

Working Together for a Fairer and Healthier Low Carbon Transport Future



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We are investing in technologies that can address the climate crisis - electric vehicles, renewable energy, cleaner fuels - but none of these innovations will be effective if we fail to confront a more uncomfortable challenge: how we work together to address the crisis.

Nowhere is this more obvious than in transport, where decarbonisation is full of promise. Cleaner air, more active travel, safer streets and stronger communities are all achievable. But these benefits aren't guaranteed to land evenly. Evidence tells us that major infrastructure and policy shifts can widen inequalities when they're designed from a narrow perspective [1]. If we don't pay attention, the transition to low carbon transport could easily make life better for some and worse for others [2].

That is why strong interdisciplinary research is essential. Solving complex problems demands more than engineering breakthroughs or behavioural nudges alone. It requires the integration of ideas and evidence from public health, engineering, economics, policy, psychology, data science, geography and beyond. It requires people who don't naturally work together to understand each other's languages, assumptions and methods.

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This is the challenge the Healthy Low Carbon Transport Hub (HLTHub) [3] was created to address. Bringing together researchers from across disciplines, the Hub aims to understand not just how to decarbonise transport, but how to do so in a way that improves health and promotes equity. But putting interdisciplinary ideals into practice is rarely straightforward. You can't simply put a group of experts in the same room and hope collaboration happens by osmosis.

As the HLTHub began to take shape, we were aware that we needed to be more intentional about how we worked together. We needed to ask: *What does shared leadership look like in a team of people who each bring different expertise, power and priorities? How do we build a community rather than a collection of subprojects?*

To explore these questions, the entire Hub came together in April 2025 for a facilitated workshop. The workshop was about understanding each other's expectations, unspoken assumptions and concerns. About naming the power dynamics that inevitably shape collaborative work. And about imagining how the Hub could function not just as a mechanism for producing research, but as a supportive, creative and equitable space.

Conversations ranged from the detail like how to structure meetings to the more philosophical: *Whose voices get heard? Who feels they belong? How do we challenge hierarchies without losing direction?* It was clear that if we wanted an interdisciplinary community, not just an interdisciplinary label, we needed to build the foundations deliberately.

We summarised the emerging ideas from the workshop and built on them with further questions to the Hub's researchers about how we should work together. The reflections revealed a strong desire for a Hub that is bigger than its funding line: a place defined by shared ownership, collaboration, and openness, even while acknowledging the constraints of a time limited project.

What did this teach us and could be beneficial to consider by others in their interdisciplinary work?

Four themes surfaced that we believe have relevance beyond our project (Figure 1).

Figure 1. Four themes for building an interdisciplinary community for equitable and healthy low-carbon transport research

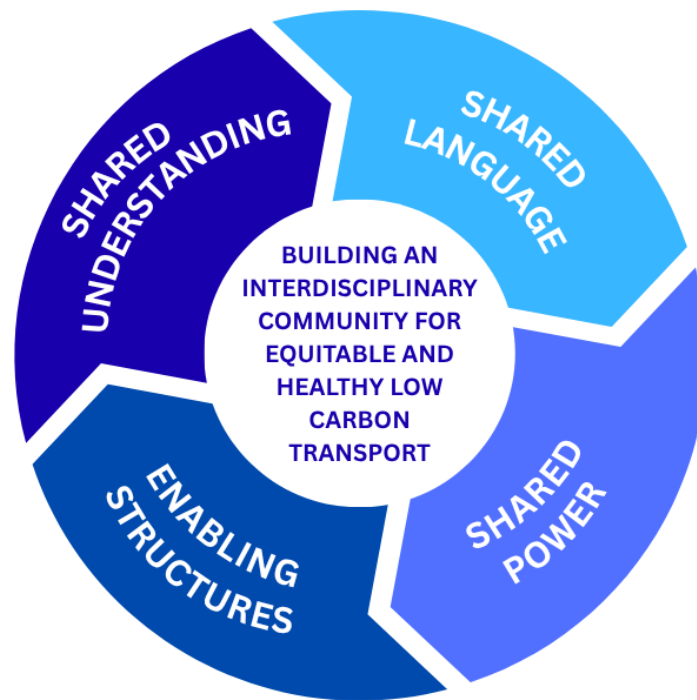
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1. A shared understanding of what the Hub is (and isn't)

People saw the Hub not as a rigid research structure but as a “purpose driven space”: a community built around collective goals rather than disciplinary silos. But ambition must live alongside realism. We had to acknowledge the tension between wanting a transformative Hub and working within the limits of a funded project.

2. The importance of shared language

Researchers across disciplines don't always mean the same thing when they use the same words. Clarifying concepts early prevents misunderstandings and helps build genuine collaboration rather than parallel play.

3. Shared power

Traditional hierarchies such as senior vs early career researchers, quantitative vs Qualitative methods, technical vs social sciences can stifle interdisciplinary innovation. The Hub's members recognised that distributing power more evenly isn't just fairer; it leads to better science.

4. Structures that enable not suffocates collaboration

Goodwill alone isn't enough. Collaboration needs scaffolding: clear processes for communication, decision-making, and conflict resolution; regular opportunities to reflect; and flexibility to respond to what we learn along the way.

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These principles might sound obvious on paper, but they are radical in practice. They require time, humility and a willingness to sit with discomfort. They require senior researchers to let go of control and early career researchers to feel safe to speak up. They require disciplines used to working in isolation to lean into the messy, exhilarating process of doing things differently.

While our reflections primarily focus on academic collaborations, the same principles apply to how we work with members of the public and stakeholders as equal partners. Embedding research codesign deepens accountability and helps keep equity at the centre of our decisions. Through codesign we share power with the public and system actors who have a stake in the outcomes. Together, these relationships form the social foundations that make research more just, grounded and likely to drive meaningful change.

The stakes could not be higher. If we are serious about creating low-carbon transport systems that improve health and reduce inequalities, we cannot afford to approach the task with fragmented thinking.

What the HLTHub is attempting is ambitious: not just to generate evidence, but to reimagine how we produce it. The early work - these conversations, reflections, and shared definitions - is not a side project; it is the foundation. Without it, the risk is that interdisciplinary work collapses back into disciplinary defaults just when it is most needed.

The climate crisis forces us to ask hard questions about how we move and build, and what we breathe. It should also force us to ask hard questions about how we work together. If we can build research communities that mirror the just, equitable, and sustainable societies we aspire to create, then we stand a far better chance of getting there.

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If you would like to be kept informed of the activities of the HLTHub or for any other enquiries about the hub please contact Tim Yates, Marketing, Communications and Events Manager, email: tim.j.yates@ucl.ac.uk .

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