

Note of proceedings: Research futures within the green economy sector for climate action

August 2024

As a Centre of Expertise for the Scottish Government, ClimateXChange (CXC) undertake horizon scanning activities with academics and the wider research community across Scotland, across a range of climate related topics. To date, this has been done primarily through small engagements via contracted projects, project managers participating in relevant fora and knowledge exchange with relevant policymakers.

CXC has decided to trial alternative approaches to thematic horizon scanning, including 'ignite' workshops such as the one that took place in May 2024 on the theme of a Green Economy.

1 Workshop aim and scope

CXC led a thematic ignite workshop called 'Research futures within the green economy sector for climate action' on 21 May 2024.

The theme has been selected for three reasons:

1. It is a key area of policy development and implementation for the Scottish Government
2. It is an emerging area of understanding and research
3. CXC has commissioned a range of projects that align with this theme.

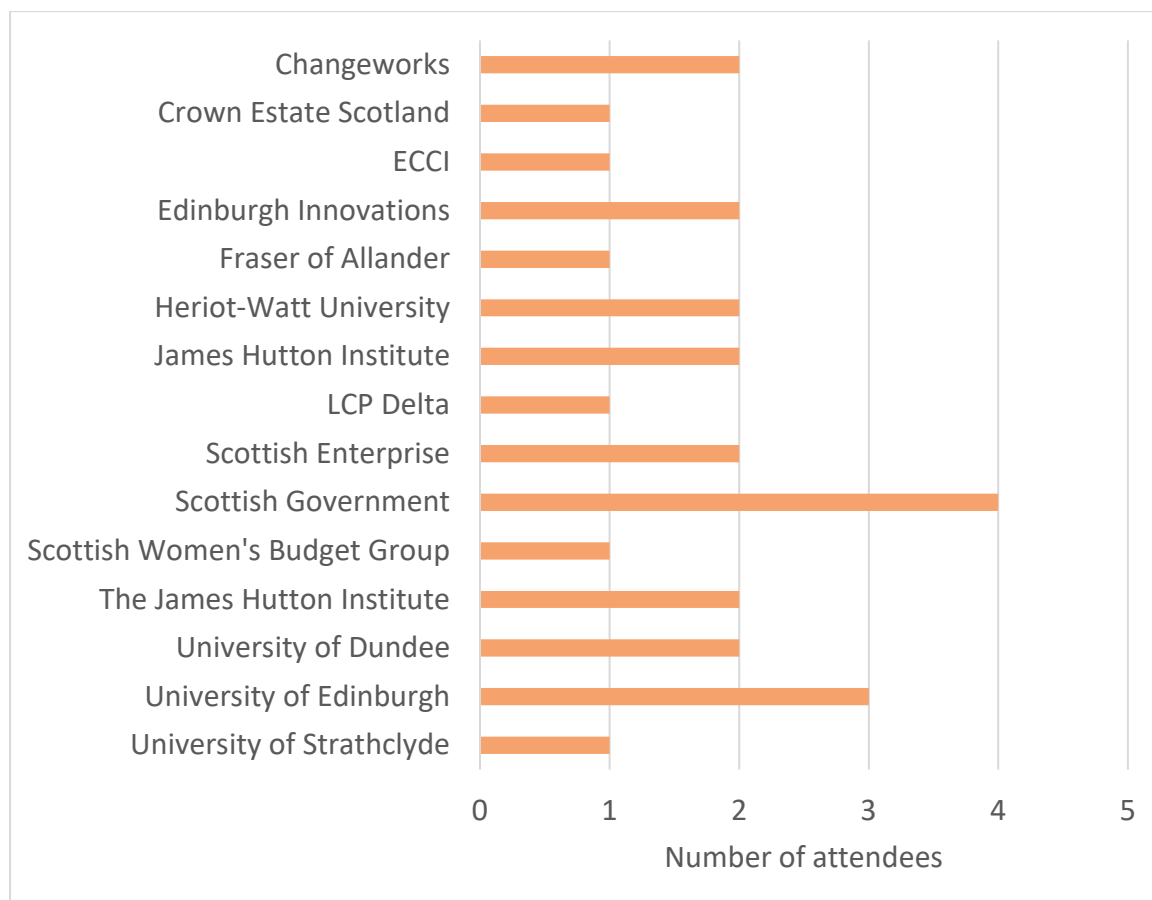
The aims of the event were to engage with the research community on the theme of Green Economy to identify current and future research needs that can feed policy gaps. Asking key questions relating to:

- What does the Green Economy look like for Scotland?
- What are the key priorities for driving forward a Green Economy?
- What are the challenges/threats to science to policy engagement for Green Economy?

The event was designed with brainstorming in mind and outputs reflect this approach, with ideas ranging from broad concepts to specific recommendations.

2 Workshop participants

Twenty-seven participants attended online or in person, of which 56% were from universities, 26% were from the Scottish Government or agencies, and 19% from the private sector or other institutions¹. The following organisations were represented, in alphabetical order:



Attendants were randomly divided into groups of six to eight people to facilitate discussion. Representatives of the Scottish Government, Scottish Enterprise and academia gave conversation starter presentations.

3 Discussion summary: what does the Green Economy look like for Scotland?

The concept of Green Economy was subject to considerable debate. Some participants rejected the term outright, others suggested that the term should include the concept of wellbeing. In several other groups, participants suggested that the whole economy should be green, some also noting that many sectors that are not directly linked to environmental targets have a significant role to play in the transition.

Beyond this, the conversation invariably centred around what the Green Economy ‘should’ look like in Scotland, specifically that it should:

¹ A number of researchers interested in the event had to unfortunately decline due to a clash with the inauguration event of the Strathclyde Institute for Sustainable Communities.

- entail a systems' thinking approach
- entail complex and transdisciplinary ways of thinking
- entail a doughnut economics approach that includes an understanding of planetary boundaries
- attribute the true value to skills, labour, materials and products
- address material resource consumption (multiple references – m.r.) and extraction
- lead to a more efficient use of resources
- shift away from focus on financial flows and economic growth
- be just (m.r.)
- transition away from existing 'unsustainable' jobs and provide for reskilling
- provide opportunities for research and exports
- include SMEs in the supply chain
- build resilience of businesses in regions where fossil fuel is currently important
- focus on wellbeing (m.r.) with metrics for 'live long and well'
- lead to investment in social infrastructure
- build trust and focus on collaboration over competition
- focus on the wider community, not only workers
- entail education
- entail information provision, including to consumers on the impacts of consumption
- entail adaptation.

Specific issues were also discussed, e.g.:

1. Choices regarding cheap wind power in Scotland:
 - export to England
 - export to Europe
 - create energy intensive industry in Scotland, e.g. data centres, which would benefit from cheap electricity.
2. The transition will require a massive scale-up across different sectors. There are concerns around the need to ramp up activity in many sectors for a short period of time, causing a steep economic growth and degrowth² in those sectors and potential wider consequences around it, if the scale-up proves achievable.
3. A Green Economy should include nationalised energy company.
4. Energy transition should not be at the cost of biodiversity and climate (example of Energy Transition Zone in Aberdeen).

Participants mentioned the following challenges with the implementation of their vision of a Green Economy in Scotland:

- The Scottish economy is intertwined with the oil and gas sector.
- The decision-making levers in Scotland are limited to those aspects that are devolved.
- The uncertainty around what the future might look like causes insufficient momentum, e.g. in relation to skills development. Changes in skillsets are needed in a wider range of sectors.

² Not to be confused with typical economic cycle tendencies.

- Scotland's economy has many small businesses and many large businesses, but very few medium sized enterprises, where most of the innovation occurs.
- Lack of acceptance of green policies by the public can lead to negative and rebound effects.
- There are data challenges around measuring the wellbeing economy.
- A Green Economy requires community engagement and buy-in.
- The current approach is fragmented.

4 Discussion summary: what are the key priorities for driving towards a Green Economy?

Some groups were asked to consider short term issues whereas others focused on long-term issues.

4.1 In the short term

In terms of framing, some participants suggested that, in relation to climate change, the short term is the long term.

Some participants mentioned the creation of a new vision, radical change and a reconfiguration of lifestyles.

Multiple participants suggested that the short term should entail planning for the long term and agreeing on a pathway, with details around the need for:

- clarity around green finance (m.r.)
- clarity regarding technology choices, e.g. the use of hydrogen for domestic heating
- agreed methodologies for deciding on policies
- consistent and comparable evidence for alternative pathways.

Groups had various suggestions regarding public engagement:

- There is a need for improved public understanding about the climate crisis and the transition.
- There is a need for public debate. Politicians need a public mandate for action.
- Actions need to be led by social goals not climate per se
- Local policymakers, businesses, education, charities need to collaborate for localised change.

At a sectoral level, participants suggested a focus on the decarbonisation of transport and on the role of housing in both, decarbonisation and adaptation, with notes on heating, cooling and responses to heavier rainfall. In relation to housing, participants mentioned behaviour change and practices around e.g. shutters, gutters etc. , the need to understand what support, advice and information people need to retrofit their homes.

Specific recommendations included:

- invest in energy efficiency
- fund the scaling of innovative technology, e.g. hydrogen or battery storage

- provide tax breaks on circular services, e.g. repair, second hand and increase tax on new products
- ban the imports of fast fashion and fast technology
- amplify and incentivise weak signals of positive changes
- fund community action and social enterprises
- increase the price of carbon, expand emissions trading to agriculture
- ask companies to commit to creating Scottish jobs as is currently done in the offshore wind sector
- build adaptive expertise in society
- depoliticise energy, e.g. as in Denmark.

With regards to data and communications, participants mentioned the need to fill data gaps (m.r.), e.g. adjust measurements such as the standardised industry classification codes³ to allow the measurement of progress, as well as the need to avoid greenwashing. Where positive action is taking place, this needs to be communicated widely.

4.2 In the long term

The groups that were asked to discuss the longer term, i.e. the period five to twenty years from now, resonated some of the priorities discussed by the short-term groups, such as the need for whole systems change, the focus on energy efficiency, heating systems, the need to build the public knowledge about climate change, the need for stricter policies, e.g. in relation to carbon taxes. One of the groups mirrored the concerns around the ability of Scottish policymakers to apply levers, given the limitations of the devolved settlement, e.g. in relation to fiscal powers.

Mentions of the need to develop suitable infrastructure and focus on skills mirrored the discussion regarding the definition of a Green Economy.

Further suggestions included:

- a focus on low-income households, poverty alleviation and the affordability of transition measures
- a focus on reducing inequality, including through investment in equality and wellbeing improvements
- adoption of long-term thinking for skills, including mobile and flexible workforce requirements
- restructuring the education system, especially higher education
- breaking out of silos thinking
- developing a land economy that goes beyond forestry
- improve energy security
- developing a grid that is suitable for electrified transport
- consider a decreasing population and the need to invest in health and care
- a focus on a circular economy
- improve accountability and transparency of companies

³ However, there was an acceptance that industrial and activity codes are decided upon internationally through UN systems due to the need to standardise trade, investment and research.

- implement new forms of public finance and borrowing
- longer term planning of energy projects to create a pipeline of ongoing work.

The participants raised the question of how to get into longer term political thinking.

5 Discussion summary: what are the challenges / threats to science and policy engagement for Green Economy?

A few themes emerged as part of this session. At a high level, participants referred to the receptiveness of policymakers, including:

- openness of top-level decision makers and access to them (m.r.)
- siloed policymaking affects the effectiveness of interdisciplinary research (m.r.)

The following general structural barriers that apply to the engagement between research and policymaking were mentioned:

- timescales for policymaking are short and not well aligned the time needed for academic research
- research / policy interface is not always built into researchers' workplan
- working on policy tenders is not always valued for academics
- different financing approaches to research, e.g. funding from the private sector
- different motivations: academics seek achievements that relate to the REF⁴ and consultants seek a profit margin, industry insights come with a self-interested agenda.

Various groups referred to different ways of thinking in policy and research organisations, barriers listed were:

- lack of common knowledge/language
- academics' training to translate their research into impact
- research needs to be more accessible
- research is very specific, whereas policymakers need to join the dots and think more broadly about how research applies to the real world
- mismatch between academic and applied outputs
- framing of the questions asked.

There were numerous references to insufficient consideration of social acceptability and insufficient inclusion of social science specialists. Participants suggested that research and policy are too focused on targets and not grounded in reality.

Further specific barriers included:

- being overly focused on quantitative evidence to drive decisions

⁴ Research Excellence Framework: www.ref.ac.uk

- being overly focused on energy and technology approaches
- lack of data or 'good' data
- a focus on national questions rather than global systems.

6 Conclusion

The workshop had a strong academic presence and raised numerous challenges and opportunities for knowledge exchange, future research and policy directions for those working in the broad area of the Green Economy.

Participants largely agreed a need for clarity regarding climate finance, decision making processes as well as meaningful engagement with the public. More specific recommendations across a number of sectors demonstrated that there provided an opportunity to see common challenges across biodiversity, adaptation and energy transitions.

Common challenges emerged such as public engagement, accountability, data challenges around measuring the wellbeing economy, skills development and building sustainable businesses.

CXC will continue to develop and refine the facilitation of research horizon scanning throughout its programme. For suggestions of future themes or events please contact info@climatexchange.org.uk

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