

Davos
Baukultur
Alliance

INNOVATIVE
PRACTICE
CASE STUDY



RENEW Districts

RENEW Districts embody the key principles of resilience, equity, neutrality, environment and well-being, an overarching framework for future-proofing the districts, including its buildings, infrastructure and – importantly – its communities. One of the models being piloted under this framework is the Net Zero Neighbourhood (NZN) model, which uses a place-based funding and delivery approach at the neighbourhood scale to improve residential energy efficiency and promote community regeneration. Supported by blended finance, it facilitates extensive home renovations and broader community interventions – such as enhancing mobility, greening spaces and upgrading public buildings – to achieve local and national decarbonization goals.

GEOLOCATION	United Kingdom
TIMEFRAME	2021 to present
PRESENTED BY	Bankers Without Boundaries

HIGHLIGHTS FROM THE DAVOS BAUKULTUR QUALITY SYSTEM [Definitions](#)

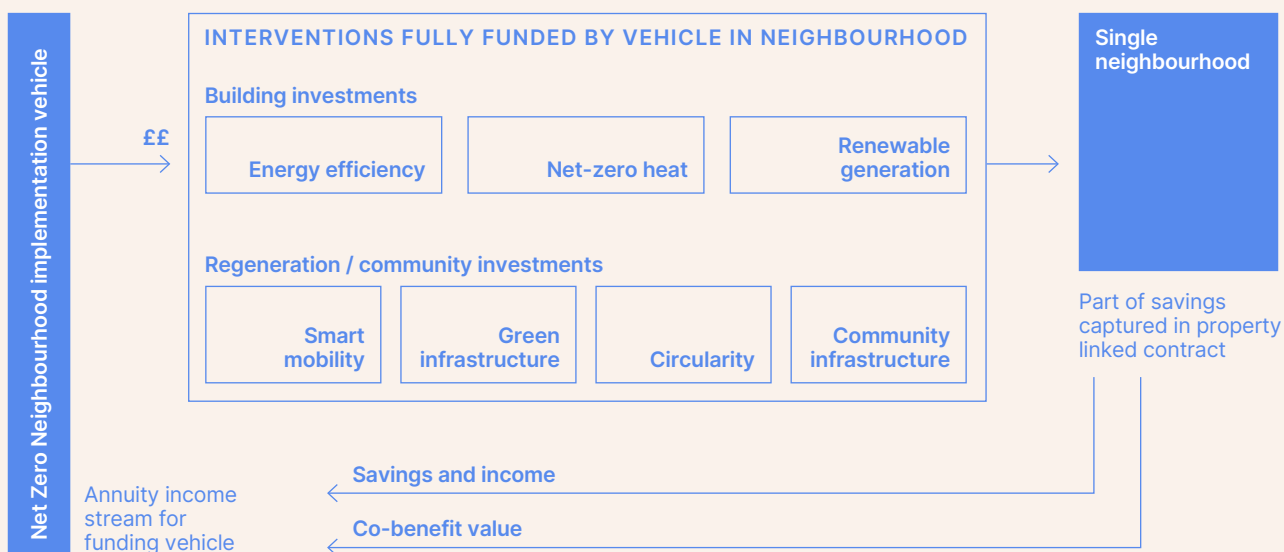
GOVERNANCE	DIVERSITY
FUNCTIONALITY	CONTEXT
ENVIRONMENT	SENSE OF PLACE
ECONOMY	BEAUTY

The building sector accounts for 20-40% of global carbon emissions. The scattered ownership of residential properties makes it particularly challenging to reduce carbon emissions from homes across different regions.

The RENEW District framework tackles this emissions challenge (through the neutrality principle) while

considering broader climate resilience and ensuring key social considerations remain front and centre (equity, environment and well-being). The Net Zero Neighbourhood (NZN)¹ model is one such solution being piloted under this framework (Figure 1).

FIGURE 1
Multi-intervention, place-based funding and delivery



Source: BwB

Key outcomes

FUNCTIONALITY Improving functionality is core to the NZN model. By renovating homes to improve energy performance, it increases the functionality of residential buildings, produces co-benefits for human and environmental health, and upgrades housing built decades ago. Community interventions increase the functionality of the wider neighbourhood, for example, through the incorporation of additional green space or transport infrastructure.

ENVIRONMENT Increased energy efficiency of homes and adjacent sustainability interventions (e.g. local renewables generation, green mobility measures) reduced greenhouse gas (GHG) emissions, saving, on average, an estimated at £25.6 million in energy costs.

ECONOMY The economic benefits of building retrofits are clear. According to the International Energy Agency (IEA), energy efficiency measures could create up to 9 million jobs per year globally through 2030. Pilot projects such as one led by the West Midlands Combined Authority² are demonstrating the economies of scale achieved by taking a street-by-street approach.

Economic benefits are at the individual, project/ neighbourhood and societal level. Individual residents and households should see a reduction in energy costs as improved energy efficiency decrease energy use, all other things being equal.

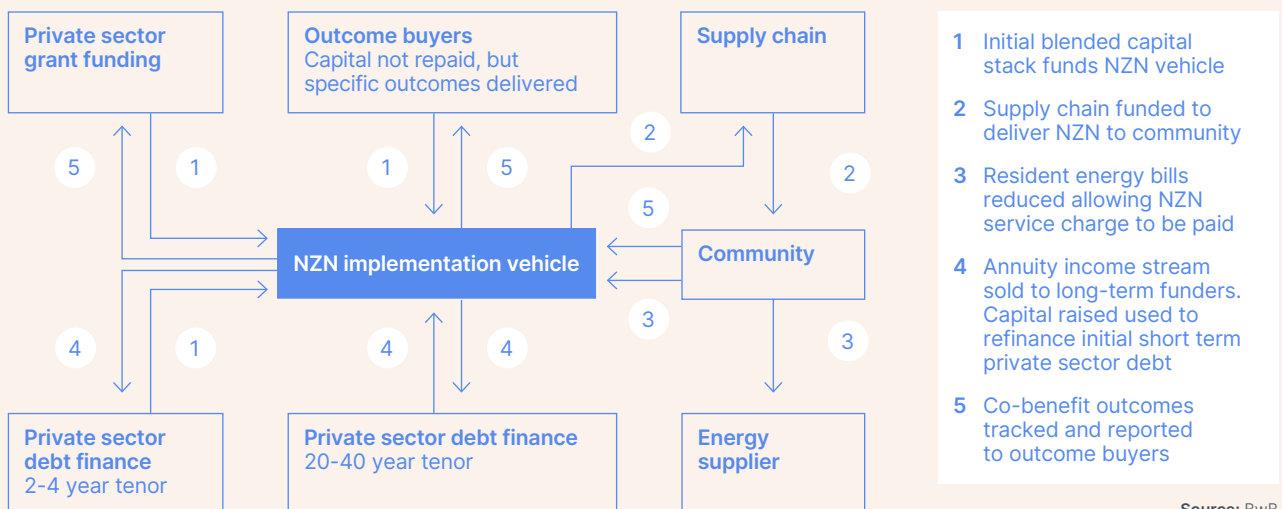
At the neighbourhood scale, the capital cost of interventions benefits both from economies of scale and economies of proximity.

SENSE OF PLACE NZN creates a strong sense of place by working at the neighbourhood scale in close collaboration with the communities, which strengthens the communities' attachment to the place.

Replicability

While place-based models are always influenced by the local context, the blended funding model (Figure 2) that backs the delivery model is scalable to attract institutional private capital. This scale could be achieved by aggregating multiple projects in different places. A blended funding model is required to support NZN development as the financial returns from retrofit (primarily via energy savings) would be insufficient to repay the upfront cost of retrofit within a reasonable timeframe. Therefore, to attract return-seeking private finance, some level of non-return finance must be incorporated to increase the attractiveness of the returns for the remaining portion. In Figure 2, the suggested forms of non-return funding would be public grants and/or outcome buyers. These groups are motivated by non-financial outcomes, such as environmental and social benefits of the NZN. By incorporating these funding sources, a leverage effect is created through attracting additional return-seeking financial investors for whom the investment would not have been possible on a standalone basis.

FIGURE 2
Stakeholder funding flows



Source: BWB

Lessons learned

Stakeholder engagement, notably with local communities, is a key component for the success of NZNs. It requires dedicated resources and time from delivery organizations and residents. A tailored community engagement approach is the most effective so that all stakeholders understand opportunities and challenges. This approach requires dedicated resources to deliver effective projects. For engagement to be effective, early lessons learnt suggest that:

- It must be conducted around the times when residents/homeowners are most likely to be present, preferably in a neutral venue that convenes community members.
- Enlisting key community representatives who are brought into the project from an early stage also facilitates engagement. These community “champions” must represent the local community (e.g. be representative of the ethnic groups/ages in the neighbourhood) and ideally be well connected within the community.
- Communication materials must be tailored to the audience. For example, concepts such as the blended finance model and payment mechanism must be communicated in a user-friendly manner.
- Enabling community agency through a co-design approach while removing the burden from individuals is critical to building individual support. However, it’s important to recognize that the coordinated approach of the NZN model can significantly alleviate financial and technical burdens for residents. Overcomplicating the co-design element could mitigate some of these benefits.

Next steps

The NZN model is on the cusp of moving from concept to pilot phase, with the first pilot sites undergoing project development this year. The key milestone will be the full development of the initial pilot sites, from which datapoints can be measured and monitored to build the full business case to scale this model.

In addition, NZN projects can be enhanced by the incorporation of lower-embodied carbon building materials. However, many of these are currently under development or restricted by regulations and so cannot be deployed at scale due to technical bottlenecks. Enabling their wider use at scale would greatly enhance the impact of retrofit projects.

Timeline

The Net Zero Neighbourhood model has received funding for development from a number of different avenues over the past 2-3 years.

2022-2023 Funding from UK Central Government (Department of Business Energy & Industrial Strategy) to develop a green book business case for a nationwide Net Zero Neighbourhood demonstrator programme. Partners were 3ci, Arup, BwB and Eunomia.

2022-2024 Various funding from individual local governments to develop pilot programmes in their areas (e.g. London Borough of Hounslow, West Midlands Combined Authority).

2024+ Funding from UK Research & Innovation (UKRI) and Department for Energy Security and Net Zero (DESNZ) into local net zero programmes, including NZN pilot projects.

Read more

Explore more studies in the full publication: [Innovative Practice](#)

Read the Eight criteria for a high-quality Baukultur: [The Davos Baukultur Quality System](#)

Keep up to date with the alliance: [davosalliance.org](#)

Endnotes

1. NZN was conceptualized by Bankers Without Boundaries (BwB) in 2021 and supported at different stages by 3ci, Eunomia, Arup and BEIS.
2. *West Midlands Combined Authority*. (n.d.). *Net Zero Neighbourhoods*.

Cover image: GettyImages

“The RENEW framework is a holistic approach that embodies many of the same values captured through Baukultur’s eight core principles. Innovative financing models developed under this framework, such as the Net Zero Neighbourhood, ensure that finance is not only channelled from where it is to where it needs to be, but is harnessed in an impactful and responsible manner.”

Bankers Without Boundaries