

Multi-stakeholder collaborations for Net Zero: an exploration of collaborative dynamics and dynamism

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Abstract

Insufficient attention is currently being paid to the role and mechanisms for multi-stakeholder collaboration for Net Zero. Despite prevailing policy calls for collaborations between multiple stakeholders to tackle the complex challenges of reshaping local economies towards decarbonisation, it is currently vague in offering effective approaches for multi-stakeholder collaboration and partnership. Based on a British Academy funded project, this study examines the disparate, and often conflicting, stakeholder interests and provide few insights into techniques for effective collaboration across multiple stakeholder networks. Extensive data collection has been undertaken including 18 semi-structured interviews supplemented by 6 qualitative case studies of key net zero stakeholders to inform development of a Net Zero stakeholder mapping. Four stakeholder groupings are identified – *enablers*, *unfocused supporters*, *untapped facilitators* and *dead weight*. Additionally, two action-based heuristic frameworks of firms engaging with Net Zero through multi-stakeholder collaboration, one at a firm level and another one at an inter-firm level are proposed. Additional data collection (including second round interviews and a large-scale survey) is underway to validate the stakeholder mapping tool and the action-based frameworks. The study findings lead to important guidance to support firms and policy makers to develop better strategies and policies to improve firms' engagement with the Net Zero policy agenda.

Keywords: stakeholder, stakeholder theory, multi-stakeholder collaboration, Net Zero, Net Zero transition

Introduction

Net Zero policy initiatives are a key area of policy in response to climate change. In ‘The UK Industrial Strategy: Building a Britain fit for the future’ (BEIS, 2017), the UK government maintained previous climate change commitments and established clean growth as one of the Grand Challenges, while pledging support to ‘maximise the advantages for UK industry from the global shift to clean growth’ (BEIS, 2017:34). The strategy emphasised the importance of collaborations and partnerships for Net Zero alongside a growing set of national and regional policies on Net Zero.

The Net Zero policy agenda call for effective collaboration between multiple stakeholders including, buyers, suppliers, governmental and non-governmental organisations to tackle the complex challenges of reshaping local economies towards decarbonization (The B Team, 2020). Nevertheless, current policies pay little attention to the disparate, and often conflicting, stakeholder interests and provide few insights into techniques for effective collaboration across multiple stakeholders in firms’ relational networks and ecosystems.

One of the reasons for vague policy guidance is the lack of clear understanding of the barriers and facilitators of multi-stakeholder collaboration in firms’ ecosystems and clear roadmaps for firms to engage with Net Zero. Focusing on the D2N2 (Derby, Derbyshire, Nottingham and Nottinghamshire) Local Enterprise Partnership (LEP) region of the UK, this research develops a stakeholder mapping and action-based heuristic frameworks of dynamic multi-stakeholder collaboration for Net Zero to depict the facilitators and barriers for multi-stakeholder collaboration within firms’ ecosystems.

In this study, we explore the potential of multi-stakeholder collaboration to enable firm’s successful engagement with Net Zero. The study aims to address the following research questions:

- *How can multi-stakeholder collaborations enable firm’s successful engagement with the Net Zero transition?*
- *What is the relationship between collaboration intensity and stakeholder importance, and how can it inform successful multi-stakeholder collaborative practices.*
- *What are barriers and facilitators of Net Zero engagement at a firm and an inter-firm level?*

This paper proceeds with a review of the literature on the role of multi-stakeholder collaboration in sustainability initiatives including Net Zero, and the impacts of multi-stakeholder collaboration for sustainability. It moves onto describing the research design and methods and outlining the next stage of the study process.

Literature Review

Multi-stakeholder collaboration and sustainability

Multi-stakeholder initiatives (MSIs) have become an important tool for achieving sustainable development goals (SDGs) (UN, 2015), which involve stakeholders from business, government, and the civil society (Selsky & Parker, 2005). They hold the promise of reconciling divergent

interests and perspectives of these groups to achieve solutions that are accepted and supported by all (Tengö et al., 2017). As one of the UN SDGs, Goal 17 (Partnership for the Goals) targets strengthening of the collaborative approaches and partnerships in driving and providing resolutions to sustainability challenges. For the current Net Zero agenda, the commitment from multiple organisations and stakeholders is a key success factor and also an important bottleneck. Hence, multiple stakeholders' relational dynamics, interests, tensions and gaps become important aspects of the collaboration required to build the overall capacity to maximise multi-stakeholders' commitments and contributions to sustainability transitions.

The literature on MSIs is emerging with some scholars highlighting the role of MSI initiatives in solving complex problems (Gray and Purdy, 2018), in mobilising resources and leadership towards implementation of Sustainable Development Goals (Fowler and Biekart, 2017), in contributing to environmental capability development (Author, 2017), and in forming CSR standards that inform behaviour of internal and external stakeholders (Zeyen et al., 2016). Previous research also made effort to understand the role of inter-organizational collaboration in facilitating sustainable development (e.g., Vachon and Klassen, 2006; Author 2019; Ramanathan, 2023). However, there are limited studies exploring multi-stakeholder collaboration in the context of Net Zero policy, hence the focus of this research. The study extends the understanding of the multi-stakeholder perspective and identifies various factors (inter-sectoral, inter-organizational, intra-organizational) enhancing voluntary commitments and partnerships of multiple key stakeholders in supporting the Net Zero transition.

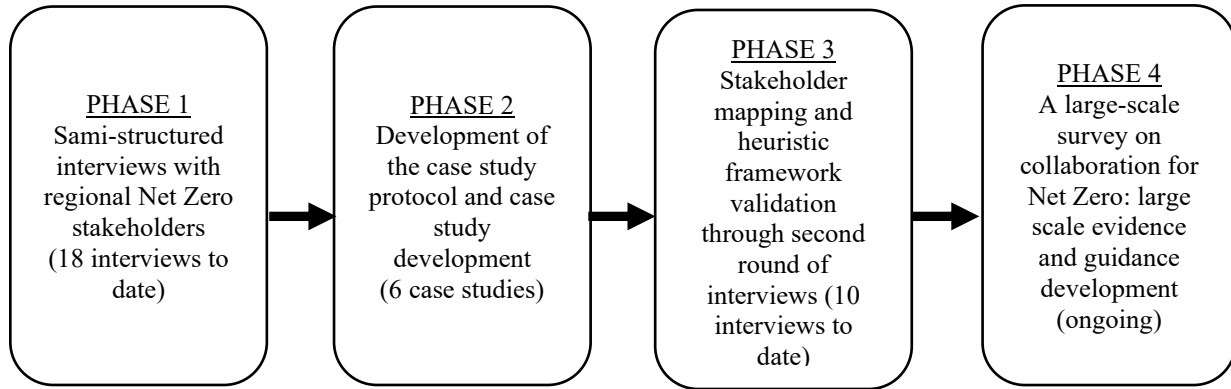
Methodology

A mixed-method approach based on secondary data analysis, comparative case studies, semi-structured interviews, and questionnaire surveys with key stakeholders of the NZ agenda in the D2N2 LEP region has been deployed to address the research objectives. A project steering group was established based on the existing networks with key regional organisations (e.g., the Chamber, city and county Councils, borough councils, Derbyshire Wildlife Trust, local businesses and NGOs). The steering group provides formative feedback to ongoing research development and supports successful signposting for data collection.

Prior to undertaking primary data collection, the researchers reviewed the literature on environmental/green stakeholders, current policy documents and governmental reports to identify Net Zero stakeholder groupings. The researchers collected and reviewed secondary data about regulatory policies and key stakeholders in the D2N2 LEP region, which included but is not limited to policy papers, regulations, company annual reports, company strategic plans, sustainability reports, and news articles. Representative key Net Zero stakeholder groupings were identified based on the stakeholder mapping and a stratified sampling approach.

Primary data collection in four phases including (1) a first round of semi-structured interviews to inform initial stakeholder mapping and design of heuristic framework; (2) development of the case studies on Net Zero collaborative status quo, challenges and opportunities; (3) stakeholder mapping and framework validation through second round of interviews; (4) a large-scale survey to gain generalisable evidence and aid policy and practice guidance development.

Figure 1. Four-phase primary data collection design



Ethics and moral standards are integral to research (Mertens and Ginsberg, 2009; AEA, 2017). All participants involved in this study were informed that their involvement was voluntary, anonymous and their decision to return their answers and comments would be deemed as their consent to take part. Participants were also informed that there would be a four-week window of opportunity to withdraw, if they so desired, once their responses had been returned. University research ethics approval (ETH2324-2667) has been obtained as part of the research process.

Study findings thus far

The study findings reveal several emerging themes that frame organisational attitudes to engagement with the Net Zero.

Net Zero policy narrative and implementation There seems to be difficulties in converting the long-term policy target i.e., achieving Net Zero by 2050 to medium term (e.g., reducing carbon emissions by 45-50% by 2030) due to the lack of common understanding of terminologies such as 'carbon neutrality,' 'climate neutrality,' and 'Net Zero GHG emissions,' the lack of standard typology for fairer comparisons, and the lack of robust data to evaluate the current situation (Lützkendorf and Balouktsi, 2019). There is a lack of clarity regarding stakeholders' objectives for achieving Net Zero goals and alignment with higher level policy. There is a growing misalignment between company level targets and national/regional targets, which is especially significant in SMEs and some sectors (other than energy, power and transport).

Multi-stakeholder collaboration: policy and practitioner approach Most policy papers mention the importance of collaboration between stakeholders (e.g., D2N2 Energy Strategy 2019-2030) but rarely provide details on how to pursue such collaborations. There are no clear indications of mechanisms and incentives to encourage collaborative practices for Net Zero. There is a lack of a clear distinction between 'partners' and 'members' involved Net Zero strategies. Hence, the different level of involvement of stakeholders are not recognised in related policy documents.

Multi-stakeholder collaboration: management and operationalisation There is a lack of clear guidance on selecting and appointing appropriate collaborators for Net Zero agenda. There is also a lack of clear framework of identifying and evaluating collaborators. Although, the UN Climate Change report highlights meta-criteria for selecting actors: the 5 Ps (pledge, plan, proceed, publish,

and persuade), such are underdeveloped for application at a regional and a local level (UN Environmental Programme, 2023).

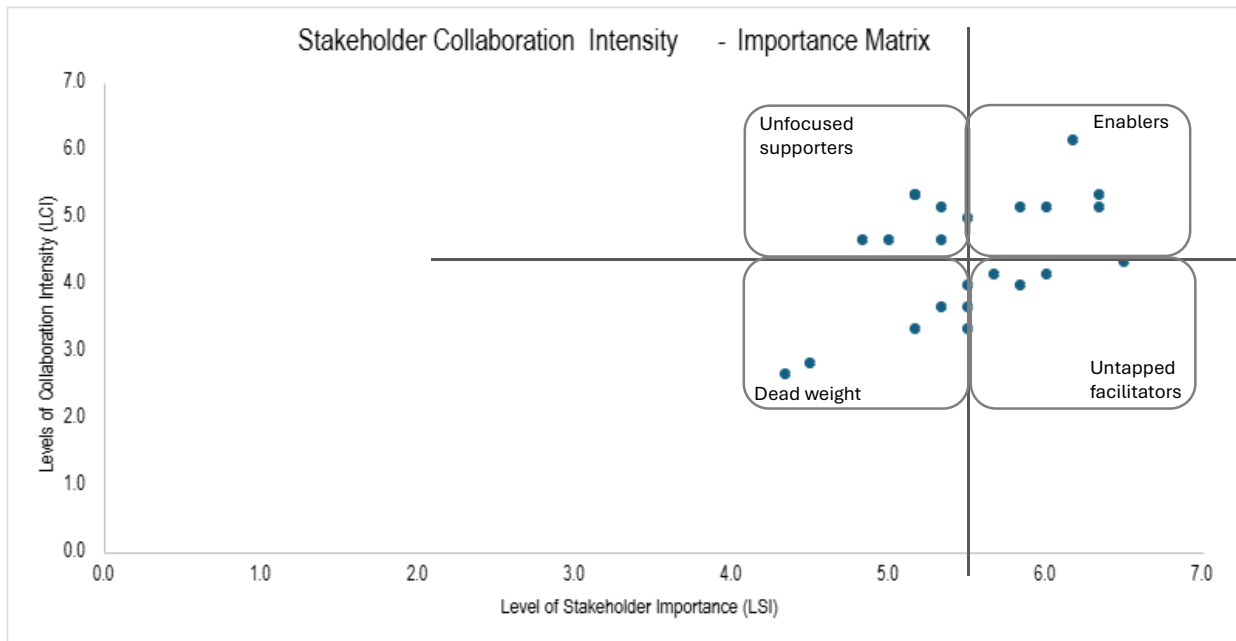
The study reports on barriers and enablers of multi-stakeholder collaboration for Net Zero (Table1).

Table 1: Enablers and barriers to multi-stakeholder collaboration for Net Zero

Enablers	Barriers
Policy cohesion and consistency	The need for multidimensional policy and effective policy mixes
Commitment from senior leadership	Cost of Net Zero initiatives
Shared understanding and shared target/agenda between top management teams across organizations	Net Zero practices are currently volunteering based rather than regulation based
Effective knowledge sharing to avoid reinventing the wheels	Gaps in data on decarbonisation practices, reinventing wheels
Emerging digital technologies	Current weak legal and technological infrastructure
Education and awareness raising	Local government feels overwhelmed by the national Net Zero agenda due to various pressures including ongoing budgetary and funding restraints
Clarifications on boundaries of responsibility	Difficult logistics for collaboration
Adequate resources for collaboration	Reliance on additional resources and lack of resources/fund
Effective Net Zero governance	Lack of strategies and mechanisms that foster collaboration for Net Zero at regional and local levels

Stakeholder mapping undertaken as part of the study protocol has identified a correlation between level of stakeholder importance and intensity of collaboration activity for Net Zero. The stakeholder mapping has identified four groups of Net Zero stakeholders depending on level of stakeholder importance (LSI) and level of collaborative intensity (LCI). Figure 2 illustrates the stakeholder mapping, and the four stakeholder groups identified:

Figure 2: Stakeholder Collaboration Intensity-Importance Matrix



Source: Author's own work (2025)

- **Enablers** - Net Zero stakeholder of high importance and high collaborative intensity. These stakeholders are pivotal to the organisational Net Zero practices, and they are frequently identified as collaborators of various levels. The following organisations were identified in this group: large businesses, regulators, universities, borough councils and technical experts.
- **Untapped facilitators** - this grouping of Net Zero stakeholders is credited with a high level of importance but low levels of collaborative intensity. In other words, these stakeholders hold an unutilized potential to collaborate for Net Zero providing there are platforms and mechanisms to do so. National and local government, Net Zero National Governance, and media are amongst the stakeholders in this group.
- **Unfocussed supporters** – these stakeholders are perceived to be holding little importance, but they are active in collaboration. Although it is viewed as a positive position, it tends to draw on organisational resources and could fall short of generating the value for the stakeholders involved. The study finding indicates that largely business support and training providers occupy this space: Midlands Engine, Growth Hubs, the Chamber, further education colleges and consultants.
- **Dead weight** – as the name suggests, these stakeholders are far detached from the Net Zero collaborative landscape. The stakeholders in this grouping are perceived to be low on importance and low on collaboration activity. Such a position brings little value to collaboration dynamics and can be seen as wasteful. Our results show that stakeholders in this grouping are banks, activist groups, public, investors, and landowners and farmers. It is interesting to note that although these stakeholders hold a lot of institutional power and

are instrumental for resourcing and shaping the transition to Net Zero, the current perception of them is rather low which forms a significant barrier for collaboration.

Although the conceptualisation of stakeholder groupings is still in development. there are early signs that this newly developed *stakeholder collaboration intensity matrix* has a strong potential to contribute to stakeholder theory in the way stakeholder potential for collaboration is understood; and what stakeholder management strategies can be deployed for a successful multi-stakeholder collaboration in the context of Net Zero and other sustainability transitions.

Next steps

This research is currently in phase four – a large-scale survey has been developed in Qualtrics and opened at the end of January 2025. It is anticipated that the survey will be open till the end of March 2025 to achieve a target response rate of over 300 responses. The results of the survey will inform the operationalisation, refinement and verification of the stakeholder mapping tool and the action-based heuristic framework. These conceptual tools and broader study findings will lead to important policy implications and practical guidelines for policy makers and industry about effective collaboration for Net Zero.

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