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NET ZERO COMMITMENTS: A VANITY OR A REALISTIC ROADMAP? UNVEILING THE HARSH TRUTHS

Are your net zero commitments nothing more than empty promises?
Discover the shocking reality behind the challenges organisations face in achieving their ambitious carbon reduction targets. As the urgency to combat climate change grows, it's time to confront the uncertainties head-on and transform vague commitments into concrete strategies. Failure to do so could lead to the net zero dream fading into oblivion. Join us on the complex journey towards a sustainable future and learn the secrets to turning risks into opportunities.

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The desire to reduce carbon emissions is nothing new, with legislation dating back to The Alkali Act 1863, which sought to address the environmental impacts of industrial processes.

Over time, regulations have expanded to cover air, water, noise, and waste pollution, while voluntary initiatives like ISO 14001 and Corporate Social Responsibility (CSR) have encouraged businesses to identify and reduce their environmental impacts.
The rise of Environmental, Social, and Governance (ESG) criteria has further elevated the importance of sustainability in the eyes of investors and stakeholders.

Yet, despite this long history of efforts to curb emissions, organisations are still grappling with the risks and uncertainties inherent in achieving their reduction targets. ESG reports abound with data - baseline figures, year-over-year comparisons, and short-term targets - but behind the numbers lies a stark reality: these commitments are just that, commitments, with little certainty about how or when they will be realised.

Emissions

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The root of the problem lies in the sheer complexity of the task at hand. Organisations are faced with a dizzying array of variables that can impact their carbon emissions, from the fuels they use and the efficiency of their equipment, to the behaviour of their employees and the growth of their operations. Quantifying these uncertainties over a time scale as long as 30 years is a daunting, if not impossible, challenge, leaving many to fall back on incremental improvements and short-term forecasts.

Risk management practices, too, often fall short in the face of this complexity. While most organisations maintain risk and opportunity registers, the balance is often heavily skewed towards risks, with few opportunities identified or exploited. This may be partly due to the way risks are framed, with a focus on potential losses rather than uncertainties that could be leveraged for gain.

Consider the case of an organisation seeking to reduce emissions from its fleet vehicles. A typical approach might begin with identifying the risk of failing to meet reduction targets, followed by the development of mitigation plans. However, this linear thinking fails to capture the full range of uncertainties at play, from the variability in fuel types and engine efficiency to the accuracy of consumption data and the projected growth of the fleet.

By reframing the problem in terms of uncertainty breaking it down into causes of uncertainty and sections of variability - "There is uncertainty around the level of carbon emissions from our fleet because of the different fuels we use, the variation of the efficiency of the combustion engines in our fleet, the different driving standards of our people, the accuracy of data on our fuel consumption and that our fleet is expected to increase year on year as part of our overall business strategy" - the organisation can begin to identify not only risks but also opportunities for reduction, such as purchasing renewable electricity, transitioning to electric vehicles, installing solar panels, and improving driver training.

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Uncertainty

Uncertainty around the level of carbon emissions from our fleet because of the different fuels we use, the variation of the efficiency of the combustion engines in our fleet, the different driving standards of our people, the accuracy of data on our fuel consumption and that our fleet is expected to increase year on year as part of our overall business strategy.

Risks

- Regulations may change that could introduce requirements for additional emission reductions or offsetting measures beyond simply using renewable energy for our fleet.
- Our data quality may be inaccurate.
- Budget not available to change all fleet to EV.

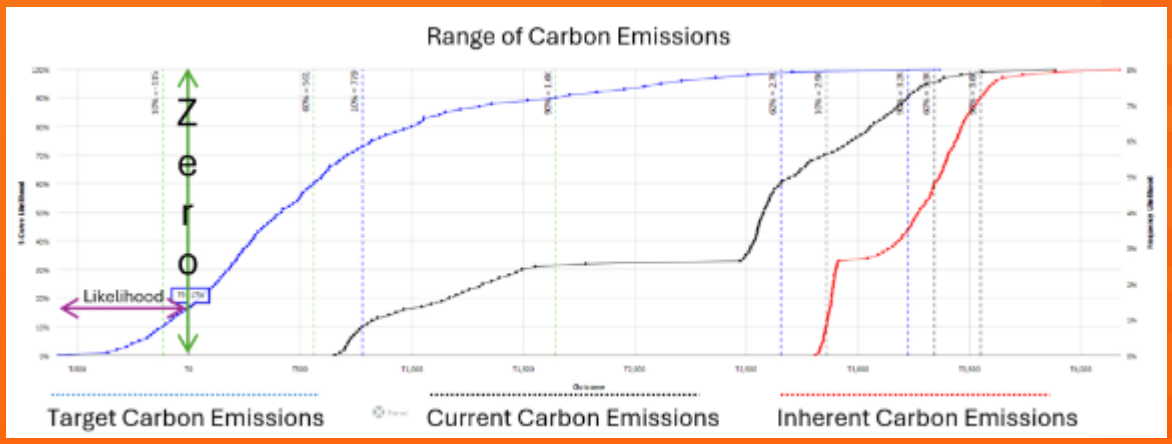
Opportunities

- Purchase of electricity from renewable sources.
- Change to EV for 90% of our fleet.
- Implement Solar Panels for charging fleet.
- Improving our people's driving skills to help reduce emissions.

This approach means we can now individually assess the likelihood of these items happening (probability) and if we take this to the next level and quantify the carbon impacts of the assessments we can start to introduce some realism into our outcome – delivering Net-Zero.

We may be closer than we think. Or not. Do you really know? Does anyone really know?
If not, then the value of improved assessment and modelling capability increases hugely.

The figure below shows Monte Carlo outcomes for uncertainty, risks and opportunities in three scenarios: Inherent, Current and Target States.
It shows that the organisation only has a 17% chance of meeting its Net-Zero commitment.



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Clearly in this example, more work needs to be done – either through reducing uncertainty by improving the quality of data or information, reducing the risks or leveraging more of the opportunities available.

I do not doubt that should organisations try this out they would have a similar result with a clear requirement to do more and to try harder.

However, even with a more comprehensive view of the risks and opportunities, the path to net zero remains fraught with uncertainty. Monte Carlo simulations which take into account the probability and impact of strategies, options and outcomes paint a sobering picture.

The implications are clear: organisations need to do more, and they need to do it fast, and modelling the range of potential outcomes is better than waiting to see if it works.

We are running a big experiment on the planet, and we are all in the test tube together. The road ahead will be challenging but that's no excuse for not having a good, tested map.

The voices sounding the alarm are growing louder, from the BBC's warning that "the road for developing and executing on concrete plans may be rocky" to the mounting concerns that net zero by 2050 may be slipping out of reach.

https://www.bbc.com/worklife/article/20231110-the-tough-truth-behind-corporate-net-zero-sustainability-targets

It's tempting to dismiss quantitative analysis as a mere exercise in precision, yielding lots of "accurate but wrong answers". But with the stakes so high and the pressure for transparency mounting, organisations can no longer afford to rely on vague commitments and hopeful qualitative projections. By embracing uncertainty, acknowledging and evaluating rather than ignoring the complexities inherent in the net zero transition, and adopting a more rigorous and quantitative approach to risk reduction and opportunity identification and exploitation, organisations can begin to evidence a more credible course towards a low-carbon future.

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