

## **Meeting Notes**

## **Climate Opportunity Ideas Factory**

## **Keeping Momentum After COP26: Changing the System**

Chaired by Andy Kerr, Director of Climate-KIC, UK and Ireland Fri 21 Jan 2022 10am - 12pm. Optional informal conversations 12-12.30pm Via Zoom

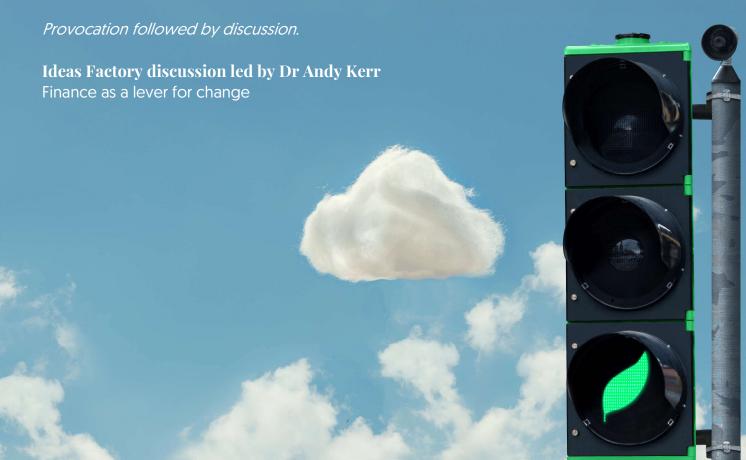
### **Agenda**

Welcome from Dr Simon Gage OBE, CEO of Edinburgh Science

Introduction & provocation from Dr Andy Kerr, Director of Climate-KIC UK & Ireland How do we leverage change in a complex system?

Provocation from Paula McLeay, Head of Policy and Insight, at City of Edinburgh City Council

Addressing the challenges of change at a community level



#### Welcome from Dr Simon Gage OBE, CEO of Edinburgh Science

# Introduction & provocation from Dr Andy Kerr, Director of Climate-KIC UK & Ireland How do we leverage change in a complex system?

**AK:** Warm welcome to all. I was lucky enough to be at COP and a striking reflection was the sense of ambition and action orientation of non-state actors, *e.g.*, investors etc. We were starting to see a pivot to action. Not as fast as it should be but it has moved beyond pledges.

Yet, everyone starts running and doing 'stuff' but then wondering why change isn't happening or visible. There is no shortage of action but the outcomes are less than the sum of those parts.

At Climate KIC, for 7-8yrs we supported early stage businesses from ideas to investment, 10k new jobs and billions in investment. But the impact of that was difficult to discern. Good stats on investment and jobs but the core deliverable - "how are we changing things for climate" - We weren't.

3yrs ago we began to look at changing the system. The system is complex and adaptive - not a fixed mechanical engine. If you do something at one end, you don't know what will happen at the other. And yet so much of our action on climate relies on that linear belief - a misreading of the way in which our societies work.

We have to know what the system looks like. Identify the levers of change - in any context, industry, supply chain, city, land use. Those could be governance, building new markets, new business models, activating social behaviours. Once identified they need to be tested, in practise and at scale. We are time poor.

We need to learn and to build intelligence to help us to make decisions about what is working and
what we can change. This is something that we're applying internationally. Once you begin to do it,
you have to face challenges

Be humble

 Don't look for solutions, look for learning – that's the heart of the outcome and orgs have to build around this

The model of innovation that we have is not fit for purpose. Government papers on innovation are about how many unicorns we get over 'have we solved the problem on the ground'. We need to give businesses scope to try things out – but how do we underwrite that?

My provocation:

Don't think what's my solution, but what is the learning that comes with it. Who are the networks and collaborators to bring it to the table to make it happen. Radical partnerships and different networks.

## Addressing the challenges of change at a community level – provocation from Paula McLeay, Head of Policy and Insight, at City of Edinburgh City Council

**PM:** Council climate strategy is about 80 pages long, and it's that because it's a complex and massive task to get the city to Net Zero by 2030. If I extrapolate the key things that need to deliver. City wide investments and planning, heating, transport, EV charging, Investments. It's a 3D puzzle, you can't do one side of it: you have to do it all at the same time. At the heart of it is a recognition that the scaffold on the inside is citizens.

Top down infrastructure changes, even good things, involve mass disruption.

For example, the council has 450 buildings that need decarbonised, mostly schools. We haven't really got the consent and engagement from our community yet for that level of disruption for progress.

How do you get citizen consent and behaviour change too?

Often there will be 2k/4k consultation responses, but that's a drop in the ocean of citizens who need to be on-board. How do we have that conversation and build shared understanding?

Respondents tend to have strong views but we can't reach those who need to be participating.

We need to inform citizens on climate, keep building buy-in, and reinforce 2030 vision for the city. We need to find meaningful ways not just to inform but to deliberate on these topics.

But this is top down and we have to understand that 53% of emissions come from citizens and their personal choices, mostly heat and energy from homes. I'm coming to that point as a provocation.

Heat and energy, we need to decarbonise 120,000 private homes in Edinburgh. If we don't tackle these we don't get to our targets and we don't support citizens to live well in their own homes. Every citizen considering retrofitting their home faces a technical challenge, a supply chain challenge and a financial challenge. If you live in a tennament, you calso face those challenges alongside the need to make collective decisions with shared responsibilities.

How do we as a city of activists help to make this journey an easier and better one for the many who must go on it?

How could going beyond the retrofitting of a home to consider energy generation, charging, use of green space etc to take awhole system approach that could make retrofitting homes more affordable and deliverable? We need to consider how we make this package of activity more affordable and how we fund and finance it.

Finally, weneed to learn now how to collaborate with communities to take quite radical and binding action in their homes and places. . We don't currently know how to do that.

That's the provocation – Answers on a postcard!

#### Change at a community level: discussion

**AK:** Now we have my reflections on how to change the system alongside practical info on challenges faced by Edinburgh City Council based on experience.

**EH:** Interesting intro and both provocations really chime with my thoughts but coming at it from a different angle – rural economy 'Beyond Value Chain Investment' (BVCI) or offsetting. My role was to sort out carbon offsets but I quickly saw this whole field needs to be done differently as it's not delivering. Lots of companies trying to decarbonise and get to Net Zero and putting money into BVCI. The money is going into planting trees etc. but I'm not sure it's going to where it needs to get to. I think this is quite new to science-based targets, You can't just say we've reduced emissions scope one and two, then offset the rest and claim net zero. Should be doing the things that we need to do to get to net zero, as opposed to investors who really want to see reductions tonne for tonne and there is also fear of being called out for double counting. We need a collaborative effort. *E.g.* company wants to invest in trees but difficulty in who claims the carbon – tenant, builder, estate all want carbon.

Paula's example of rented housing – I've had to put my gas central heating on but it's my landlord. Is it Edinburgh's carbon, my carbon, my landlord's carbon? Whose investment?

How do we move away from this 'who owns the carbon' and tonne-for-tonne to get progress?

**AK:** Challenge for investor looking for specific return

**GD:** Thanks for saying there's no single solution – it's a great message for people to keep.

Great to see CofEC tackling homes yet we have lots of businesses who have very big offices and business parks. Also 3-4 universities with temporary students who are a big part of population.

We aren't good at sharing sectors' knowledge to work together with ordinary citizens.

**PM:** Yes, we have a partnership on heat and energy and one on big buildings. The buildings one will be chaired by Ed Uni and bring together NHS and Council. Knowledge sharing and cross- collaboration with alignment of funding.

It's going to be a huge funding ask, Edinburgh could eat up the Scottish budget alone. We are committed to making sure that collaboration bears fruit, and to combine and share our knowledge.

Money: Council keen to work with different people looking at differing models to help us to inset/offset. Still a question.

**AM:** Building on previous comments – I see similar challenges for City of Edinburgh/Glasgow/Aberdeen etc. There is the opportunity in the Scottish context of scaling up common challenges to explore new ways of fixing things. Infrastructure? Leasing solutions? Collaboration across public bodies? It's going to have to happen at scale.

Better awareness after COP26: must start bringing knowledge and learning together.

**AK:** Learning comments and scale of peer to peer learning

**DB:** Getting to NZ isn't just decarbornisation it's about adapting, we have built-in climate change happening and we need to adapt for that. What is Edinburgh Council's policy on this?

40% of inventory in Scotland is land-based (inclusive of urban and rural) and we need to work out what role landownders play, e.g. Universities, NHS. Local authorities need to address degraded land with reduced ability to capture/store carbon. Brings multiple benefits.

The NHS have been looking for super-connector people within sectors/communities. This is around 3% of people - they are critical as levers and conduits for change.

AK: Great points around resilience. Wider issue of land use which is substantial portion of the total

**PM:** Adaptation plans: We have undertaken research so we can leapfrog risk analysis, cost analysis to get there.

In respect of wider community benefits – impacts on health, poverty, wellbeing,- all we can do at the moment really is grade risks from 1-5. Loose. That dark art on bringing a collective wisdom to that would help us to be more sophisticated in making the societal case for action

**AK:** Placing responsibility on the individual is not systems level change

**VK:** Andy, you mentioned it feels that there's little progress. We can't ignore things, true – we have energy anxiety, increased prices... However, being in UK and part of a community that is very much committed to NZ, we have to see what we CAN do to achieve these goals.

I don't see the change in EV uptake or infrastructure happening. We have to bring people on, through education, which we as organisations can do – e.g. through tools like PawprintEco. People are busy, they need education in workplace and we can provide this, but also it has to be embedded in schools and I don't see – as a mother - our education system embracing climate.

Financing energy transition – we know Edinburgh can't do it alone. We have to draw businesses into partnerships. BP has created a NZ partnership with Aberdeen and 10 other cities – working on delivering clean solutions. Helping the company and helping the city. They have big balance sheets and tech expertise, are connected across value chain and can deliver. We need to think of trying to create and leverage their presence in our space.

**AK:** Massive hit coming on household incomes. Going to be hard to talk transition.

**JS:** We (Royal Academy of Engineering) work with companies who have huge expertise. Would like to see EV change/construction. Measuring embodied carbon in buildings and re-using them, even just the foundation. Nature based solutions also something that Engineering companies are also looking at.

**HD:** Scottish Funding Council. Very interested in the **HOW** in conversation with citizens. People should be motivated by climate risk, but the disaster narrative shuts people down. Donut economics approach and imagining and artists impressions – how do we conceptualise visions of the future?

**AK:** Great point. How do you bring that to life with people who are in that space and know how to tell stories and engage with different communities

**GH:** On the vision point, we should work cross-sectoral with artists/scientists/health and wellbeing professionals. Scottish Government could do this more – it would help the system work!

We're trying to run pilots on climate change and food systems with a community at micro level and see what we can learn and take to policy level. Problem: cutting across sector silos

PM: An example is the unsolved issue: do we want EV; less cars; or both?

How do you replace a boiler and make the right choices – it would be easier to do it as a street and include a car share scheme etc. But even knowing the [climate] world, we struggle to find the information or time to make it happen – you rely on engaging neighbours yourself.

Need to think about behaviour change and what it is to walk people through before there is any change. We're at the early stages of walking through.

**DH:** We talk about what's being done elsewhere, don't forget that we've done a lot here – for example, pilot schemes of low-carbon heating and insulation. Has real analysis of these pilots been done? A lot stop once the things are plugged in and people can walk away, but that should just be the beginning. I'm not convinced that that's happened.

On EVs, with caveat – I worked in car industry for 22yrs and left 15yrs ago but keep an eye on it. Valentina said she's the only EV on the street but I don't think that will be the same next year, considering how many

EVs used to be available compared to now. A lot of companies saying by 2030 they'll only be producing EVs, but I wouldn't be surprised if it was by 2025.

We do need to start where we are, and not where we wish we were. 20-minute neighbourhoods: it's like we want to do everything all at once. But you have to take individuals with you.

Don't discard good in pursuit of perfect.

#### Finance as a lever for change: discussion led by Dr Andy Kerr

SS: UK has achieved a lot from shifting from a coal based system to gas. Nobody noticed. That's how individuals will make their change: Going to do their food shop not specifically FOR low carbon products but because the systems level supply chain is all low carbon produce.

Often supermarkets are located out of town, so people need to drive to them.

Asking people to take actions can therefore be self-defeating, the change needs to be at system levels. By law, every business NEEDS to look at reducing their emissions independently of consumer choices.

**Ss(TFM):** New to this forum (talking climate) and work in finance. My take on this is that the problems have been identified and are accepted. The challenge now is that we're still trying to find solutions. Behaviour/economics must be addressed: people won't invest in tech/solutions unless it makes sense for them.

There is a recognition that something needs to change but how do people direct their energy and resources? People have invested in the past and now we ask people to "invest" in things which aren't economic. *E.g.*, air source heat pumps. Things have become uneconomic to fix.

There is a lot of activity in terms of people putting out statements in terms of what they've done, but little consistency in reporting. People are creating their own rules – at least the Net Zero message is clear and consistent. I think there's a lot of misinformation in the recent past and we need to get clearer on what the right parameters are to frame that discussion.

**MW:** What can an organisation do to make what they do more transparent? What has been encouraging in terms of encouraging reporting? We still can't compare apples with apples.

Shout out to Edinburgh Science on that because work that they've done on The NetZeroToolkit is cut from this cloth – what are the quick and easy things that people can do to remove big chunks of carbon, and what are the trickier things where they see the problem and can work towards a solution?

**HD:** I'm Interested in 'pricing in Carbon.' What does that mean in terms of risk appetite? Risky technology which has been tricky for investors.

**MW:** What does carbon pricing mean in practise? Do you pay for the equivalent to take that carbon OUT of the atmosphere?

This isn't an if it's becoming a when. In London, if you are looking to build something above a certain size you now have a carbon tax and no planning unless you've demonstrated that this has been done. That's my understanding!

**AK:** How do we make it citizen centric at core of community when we have a finance sector that struggles to get to that level? We need much bigger pots of money to deliver change at all levels.

Challenge to find the balance between large-scale investment and delivering effective outcomes on the ground – the individual/community/citizen level that councils are targeting.

**KL:** This blows my mind on complexity. Working in financial sector – being able to sit in ivory tower and focus on sustainability. I can see the complexity for us. Retail clients want growth in pension funds, but we have an opportunity to determine where profits are sent. Do you put into a fund or high yield organisation? Or do what's right for the planet but which doesn't deliver the yield?

How do we as a group conscious of this, get the balance right?

Where does that leadership come from coming out of COP? So many parties with slightly different social/corporate/societal/capitalist goals. Finance has a strong influence and power to yield. How do we take it to our day jobs? For me that's lacking and a disappointment from COP.

There is desire and passion – but how to we harness our common goals and sense of purpose?

In theory, capitalism should work for everyone, but I don't know if that's the same definition when you work in finance.

**VK:** Investing in clean projects is a challenge. On the one hand you have huge funds going into climate. On the other hand, everyone wants immediate return. Energy transition won't happen that quickly but we need to invest NOW. Demand will come.

We have the power to drive what's happening in our companies, and drive them to make these changes and investments.

We can't rely only on finance because they need returns, so we need to demonstrate that change can happen.

**AK:** How do we find ways to get more money to climate space? Some rules currently imposed on companies don't fit the required changes.

**KL:** Finance will always be driven by regulation (as well as returns). When you move into ESG side of investing, you need to report that your decision making is delivering an ESG return. How do you determine this?

There is a long-term element to this. It's frustrating that we're pioneers in something that's been happening for a long time and we're now muddling through

Customers do not want to invest in some areas – e.g., weapons. If enough people care about these things, it can be powerful. Little steps add up. Don't underestimate your actions.

It feels overwhelming, but we'll all chip away!

**SS:** We need to consider the important role of regional political structures. Areas such as Liverpool City Region, with a Metro Mayor, have been successful, but we need political leadership driving these structures in Westminster or in Holyrood. We need to really think of our leadership in our Scottish plan.

**DP:** There are several aspects to this conversation – the fundamental problem with heat pumps is the cost of electricity. The thing that struck me is that it's all about data: at COP26 in the cafeteria, every food item had a carbon footprint against it – people were making choices based on the visibility, declining products with a higher footprint because it was explicitly shown.

You could heat all of Edinburgh from Firth of Forth. We need the policy, the pricing, the data.

At COP26, it was evident that people don't know what to protest about. We have to work harder to make people aware of both the good stuff and the bad stuff.

Agree this has to be for everyone and it'll come down to the money, has to be financially attracted. Carbon price is probably simplest way to make people choose

**AK:** Most people won't be able to pay £20-30k to transition their houses.

**DH:** New and attractive products coming to the market e.g., new models of mobile phone (bad for the environment) attract people. People want to invest e.g., *Apple*, they make money because their product is attractive. Get green product that is attractive and there will be investment.

On COP - I didn't go, but describe as the inside fence and outside. Inside decisions made, outside the protests were highlighting what ISN'T happening – yet. The discussion in process there [the protests] is what will be discussed at next COP/future COPs. Don't lose heart.

**MW:** Financial services sector has been guilty of assuming that people act in rational way – not the case. We are beginning to recognise that people don't make choices like this.

**EH:** I wanted to put in a plug for rural economy. Just 1% of economy but 15% emissions, deeply within supply chain emissions e.g. food production. People realise land is important for things that they do individually, but we need joined up thinking and strategy – the rural economy needs to be on the agenda

PM: Finish with an observation and an invitation

- Observation it's not policy that we need, it's scaled projects and investment-ready proposals. We need to work together differently to solve problem where we jointly benefit and drive this change
- Invitation to work differently together so that we can share the risk of developing proposals to investment ready stages and rewards of accessing the capital

**HS:** Thank you all for attending, and a huge thanks to our supporters who allow us to deliver these thought-provoking round tables.

#### **Conclusions**

- At some system levels, businesses can make change for the better without the individual having to do anything, or even noticing (e.g. supermarket packaging; electricity supply). However, there are limits to the extent to which change can be made at a system level without the individual acting.
  - How do we identify the areas in which individuals need to act, and how do we encourage them to take ownership? The next round table will take place on Wednesday 27 April with a focus on public engagement. Details coming soon!
- As organisations, we need to focus on what we can influence, and at what level. Do we specialise in small-scale behaviour change, or is manufacturing what we are good at? Social wellbeing, biodiversity etc. Are important elements of the *whole* system, but we need to recognise that we can't do everything and fan element of focus will help us move forward. However, we must not become siloed a thorough assessment of stakeholders who are impacted by, or benefit from, your work is always going to be key. Working together in groups such as this is useful for broadening your awareness of the types of organisations out there, and how your work could interact with theirs.
- Between us in this group, who can we identify as 'superconnectors?' people who could provide
  useful links between our projects and those of others.

• Scotland needs to champion the pilot projects that have been completed here, through evaluation and then communication of outcomes.

#### **Summary of Ideas**

- 1. Identification of a network of Superconnector people.
  - a. Specification of what traits and connections constitute a Superconnector Person
  - b. Identification of the levels at which various Superconnector People operate
- 2. Engage with Scottish Government and stakeholders to establish and communicate better the outcome of various pilot projects.

Delegates are invited to take forward either of the above ideas. Edinburgh Science will support by convening an initial workshop for groups interested in both ideas. The initial workshop will better define the aims of each idea. If you would like to participate in either of these groups, please email <a href="mailto:emily.stone@scifest.co.uk">emily.stone@scifest.co.uk</a>.

#### With thanks to our supporters who allow us to deliver this project:



#### **FUNDING PARTNERS**























## **Delegate List**

Andrew	Aldridge		
Debbie	Bassett	Climate Change Coordinator	NatureScot
Richard	Blundel	Professor of Enterprise and Organisation	Open University
Jamie	Brogan	Head of Climate Partnerships	Edinburgh Climate Change institute
David	Cameron	rieda or eminate rartierampa	Edinburgh Chimate Change institute
Anna	Clark	Sustainability Strategy Coordinator	Heriot-Watt University
George	Davidson	Business Unit Director	Glaxo Smith Kline
Lindsay	Defesche	Operations Manager	Parabola
Hazel		-	
	Delgard	Capital and Climate Change	Scottish Funding Council
Graeme	Dickson	Contains le like alles el	Character
Alix	Farr	Sustainability Lead	Skyscanner
Barry	Fisher	Chief Executive	Keep Scotland Beautiful
Simon	Gage	CEO	Edinburgh Science
Sam	Gardner	Head of climate Change & Sustainability	ScottishPower
Christine	Gibson	Big Switch Community Manager	Prudential plc
Mayan	Grace	Head of Projects	Edinburgh Chamber of Commerce
Gail	Halvorsen	Principal Architecht	Halvorsen Architects
Eleanor	Harris	Environmental Manager	Galbraith
Louisa	Harvey	Community Climate Action Team Leader	Scottish Government
Jack	Hillmeyer	Consul General	US Embassy
David	Hogg	Senior Energy Systems Consultant	Arup
Andy	Kerr	Director	Climate-KIC, UK and Ireland
Valentina	Kretzschmar	Energy Transition Director	Capricorn Energy
Adam	Liddle	Director of Sustainable Growth & Innovation	Jacobs
Kirsty	Lieberthal	Customer Experience Manager	M&G
Stephanie	Maia	Communications Officer	Edinburgh Science
Stuart	Matheson	Just Transition - Community Engagement	Scottish Government
Rachel	McClelland	CEO and Founder	PlanetShine
Andy	McDonald	Head of Low Carbon Transition	Scottish Enterprise
Paula	McLeay	Head of Policy and Insight	City of Edinburgh Council
Stefanie	O'Gorman	Director, Sustainable Economics	Ramboll
Gareth	Owen	ESG Operations Officer	Baillie Gifford
Andrew	Pankhurst	Communications Programme Manager	Zero Waste Scotland
Dave	Pearson	Group Sustainable Development Director	Star Refridgeration
Hannah	Schlesinger	Director of Development	Edinburgh Science
Stephen	Sheal	Special Advisor	Net Zero Technology Centre
Scott	Stevens	Head of Asset Management	Target Fund Managers
Emily	Stone	Climate & Sustainability Business Development Manager	Edinburgh Science
Jane	Sutton	Head of Media and Engagement	Royal Academy of Engineering
Lucy	Tomlinson	Senior Manager	US Embassy Small Grants Programme
Kyle	Usher	Mission Manager	Nesta
Ben	Walker	Head of Business Engagement	Pawprint
Keyne	Walker	Policy Officer	Royal Academy of Engineering
Mike	Wedderspoon	Head of Corporate Social Responsibility and Internal Communications	Scottish National Investment Bank

#### **Appendix**

#### (i) About Edinburgh Science

Edinburgh Science Foundation is an educational charity, founded in 1989, which operates Edinburgh Science's Education 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 are 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 commercial international programme of work under our Worldwide arm with any profit directed into our Foundation to enable charitable work. Edinburgh Science 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.

Edinburgh Science's UK and international projects reach a combined audience of over half a million people each year, in a normal 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 to enable Scottish enterprises to respond to the climate emergency. It was initiated 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, the then 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 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 to gather views to identify new ways to work collaboratively to unlock ideas and create opportunities. The Climate Opportunity Ideas Factory provides 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 and to put Scotland at the forefront of this Climate Opportunity.

## With thanks to our supporters who help us deliver this project:



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