

The UK Co-Benefits Atlas:

An Interactive Visualisation Atlas to Understand the Impacts of Achieving Climate Action Targets

The UK Co-Benefits Atlas is an interactive online visualisation atlas [1] presenting and explaining data on the potential socio-economic impacts of achieving climate action targets in the UK.

What Are Co-Benefits?

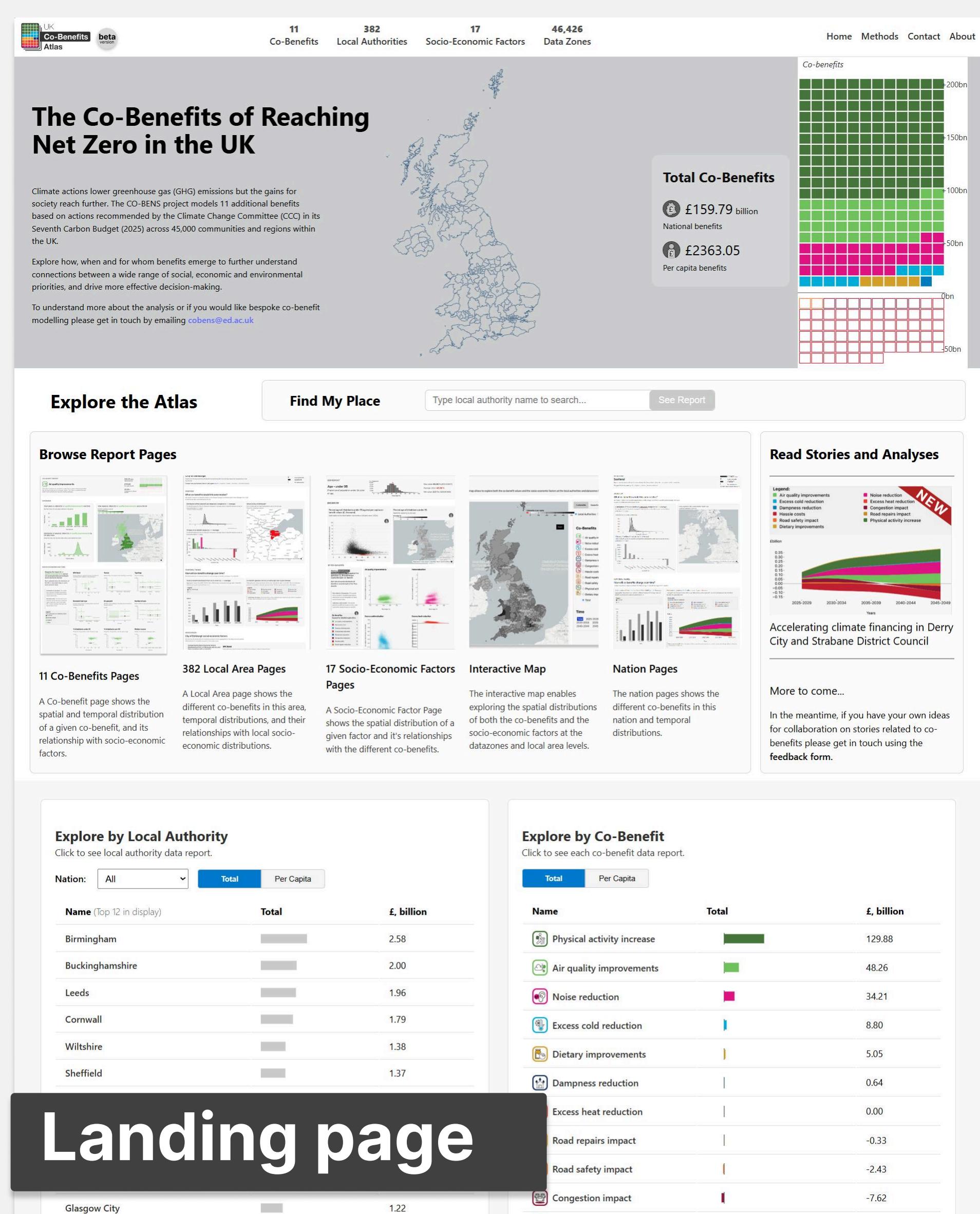
For every £1 spent on climate change mitigation in the UK, there are as much as £14 of social benefits in the form of improved public health, better urban connectivity, and increased productivity [2].

What is in the Co-benefits Atlas?

The Atlas integrates 410 report pages spanning 11 co-benefit categories, 17 socio-economic factors, 382 geographic reports at both national and local authority levels, and an interactive map displaying co-benefit data across 46,000 data zones.

Atlas Pages

Design Challenges and Solutions

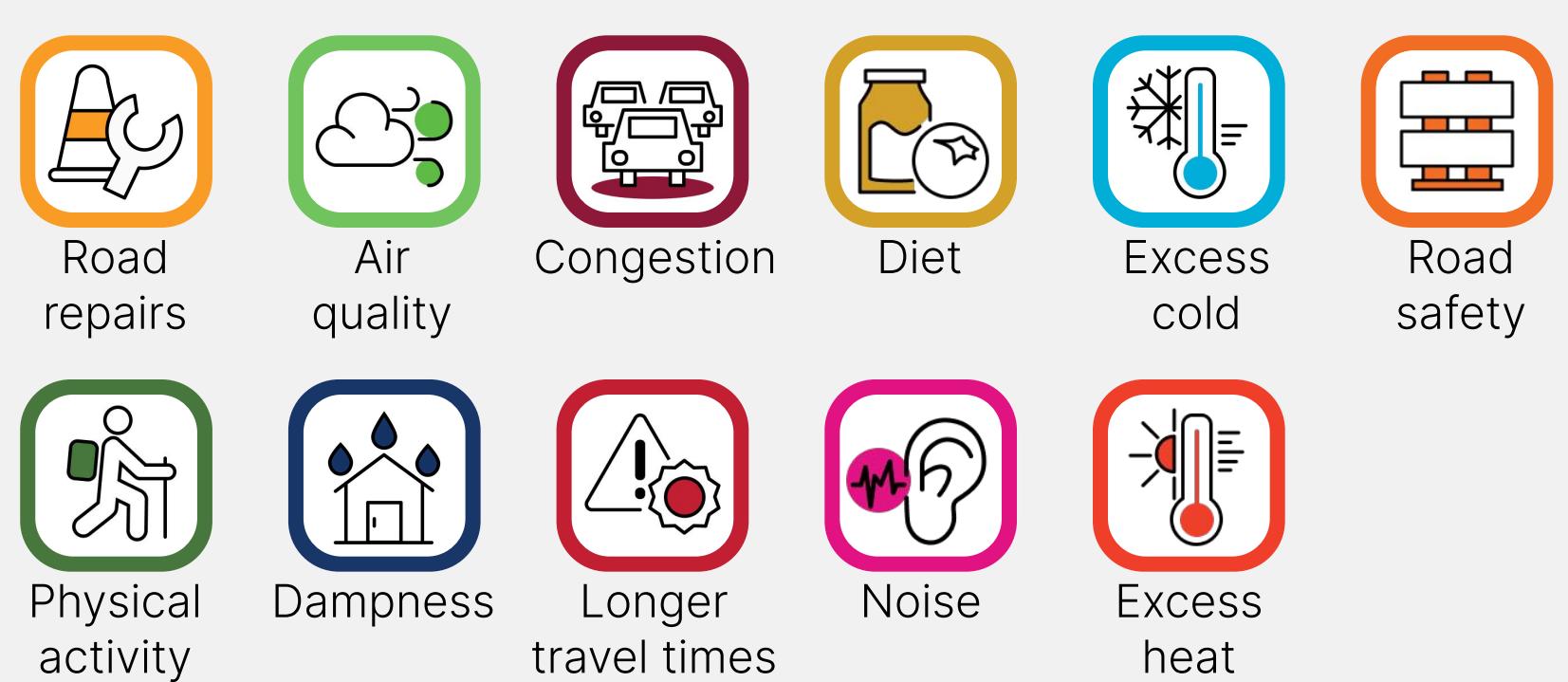


The Atlas is designed through domain expert collaboration and stakeholder participation over a 10-month period.

The Atlas uses a **bottom-up, data-driven** approach to provide balanced access to the full range of co-benefits data.

Transparency is maximised by giving users options to explore different data representation, e.g., toggling between per capita values and total values.

Strong **visual Identities** ensure easy orientation by assigning every co-benefit a unique colour and icon.

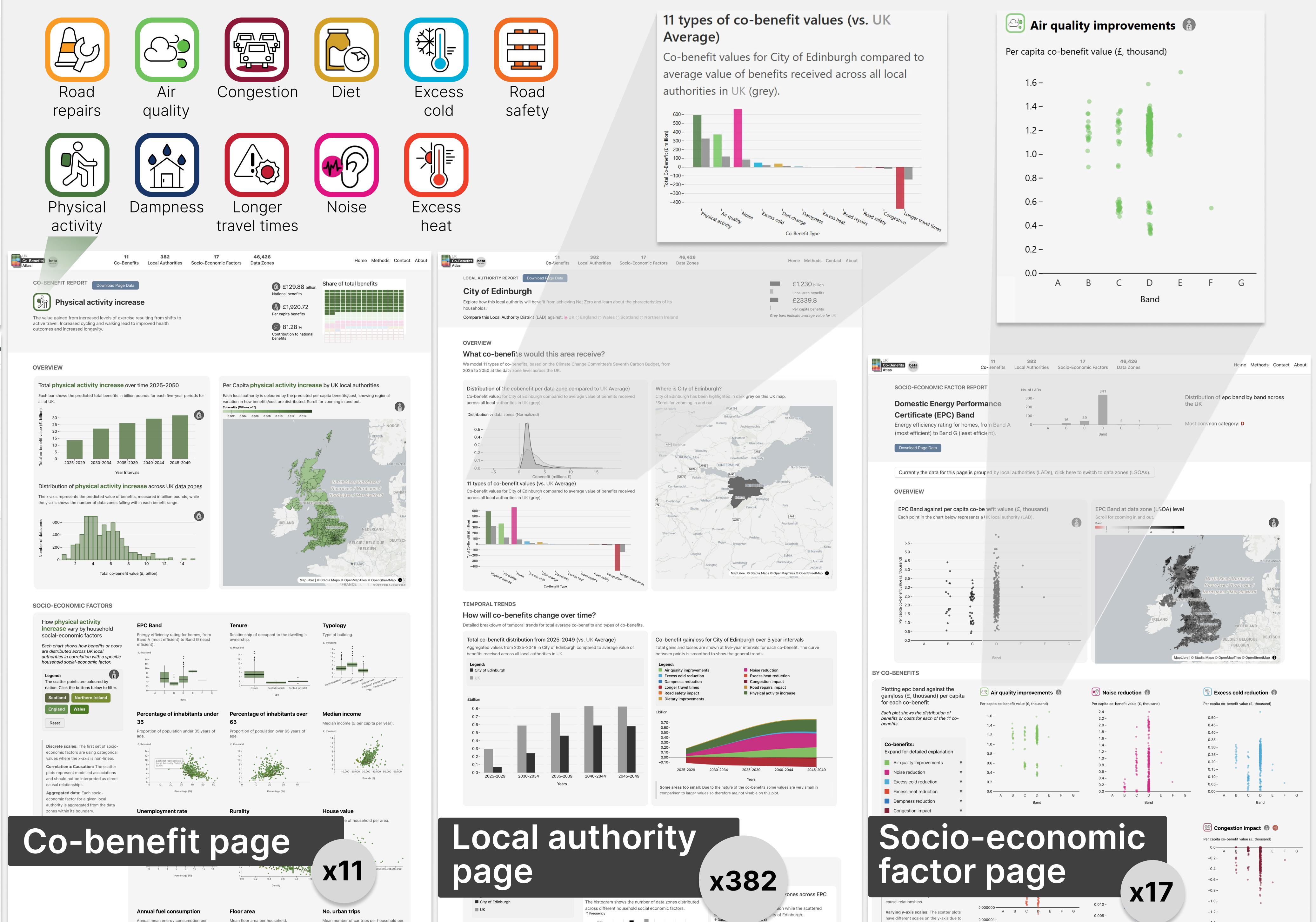


Navigation is **coherent and intuitive**, with visual marks linking pages to foster free exploration.

Every visualisation is designed to **stand alone** with a brief explanation of its visual encoding, measurement units and label descriptions for comprehensive exports.

The use of **standard visualisations** allows exploration of the expressive limits of traditional charts while drawing on widely familiar forms.

Landing page



Potential Use Cases

Support learning, community engagement, and decision-making by providing evidence of co-benefits that help motivate action, raise awareness, and strategically guide future climate initiatives.

Wide Audience

Aimed at policy experts and decision makers, businesses, climate activists and advocates, local communities, and the general public to explore and build their case for specific local entity.

References

[1] J. Wang, X. Shu, B. Bach, and U. Hinrichs. Visualization atlases: Explaining and exploring complex topics through data, visualization, and narration. *IEEE TVCG*, 2024. 1, 2

[2] A. Sudmant, D. Boyle, R. Higgins-Lavery, A. Gouldson, A. Boyle, J. Fulker, and J. Brogan. Climate policy as social policy? a comprehensive assessment of the economic impact of climate action in the uk. *Journal of Environmental Studies and Sciences*, 2024.

<https://ukcobenefitsatlas.net/>