



## **Accelerating a Just Transition to Net Zero**

**An Edinburgh Science Climate Co-Lab Event with  
special guest Ambassador Patricia Espinosa**

### **Meeting Notes**

5 April 2023 9.00–12.30am

Adam Smith's Panmure House, 4 Lochend Cl, Edinburgh EH8 8BL

Chaired by: Francesca Osowska, CEO, NatureScot



# Introduction

## Welcome from Francesca Osowska, CEO, NatureScot

We need to tackle nature & climate change together: nature is the 'net' in net zero.

The UN Secretary General's latest report says we need to go 5x faster. The CCC's report is not happy reading.

40.6 megatonnes emissions in Scotland, 50% from land & agriculture. We need to change land from a carbon emitter to a net carbon sink. This isn't unique to Scotland – land accounts for 30% of all emissions globally (2019).

A million species are at risk of becoming extinct in the forthcoming 10 years.

Cost of removing carbon from the atmosphere using land is low: £20 per tonne of CO<sub>2</sub> compared to £100 for transport and £200 for decarbonising home heating. Potentially easier as well – if you get public buy-in.

Life feels comparable to the absurdist comedy drama Everything Everywhere All at Once. Consider the absurdity of not doing anything. A cohesive and integrated approach is needed from diverse parties. Everything Everywhere All at Once.

Globally, promises and will to implement change is growing – a source of optimism.

Green finance institute estimate a financing gap of about £1bn in nature-based solutions but we are starting to attract that.

Today's events actually help us to reach this. There are tangible developments that grow from conversations like these.

Here is someone, respected on the global stage, who has safeguarded our planet – Patricia Espinosa.

## Keynote Address

### Ambassador Patricia Espinosa Cantellano, Founder & CEO, onepoint5 and former Secretary, UNFCCC

Thanks Francesca for eloquently and clearly presenting the points that relate to climate change and what we need to do to address.

COP26 was such a huge challenge for Nicola Sturgeon and Scotland as we were still operating in the context of covid. I want to recognise this wonderful country for what you have done.

Knowing Adam Smith lived and worked in this house inspires awe and reverence; it motivates and inspires me to honour the spirit of the place by putting forward my ideas and comments in an appealing way.

Right now, no issue is as momentous as addressing the climate crisis. This does not diminish the importance of other problems, but the climate challenge differs in a particular way – by threatening everyone, everywhere now and in the future. We are already seeing it – Pakistan, Australia, floods, droughts, other extreme weather events, extreme suffering and losses everywhere.

We are suffering the consequences of our procrastination. Every degree of temperature rise is the difference between life and death, particularly for the most vulnerable people in the developing world.

This is the choice that our generation has before it. Act now with commitment, or delay and the costs are huge.

We are 8 years from the Paris agreement, and we are not close to where we need to be. Governments have delayed in raising ambition and taking action. There have been 3 key obstacles:

- Political - narrow understanding of national interest when negotiating policy that addresses universal human needs
- Business – scarcity of concrete plans. Private companies all need to develop, publish and adhere to clearly laid-out plans subject to independent verification. We are beyond the point of pledges – we need plans.
- Public institutions and private entities - insufficient means of implementation. We have tech solutions, we have financial sector willing to invest in climate finance. But what is missing is public policy, and necessary skill sets to implement.

These three big challenges have been at the centre of the slow pace but are not insurmountable.

They can be overcome by adhering to simple and clear principles, not alien to Adam Smith – Integrity; Empathy – the ability to imagine ourselves in the circumstances of others such as climate refugees like the 6 million displaced in Pakistan, and future generations.

Looking at Pakistan – how did the government manage with 6 million homeless people? We need to consider the larger and more terrible human crises that will result from cumulative climate crisis impacts.

For example, in central America there has been a drought over many years. People who were living there were left with nothing, they couldn't survive, they started to move north into Mexico wanting to go to the US. These people are then in such a vulnerable situation, exposed to human trafficking. A few days ago there was a fire in an immigration station where 38 people died. People are just trying to survive, find an opportunity to live and some kind of life. We live in such a privileged situation that sometimes it's difficult to imagine this.

Governments need to accelerate implementation through legislation and policy, and we must follow with Integrity – virtuously submit to rules that tell us how to live in a way that contributes to orderly society. Fundamental trade-off between individual freedom and protecting ultimate public good on the home that we share, our planet.

Private sector is often waiting for government framework and action. So it's useful to have a permanent dialogue, bringing the public & private sector together to understand all challenges.

Each need to understand the history of people who have worked land a certain way for generations. We cannot force this legislation on people – we must facilitate conversation and bring everyone on board. This will lead to some discomfort, but that is the only way.

Needs to be scaled up at international level.

Many African and other countries in the global South want the opportunity to benefit from their oil reserves, as we in the Northern Hemisphere have. So, we need to provide the alternatives. That is currently not happening.

What do we need from COP28?

At Cop27 in Sharm El Sheikh, some important decisions were taken, particularly Loss & Damages payments. A lot of resistance has happened and this has been frustrating for countries suffering, not just developing countries but places like Florida. We need a change in mindset around this.

We also need some agreement at an international level to be ready for climate migration, as some island nations disappear. This is one area but all those displaced people become so vulnerable. This is destabilising not only them but also potential to become much bigger problem.

Recognition that public finance is not going to be enough to address needs to do this transformation globally.

We don't know how the world will look in 40 years, but I really hope this is going to be the time where this generation comes together and really decides to work together for the good of humanity and for us to be able to leave a better, or liveable world for the generations to come. They will not have the environment that we had as children but maybe they will say it was great that our generation took these decisions.

## **Q&A/ discussion**

Is market theory that Adam Smith established conducive for what we're trying to achieve or is it a Keynesian approach that we need? Private finance is driven solely by profit. Net zero is also a largely western concept and developing countries have different goals that are not conducive to net zero. We need to unite globally to get there.

We need to make economic opportunities from this transformation apparent. Need to reassess the concept of value. What is the value of clean water? Have it or none at all?

## **Panel Speakers**

### **James Oliver, Director of Marketing, Hampden & Co**

We need to reduce by 13 tonnes per person per year.

Joined forces with NatureScot to make this offset of 40 million tons official, off the back of an idea seeded at a Climate Co-Lab (formerly Ideas Factory) before COP26.

The plan is to invest £500m to £2bn over 10 years - to help restore and reclaim some of Scotland's native forestry that would sequester Scotland's human carbon. 3,000 landowners signed up across 130,000 hectares. Hampden Bank represents many of those landowners.

We put £6bn a year to Lloyds of London to underwrite risk. On a micro level, risk is VISIBLE. And you can really see it. Last year we did our biodiversity count on our farm, got eagles coming back in 144 species of moths. Some not seen since WW2 and one never.

How can we deliver something in line with our responsibilities? This is not necessarily profitable but it's needed. I want my kids to be in an environment I feel happy about. This is Captaincy.

Excluding peat restoration and biodiversity net gain is great but simply a bonus to the sequestration goal, keeping it simple. It's starting now.

If we can do that with a straightforward idea, we can start looking at other sectors. We'll take the brunt of the mistakes. We can start replicating those models in other sectors.

### **Caroline Cook, Head of Climate, Baillie Gifford**

Supporting innovation is a huge topic. Three things can really get projects moving:

- Openness to experimentation
- Academic engagement in the communities where projects are being implemented
- Getting investment incentives right.

Orkney is a great example of this. It had 20% of UK wind turbines for 0.2% of population in the 2010's and a non-dealership, dealership for electric vehicles! These have been SME-led too. Heriot Watt have had a campus there since the 1980s looking at marine engineering and renewables. A lot of pilot schemes have happened on Orkney which has led to wider innovation.

We need to scale up the innovations tested there. However, it's taking too long and people are getting frustrated. Suggestions:

- Regulation and policy. New methods of electricity production need to be linked to the grid. Production of electricity should be decentralised.
- Finance. We have huge amounts of money available in UK, but it's locked up in pensions, with not enough going to infrastructure. A lot of pension reforms that we've seen switched from long-term to defined contribution, which is great for transparency and personal choice but investment horizons have essentially shrunk.

The key to unlocking and scaling finance for innovation projects is longer-duration returns and having the right investment incentives. We also need to consider the broader moral implications of how we invest.

## **Daisy Narayanan, Head of Placemaking and Mobility, City of Edinburgh Council**

The case for change globally, nationally and in Edinburgh is compelling! Through a transport planning lens – transport is a massive emitter.

Goal as head of mobility & Place Making is to join the dots between different departments, communities and silos.

People spend around 1.3 billion on transport, which is more than mortgages or rent in total. This falls disproportionately on people with a lower income. Edinburgh is a wealthy city with some low-income communities, so we need to get our investment to where it is needed most. Our climate strategy and mobility plan call for:

- Re-examining our investments within the city through a new lens of place, and a systems change approach
- Prioritising the most vulnerable people in our planning
- Reflecting the sustainable transport hierarchy by enabling more short journeys via active travel
- 20-minute neighbourhoods
- A city where everyone can access all areas easily.

When we talk about difficult decisions that need to be made, often in our strategies our good intentions and positive visions get lost. We need to bring people together. We need to keep the positive vision and highlight joy that we can create, for example through the role of artwork and storytelling in placemaking.

True collaboration is messy. It requires a great deal of trust-building between communities, local authorities and delivery partners. Ultimately there are many players in change and bringing them together in a truly inclusive way is difficult but essential.

Climate change is a personal story for me, having grown up in Kerala. We used to swim in the river, which is now too polluted, and due to extreme rainfall it has burst its banks a number of times. My family have had to be evacuated. I feel privileged to be here, working on these problems.

## **Co-Lab Discussion**

### **Biodiversity**

Regarding biodiversity and rewilding there has been much talk about estates – but there is also a role for council land, and the biodiversity action plans which the local authorities have in place. Private investment can support these.

Biodiversity action plans have a role in generating safe and enjoyable spaces, which is linked to active travel strategies, public health and public safety goals too.

#### Death By Dialogue

There has been an emphasis from panel on collaboration and conversation. We have many frameworks and promises but we're falling behind. There is a concern that we are suffering from death by dialogue, and a need to get from talking to action. In fact, this is the same situation in global multilateral conversations.

We need to be focusing on specific problems and actions. The more general the terms of conversation the less feasible the action. Sessions like this are great for raising ambition and figuring out what needs to be done. The next steps should be to go and identify specific projects, in one community, one city, one area. The Climate Co-Lab has enabled this type of action in the past – for example with the investment into rewilding Scotland which Hampden & Co and NatureScot collaborated on. What concrete actions could the participants in this Co-Lab pick up as a result of the discussion? All stakeholders here wish to enable real change so let's ensure some collaboration happens as we move forward.

Concrete transition plans and tangible actions are needed for businesses. However, these can be difficult without a framework or guidelines from policy makers.

So, businesses are now realizing the need to engage with policymakers. Policymakers welcome this interaction and want to help make the policy landscape more conducive to this engagement.

#### Nature and Decarbonisation

Tension identified between investing in nature as a carbon sink, and investing in reducing active emissions. Concerns about carbon credits being purchased to draw down emissions but the purchasers not actively making changes to decarbonize their operations. In reality, we need to have both. Investment in Natural Capital needs to follow guiding principles – when we're looking at investors in natural capital we also want to see behavioural and technical solutions – the Woodland Carbon Code has been invented to promote best practice.

When it comes to investment in natural capital – the word 'investment' is wrong. The mechanism happens to be money – but it is an outcomes-based programme. People spending the money want to do the right thing.

#### Collaboration In Investment

Academia, business and the public sector don't adequately teach people how to collaborate and work toward a common goal. It is messy – an entire city coming together. Models of collaborative investment could help streamline this.

The ability to invest in smaller-scale projects would support this goal too.

Public engagement is important. Change needs to happen on the ground and in the communities. These conversations need to happen everywhere, not just the rooms we are in – in schools and communities too – and they are happening!

Enabling participation in civic society is critical to empowering communities to come a long with local action plans. Local influencers, and positive stories which cut through the complexity, are critical.

Ultimately bottom-up change may be effective as we cannot wait for top-down.

One good idea that any organisation present do, is seek partners to do small bits of research £20k or so, which helps to find solutions that they can develop.

As we work toward the vision for 2045 – everyone knows that we have done the easy options, and may be put off by the difficulty of the challenge that lies ahead. A new book, It's Not That Radical by Mikaela Loach, is optimistic and visionary.

Are these conversations happening in the private sector in terms of what things look like; There are global companies bigger than governments. Do their visions match up? What is a useful role in government in getting this happen?

Some large financial organisations are working with both academics and businesses they work with, to see if their plans will work. The view of more and more financiers is that if you aren't considering your transition plans, then your business model will not work and you will not be viable. Some consideration needed around how the government can ensure this is happening.

#### Businesses at the beginning of dialogue

In our own organisations, how do we retain memory of what barriers we are facing; how do we use others' solutions to figure out our own? Events like this help bring you into contact with others who you may not usually speak to and break out of echo chambers.

Businesses see other issues as being more pressing than climate. This goes back to Patricia Espinosa's point about making Climate the most pressing issue. Of SMEs surveyed recently, 68% said they wouldn't pay for the support that they need. So, much more help is needed for the 99% of businesses who are SMEs.

#### The role of Oil and Gas

There has not yet been a serious global conversation on the role of the oil and gas sector in the energy transition. We lack transparency. The whole function of the world economy is to blame, but we need a plan.

This year the conference will be held in The United Arab Emirates. We need oil and gas companies to come forward and say that they will dedicate 1% of their profits to the loss and damage fund. It would be assuming responsibility. This would be a very important movement towards collaboration, also overcoming the ideological divide on energy transition and security in an honest manner.

## Key take-home messages

- Keep empathy at the forefront of mind
- Public engagement – look out and amplify the voices of a few more people at the calibre of Greta Thunberg, to widen the movement
- Learn more about the actions that businesses are taking on the ground
- Re-enforce collaboration in the dialogue

## Delegate List

Name		Job Title	Organisation
Diego	Arguedas-Ortiz	Network Manager Associate Director – Sustainability, Carbon and Climate & Edinburgh Office Director	Oxford Climate Journalism Network
Paul	Bekkers		Arcadis
Hermione	Cockburn	Scientific Director	Dynamic Earth
Caroline Amb.	Cook Espinosa	Head of Climate Founding Partner & CEO; Former UNFCCC Executive Secretary	Baillie Gifford
Patricia	Cantellano		onepoint5
Laura	Fleming	CEO	Hitachi Energy
Simon	Gage	CEO	Edinburgh Science
Lisa	Gillespie	Principal Consultant	Wood Mackenzie
Sara	Grainger	Team Leader Low Carbon Transport	Transport Scotland
Gina	Hanrahan	Head of Policy and Advocacy	WWF
Kelly	Harwood	Net Zero Team	Highlands & Islands Enterprise

Alan	Hendry	Director of Sustainability	Mott MacDonald
Stuart	Jones	Commercial Director	Lumo
Valentina	Kretzschmar	Energy Transition Director	Capricorn Energy
Stephanie	Maia	Communications Officer	Edinburgh Science
Ross	Martin	Advisor on Regional Economies	ScotIncGrowth
Ieva	Matiukaite	Development Coordinator	Edinburgh Science
Liz	McAreavy	CEO	Edinburgh Chamber of Commerce
Rebecca	McLean	Head of Sustainability, Energy, Water & Environment	Sweco
Sarah	Middlemiss	Head of Space	Ecometrica
Susana	Montero	Executive Assistant to Ambassador Espinosa	onepoint5
Daisy	Naryanan	Head of Placemaking and Mobility	City of Edinburgh Council
James	Oliver	Group Marketing Director	Hampden Group
Francesca	Osowska	CEO	NatureScot
Elena	Oyon	Climate & Sustainability Specialist	Deloitte
Angela	Pllu	Environment & Sustainability Manager	Balfour Beatty
Maria	Rivera Espinosa	Director of Partnerships and Founding Team	onepoint5
Keith	Robertson	Head of Sustainability Senior Manager, Accelerator Projects, Low Carbon Economy	Arup
Anelise	Rosa		Transport Scotland
Hannah	Schlesinger	Director of Development & Marketing	Edinburgh Science
Freya	Stanley-Price	Head of Communications, Climate Program	World Resources Institute
Emily	Stone	Climate & Sustainability Manager	Edinburgh Science
Sophie	Tolley	Strategic Policy Advisor	Scottish Government
Amanda	Tyndall	Creative & Festival Director	Edinburgh Science

## 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 Climate Co-Lab Series

Edinburgh Science's Climate Co-Lab is a series of round table events which bring together senior leaders from various business sectors; government; charity; academia and beyond to foster ideas and inspiration to help them grasp the opportunities presented by the climate emergency. Many of the leaders that we convene might not usually find themselves in the same room as one another and as such the round tables prove invaluable for making new connections and seeding new partnerships.

Following two or three powerful provocations from subject-matter experts, participants are all invited to have their input into a round-table discussion. Each event is chaired by an inspiring leader who ensures that delegates put their ideas on the table, and dynamically steers the conversation toward a beneficial conclusion rounding off with a few possible action points. The Co-Lab also provides ample networking opportunities, helping to catalyse the net zero transition through inspiring and connecting the people who can deliver it.

Edinburgh Science began delivering these events in April 2019 after awarding the prestigious Edinburgh Medal to Ms Christiana Figueres - the acclaimed 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 opportunity that presented itself for positive change.

This optimistic ethos is what has driven these events ever since with delegates finding immense value in them, due to the diverse invite list and facilitated discussion format.

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

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