering the sort of case studies and examples of how peatland restoration does that and we're at an exciting time with the sort of mechanisms we have in the UK now, with the peatland code up and running. We really need a rallying call both to the business side and maybe the Scottish Government can help*

with this? We are now starting to receive weekly contact from various businesses wanting to know about peatland carbon but a stronger message to the business community about supporting land use carbon projects is needed. On the other side of the coin - and this is the hard bit - the private landowners are still nervous about giving up their land for peatland restoration. One of the primary hurdles is they're worried they will lose agriculture payments in future. Now in England, we can see agriculture support changing, you're going to get rewarded for having these carbon rich environments in a good condition, but they're not getting that signal in Scotland yet. So one of the challenges we've got is to get enough projects so that if businesses get interested in buying this carbon, from peatland rewetting, there are enough projects on the books. Another trick that's going on in England, and we will speak to NatureScot about this, is government grants in England are being designed so that it's conditional on bringing in business funding alongside for your peatland work and I think that's a great motivation. If we can have something similar in Scotland where we get combinations of government grants and business, it will spread the government money further but it also speeds up the process and we get much more restoration done, rising to the challenge 2030 challenges we've got to get our peatland restoration rates up higher and sooner. We have brilliant case studies for Kersti for Scotland, UK and global peatland restoration, but mobilising both the landowners and businesses ready for COP26 is a really important opportunity, I think.

**Dave Reay:** With the context of green recovery and employment pressures for the private sector, it's across the whole piece really - the skills agenda for net zero. I think we've got some really good stories from employers in terms of how they're addressing that alignment to net zero but also we've got a lot of hopefully good advice coming through from the climate emergency skills action plan in terms of what still needs to be done. That could be a really good focus for businesses, not just talking about good stories, but actually working with us as education providers. With government and all the different sectors involved in this, in terms of those skills gaps and needs, would be a really fruitful kind of lens to go towards COP26 with.

**Simon Gage:** Yes, one forgets about the skills needed and we sit in a country with an incredible global reputation for innovation and training within that sector.

**Andrew Bissell:** I think the way stories are going to be used to influence the COP26 agenda is really important but I'd like to see that road map of planning as it's very hard for us to know where to feed in to be part of the storytelling. Sunamp has great stories to tell having already brought a lot of inward investment for low carbon. We worked with a lot of housing associations and with the Scottish Government through local challenge fund; we're delivering exports of low carbon technology from Scotland; and we really want to be showcased at COP26 but frankly we feel very much on the outside looking in. Show us how to come and be part of the storytelling team.

**Simon Gage:** I think that's a good point. I think there's a head of pressure from people who want to get involved and share their success stories but the mechanism by which they might do that is still a bit opaque. I know I have some insights into why it's complicated - it's not being run entirely by people in Scotland at all - but I think that is a crucial step we need to go through.

**Miranda Jacques-Turner:** Picking up on what Chris Stark said earlier of priorities in terms of heat and hydrogen - these are things that Scottish Water is doing a lot of work on at the moment, particularly heat from waste water projects and we're looking a lot at hydrogen generation and how we can use some of our assets for hydrogen generation. There could be some useful stories coming in for COP26 there and some good case studies.

**Valentina Kretschmar:** Just a couple of things that really we hadn't seen much of in Scotland with businesses going for power purchase agreements. For example, the suppliers of green energy, and this is a very good incentive that enables security of demand for developers and also ensures a good pathway towards net zero carbon for businesses. It also helps businesses through corporate social responsibility incentives, ensuring that employees have infrastructure, which again [as an owner of an electric vehicle in Edinburgh], it's very difficult to go about normal business. I think businesses could help there quite a lot.

**Michael Brown:** Regarding what Andrew Bissell was saying earlier on about the need for a map, we'll be holding a sector specific working group on heat in a couple of weeks to come up with some initiatives ahead of COP26 that are tangible, meaningful and impactful, but I think it would be really good to have a filter that we know what we're coming up with is in line with what the government is doing and planning. I think we've got a reasonable idea of that but just a clearer idea of some of the priorities. I think there's an important policy paper coming up in the next month or two so some clarity around that to help us a line with everything you're doing in the next 12 months and making sure that we're not cutting across things. I think that would be helpful because, as I'm sure all of us know around the table here on the heat side, it's really challenging, there's a lot to do. There's a lot of associated emissions with that sector, a lot of different ideas, a lot of conflicting ideas. So in a sense, there's no shortage of ideas about what we might be able to target our energy at, but that policy filter I think would help us a lot.

**Adam Liddle:** With a year to go until COP26, Jacobs are launching a campaign to reach out across our networks and Jacobs as an organisation - we've got a huge network of clients and an industry bodies that we work with in Scotland, UK and internationally - to invite organisations within those networks to make a pledge to action that we can collate and coordinate over the course of a year. We can somehow try and quantify the results of some of those small actions that get put into play so that we were building up a story over the 12 months leading from now until COP26. Kersti, I would love to be able to have a discussion with you about how we can join up that conversation with Scottish government and share some stories about some of the actions that our clients and organisations within our networks are taking.

**Kersti Berge:** Really helpful comments – thank you. Firstly, I'll get on to the point about the map, because I think in relation to COP26, a lot of things hang on that:

- I take your comments on board. Requesting a map to COP26 is certainly fair.
- We are not yet at the stage where we have that map ourselves. We have had a big job managing Covid over the summer and it's now with the year to go to COP26 where it's really ramping up our resources within the Scottish Government and we are in the process of producing that map to give people something to feed into and we will share that when we can.
- In the meantime, please tell us more about the great work you are doing and expand upon the stories mentioned today because that it helps us understand the bigger picture around what you are doing.
- As I said, mobilisation is not going to be a Scottish Government centrally planned effort. This shouldn't stop you from doing some of your own things, please do not let the delay on the map slow you down. Please don't hold back - keep speaking to your stakeholders, setting up events, etc. We're happy to have conversations with you if you think these might really cut across what we're trying to do at the policy level of Scottish government or cut across anything else.
- We will get there with a map, but we're not quite there yet. As soon as we have that we will share that with parties like yourself, but we're keen that people push on with what they already have in the pipeline.

In relation to peatland and to reassure, we are looking very actively about how we bring private finance into peatland restoration. The feedback we have had is that the announcement we made to commit £250m investment over the next Parliament. This was a really welcome step change in terms of giving investors and everybody else in the sector an understanding of what's going to happen in the long term because previously we had just set our commitments on an annual basis. My understanding is one of the key values is around investable projects. It's not just about bringing financing, but it's actually getting investable projects to the stage where people can invest in them.

Regarding other comments from the group, I think we're closely related to Chris' point around agricultural reform and more generally, incentivising land use and we hear you. Skills is obviously a hugely important area and you mentioned the climate emergency skills action plan. The intention is to publish that alongside the climate change plan updates in December. As you will hopefully know, in the Programme for Government, the huge focus there was on a national mission for jobs - that's supporting people and it's obviously a big focus on economic recovery, but it's also supporting people to move into low carbon jobs, which are the ones which are more likely to be there in the longer terms through skills and training. And that's a huge focus for us and in the Scottish Government right

now and also should be one of the big themes that we talk about at COP26 - showcase what we've done in Scotland, but also look to understand what others are doing and learn from what others are doing in terms of successful and skills transition policies.

Regarding heat because we will be setting up the climate change plan in December and that will say a lot more around we've already discussed and there'll be a number of associated documents with the heat and building strategy. Those of you who are involved in heat should be aware of that if you're not speaking to the teams leading on this [Gareth Fenney and Sue Kearns], please make sure you do feed into that and you can maybe drop and Colin or Lucy an email and we can make sure you have that contact in into the policy team so that you're feeding into the policy debate.

It would be really good if anybody has any thoughts on our business mobilization strategy and the high level objectives and I know they're high level, but they set the framework for what we want to do.

**Alan Thornburrow:** Thanks Kersti for what you shared – it all sounds really sensible. I think the opportunities I've just shared in the zoom chat shows there is lots of high level commitment. There's some great progress from businesses but there is still a big gap between verbal commitments and CEOs and all that sort of business and tangible action. We're really keen to help by working together on how you begin to set out your own transition plans that are specific to the places and spaces you are engaged in. What does that mean for people, employees, communities, etc? I think beginning to help to challenge and support businesses to work together with each other and with other key stakeholders is really where there's a real opportunity to do a lot more. And from that you can harvest all sorts of interesting case studies and maybe just final point to make is I think it's as powerful, if not more so the things that were really struggling with, and perhaps aren't going so well and being you know better at sharing and being open about that. I think disarms a lot of others that may be think, 'oh, it's too difficult for me'. We're really keen and work with anybody and everybody that would like to help us with that because we're up for really trying to engage businesses at scale here.

**Simon Gage:** And we're very happy to collate further thoughts as they come from the group if people want to reflect on it. Maybe we could share with the group a summary of the strategy and get people give people some time to reflect and feedback on it. Are there more questions for Kersti, observations?

**Valentina Kretschmar:** I don't have a question, but just something that really is coming on the regulatory side from the financial reporting council – the disclosure requirements are changing and they're coming into place now. That in itself is going to incentivise businesses to do more because they will have to disclose or explain why they're not buying the issue of the principles. That will really help to execute Scottish Government objectives and strategy.

**Kersti Berge:** I agree that the principles are incredibly helpful because it is there is as you know, some debate about exactly what they should say but it is really helpful to have a common framework that that helps demonstrate the impact of investments.

**Simon Gage:** I think so you can be reassured Kersti, that as a massive amount of enthusiasm to help and to support and to be part of COP26 and business mobilisation. Everyone we talk to wants to be part of it so once we find the right mechanism by which we express all this positivity enthusiasm, I think there will be an army waiting!

**Kersti Berge:** Great. I would just leave you with that message that once we've got something more concrete in terms of what our plans are and how you can engage in that we will absolutely share that but please don't let that hold you back from doing things yourself.

## COIF Work Plan for the Year Ahead – Sector Specific Working Groups 2020-21:

Simon Gage outlined a list of sector specific working groups to keep discussions energised, continue connecting people and help put our ideas into action using the Devise, Develop and Deliver approach (see slide in appendix 3).

- Heat working group is a priority. This will be chaired by Michael Brown in November.
- Had hoped to work through other sectors headings today to try and identify the issues that we feel as a group are the most critical but we have run out of time so please feedback on which ones interest you and what issues need to be put on the anvil for the group to then work with.

Simon Gage thanked all participants and welcomed their feedback on how to keep COIF round table meetings useful and productive for all. Reiterating that the whole point of this project is to be productive, to go faster, be bolder, be more courageous, collaborate more, be more creative, and action change. The downside to these virtual meetings during the Covid-19 pandemic is the smaller conversations over coffee cups don't happen so perhaps we also have to think a bit harder about how we connect people up that want to spend more time together. If there's someone on the call you really wish to have the chance to talk to, please let Edinburgh Science know and we can connect you.

Hannah Schlesinger reiterated that the world has changed since the last COIF round table meeting, and encouraged participants to let Edinburgh Science know if they feel anything is missing or if there's anything that has changed since we came up with these ideas, and to share other contacts who are interested in getting involved in COIF. Hannah thanked all participants, especially Chris Stark and Kersti Berge for their contributions and highlighted that the group all wish to help and support where possible. It is fantastic that the discussion was able to be 'picked up from where we left off' all those months ago pre Covid-19!

Hannah went on to thank the COIF project supporters Baillie Gifford, Scottish Government, Deloitte, EDF, Highlands and Islands Enterprise, Jacobs, NatureScot, RBS, SEPA and Stewart Investors. Edinburgh Science is a charity and have taken forward this new workstream because we really believe in it and because we feel we've got something to contribute. Thank you all for your time and enthusiasm and for all your collaborative ideas and we're really, really excited that we're back in discussions and moving forward with ideas and working groups.

## Links Shared for Further Reading

Topic	Link	Shared By
Heriot Watt University, Economic Recovery Prospectus	<a href="http://www.hw.ac.uk/uk/business/economic-recovery.htm">www.hw.ac.uk/uk/business/economic-recovery.htm</a>	Mercedes Maroto-Valer
Scottish Water Net Zero Emissions Route Map	<a href="http://scottishwaternetzero.co.uk/">scottishwaternetzero.co.uk/</a>	Miranda Jacques-Turner
After The Pandemic Website	<a href="http://www.afterthepandemic.scot">www.afterthepandemic.scot</a>	Anne Johnstone
European Major's Energy Transition Report	<a href="http://www.woodmac.com/news/opinion/the-european-major-energys-transition-strategies/">www.woodmac.com/news/opinion/the-european-major-energys-transition-strategies/</a>	Valentina Kretschmar
COP26 Universities Network	<a href="http://www.gla.ac.uk/research/cop26/">www.gla.ac.uk/research/cop26/</a>	Dave Reay
Climate Exchange Report	<a href="http://www.climateexchange.org.uk/research/projects/public-awareness-of-and-attitudes-to-low-carbon-heating-technologies/">www.climateexchange.org.uk/research/projects/public-awareness-of-and-attitudes-to-low-carbon-heating-technologies/</a>	Dave Reay

Decarbonising Society	<a href="https://orsted.com/en/about-us/whitepapers/decarbonising-society-with-power-to-x">orsted.com/en/about-us/whitepapers/decarbonising-society-with-power-to-x</a>	Bridgit Hartland Johnson
Decarbonising Society	<a href="https://gigastack.co.uk/">gigastack.co.uk/</a>	Bridgit Hartland Johnson
Climate Collaboration Challenge	<a href="https://www.scottishpower.com/news/pages/wwf_scotland_and_scottishpowers_cop26_climate_collaboration_challenge.aspx">www.scottishpower.com/news/pages/wwf_scotland_and_scottishpowers_cop26_climate_collaboration_challenge.aspx</a>	Victoria Sinclair
BITC Report 2019-2020	<a href="https://www.bitc.org.uk/wp-content/uploads/2020/05/BITC-Report-RBTrackerreport2019-2020-webready-May2020.pdf">https://www.bitc.org.uk/wp-content/uploads/2020/05/BITC-Report-RBTrackerreport2019-2020-webready-May2020.pdf</a>	Alan Thornburrow
GSK Environmental Sustainability Goals	Please see appendix 4	George Davidson

Published after the meeting on 9 December 2020:

Topic	Link	Shared By
Sixth Carbon Budget	<a href="https://www.theccc.org.uk/publication/sixth-carbon-budget/">www.theccc.org.uk/publication/sixth-carbon-budget/</a>	Climate Change Committee

## Appendix

### Appendix 1: Climate Change Committee Scottish Progress Report 2020

PDF copy of Chris Stark's Powerpoint presentation slides

### Appendix 2: Scottish Government Request for Feedback [Email]

Kersti Berge and her colleagues are keen to hear from you regarding a) any comments on these topics and b) they are keen to hear how you think that the Climate Opportunity Ideas Factory can support these objectives.

The three broad objectives are:

1. Go further, faster, for a just transition to net zero - demonstrating genuine Scottish private sector ambition and action at COP26
  - Development and publication of comprehensive net zero transition plans based on science-based targets and with clear actions to reduce emissions, drive a just transition and thrive in a net zero economy.
2. Showcase what we're doing in Scotland
  - Developing an exciting portfolio of business and industry case studies, leading examples, and best practice that show how Scotland is delivering our ambitious targets and capturing the opportunities arising from a just transition.
3. Attracting investment and promoting export opportunities in Scotland.
  - Showcasing investment opportunities and Scottish climate solutions for export.

Please share any comments and thoughts/feedback with Edinburgh Science ([hannah.schlesinger@scifest.co.uk](mailto:hannah.schlesinger@scifest.co.uk)) to collate and pass back to Kersti Berge's team.

### Appendix 3: Climate Opportunity Ideas Factory Sector Specific Working Groups 2020-21

PDF copy of Edinburgh Science Powerpoint presentation slide

### Appendix 4: GlaxoSmithKline Environmental Sustainability Goals

PDF copies of press release and info graphic