

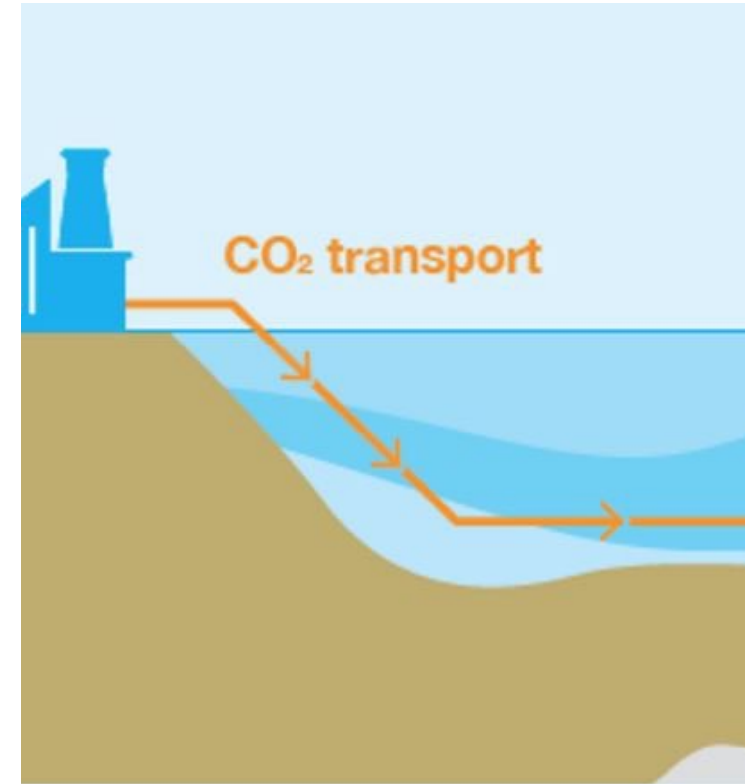
Societal considerations for CCS – a Just Transition?

Prof. Tavis Potts

Just Transitions Lab
University of Aberdeen



www.abdn.ac.uk/jtl





Conclusion

Just transition has 3 pillars – jobs/skills, community revitalisation and empowerment. All 3 will need to be addressed simultaneously.

While CCS development is at an early stage it has potential to contribute to employment growth and be part of Net Zero portfolio.

There is substantial further work to be done on the community revitalisation linking CCS to local economies and community wealth building.

Gaining social licence is a critical step in CCS and can undermine, support or slow future initiatives.

UK Drivers in Net Zero

Electrical generation capacity from x2 to x4

Offshore wind 50GW by 2030 (currently 10GW UK and 1 GW in Scotland)

CCS: 20-30 Mt CO2 by 2030 in 4 clusters

Afforestation 30,000ha per annum

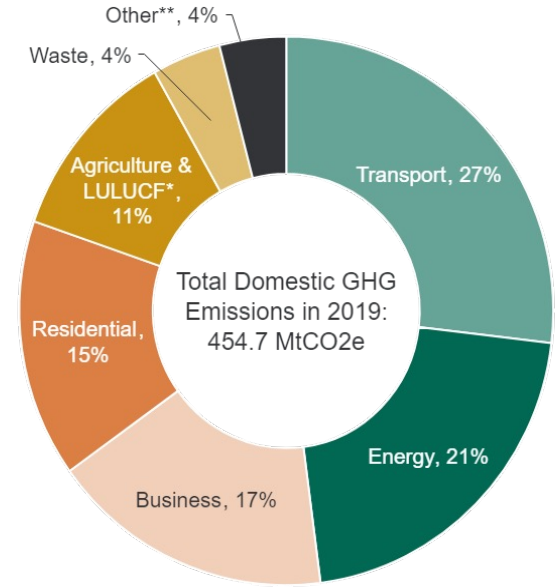
29 Million existing homes installed with low carbon heat

Zero carbon cars: 23 million by 2032

10GW Hydrogen production capacity 2030

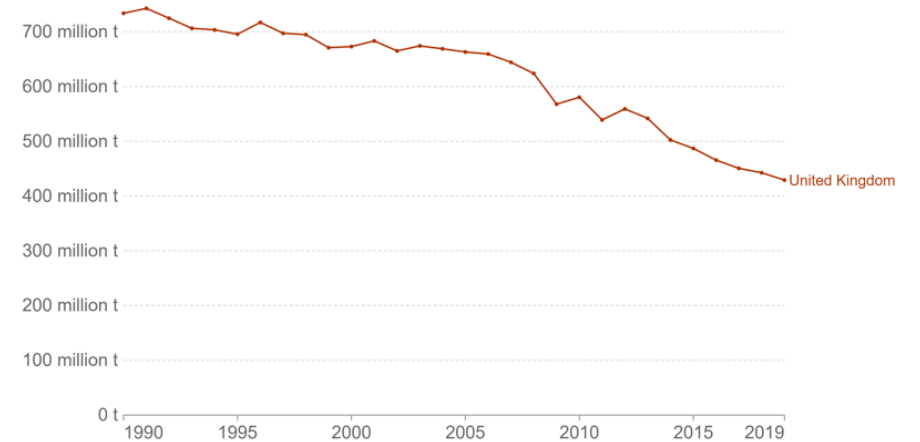
Major societal and structural changes in use of energy, housing, transport & mobility, diet social behaviours.

Just Transition of workers in current employment and energy justice in communities



Total greenhouse gas emissions

Emissions are measured in carbon dioxide equivalents (CO2eq). This means non-CO2 gases are weighted by the amount of warming they cause over a 100-year timescale. Emissions from land use change – which can be positive or negative – are taken into account.



Source: Our World in Data based on Climate Analysis Indicators Tool (CAIT).
 Note: Greenhouse gases are weighted by their global warming potential value (GWP100). GWP100 measures the relative warming impact of one molecule of a greenhouse gas, relative to carbon dioxide, over 100 years.
 OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

The benefits of transition are fairly distributed across society and the impacts do not fall upon those with the least ability to pay or adapt

A Just Transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.

JustTransition

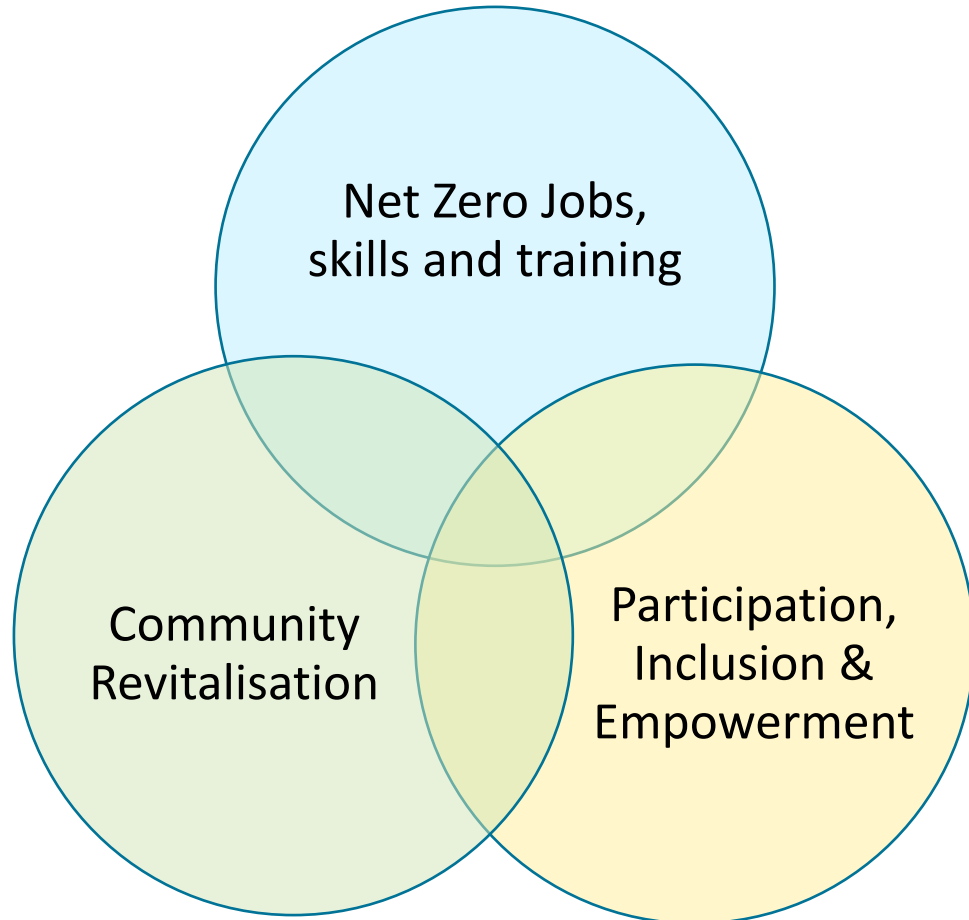
The process of change to Net Zero is fair, equal, inclusive and open.

Job creation per se does not deliver 'just' outcomes

If the process of transition is not just, the outcome will never be....Climate Justice Alliance (US).



Just Transition and the context of CCUS



Building & Training the Workforce

- Diversification of Net Zero industries – CCS across the supply chain; economics, planning & business case for CCUS; investments.
- Skills – removing obstacles for qualifications; mapping pathways; skills bottlenecks and competition.
- Equality, diversity and accessibility in the workforce.

Community Wealth Building

- Community wealth – investment in communities, local supply chains, fair employment – how does CCS contribute?
- Addressing fuel poverty, marginalisation & disadvantage.
- Integration of climate, biodiversity and wellbeing (economic & social).

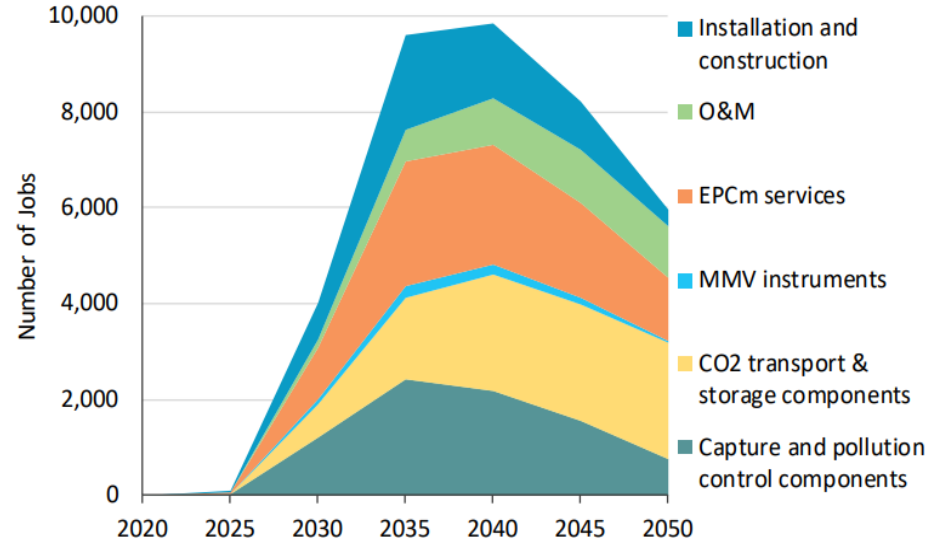
Who is at the 'table' with CCUS development

- Gaining a social licence to operate?
- Empowering voices – citizen assemblies, deliberative actions
- From consultation to genuine partnership
- Local & traditional knowledge
- Representation in planning

Growth of UK CCUS exports could support £4.3 billion in GVA and 48,000 jobs per annum by 2050.

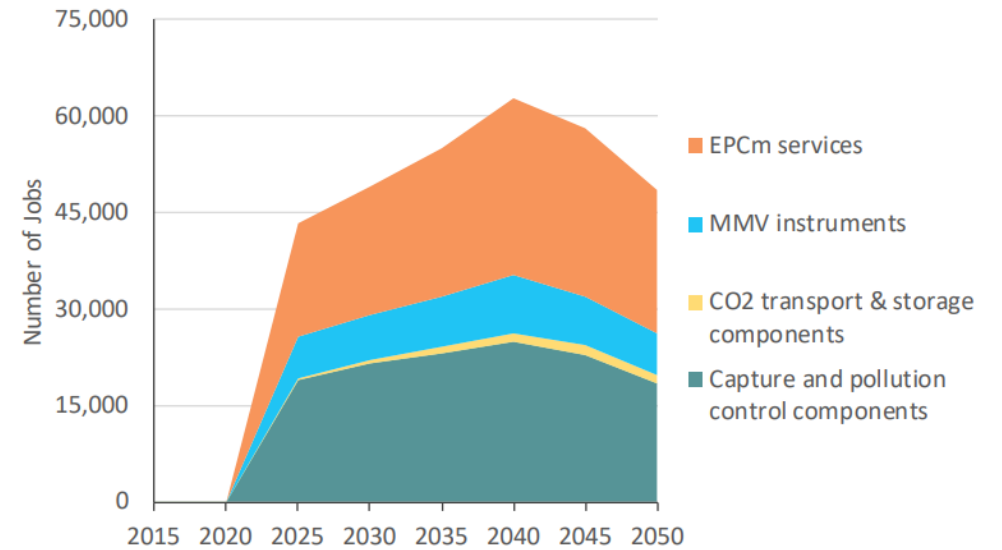
UK exports are likely greatest in the 2040s, as the rate of power and industry CCUS deployment increases to meet climate targets, adding £5.1 billion in GVA and supporting around 62,700 jobs per annum

Figure 9 Jobs supported from domestic markets by component – CCUS



Source: Vivid Economics

Figure 5 Jobs supported from export markets by component – CCUS



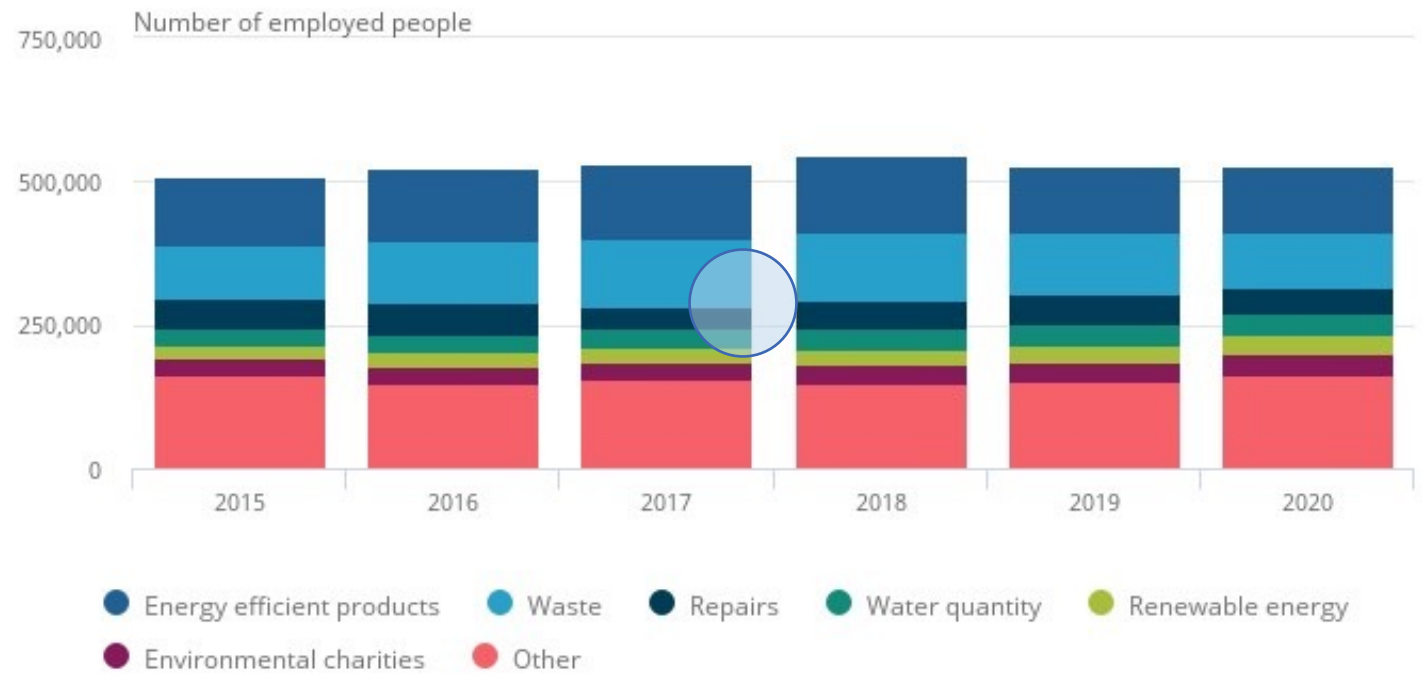
Source: Vivid Economics

BEIS 2019 Energy Innovation Needs Assessment: CCUS

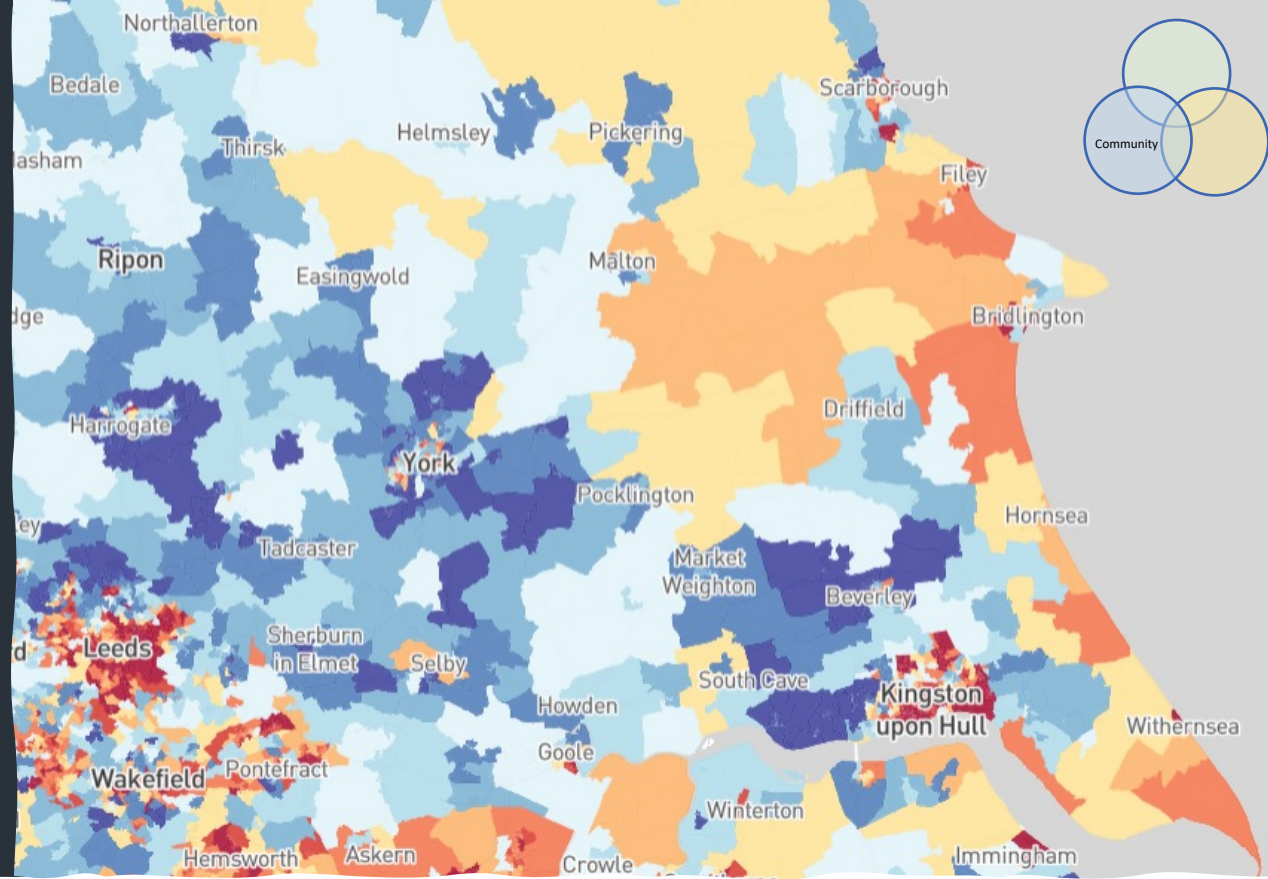
Export opportunities are considerably larger given the growth of CCUS in the rest of the world to 2050, particularly in the United States and Asia. This is driven by the UK's ability to capture a modest share of the substantial global market for EPCm services and capture and pollution control components.

Figure 1: Employment in green industries

Employment, full time equivalent, in green industries for top five activities and "other", UK: 2015 to 2020



Source: Office for National Statistics



Just transitions in skills

- “Access to jobs and training associated with net zero will likely remain skewed towards certain socio-economic groups, unless this issue is proactively addressed.
- Critical sectors of the economy are male dominated, with under-representation of women and ethnic minorities.
- Additionally, those in lower skilled, low income or unstable employment are less likely to have the funding, information or flexibility to take advantage of new training opportunities.”
- - CESAP 2020

Community Participation for a Just Transition in the North-East of Scotland



Community
revitalisation

- Community ownership of infrastructure, assets, land – Comm. Wealth creation.
- Capacity building – from volunteers to paid employment, civic –private partnerships.
- Decentralisation of the energy system – owning the infrastructure.



Net Zero Jobs & Skills

- Build upon O&G skills, capacities and knowledge
- Diversify into broad range of Net Zero industries e.g, homes, food, transport, local energy
- Diversify skills and make training accessible within and without energy industry



Fuel Poverty

- Smart local energy systems & public infrastructure for energy.
- Expand Heat networks – with social consent - and move away from gas CHP.
- Prioritise energy efficiency, local energy, prosumers, storage, new financial models.



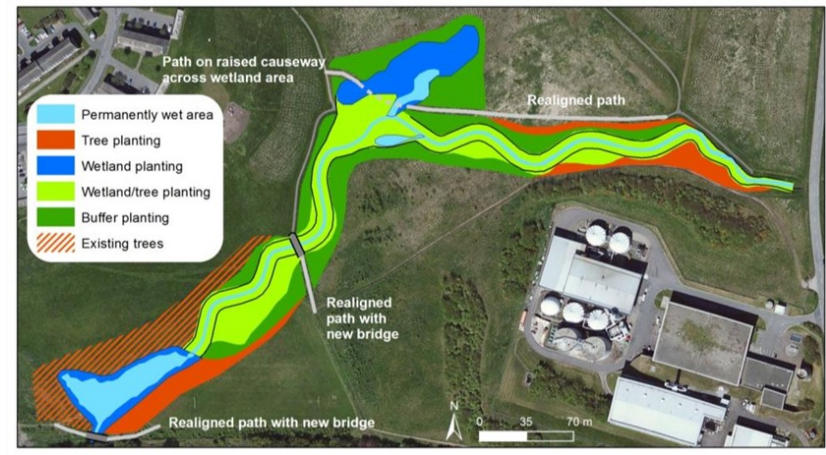
Greenspace

- Recognition that Green Space supports wellbeing, resilience & adaptation (esp. Green Space in urban areas) not to be traded off.
- No sacrifice zones, use existing brownfield & industrial sites.
- Use Green Space to advance social, health and local energy innovation while protecting biodiversity.



Participation &
Empowerment

- Reform local decision making with inclusive approaches that represent all interests. Include marginalised voices. E.g. Climate Assemblies
- Clear Net Zero vision for the NE – deal with fractured governance and competition.
- Empower communities, not passively 'consult' on JT.



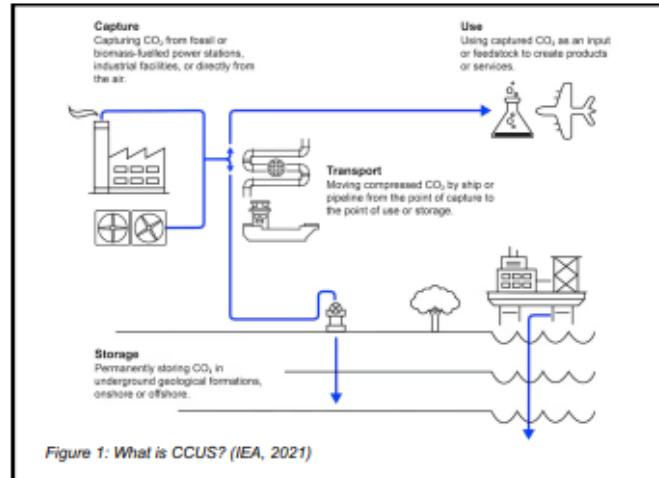
Understanding Social Values on Low Carbon Sub-Surface Technologies in the UK and Australia



Aya El Samad

BACKGROUND

- Since the Paris Agreement was signed in 2015, greenhouse gas-emitting countries around the world have been speeding to set climate targets.
- Many countries including the UK and Australia have committed to net zero by 2050.
- The net zero strategies are reliant on the utilization of different low-carbon sub-surface technologies as prominent mitigation methods including Carbon Capture, Utilisation and Storage (CCUS).
- CCUS has many challenges one of which is the acceptability by different stakeholders, which can impact project deployment.
- This research project aims to map the level of public understanding and social acceptance of CCUS in the UK and Australia, specifically in North East of Scotland and Western Australia.



THEORETICAL FRAMEWORK - SOCIAL ACCEPTANCE & SOCIAL LICENCE TO OPERATE (SLO)



RESEARCH OBJECTIVES

- Investigate the differences and similarities of CCUS mitigation strategies between the UK and Australia.
- Investigate the social perceptions of CCUS in the chosen case studies and the effect these perceptions have on CCUS uptake and gaining a social license to operate.
- Evaluate the utility of Q-methodology as a useful tool for research on CCUS perceptions.
- Investigate and examine the difference and similarities in perceptions across the UK and Australia and how improving engagement strategies and understanding local dynamics can help achieve national climate and energy goals.

Just Transition for Workers and Communities in Aberdeen and Aberdeenshire: Rapid Evidence Review

Thankyou!

Tavis.Potts@abdn.ac.uk

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Just Transition Lab presents work on measuring just transition in the north-east

15 November 2023

The University of Aberdeen's Just Transition Lab has presented the findings of its multi-disciplinary investigation 'Just Transition for Workers and Communities in Aberdeen and Aberdeenshire: Indicators and Scenarios'.

The purpose of the event on 13 November was to provide an in-depth presentation of the Lab's findings while hearing from stakeholders within the Government, private sector and local groups.

The feedback provided from these groups gave great insight into the benefits of the report and helped identify points of improvement for the Just Transition Lab to investigate further.



The event provided an in-depth presentation of the findings while hearing back from stakeholders