Business Journeys to Net Zero

Challenges, Innovations, and Insights from Across the Business Ecosystem

Introduction

On 14th November 2024, the Productivity Institute Scotland Forum held a roundtable discussion at the University of Glasgow to examine the role of businesses in achieving net zero. This event, part of a broader national conversation on productivity and sustainability, brought together leaders from academia, the private sector, and civil society to explore how Scotland's businesses can navigate the transition to a low-carbon economy in ways that are economically viable, socially inclusive, and environmentally sound.

The discussion was rooted in the recognition that the journey to net zero is not merely a matter of environmental stewardship, but also a pressing economic and social priority. While there is growing consensus around the importance of decarbonisation, the paths taken by businesses vary widely depending on sector, size, geography, and access to resources. The roundtable offered a space to reflect on the key barriers, enabling conditions, and innovative practices emerging across Scotland's diverse business landscape.

This briefing paper highlights the insights shared during the session and presents policy-relevant reflections to support a more strategic, inclusive, and evidence-based approach to enabling business-led climate action.

Diverse Pathways to Net Zero

A recurring theme throughout the discussion was the diversity of business experiences in responding to the climate challenge. While many organisations share a commitment to reducing their carbon footprint, the degree of progress varies considerably. Some larger businesses, particularly those operating in infrastructure and utilities, have already embedded environmental sustainability into their corporate strategy. In contrast, small and medium-sized enterprises often face difficulties in accessing the financial, regulatory, and technical support required to adopt low-carbon innovations at scale.

Participants also noted that start-ups and early-stage ventures play an essential role in driving new ideas and technologies, but often lack the long-term certainty needed to scale their efforts. The absence of clear policy signals and sustained funding creates an environment of fragmentation, where innovation is encouraged but not always supported to maturity. Moreover, the place-based nature of decarbonisation efforts means that what works in one locality may not be viable in another. Bridging the gap between grassroots innovation and national policy goals emerged as a critical priority.

Opening the event, Professor Bridgette Wessels (Scotland Lead for the Productivity Institute) introduced a broader understanding of productivity—one that moves beyond traditional efficiency measures to embrace a six-capitals framework. Within this, natural capital and environmental responsibility are considered integral to long-term prosperity. She emphasised the importance of bringing together academic research, lived business experience, and community knowledge to shape policy interventions that are grounded, impactful, and inclusive.

Media Discourse and Misinformation

One of the most compelling contributions came from Dr Luis Donado, who explored the role of media discourse and misinformation in shaping public attitudes towards climate policy. He described how misinformation, often fuelled by well-organised global networks, has become a significant obstacle to effective climate action. While outright denial of climate change has declined, more subtle forms of narrative delay are increasingly used to undermine policy support.

These delay strategies typically acknowledge the existence of climate change but question the effectiveness or affordability of proposed solutions. Dr Donado described how this narrative shift has moved the debate away from scientific consensus and towards politicised discussions of individual freedoms, economic risks, and cultural identity. In particular, he highlighted how certain groups have exploited legitimate public concerns—such as the cost of upgrading vehicles or heating systems—to sow distrust and slow the pace of change.

The discussion acknowledged that misinformation rarely acts alone but rather amplifies existing anxieties. Rebuilding trust, therefore, requires a multi-layered approach. While fact-checking and media literacy programmes have a role to play, the most durable solutions lie in addressing the underlying concerns—ensuring, for example, that the costs of transition do not fall disproportionately on the most vulnerable. There was also recognition that the decline of local journalism has weakened community trust and left an information vacuum that can be exploited by polarised national narratives. Supporting trusted local media and community dialogue was seen as essential to building a more informed and resilient public.

Infrastructure, Energy Systems, and Collective Action

Professor David Flynn offered a systems-level perspective on the UK's energy infrastructure, highlighting the urgent need for integration across traditionally siloed networks—electricity, gas, water, and transport. He described the energy transition as a complex challenge in which technical innovation must be balanced with social equity and economic stability. Drawing on his roles with major energy network boards, Flynn painted a picture of a system that is technically advanced yet procedurally delayed, with grid connection processes sometimes taking up to a decade.

He underscored that significant volumes of renewable energy are being curtailed each year—paid for but never used—due to mismatches between generation and demand. The resulting waste amounts to billions in public spending, all while communities continue to face high energy bills. Flynn argued for a new paradigm of energy citizenship, in which local communities are not only consumers of energy but active participants in its governance. He advocated for local energy markets, community batteries, and decentralised infrastructure models that allow for more equitable distribution and resilience.

The discussion also drew attention to international comparisons. Flynn noted that countries investing in coordinated, whole-systems infrastructure are beginning to reap the rewards in manufacturing competitiveness and energy affordability. In contrast, the UK's fragmented regulatory landscape continues to limit progress. Participants agreed that unlocking the full potential of the energy transition will require a fundamental rethinking of how networks are planned, governed, and regulated—one that centres people and places as much as technologies.

Sectoral Perspectives and Case Studies

Michelle Bligh, Sustainability Manager at Balfour Beatty, provided a construction-sector perspective on aligning sustainability with operations. The company has adopted an integrated framework that combines environmental targets with a clear focus on social value and ethical procurement. Since launching a dedicated sustainability function in 2020, Balfour Beatty has revised its carbon targets to ensure credibility and transparency, while embedding modern slavery audits and community engagement into its supply chain practices.

Bligh highlighted the firm's deployment of energy management systems, which have delivered substantial energy savings on construction sites. However, she also identified practical limitations—particularly around grid access, site conditions, and the scalability of alternative fuels such as HVO. While the company has chosen not to use HVO fuels unless mandated, it continues to trial hydrogen retrofits and electric plant technologies where feasible.

From the innovation ecosystem, Alex Reid described the challenges faced by Scottish start-ups working in transport and logistics. Many, he argued, are forced to relocate due to regulatory uncertainty and inconsistent support. Despite Scotland's strong performance in early-stage funding and research, the absence of long-term continuity means that promising innovations often struggle to reach commercial maturity. He called for greater coherence in the innovation landscape, with more effective collaboration between academia, government, and industry.

A powerful rural example was offered by Alec Tait, a fourth-generation farmer who has transformed his family's operations through renewable energy and circular economy practices. Faced with steep energy costs and grid capacity constraints, Tait invested in a biomass combined heat and power system that now supplies nearly all the farm's electricity and hot water needs. He stressed the importance of starting with simple, low-cost efficiency measures, such as reducing air leaks and upgrading insulation. For Tait, financial viability was the key enabler—environmental benefits followed as a natural outcome of good business decisions. He also described efforts to reinvest in the local community, including proposals for a district heating system powered by abandoned coal mines.

Shared Challenges and Strategic Considerations

Across sectors, several common challenges emerged. Infrastructure and permitting delays continue to obstruct the roll-out of renewable projects, particularly in rural areas. Regulatory systems remain risk-averse and poorly adapted to localised, dynamic energy models. Access to critical materials and low-carbon technologies is tightening, placing added pressure on supply chains and procurement practices. Meanwhile, attempts to quantify social value and environmental impact often fall short of what is needed for investment or certification.

Despite these challenges, participants were optimistic about Scotland's potential to lead in decentralised energy, innovation partnerships, and integrated planning. There was strong agreement that the journey to net zero is not only a technical challenge but also a cultural and institutional one—requiring new forms of collaboration, transparency, and public engagement.

Final Reflections and Questions for Policy

As the roundtable ended, the conversation turned to the steps needed to accelerate progress. Participants emphasised that decarbonisation cannot be achieved through isolated pilots or short-term initiatives. Instead, a systemic shift is required—one that aligns business incentives with public interest and builds lasting capacity across supply chains, local authorities, and communities.

Key questions for further reflection included: How can net zero ambitions be aligned with business resilience and competitiveness? What infrastructure reforms are required to enable faster, fairer transitions? How can policy frameworks support innovation without increasing risk or complexity? And critically, how can trust be rebuilt in public discourse around climate change, ensuring that all communities feel part of the solution?

TL; DR

The roundtable discussion highlighted the urgent need for a more coordinated, inclusive, and strategic approach to supporting Scotland's business transition to net zero. While there is widespread commitment across sectors, the pace and depth of decarbonisation vary greatly depending on access to infrastructure, finance, and regulatory support. The discussion underscored the role of misinformation in undermining public trust, the critical importance of integrated infrastructure planning, and the need to align environmental goals with financial incentives. Case studies from construction, agriculture, and technology startups illustrated that meaningful progress is possible when sustainability and profitability are treated as mutually reinforcing. Ultimately, the transition to net zero must be grounded in long-term investment, clear policy signals, and a collective effort to ensure that no business or community is left behind.