



In this new report, the Zero Carbon Britain team set out to answer a challenging question: **What are the barriers preventing Britain reaching net-zero carbon – and how can we overcome them?**

ZERO CARBON BRITAIN

Making it Happen

Report in short: a summary of key findings

The UN Paris Agreement states that humanity must reach net-zero greenhouse gas emissions by the middle of this century. This is a big shift, but we have no option other than to succeed if we are to avoid really dangerous climate change.

Since 2007, Zero Carbon Britain's research has shown that **we already have all the technologies needed** to reach zero. In the 2015 report *Who's Getting Ready for Zero*, the team mapped 100 peer-reviewed studies and projects demonstrating that we can, technically, reach zero emissions across the globe.

Yet changing how millions of people live is a very special kind of problem, as the forces that

shape our lives exist on many different levels. Rather than an unresolved technical challenge, it is increasingly accepted that we face a mix of economic, cultural and psychological barriers.

Zero Carbon Britain: Making it Happen explores these barriers, and sets out the positive, connected approach we need to overcome them – joining up research and practice across disciplines, borders, sectors and scales.

A 'toolbox' of good ideas

Zero Carbon Britain: Making it Happen offers a 'toolbox' of ideas that can help inspire, inform and enable us to make change happen.

Working within an interdisciplinary framework, the report brings together thinking from researchers working in psychology, sociology, political science, economics and other social sciences, as well as faith and spiritual practice, arts and culture. Drawing on a wide range of peer-reviewed journals, books, reports and articles, as well as stories from real-life projects, it explores how we can overcome barriers in innovative ways.

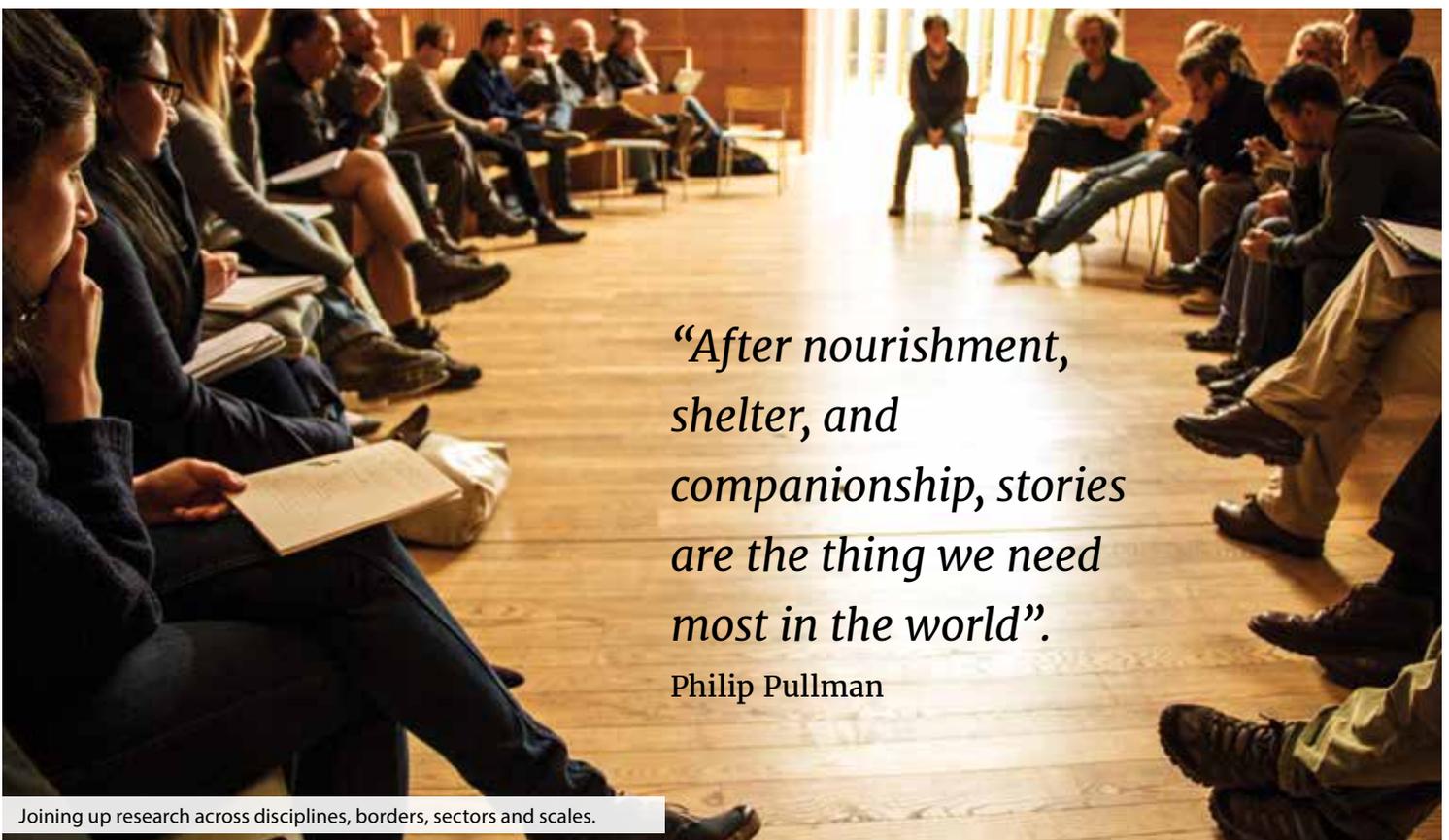


What does zero carbon look like?

- Existing buildings are retrofitted to cut energy use.
- New buildings must meet net-zero carbon standards.
- Our electricity, heat and transport systems are powered by renewable energy.
- We drive or fly less thanks to better public transport, walking and cycling infrastructure and new incentives.
- Food waste is avoided, and the amount of meat in our diets is reduced to healthy levels.



Learning from real life projects – Repair café.



“After nourishment, shelter, and companionship, stories are the thing we need most in the world”.

Philip Pullman

Joining up research across disciplines, borders, sectors and scales.

Summary of findings

CreativeCommons/MatthewWynken



Reintroducing zero carbon homes legislation.

Politics and governance

Decision-makers must build in zero carbon as a policy goal at all levels, including reintroducing zero carbon homes legislation, and increasing the ambition of the UK Climate Change Act.

We can influence policymakers by showcasing evidence that workable solutions exist, and increase cross-party political support by building coalitions, intersecting with issues such as health and inequality. At the same time, the influence of vested interests on the policymaking process can be reduced by strengthening laws on transparency of lobbying.

NGOs and citizens should have the right to challenge public policy and sue polluting companies, and fossil fuel companies can also be challenged through shareholder action and divestment campaigns.

Economics and finance

A policy shift is urgently needed to end the massive subsidies given to fossil fuels, and adopting a 'polluter pays' principle would ensure that the costs of environmental damage are no longer externalised.

We must move towards an equitable, more

resilient and sustainable economic system, and away from the narrow focus on economic growth and Gross Domestic Product (GDP). Key assets like the railways or national grid could be moved back into public ownership, and profits reinvested for public benefit. Investment in zero carbon projects and community energy could be supported through local or municipal banks and citizen finance.

Psychology and behaviour

While individual behaviour change is important, it should be seen as connected with the broader changes that are needed at social, industrial and governmental levels.

Positive stories of collective action can counter feelings of helplessness, scepticism or detachment, and show others care. We must nurture intrinsic values such as empathy, cooperation and social justice at all scales.

Information that highlights the links between specific actions and their effects is one of the most effective ways of influencing behaviour. 'Social norms' are also powerful. By developing an understanding of how such norms are created and how they function, we can foster zero carbon behaviour as the new normal.

Summary of findings

Overcoming carbon lock-in

Industrialised economies have become locked into fossil fuel dependency over many decades. We can challenge this by creating practical, clean energy projects at a local scale. These initiatives need to be supported by government strategies and resources.

Local government also has a key role to play in increasing communities' involvement in the planning process, as well as using planning policy to encourage innovative solutions. Zero carbon alternatives must be made as attractive and convenient as possible, for example by combining energy efficiency re-fits with general home improvements.



Innovative community solutions can break carbon lock-in – car restricted housing.

©Daniel Schoenen



Increasing opportunities to connect with nature.

Changing worldviews and values

Climate change is not the root problem but a symptom of consumer culture and a growing disconnection from nature and from each other. By increasing opportunities for people to connect with nature, we can build our collective concern for the ecological systems that support us, whilst also improving our happiness and wellbeing.

We can counter consumerism by reducing the working week and promoting the sharing and circular economies. Faith groups, spiritual practice and the arts can also play a powerful role in shifting culture and inspiring action.

Communication

Stories and images around positive solutions can counter the prevailing 'climate silence' and have been proven to be more effective at inspiring action than negative or fear-based narratives.

It's also important to challenge media bias, for instance by writing to editors who give equal air-time to climate sceptics. We need to tackle the concentration of media ownership, which gives disproportionate influence over public information and opinion, and regulate the kinds of advertising that fuel desire for ever more consumption.

Let's 'Make it Happen'

Bread Matters and Scotland the Bread



Community baking – Bread Matters.

There are many solutions, but one overarching conclusion: we must do this together.

We have all the technologies we need to reach zero carbon – we must work collectively to make things happen.

The shift to zero carbon could be one of the most exciting opportunities in human history. It offers many benefits including better housing, affordable, accessible transport, reduced obesity, improved health, cleaner air and more jobs. We can transform isolated, stressful, consumer-focused lifestyles and find better physical and psychological wellbeing by increasing our sense of connection with community and nature.

Although shifting cultural values isn't easy, there are many powerful lessons from history that show that evolution in our collective thinking can change over just a few years. It will take many of us pulling in the same direction to enable the transition to happen, and each and every one of our actions can contribute. In rising to the urgency of this challenge, we can unleash a sense of common purpose that unites us across communities, across politics and across borders.

We hope this toolbox of good ideas will be useful to those working for positive change.

Zero Carbon Britain: Making it Happen (the full report) can be downloaded for free at www.zerocarbonbritain.org

Cleaner air, better health – York Bike Belles.



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Community energy – TGV Hydro.

TGV Hydro Ltd

“We need to engage in whatever actions appeal to us. There is no act too small, no act too bold. The history of social change is the history of millions of actions, small and large, coming together at certain points in history and creating a power which governments cannot suppress.”

Zinn (2003)

Centre for Alternative Technology

Zero Carbon Britain is an initiative from the **Centre for Alternative Technology (CAT)**. Established over 40 years ago, CAT is a leading research and educational charity which demonstrates practical solutions for sustainability.

CAT offers a wide variety of practical and academic courses up to postgraduate level and a unique range of educational services for school and university groups.

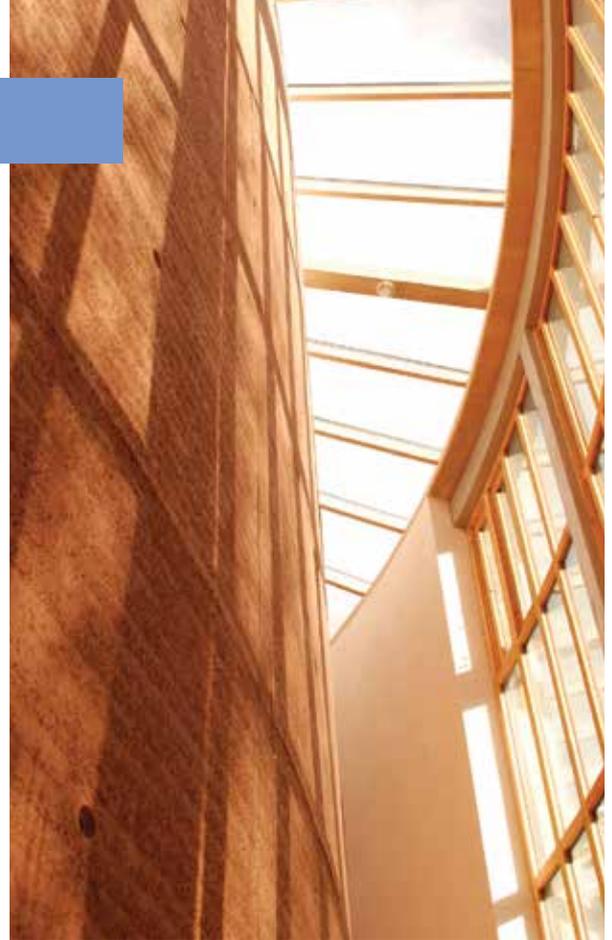
CAT's award winning educational facility – the **Wales Institute for Sustainable Education (WISE)** – and visitor centre are based in Machynlleth, mid-Wales.

 www.zerocarbonbritain.org

 www.cat.org.uk

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