Climate & Science Sustainability at Edinburgh Science 2023–24 REVIEW





At Edinburgh Science we recognise that we are in a climate emergency and we are determined to play our role in tackling it. For over 35 years we have been programming for the planet through the Edinburgh Science Festival and our associated schools programmes. During the 2019 Science Festival, we awarded the Edinburgh Medal to Christiana Figueres, the diplomat responsible for the Paris Climate Agreement. During her Festival visit, Christiana joined us for a round table with cross-sectoral senior leaders. She inspired us, and all those present, to continue. From this convening of like minds, the *Climate Co-Labs* were born.

With our experience in science communication, we are uniquely placed to engage the public with the world's ecological challenges, with audiences ranging from senior leaders and decision makers to primary schools – where young minds are shaped. We do this within Scotland and on an international stage and we are proud to use our experience to support a wide variety of partners in delivering on their own environmental, social and governance [ESG] strategies.

Our 2023–2024 session took us from Scotland to the United Arab Emirates for COP28 as well as visits to London and every local authority in Scotland.

None of this would – or will – happen without your kind and continued support. We are truly grateful and look forward to working with you in the coming year.

With thanks to all who have supported our climate work in 2023-2024

PROGRAMME SUPPORTERS

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Climate Co-Labs 2023-24

Our *Climate Co-Lab* series brings senior leaders and decision-makers together from all backgrounds – industry, academia, policy, third sector and more – to tackle difficult climate questions. *Co-Labs* break down silos, spark collaboration, unlock solutions and drive change. 2023–2024 was an incredibly exciting time for the *Co-Lab* series as we took this format on tour to audiences in London and subsequently to COP28 in Dubai.

Overall we delivered five *Climate Co-Lab* events on topics ranging from Tourism Ecosystems to Global Financial Architecture and brought together speakers including **Amabassador Patricia Espinosa Cantellano**, **Nigel Topping CMG** and **John Lamont MP**. They were:

- Accelerating a Just Transition to Net Zero (Apr 2023, Panmure House Edinburgh)
- 2. Responsible Business for an Environmentally Sustainable and Just Future (Jun 2023, London, Scotland House)
- 3. Co-Creating a Sustainable Ecosystem for Tourism and Cultural Events (Aug 2023, Queen Elizabeth House, Edinburgh)
- 4. Delivering on the Promise of Climate Finance at Last [Dec 2023 at COP28 in Dubai]
- 5. Keeping Momentum After COP28 (Mar 2024, PwC Edinburgh)

You can read the notes, including speaker provocations, <u>on our website</u> or, listen in to **The Energy Gang** podcast recorded at our COP28 *Climate Co-Lab* event with speakers **Nigel Topping CMG**, **Mohamed Sultan** and **Ambassador Patricia Espinosa**.

 $\underline{woodmac.com/podcasts/the-energy-gang/delivering-on-promise-of-climate-finance-at-last/}$

What Our Audience Say

Very insightful discussions, came out smarter than I went in!

Thank you, Edinburgh Science

AKSHAN DATAR RAK MUNICIPALITY

This was a very engaging and thought-provoking workshop. I am glad I attended and enjoyed the discussion at the table and the provocations by the speakers. I definitively recommend the Edinburgh Science Climate Co-Labs and will try to attend again next event

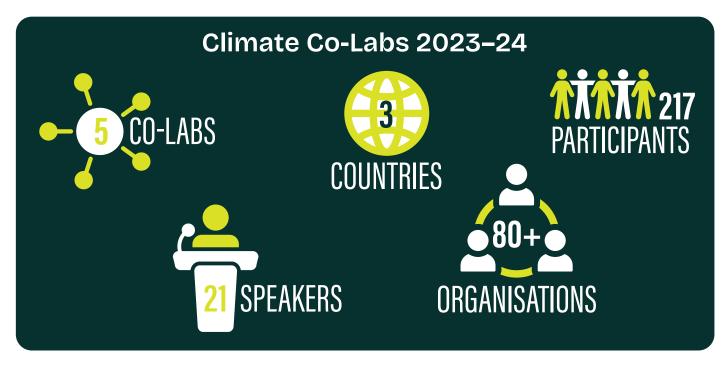
LUCA CORRADI, THE NET ZERO TECHNOLOGY HUB

I found it to be incredibly fruitful and easily one of the best events I attended at COP28 HELEN ZHANG, SCHMIDT FUTURES

What Next?

In the coming year we plan to deliver up to six *Climate Co-Lab* events which will have their topics chosen depending on current affairs, climate initiatives such as COPs, issues raised within other *Co-Lab* events and policy direction. We want to keep taking *Climate Co-Lab*s out to new audiences providing opportunities for connections and fostering exciting and vital collaborations that will accelerate a just and global transition to net zero.

See p7 & 8 for details on actions taken as a consequence of these meetings



The NetZeroToolkit

Small to medium sized enterprises (SMEs) make up 99% of the UK business community and collectively, they account for 50% of CO2 emissions. From a consumer perspective, 79% of people in Scotland see climate change as a crisis that needs immediate action and 66% of people will pay more for a more sustainable product. Despite this, for most SMEs, building an effective sustainability strategy is low on the list of priorities and often seems unobtainable – expensive, time consuming and where do you even start?

The NetZeroToolkit changes this. It is a free, online tool that is science-based, impartial, jargon-free and assumes no prior knowledge. It breaks sustainability down into eight core components, relevant to any business. Within each component users find question prompts, detailed guidance notes and a carefully curated set of resources allowing them to focus on the areas that really matter with information that will actually help, supporting them to build effective sustainability strategies.

Alongside *The NetZeroToolkit* we have also developed a set of workshops linked to the toolkit, that support people on their net zero mission. These have been delivered through our own and third party events such as the Supplier Development programme. Through this activity we have reached an audience of over 1,000 people, the majority of whom are involved in the net zero strategy delivery for their own organisation. The toolkit is fast becoming a trusted resource and is signposted and shared by Aberdeen City Council, Dundee City Council, Net Zero Edinburgh and the Supplier Development Programme to name but a few.

What Our Audience Say

There is so much useful information available on the guidance notes and it has really opened my eyes to what we can and should be doing as a business
JENNY RONALD, THE CURIOUS GEM

Great session delivered to a small but very engaged audience who clearly all left with actionable ideas and inspiration for their own roles and organisations ANONYMOUS FEEDBACK, WORKSHOP ATTENDEE

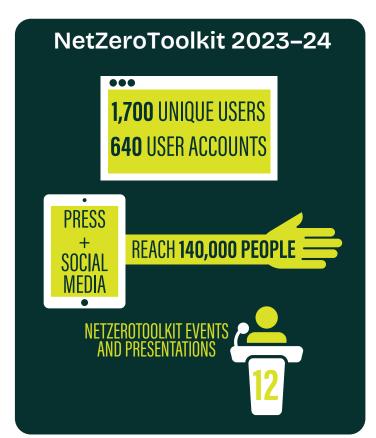
Edinburgh Science's NetZeroToolkit is very comprehensive yet simple and clear. From a Scottish Local Authority perspective, it has proved to be an invaluable, free resource for SMEs at various stages on the net zero journey and at various levels of climate literacy STUART CALDERWOOD, ABERDEEN CITY, ABERDEENSHIRE AND THE HIGHLAND COUNCIL

What Next?

We want to keep going! There is no question that we need to find innovative ways to move sustainability up the SME priority list and with over 35 years of experience in delivering world-famous science communication, we are uniquely placed to do this.

We are looking to increase the number of businesses using *The NetZeroToolkit* online to plan and manage their net zero journeys and prove that that being sustainable is not only the right thing to do – but profitable and even fun!

We have seen SMEs benefit by coming together to gain and share knowledge, build confidence, be inspired and, above all, accelerate their sustainability journeys.





Edinburgh Science Climate in the community

Consumed is a large-scale exhibition set in shipping containers, where each container highlights an aspect of our everyday lives – such as Power, Transport, Food and Clothes – and shows through an interactive exhibit how small changes to our lives, and living by the principle of circular economy, can make a positive impact on our planet.

Consumed first appeared in the centre of Edinburgh – with free access – as part of our 2022 Edinburgh Science Festival, receiving 30,000 visitors. After the Festival, the exhibition went on tour, thanks to support from Zero Waste Scotland, as part of a public consultation on the circular economy. Our evaluation showed that as a result of their visit, 60% of people would change the way that they shopped, 49% would change their use of electricity in the home and 47% would change the way that they travel.

This year, with the support of the Scottish Government's Climate Engagement Fund, we took the exhibition out on tour once more visiting areas of high deprivation (or high SIMD) in Edinburgh and Dundee. We made connections with local organisations who could support visitors to make more sustainable choices through the use of community initiatives, garden projects and free workshops.

We also incorporated a free family drop-in workshop *LEGO® – Build the Change* and delivered an interactive Climate Leadership Course for community group leaders and trusted messengers. These courses built confidence in talking about climate change and building sustainability strategies, and have created long-lasting impact by providing valuable skills and amplifying the sustainability message in hard-to-reach communities across Scotland.

What Next?

We plan to continue working with communities and, if funding permits, bring *Consumed* and our workshops back on the road again.

Consumed is a valuable resource for reaching communities in their own spaces. It is adaptable, allowing sustainability initiatives in different regions, cities, towns and even postcodes to share initiatives, exchange knowledge and build partnerships that create lasting change.

What Our Audience Say

I booked with an aim of educating myself a bit more about climate change and how we can empower girls to understand the impact but left with an idea far greater. Thank you for creating the space to develop this – Mandatory Training on Climate Change for all Girlguiding Volunteers

GILLIAN FRAYLING-KELLY, GIRL GUIDING

Great session and wonderful takeaways, I am more confident and will change my language ANONYMOUS WORKSHOP FEEDBACK

The exhibition was really well put together, and I found it engaging from start to finish. The staff were not only incredibly helpful and informative, but they also provided valuable insights and resources It was a pleasure chatting with them. I want to extend my gratitude to Edinburgh Science and the team behind the exhibition. Choosing Granton as the location for the exhibition was particularly meaningful for me, as it's my local neighborhood.

CAMERON REID. EXHIBITION VISITOR



Consumed and community engagement programme 2024







Edinburgh Science Climate in schools

For over 30 years our *Generation Science* programme has been hitting the road and visiting primary schools across every local authority in Scotland, with innovative and exciting science, technology, engineering and maths [STEM] workshops.

Not only do our workshops captivate pupils, they are consistent with the Curriculum for Excellence, detail clear learning outcomes and are also designed to build teacher confidence and skill in delivering engaging STEM learning, creating career-long impact.

In 2023 we have been able to develop two brand new workshops focused on climate change, thanks to funding from the ScottishPower Foundation. *Our Changing Climate* has been developed for P1–P3 pupils, taking a gentle approach to the big topic of climate systems through games and activities.

The Green Machine uses interactive demonstrations and experiments to allow P4–7 pupils to explore energy transfer and renewable energy generation. Through design, experimentation and engineering expertise, the pupils are challenged to produce the ultimate, fully functioning and environmentally friendly water-powered machine.

In the *Generation Science* 2024 programme, these two new workshops supported the delivery of valuable STEM-based learning opportunities to around 23,000 pupils and their teachers through the delivery of around 700 workshops and shows.

What Our Audience Say

It was all great! The leaders were engaging, knowledgeable and enthusiastic. I really liked how they split the class into two for a couple of the activities. The whole experience was absolutely fantastic and has created opportunities for further learning to take place afterwards

[the best part was] watching pupils who find school

tricky completely engaged and animated
TEACHER, ANONYMOUS FEEDBACK FORM

What's Next?

These two climate related shows form part of our wider Generation Science programme and we cannot wait to continue to deliver Generation Science in 2025, engaging primary school pupils and supporting teachers.





Spotlight: Smart Green Shipping

In November of 2021, we hosted two *Climate Co-Lab* events in Glasgow over COP28. The first was *How can International Collaboration Drive Forward Our Green Economic Future?*. Provocations were made by the then Minister of Finance, **Kate Forbes MSP**, **Paul Dickinson** and chaired by **Dr Martin Valenti**, who introduced us to **Diane Gilpin**. A key point within the discussion on that day was the challenges that many start-ups and those with innovative technological solutions can face when it comes to scalability.

As a result of participating in this event and meeting colleagues from PwC, Smart Green Shipping was added to The PwC Future Net Zero 50, highlighting their work, and resulting in the finance required being sourced to produce a scale test and demonstration FastRig wind sail. Wind-assist is one of best ways of meeting global shipping's ambitious emissions reductions targets and has the potential to also reduce operating costs.

Over the course of COP26, Smart Green Shipping attended two Edinburgh Science Co-Lab events. As a result of the dynamic and collaborative space provided, Smart Green Shipping attracted the attention of PwC and we subsequently featured in The PwC Future Net Zero 50.

Since then we have been able to unlock the finance that allowed us to build a full scale test and demonstration FastRig windsail on the Clyde. We are proud to be playing our role in accelerating shipping's green transition.

DI GILPIN, FOUNDER AND CEO SMART GREEN SHIPPING



Spotlight - Rewilding in Scotland

In 2021 we hosted a *Climate Co-Lab* on the subject *Land Use: Financing Nature-Based Solutions*. This discussion led to a meeting between **James Oliver** of **The Hampden Group** and representatives from **NatureScot**. As a result of this meeting, in March 2023, they announced a partnership. Together they are embarking on an ambitious rewilding project that will create 185,000 hectares of native woodland with the potential to sequester 20million tonnes of CO2e over the next 30 years.

I have been liaising and working with Edinburgh Science over the last two years. The team have been enlightening and super helpful, specifically in supporting our group with introductions, recommendations and event invitations. Edinburgh Science have been pivotal in in providing contacts for Hampden & Co's push to Net Zero with their insight and connections at NatureScot. We really hope to link in Edinburgh Science with our programme of natural capital finance.

JAMES OLIVER, GROUP MARKETING DIRECTOR HAMPDEN





image: Francesca Osowska, Chief Executive, Nature Scot and James Oliver, Group Marketing Director, Hampden Holdings