

# White Paper: Are we getting Net Zero wrong?

March 2023



## Introduction

This white paper sets out Aether's observations on the barriers to society meeting its obligations to mitigate the impacts of human-influenced climate change.

We aim to provide answers to these problems and point to where connections need to be made between government policy and private sector action.

By the very holistic nature of the barriers, this paper is aimed at government, the private sector, and independent voices, who are not immune to being part of the problems we see.

We are seeking a different conversation about net zero. A move away from 'targets and technology' that have defined policy over the last two decades on greenhouse gas reduction to one that puts our understanding of human nature into the centre of decision-making.

At the heart of our white paper is the recommendation that human integrity is central to achieving our collective need to save our planet. Not just from governments and the private sector but also from independent voices too.

## White paper summary

It is all too easy to point the finger of blame on leadership, and this is usually the starting point when trying to define who is responsible for action. The lack of action though is caused by a whole system of disconnects occurring way before decision makers are to blame.

The disconnects we see are not a lack of targets, tools, and technology. They are human based, locked into traditional hierarchical thinking and ways of working. We often observe how our own 100,000 year old operating system (our brain) blocks our ability to see the interconnectedness of the problems at hand. It has put us in a position where climate change experts talk in targets and toolkits, and the fear of humiliation drives business to do nothing rather than fail trying.

If we take a more human centred approach to resolving the inaction, then we can perhaps be in a better position to unbundle the problems and support the integrity of the mission. By taking human centred observations we see that many of the barriers come from external influences on an individual's ability to effect change.

Rather than critics triggering 'learned helplessness' for decision makers, could critics be part of a new movement of 'hive helpfulness'. We can only achieve our collective goals if we truly understand human motivation and then positively work together.

It is with this, that we at Aether, present **10 observations** from our research that look at the whole system of disconnects to delivering net zero. We hope that by showing these disconnects we can seek engagement in cross-industry thinking, especially in creative and human centred sectors.

Our observations are a series of intertwined issues with the system we operate in. There is no hierarchy to these issues, but we have framed them between the organisational structures we operate in such as time, geography, and data and the human responses to these structures such as polarised thought, fear and learned helplessness.

The starting point to our white paper is an education system that celebrate **specialists** and linear thinking and derides the generalist. We see commentators decree the need for 'whole system thinking' as the answer to net zero. But in an education system that forces specialist thinking from a young age combined with a brain that's success has evolved from logic and order, unilateral 'whole system thinking' is a fallacy.

Our inability to think in whole systems is matched with our human inability to think beyond **timeframes** that matter to us. From households that manage their finances on a weekly basis, to politicians' 4-year electoral cycle to a CEO's 5-year financial horizon: net zero by 2050 for only a 1.5-degree climate change by 2100 is beyond the comprehension of most decision makers.

**Geography** also plays a critical role in creating disconnects as evidence at every United Nations COP shows discords on who should pay and who, how, and where action should happen. In the absence of knowing who, what, where and how, independent actors have filled the void with incomparable **metrics and guidance** based on their own understanding which is typically linear and logical. Then there is the question of whether there is integrity in **profiteering** from net zero targets, and requiring businesses and organisations to have a system of accountability to show their **integrity**, starting at the top.

As a result, we see a lack of individual and collective **accountability** in delivering targets, and deviance from the pathway to net zero is an inherent problem. The fear of criticism from independent voices is literally stopping action on climate change. It appears government officials and business leaders are not allowed to make mistakes, and **perfection** is getting in the way of better outcomes. The psychology of **learned helplessness** continues to stall action. This is entirely different from a lack of inherent care, as observers might claim. It leaves a simple question to those who are pointing out everyone's fallibilities.

Is pointing out the flaws to a human going to get positive outcomes or would we be better adopting a new philosophy to progression; one that adopts a **hive helpfulness** for collective benefit?

We hope by exploring the whole system of problems (starting with the problem of human beings' inability to think in whole systems) that we can start looking at the easy wins to enable action on net zero, which begins with the way we look at the problem and understand our role in the supporting each other.

We look forward to hearing your views.

*Aether would like to thank the Lomond Group and the Glorious Day for their observations and suggestions for this white paper. Their ability to enable better communication is a testament to their industries.*

**"Aether's white paper on identifying the human barriers to net zero is a lifeline to actually doing something in a sea of esoteric jargon and conflicting methodologies".**

Will Arnold Baker, Founder and Director of Glorious Day

# Is the evolution of the brain the flaw to whole system thinking, or what we teach it?

*An education system dating back into ancient Greece celebrates experts and specialists. The manifestations of specialisms are language and thinking in pursuit of the single truth only understood by those who share the same journey. However climate change is crying out for system thinkers not more specialists, maybe it's the cultural revolution that will unlock the excellence of specialists from their irremovable silos?*

## A world of specialist

Our society loves a specialist. No school child ever got a prize for generally knowing an answer. Oxford University does not give scholarships to those who roughly know their way around many subjects.

By the time a child in the UK is around 13 years old they will already have made decisions that affect or restrict their career choices. The decisions made by the age of 17 could be life defining – maybe they continue in vocational study, leave the education system entirely, or at the very least further reduce their “choices” to perhaps three or four core academic disciplines. And so, it continues. By the time you've followed the education system to its end you might find yourself getting enveloped in the world of a very particular subset of marine worms. How those marine worms survive will be characterised in a language that not many people (formally educated or otherwise) will be able to understand. For most people, the brain will scramble pretty quickly beyond even the best written abstract on the topic.

These choices and specialisms within our societies appear well-reflected within our institutions and governments. In the UK there are currently 23 “high level” ministerial departments, 20 non-ministerial departments and 419 agencies and other public bodies. Their remits range from health and social care to international trade, culture and building new roads with very fixed boundaries on responsibility.



## So how does a society made up of siloed thinkers and institutions handle a multi-disciplinary and cross-border problem like climate change?

*“A hierarchical organization which seeks to maximise vertical coordination at the expense of horizontal coordination. It is inward-looking and self-contained with little regard for outcomes other than those which affect its own narrowly conceived goals”<sup>1</sup>*

Silos often get criticised for their failure to share information, to resolve disputes and to coordinate effectively. A number of studies have looked to explain the reasons for this and to propose solutions.

Climate change, as a whole system issue, suffers from the typical problems of silos in government. However, this is magnified greatly by the silos that exist throughout our societies and organisations within both private and public sectors. In addition, historical differences and grievances between nations means that there are not only silos within and across typical departmental topics, but also geographical silos that affect the ability of those thematic leaders to speak in harmony with one another at the world level.

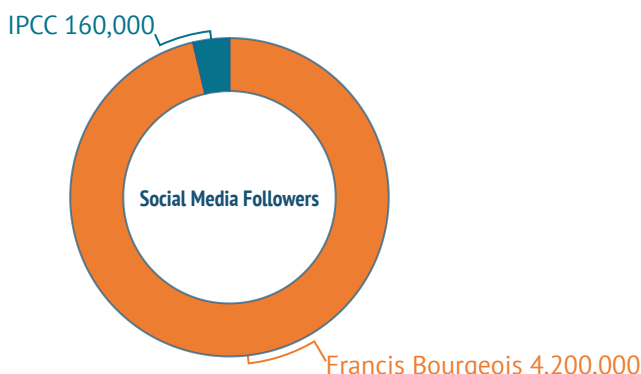
By the very nature of human thinking we will have to exist with silo thinking. In fact, there is a distinct risk that a wrecking ball through silo walls would not work because most humans simply can't exist in a free-flowing and ambiguous systems-thinking world. Indeed, there are reasons not to break down silos. Our best talent exists because of these institutional structures and security they provide to thinking and specialist expertise.

We therefore need to think of different mechanisms through which the talent which exists in sectoral and geographic silos is accessed.

## The cultural revolution

We are in the middle of an industrial revolution. Technology now means we can hold the world's entire opinion on anything in our pocket, machine learning is able to make more informed decisions and the nature of communication has changed forever. As with all industrial revolutions major technology shifts create major cultural shifts, whether that relates to the modern printing press giving access to newspapers to the masses in the 1st Industrial Revolution to the click bate news a global audience now consumes.

In a world where Francis Bourgeois has 1.6 million Instagram and 2.6 million TikTok followers and the IPCC has only 160,000, it is the influencers of the world who have tapped into a new form of engagement that breaks down intergenerational barriers. Their form and style of communication is more powerful, it would appear, than science based literature.



To accelerate communication of the needs of the planet the revolution is going to need to enable society to place equal value on specialists, generalists and culture in determining the answers to the problems we face.

Better communication through this new cultural revolution will see the whole system connections being established and better planned for across government and economic sectors.

[1] Scott, I., Gong, T. Coordinating government silos: challenges and opportunities. GPPG 1, 20–38 (2021). <https://doi.org/10.1007/s43508-021-00004-z>

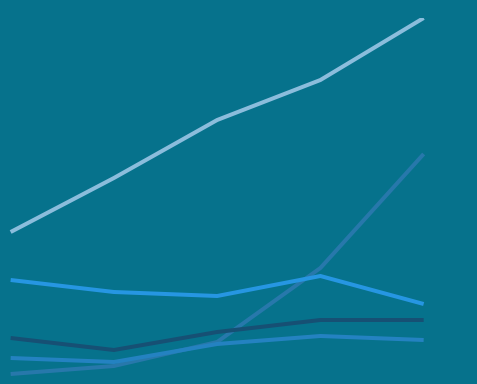
# Who has time for climate action?

The progress of climate action suffers from human perception biases. The impacts of climate change are often intangible, not immediate, and far away. A changing climate is increasingly being credited as raising the likelihood of natural disasters, but it is impossible to say that it is responsible for a specific event. With many other immediate worries and challenges in our personal lives it can be difficult to prioritise changing our behaviour and lifestyle for something that isn't currently directly affecting us, particularly in the western world.

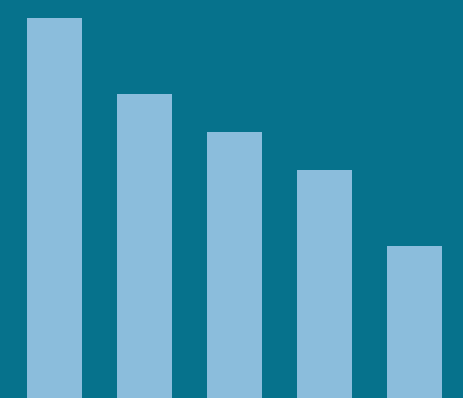
There is no defined end-game that we can point to and say if we do x, y, and z, by year 20xx, we will "save the world". Climate models look to the 100-year time horizon. This makes it easy to delay taking action. This is compounded by the disconnected timeframes of planning and acting across different groups of society.

Heating  
 Food School  
 Entertainment Rent Health  
 Electricity

The effect of short-term political election cycles on progressing climate action cannot be understated. Climate policies are not (yet) generally seen as a vote winner, with incumbent governments delaying or cancelling policies in the pre-election period. Democratic countries were found to be less likely to ratify international accords, such as the Paris Agreement, if elections are impending. With voters having other priorities, it is tempting to leave it to the next government to sort out. Even when climate policies have clear benefits, they may not be immediate, and can be a harder sell. Frequent changes in the political parties in government can mean big swings in ambition for climate action and the reversal of previous policies, meaning a lack of certainty for industry.



Infrastructure investments are often on a 10 – 20 year timeframe. This can lock in previous decisions that may be incompatible with the 1.5C efforts. For example, many UK local authorities have declared climate emergencies and set net zero targets for their estates and their boroughs, many with a 2030 deadline. A common action is to move their road fleets to electric vehicles. One of the influence levers that they have is their procurement power. However, some contracts, such as those for waste collection vehicles, can be in the 10-year range, making it difficult for councils to push for the change that they have committed to.



Climate models run on a 100-year time horizon. Scenarios come with uncertainties that can be difficult to communicate to non-scientific groups. The models are only as good as the data that is put into them.

Individuals may have long-term financial plans, but the focus is often on a monthly or yearly budget. Investments to increase the energy efficiency of your house or switch to low carbon heating will save money in the long-term, but requires up front capital which in the current cost-of-living crisis is likely to be prioritised elsewhere.



Businesses will have annual targets but typically work to 5-year strategies. Corporate organisations need to deliver to shareholders and plan for opportunities and challenges in their financial forecasts. If climate action cannot deliver a return on investment in these timescales it can be hard to justify their inclusion in their business plans.



The UK has set a net zero target for 2050, but other organisations and local governments have set earlier dates. Early targets can drive action with their immediacy, and more distant targets can encourage long-term planning, but risk being delayed.



These disconnects in timeframes make coordinating and implementing climate action challenging. Increasing the understanding and awareness of the wider impacts of climate policies and their co-benefits can be a strong tool for driving action for those with other priorities. Many climate actions will deliver other benefits such as fuel bill savings, health improvements, savings to the NHS and job creation. Breaking down siloed working and ensuring engagement from all groups of society is needed to deliver the just transition to a better world.

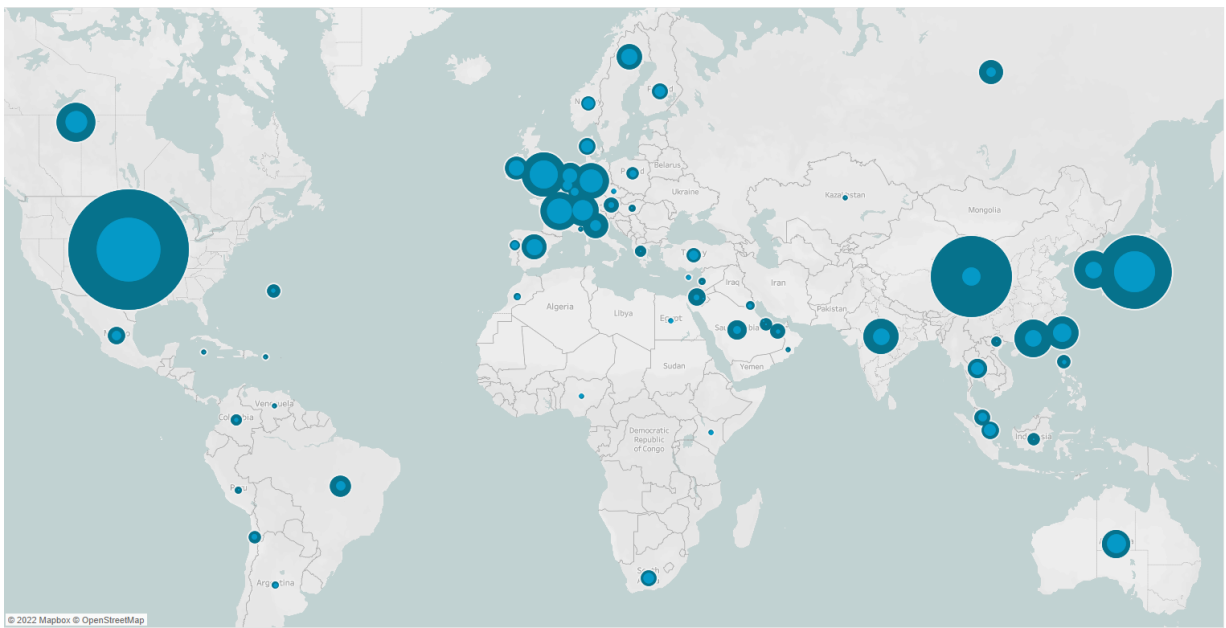


# Out of site out of mind; net zero is bigger than just the back yard

## Different strategy for different geographies

Many corporations have declared net zero targets but remain operating and expanding in countries or areas where emissions are projected to rise. There may be economic reasons for expanding in these areas, such as cheaper labour or reduced operating costs, but it does raise a question of integrity of these corporations and their true dedication to decarbonisation and sustainable growth. Similarly in the UK, each local authority has different levels of ambition and different net zero targets. Moving to net zero will require individuals, companies, governments, to look beyond the boundaries of their jurisdiction to recognise these different priorities and pathways.

The map below shows the number of Forbes Global 2000 companies by location and shows the proportion of these companies that have declared a net zero target. It shows the disconnect for companies that have based themselves in countries that have projected emissions increases, e.g. India, and yet have declared a net zero target.



● Total number of Forbes Global 2000 companies ● Number of Forbes Global 2000 companies with a net zero target

### Conflicting priorities

It is important to recognise that every country has different development and decarbonisation pathways. For some countries, achieving net zero is not a top priority as there are other, more pressing issues, such as food and fuel poverty, access to clean water and health care, and disaster risk management. Choices must be made in a way that best meets these needs and this doesn't always align with a net zero pathway. The global conversation around net zero needs to recognise this, with developed countries providing support to developing countries through technology and knowledge sharing, or by demonstrating a deeper commitment to climate actions.

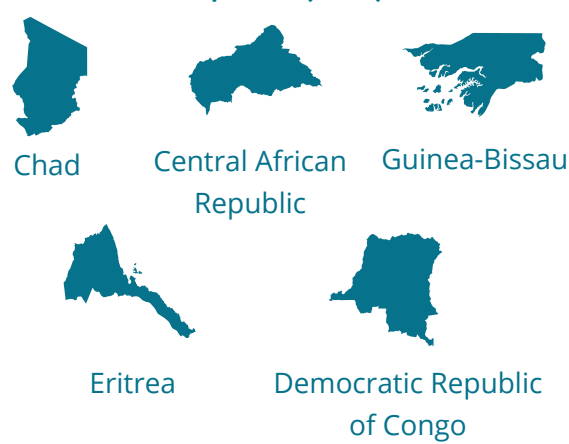
### Cause and effect

There is often a disconnect between countries contributing the most to climate change in terms of emissions and countries that are feeling the biggest impacts of climate change. This inevitably leads to differences in the relative importance of mitigation and adaptation. The lack of a tangible, realised cause and effect can make climate change a hard issue to understand. As individuals and organisations cannot directly correlate their actions to a consequence, there is a reluctance to internalise the issue and take ownership of it.

#### Countries with the largest emissions in 2021<sup>1</sup>



#### Countries with the lowest ND-GAIN ranking for adaptation (2020)<sup>2</sup>



### Equity and fairness

Net zero cannot be achieved globally without the inclusion of all countries and regions. However, it is crucial to remember the importance of equity and fairness; common but differentiated responsibilities. In their development, many of the biggest economies relied on the use of fossil fuels and other natural resources. It would be short-sighted to expect that developing nations follow a development pathway that is aligned with a net zero target, especially without a significant amount of technology and knowledge sharing. It is important for countries and organisations to recognise that they have benefitted from the use of fossil fuels and other resources and show a serious commitment to action going forwards. This links back to the points made above about recognising different development pathways and different priorities.



**Achieving net zero will need a serious commitment to meaningful actions with a consideration of the wider geographical context that reflects the importance of equity and individual priorities.**

[1] [https://edgar.jrc.ec.europa.eu/report\\_2021](https://edgar.jrc.ec.europa.eu/report_2021)  
 [2] ND-GAIN index, scores for 2020 – combination of vulnerability to climate change and readiness to improve resilience  
 Net Zero Stocktake 2022 <https://ca1-nzt.edcdn.com/Net-Zero-Tracker/Net-Zero-Stocktake-Report-2022.pdf?v=1655074300>  
 Net Zero and Climate Change: A Conversation with African Experts, Webinar hosted by Oxford Net Zero  
<https://www.youtube.com/watch?v=m7COvYlab5o>  
 'Fair share' Climate Action Tracker <https://climateactiontracker.org/methodology/cat-rating-methodology/fair-share/>  
 Chad, Central African Republic, Guinea-Bissau, Eritrea, Democratic Republic of Congo maps from Vemaps.com

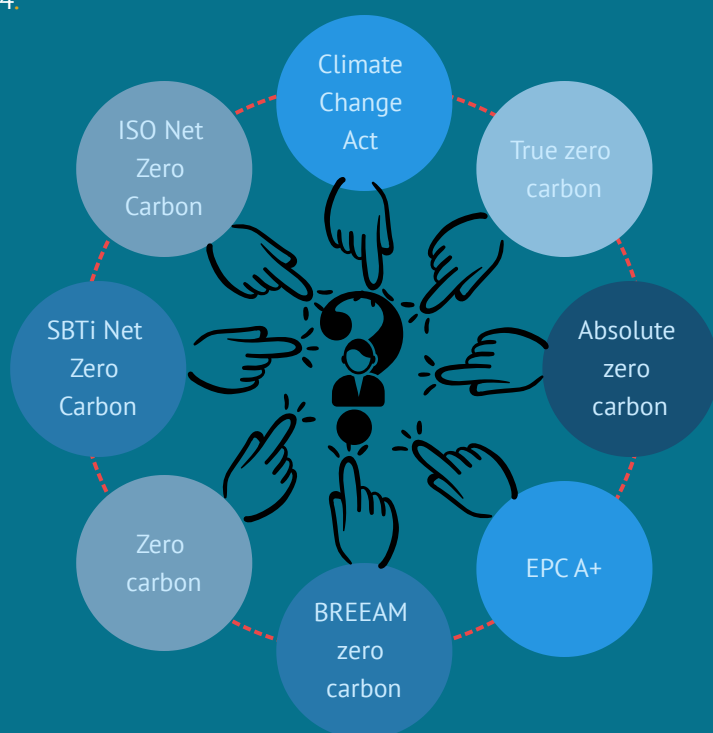
# The rise of sector micro guidance and micro management

*The lack of structure to emission reporting up to government has created different sectoral languages and approaches to measuring and reporting creating a lack of transparency and consistency in regulation.*

At a national level, government policy and guidance on measuring and reporting emissions, differs substantially within each sector creating a disconnect in how emissions are accounted and reduced. This is creating a major impact on government's ability to deliver consistency and comparability on emissions across UK sectors, leading to a lack of transparency and integrity in their Net Zero Strategy.

This disconnect is further exacerbated by independently created 'micro guidance' within sectors looking to refine the transparency issues with emission measuring and reporting, trying to define a new 'good' but only adding further complexity.

An example of this micro guidance complexity can be seen in building emissions with the broad range of standards and procedures for defining zero carbon buildings - from Green Building Council Net Zero Standard, the LETI standards, BREEAM zero carbon, to the National Calculation Method Rating A of the Building Regulations in addition to a range of local authority policies defining true zero, absolute zero and zero carbon outcomes. In the transport sector similar micro guidance comes in the form of DMRB LA 114, PAS 2080 and the new Quantitative Carbon Reduction guidance of LTP4.



All of these guidance documents use different words, emission factors and reporting metrics meaning the outcomes are incomparable and essentially meaningless in the whole system of climate change accounting.

## No regulatory consistency

How the impact of newly created emissions from development and infrastructure is treated by regulators varies significantly too. What is considered a significant quantum of emissions, and grounds for refusal in planning regulation, is deemed acceptable elsewhere in the same regulatory framework.

For example, there are local authorities that individual new dwelling emissions of 500kg CO<sub>2</sub>/year is significant enough that they must be zero carbon. At the same time road building schemes, such as the Black Cat Improvements<sup>[1]</sup>, are creating in excess of 50,000 tonnes of direct emissions per year which Government say are not significant.

This lack of consistency is being caused by experts miss understanding of the materiality of emissions by apply guidance meant for one sector into another. Using the example above we see experts refer back to the GHG Protocol which states that a single emission source that is less than 1% of the total emission of a 'product' are not significant and therefore don't need to be reported.

For a new house, the figure of 500kg CO<sub>2</sub>/year contributes a large proportion of the emission footprint of a house (the product), therefore it is considered significant enough to warrant regulating and neutralising, through local planning policy.

The road improvement scheme is comparing its emissions to the whole UK emissions, defining the whole UK emissions as the product. Obviously this will make any single project a fraction of the total emission, and therefore defined as not significant.

The major error here is not treating the project itself (like the house) as the product under the GHG Protocol.

## A single methodology for defining significance

The complexity of international, national and independent guidance on emission reporting and decarbonisation is creating more inconsistency within private sector reporting than the guidance(s) are trying to resolve.

Net zero won't be achieved unless consistency and accuracy in reporting and how significance is determined between sectors.

At a national level reporting aligns to the requirements of the IPCC. In the UK the National Atmospheric Emissions Inventory is the single and only source of methodology for accounting emissions for our collective net zero goals.

In understanding the whole system of emissions for any organisation utilising a single guidance methodology, such as ISO IWA 42 Net Zero, and understanding the government's definition of residual emissions is a good starting point. Then aligning emission reporting to the National Emission Inventory segments to create consistency and comparability will enable better consistency and comparability across sectors.

Science based targets aligned to the Paris Agreement 1.5 degrees target means something significantly bigger than single narratives. That doesn't mean the end of micro guidance, it just requires those who produce it to understand how it fits in to the whole system of emissions reporting.

[1] <https://nationalhighways.co.uk/our-roads/a428-black-cat-to-caxton-gibbet/>

# Perfection and net zero

*Scientists' and independent observers' definitions of good outcomes for the planet changes faster than non-scientists can keep up with. The changing goal posts and opinion on 'good' is having unintended consequences, and actually derailing environmental performance.*

It may surprise you to hear that there is no single unified definition of “net zero” or “carbon neutral”, but there are plenty of references. In the amended Climate Change Act 2008, the UK government commits to net zero by 2050, which they define as:

*“the UK’s total greenhouse gas emissions would be equal to or less than the emissions the UK removed from the environment.”*

This would suggest that unabated emissions could continue as long as they were subsequently removed from the atmosphere. The United Nations goes one step further, tightening the screws in their definition:

*“net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.[1]”*

Following this is the institutional confusion of what absolute, true, science based, nearly zero, net zero ready, “aligned to the Paris Agreement” might or might not mean.

Many independent organisations believe they also know the answer with guidance galore defining terms like absolute zero, true zero, nearly zero, zero carbon, and carbon neutral. Each with their own definition of ‘good’. All of these differing opinions on what defines net zero is causing confusion on what ‘good’ looks like.



## The offsetting debate

As an example, up until 2021 achieving carbon neutrality was deemed pushing the corporate boundaries. Aligned to the UK government’s definition of net zero, which allows offsets, more companies saw the benefits of the label at a reasonable cost. This caused a rush for low-cost qualified and certified offsets.

The price of offsetting emissions came in at \$3.82/tCO<sub>2</sub>e in 2021<sup>[2]</sup>. It is therefore often much cheaper for a company to offset emissions than to meaningfully reduce them in the first place, especially if reducing emissions would require an extensive restructuring of supply chains or operations.

The UK government’s definition of “net zero” therefore becomes much more attractive than the UN’s definition. For many organisations their understanding of good was fulfilled and aligned to the UK government’s.

But the goal posts moved. The emergence of new guidance such as the SBTi definition of net zero demands reduction of emissions only. The SBTi define that a 90% reduction in emissions was needed prior to offsetting and net zero claims.

Parallel to this, critics started raising the issue that not all offsets are created equal, good offsets are not cheap and cheap offsets are not good. Removing CO<sub>2</sub> from the atmosphere and putting the planet’s natural environment back to where we found it has become a point of disagreement between scientists and observers.

So, under this new definition of good, corporations stopped offsetting to focus on emission reductions only. A high-profile example being Easy Jet who have recently announced their intention to no longer invest 25 million GBP a year in environmental protection projects in the Amazon and Ethiopian Bale Mountains Eco-regions.

The unintended consequences of moving the goal posts has fast become a major problem for projects that are protecting our planet.



## It’s not an either-or sum

When it comes to carbon emission inventories specifically there should be no hierarchy for reducing emissions to meet the Paris Agreement targets. The raw data shows it requires rapid emission reduction and rapid removal of emissions. It is not an either-or sum.

What “good” looks like will change based upon what’s appropriate for a given industry, sector or geography. Some businesses will be lucky, with opportunities for vastly improved sustainability attracting further business opportunities.

There should be nothing wrong with businesses explaining these opportunities, without fear of greenwashing recrimination. Likewise, there should be nothing wrong with businesses supporting environmental protection of our planet. That surely is a good outcome?

[1] <https://www.un.org/en/climatechange/net-zero-coalition>

[2] <https://climatetrade.com/what-influences-carbon-offset-pricing>

# Is there integrity in profiteering from net zero?

*In a free market economy we expect to see profiteering in the green industry. But when competitive advantage is the primary motivator to net zero, integrity of actions will become less transparent.*

Since 2018 a tidal wave of climate emergency and net zero declarations emerged from the public and private sector. This phenomenon saw increasingly interesting and variable language being used as organisations began to learn what they were signing up to.

Two years on from the peak of declarations, evidence shows that still 71% of global businesses appear not to have a strategy for net zero.

So why were so many organisations making declarations when there was no immediate intention to act on them?

Many, no doubt, perceived there to be a competitive advantage in being part of the 'gang' or feared just being left behind in their ever increasingly competitive market.

This presents a problem for many of these organisations. Their starting point lacked any form of integrity, leaving them posthumously to be cited for greenwashing as a minimum, and a risk of legal challenge for mis-representing stakeholders.

## The variations in Forbes 2000 companies commitments to net zero (stocktake-2022)



● Corporations with no target ● Corporations with a target but no plan

● Corporations with a target and plan but no accountability ● Corporations with a target, plan and accountability

## If it's that good, give it away for free?

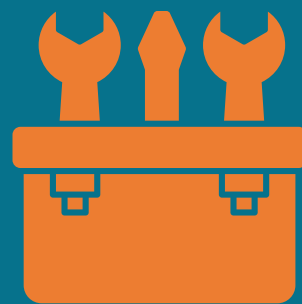
The challenge for integrity also needs to be considered in the actions of business. Over the last few years we have seen a rush to establish market positions in 'green' services and green start-ups spring up everywhere.

For example, in the super-fast fashion brands we see many of them now operating spin off apps to sell second hand clothing, whilst the fashion industry continues to churn out 100 billion garments every year<sup>[1]</sup>, which some may argue to be disposable by design. The second hand app selling market is already crowded, so the environmental benefit added by such apps is arguably negligible. However, that is not the objective. Ultimately, these second hand apps have produced some good PR for the fast-fashion brands that run them, so is the primary motivation competitive advantage, and if so how long will this last when that competitive advantage is lost?

In the professional services sector, a week does not go by without another website or toolkit being promoted to solve businesses carbon accounting needs. Many of these toolkits and services are being offered by large well-funded businesses with their own climate emergency declarations.

This raises an interesting question for all of these industry green offers. If these apps and toolkits are so good, why would these organisations not want to give them away for free, if saving the planet is their core value?

After all, we're collectively in a crisis due to selfish actions of previous generations, it will take unselfish actions to unpick it.



## Build capacity not toolkits

The Conference of the Parties under the UNFCCC aims to establish a route to developed nations reimbursing emerging economies for the previous decades of emissions.

Whilst the COPs target nations, businesses in developed nations have a perfect opportunity to act in a stewardship role to support capacity building for similar businesses in emerging economies.

Would it be better for the planet if organisations looked to develop business partnerships in emerging economies to share resource in climate education and skills (and toolkits) to build capacity, instead of competing in isolation for the green economy?

To reach net zero, integrity of action on climate change needs to be bigger than just trying to win the green pound.

[1] <https://cleanclothes.org/fashions-problems/waste-and-pollution>



# Seeking integrity in accountability

*Nothing happens without someone taking responsibility for it. Could this be at the crux of inaction?*

Accountability is the obvious starting point for an organisation's net zero declaration, whether public or private sector.

In working with local government and businesses we often see accountability shifted down. Leaders lean into "Our new head of sustainability" as leading action on climate change.

This is a daunting task for the 'head of', unless the position comes with a sizable budget and mandate to make transformational change at the speed of which a net zero target needs.

Organisations need to ensure they have a system of accountability within, starting at the top.

It requires leaders at the very top to define their role in transparency. Accountability sits in the job description of the CEO, CFO and COOs. It ultimately requires an independent role to also be created through the appointment of a Chief Transparency and Integrity Officer, if a Chief Sustainability Officer is not in place already.

## The variations in Forbes 2000 companies commitments to net zero (stocktake-2022)



● Corporations with no target ● Corporations with a target but no plan

● Corporations with a target and plan but no accountability ● Corporations with a target, plan and accountability

Not explaining how the board is being held accountable, other than signing off policies and annual reports, shows little integrity. On the other hand, defining a director's performance and remuneration to the rate of decarbonisation, rather than just growth, would show meaningful integrity in net zero plans. This can easily be done by pegging responsibility to net zero to each role at the board room.

This is now baked into ISO Net Zero Guidance, indicating that 20% of leadership's remuneration should be pegged against action.

It will be interesting to see whether there will be immediate backsliding by C-Suites and Directors once they've realised that they may be out of pocket because of their fine words.

ISO AW46 Net Zero could be the fundamental differentiator between businesses.

Businesses and individuals that are 'on it' will not balk at signing up their remuneration to delivery. In particular, Chief Sustainability Officers or Chief Climate Change Officers have no reason not to be putting a large proportion of their remuneration up as collateral for action.

Those CSO's who know what they're doing should be doubling down on their ability to deliver change.

Those organisations that don't publicly declare how they have set their senior leadership accountable will only show their lack of integrity made to their declaration in the first place.

It will become a simple metric for greenwashing.



# How can we define accountability if no one is accounting?

*Decisions are being made on a daily basis that are increasing emissions but no one is regulating these increases against the budgets set. Hope is not a strategy.*

## Introduction

The UK National Atmospheric Emission Inventory (NAEI) is the single source of emissions reporting that is used to retrospectively match up against the Climate Change Committee's emission budgets which set the future pathways to net zero by 2050.

The UK Government has a significant weakness in its measuring process. No one is counting off the emissions caused by everyday decisions and judging whether they are within the tolerance of what the budgets were set for.

If no one is keeping this short-term tally and decision makers (planning authorities, Secretary of State, the board room) are not netting off new emissions against the budgets set then achieving net zero won't happen.

## The disconnect between measuring, reporting and verification

Sectoral approaches to measuring, reporting and verification of emissions are siloed. There is no process in hand that looks at the whole system emissions impact of sectoral silo decision making.

For example, a new major road project will undertake a greenhouse gas assessment using the Department for Transport's guidance. It will quantify all direct emissions from construction, land use change and future surface traffic (Scope 1), emissions associated with electricity use (Scope 2) and will often look at the emissions that the project can influence beyond direct emissions, such as from the manufacture of the materials used in the road's construction (Scope 3).

The project may be exemplar and look at its unintended consequences of new road building such as more emissions produced from the manufacturing of new cars to fill it. It may gather a comprehensive set of data cutting across national emissions segments including manufacturing, land use change, energy generation and transport.

All of this data will be locked up within a PDF and not shared with the respective emission segments to ensure transparency, and more importantly ask whether these additional emissions are within their sectoral tolerances. There is an additional problem for this data, even if it were shared.

We know the calculation methods used to understand the emissions inventory of a project such as a road are not the same at those within the NAEI, which means there is no consistency in data gathering in order to compare to the national tally in the first place.



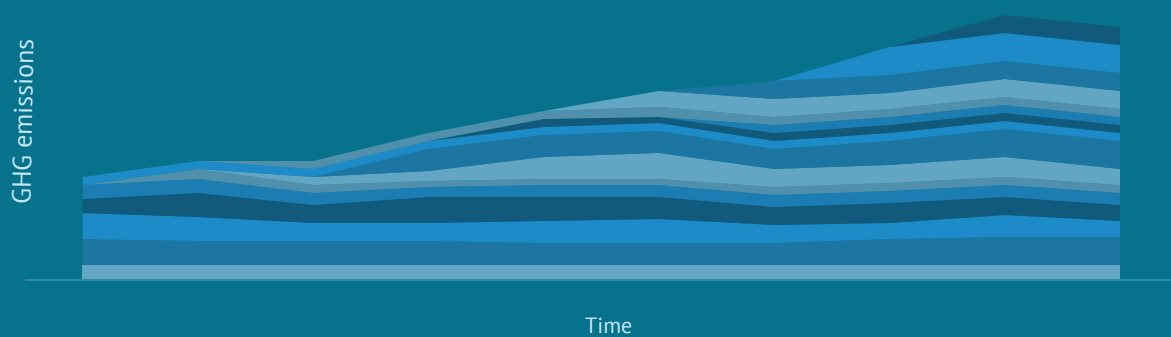
The comparison and decision on emission tolerance within the set budgets is not happening and even if it did the data would not be consistent, comparable, complete or accurate. And with no transparency this data doesn't meet the basics of the Paris Agreement Article 13.

## One more project won't hurt, will it?

Government takes the view that each individual project is not significant when compared the national tally and therefore suitable for investment. This results in statements seen in Nationally Significant Infrastructure Projects climate change assessments that millions of tonnes of emissions are not significant and therefore forgotten about, until they've actually occurred.

The emissions quantities being established in these projects are not being directly accounted for within the NAEI and the CCC are not netting or accounting for them from the carbon budgets at an early enough stage.

No one is keeping a tally of the cumulative impact of infrastructure investment across emission segments until they've happened.



## Is infrastructure temperance what we need?

The greatest reduction in national emission reduction is not to use resources in the first instance. This is the whole premise of the circular economy. The CCC assumes the route to net zero is to decarbonise the unabated consumption of resources.

This means that the Climate Change Committee has not taken "don't build it" into consideration as a primary decarbonisation route.

To close the gap on decisions that will result in new GHG emissions the Climate Change Committee's mandate should be extended to being a primary consultee on all Nationally Significant Infrastructure Projects. The mandate should include providing a judgement as to whether emissions from projects fit within their budgets or not, and creating the central accounting route to support decision making.

At a more local level, planning authorities should ensure that their local plan has establish a GHG budget for growth. This should then be used to ensure the growth plans are accounted for, and projects are netted off the budget as they come forward.

By understanding the impact of projects on the national and local budgets, better decisions can be made as to whether projects are within the tolerances of meeting our obligations to 1.5 Degrees by 2050.

# Atelophobia, laziness or learned helplessness?

*The complexity of guidance and scientific language enacts a deep routed human response of learned helplessness creating inaction. If we understand that learned helplessness is a triggered response to complexity and the fear of getting things wrong born from early experiences with science at school. Experts, observers, and standard bearers for science need to understand that they are part of the problem of inaction.*

## Introduction

The UK's Paris Agreement commitments are measured and monitored through the well-established methodologies set within the National Atmospheric Emissions Inventory (NAEI), reported annually to the IPCC and audited by the independent Climate Change Committee with their emission budgets.

The methodologies for calculating these emissions are well established and have been around from the days of the UK's Kyoto Protocol commitments.

We appear, though, to have a systemic problem across the UK in creating comparable, consistent, accurate, complete data for 'net zero' declarations at an organisational or project level.

There are a number of reasons for this but one of the largest issues are the 100s of independently created guidance, definitions, methodologies, toolkits and opinions on what and how emissions should be calculated.

The unintended consequence of this noise is 1000s of inconsistency and incomparable business and project emission data sets causing confusion for policy creators, decision makers and regulators.

And the answer is not more guidance.

## Declarations of net zero outside of Government's Net Zero

For many organisations emission reporting requirements are coming from many different angles each with their own individual nuances and demands.

For example, a PLC housebuilder may be required to report GHG emission data up to 6 different ways using 6 different methodologies.

This is not unique to building sector. Many sectors are bombarded with multiple reporting requests each with their own independently created guidance.



Very few of these guidance and methods are aligned with each other. Many of them use completely different carbon emission factors and equations leading to huge discrepancies in data so by de facto not aligned to the Paris Agreement's need for consistency and comparability to establish transparency.

## The multiple asks are now causing failings in transparency

The result of corporations responding to a broad spectrum of stakeholders' opinions and asks on what measuring and reporting should look like is creating a problem with transparency.

It's extremely hard to offer transparency in a corporate sustainability report if its trying to be everything to all people. We now see sustainability reports that are over 100 pages, locked in a .pdf file. The upshot is a lack of comparability and consistency in reporting across competitors, sectors and the economy.

The ability to achieve net zero is significantly diminished if a company's climate change leadership is having to spend more time reporting what they're doing than actually doing it.

Perhaps it's time to take the foot off the neck of corporate reporting and create a simplified measure, report and verification process for every sector?

## Complexity is a turn off for most decision makers

At Aether we are hearing first hand that for decision makers that this complexity of measuring and reporting is too complicated. They are switching off and diversity climate change responsibility downward within their organisations.

And if the real decision makers are not engaged, there is little hope in achieving net zero. Is the problem therefore that decision makers not engaging, or the system being created by observers and standard bearers too complicated?

## The science is scary, why are we surprised that decision makers avoid it?

For a good majority of people (including the C-Suite) science and maths is something they left at the exam table aged 15. Now they are faced with being asked whether they are carbon neutral, net zero carbon, absolute zero carbon, true zero carbon, nearly zero carbon, or zero carbon ready from new stakeholders who they don't know.

We hear the expression "well it's all too complicated isn't it?" far too often in our work.



Learned helplessness is a psychological state where following repeated stressful situations a person believes they are unable to control or change a situation, so they do not try to, even when opportunities for change are available.

This is contributing to the emerging picture of an enormous disconnect in action on climate change in the public and private sector.

Understanding the complexity is really important in our journey to net zero. But to avoid learned helplessness enforced by the complexity of science details perhaps the targets should remain in a language everyone would understand that is not science based.

The majority of people we speak to with Paris Agreement aligned targets have never actually read the Paris Agreement, so such 'science' targets don't hold much integrity in the first instance.

Perhaps a simple target set to reduce their role in supporting fossil fuel extraction and nature depletion through the creation of a costed action plan with accountability be a more easily understood target than the current targets like a Pledge to Net Zero through a Science Based Target aligned to the Paris Agreement 1.5 degrees.

# Why don't bees criticise each other?

## A hive helpfulness approach to net

### zero

*Our collective journey to better outcomes is awash with opinion and criticism on how that should happen. The unintended consequence of this is to drive decision makers away from the challenge. If we were to take our cues from altruistic communities criticism doesn't exist as we know it. If we adopted the helpfulness of the hive, we would get to net zero faster.*

Many observers, consultants and specialists in climate change have a detailed understanding of only a few aspects of the whole system of climate change. The specialists and sectoral siloes celebrating their expertise in a single climate narrative.

The impact of this is felt in the argumentative expert, an area of psychology that has been interestingly observed by University College London's Climate Action Unit.

The UCL Climate Action Unit point out that much of the discourse in the climate change arena comes from experts' ability to develop a single point of view, elevating their opinion through collective agreement, and then disagreeing with any form of alternative view.

*People's sense of what is meaningful action on climate change is indeed fragmenting. This isn't by design, it's a side effect of our psychology: the more mental energy we devote to subject, the stronger we convince ourselves that we know the truth.*

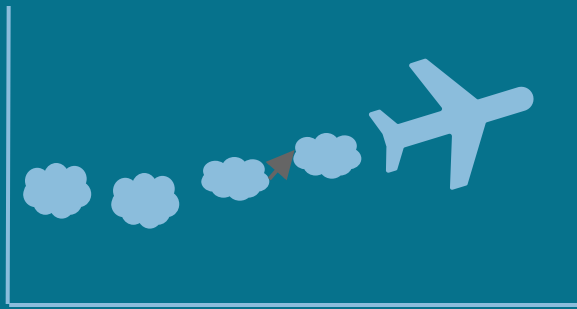
Dr Kris de Meyer UCL

As a result, a lack of progress in actioning net zero is caused by conflict created by expert opinions on what good looks like. Couple with this hive mentality, rabbit holes on the 'answer to climate change' are everywhere.

#### Corporations in flight from criticism

Critics are very quick to point out mistakes and lambast corporations with claims of greenwashing.

An example of this can be clearly seen in the aviation industry. Flying isn't going anywhere – Airbus forecasts that passenger traffic will grow by 3.6% every year until 2041 <sup>[1]</sup>. The aviation market is heavily fossil-fuel dependent, and there is no magic fix to this right around the corner. Airlines are branded as greenwashers whenever a sustainability strategy is announced<sup>[2]</sup> regardless of whether they are actually supporting good outcomes.



It is easy, therefore, to understand why many organisations simply wouldn't bother. Keep your mouth shut, continue with business as usual, and thus avoid the barrage of greenwashing accusations that ensue following a sustainability strategy announcement.

This is triggering an ancient human trait. The human brain is still working on a 100,000 year old operating system. When challenged with criticism and complexity humans avoid dealing with it.

Is criticism and the rush to establish guidance as 'fact' to back the criticism actually helping anyone? We know this is creating 'learned helplessness'. So probably not.

#### A call for Hive Helpfulness thinking

In our critical thinking perhaps we need to start a new philosophy. Rather than hive mentality following critics, could we not use our human character of 'following' to establish 'hive helpfulness'?

The term hive helpfulness was coined by Will Arnold-Baker from The Glorious Day, as a way of using hive mentality positively.

In the context of net zero, rather than the current hive mentality of continually throwing green muck as industries endeavouring to change, would it not be more useful to provide the signals to what 'good' looks like.

Whilst pure altruism of a beehive community might be a little bit too far to ask for human beings, the process of how bees share information isn't. A bee that finds a flower with nectar will communicate the location through their special waggle dance. This is received by an outgoing bee and their direction of travel is set. They may find a new, better flower in the same location or no flowers at all. On return they simply communicate to the advancement of the hives' knowledge of where nectar is.

In this altruistic process no bee (as far as we know) gets ridiculed if their knowledge does not provide bee Eden. Nor does the entire hive sit back and wait for one bee to tell the hive a single answer for them to agree with. The evolution of the hive has shown that collective exploration across a broad geography creates enough understanding for survival. No one bee knows everything, and collectively they know the direction of travel to share their own learning, without criticism. That's hive helpfulness!



So, for our human hive's journey to net zero would we not be better that we are helpful in our sharing of knowledge? Providing signals to the information we do know, accept it if someone does not follow the same path as it may not be useful, but it was helpful in informing the direction in exploration.

A bee doesn't communicate false truths, because the proof of endeavour is in the nectar it carries. We just need to be mindful that nectar comes from many places. A hive doesn't worry about a single bee that carries misinformation, because the collective hive's exploration is bigger than one entity.

If we took our cues from the humble bee, a hive helpfulness philosophy would strive to work in a collective good to support decision makers through individual contributions to the narrative and action on net zero. If less time is spent worrying about single companies greenwashing, and more in sharing knowledge we will move faster to net zero.

Perhaps it's also time to take the foot off the neck of corporate achievement being only about the purity of the net zero Eden now. Surely the process of learning, which includes the integrity of owning mistakes, and allowing them to show progress, should be supported not criticised?

[1] <https://www.airbus.com/en/products-services/commercial-aircraft/market/global-market-forecast>

[2] <https://www.theguardian.com/business/2022/sep/26/easyjet-will-stop-offsetting-carbon-emissions-from-planes-roadmap-net-zero>