



What decarbonisation really means

There is a yawning gap between decarbonisation commitments and the cuts required to achieve the Paris Agreement. Science-based emissions reduction targets can map the route for companies

By **Romain Poivet**, Climate Program Officer, French Environment and Energy Management Agency (ADEME)

Since the Paris Agreement, corporate leaders and investors have talked much about the importance of transitioning to a decarbonised economy. Irrespective of what some politicians may think about climate change, corporations around the world are already taking steps to make fundamental changes to the way they do business. But what do these commitments mean?

According to Article 2.1 (a) of the Paris Agreement, “holding the increase in the global average temperature to well below 2°C above pre-industrial levels” is critical. Global atmospheric carbon dioxide (CO₂) needs to remain below 450 parts per million (ppm). Recently, we have exceeded 400ppm. Or, to put it another way: by 2050, world greenhouse gas (GHG) emissions will need to be half what they were in 1990, and will need to fall to zero net emissions by the end of the century (see Figure 1, overleaf).

Since the mid-18th century, wealth has been created from activity that generates high GHG emissions. As ‘addicted’ to GHGs as we have become, we now face a huge challenge in continuing to create wealth in ways that do not produce this catastrophic side effect. Many private actors now see opportunities in this

challenge, to reposition their activities and avoid exposure to climate risks. As living beings, they are trying to adapt to survive in a future world that must be decarbonised – if it is to support life as we know it.

So: we know the global economy needs to be decarbonised. We know that this will have big impacts on how we do business. So let’s see, using a simple and practical example, what this actually means. The electricity generation sector needs to switch from a current average of 500g of CO₂ equivalent per kilowatt hour (CO₂e/kWh) to less than 50g CO₂e/kWh by 2050. This means that, from a technological perspective, it needs to build low (or even zero) carbon-emitting power plants as soon as possible.

It also means that investment in technologies that lock us into high-carbon pathways for decades – such as coal or

in 2015, it is co-led by the UN Global Compact, WWF, the World Resources Institute and environmental impact charity CDP.

The initiative helps companies set GHG reduction targets that are consistent with the levels of decarbonisation required to achieve the Paris goals. It translates sector-wide decarbonisation pathways (looking at different scenarios: 2°C or well below 2°C) into company-specific pathways. It checks whether the company’s target is aligned.

To date, more than 300 big companies have committed to set science-based GHG reduction targets through this initiative. And, so far, the initiative has ‘approved’ about a quarter of them.

This might naturally prompt some questions:

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fuel-oil – must absolutely be avoided. Bear in mind, this is what needs to happen just on the supply side – it says nothing about by how much we will need to reduce the amount of energy we demand.

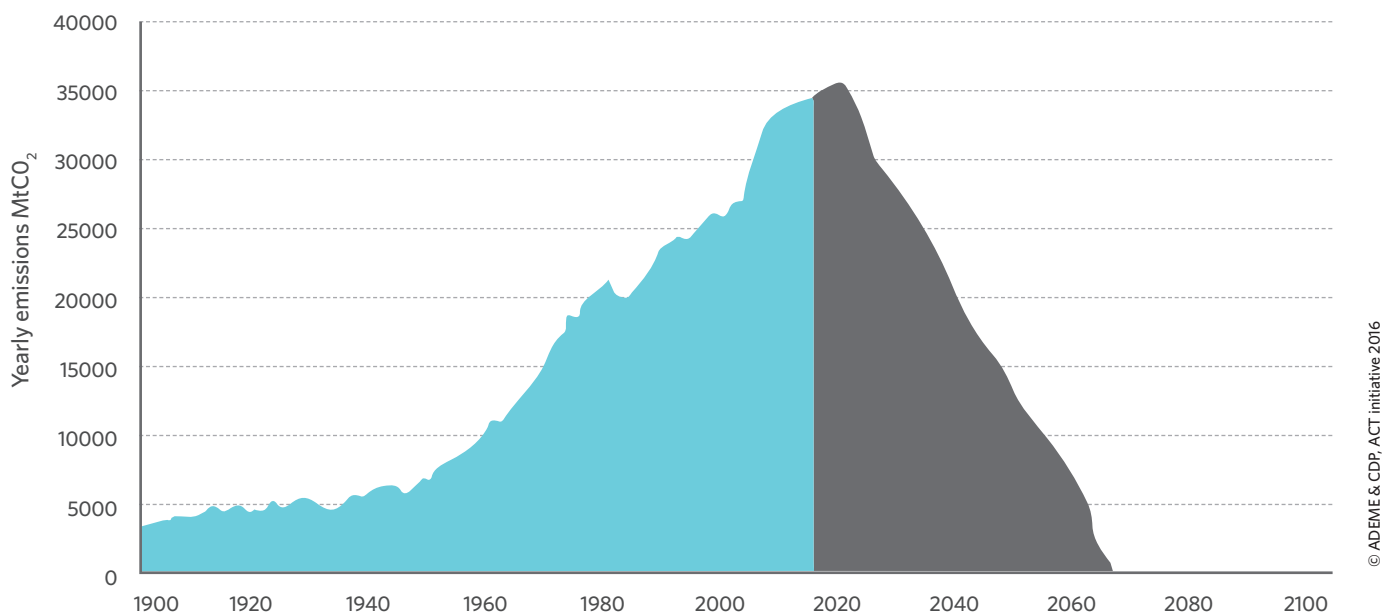
Science Based Targets

One initiative designed to help businesses focus on preparing for this changing world is Science Based Targets (www.sciencebasedtargets.org). Launched

- How can we encourage this exercise across all sectors?
- How can we be sure that companies’ commitments are consistent with their actions?
- Knowing that transitioning to a low/no-carbon economy will affect more than just big business, how can we promote this science-based approach to small and medium-sized enterprises (SMEs)?

◀ Assembling Renault’s electric cars in Dieppe, France. According to ACT’s research, car manufacturers do not have transition plans beyond a five-year horizon

Figure 1: World CO₂ emissions under a 2°C mitigation scenario



There are a variety of levers to support science-based target setting. First, there is pressure to act voluntarily. Professional bodies could develop ambitious decarbonisation pathways for their sector and recommend that companies set targets aligned with them.

also imagine that Global Climate Action, while still exerting voluntary pressure, could be more prescriptive for those companies that talk openly about their consistency with meeting the Paris goals. And, of course, there are mandatory levers. In France, for instance, companies with more than

As demonstrated by the international pilot phase of the Assessing low-Carbon Transition (ACT) Initiative (www.actproject.net), co-developed by the French Environment and Energy Management Agency (ADEME) and CDP, setting targets is only a first step. Anyone can claim to have long-, medium- or short-term science-based targets, without providing any evidence about how they expect to meet them.

For the first time, the limits of what the planet can accept without irreversible and hazardous change for humankind is the main driver for sustainable development

The Non-State Actor Zone for Climate Action platform (the Global Climate Action platform powered by the UN Framework Convention on Climate Change) is a good place to start. Other investor-led voluntary initiatives like Climate Action 100+ or The Portfolio Decarbonization Coalition (supported by the UN Environment Programme Finance Initiative) can use their power to change companies' strategies.

They can ask firms to set science-based GHG reduction targets and to implement consistent means to achieve them. One can

500 employees must disclose their GHG emissions every four years and implement reduction action plans. Wouldn't it be smart to take this a step further, and ask companies to set science-based targets and implement a relevant and consistent action plan to achieve them? And what about aligning EU Emissions Trading System quotas with science-based targets?

One could also imagine tax allowances or other fiscal incentives for companies that adopt science-based targets – or restricting access to government contracts for those that don't.

Beyond assessment

That is why ACT goes beyond assessing targets, to look also at how a company is setting its strategy to fully decarbonise in line with keeping global temperature rise to well below 2°C.

At ACT, we define our framework by asking five simple questions:

- What does the company plan to do?
- How does the company plan to get there?
- What is the company doing at present?
- What has the company done in the recent past?
- How do these plans and actions fit together?

ACT then looks at nine sets of indicators, depending on the relevance of each one for the sector concerned. These indicators are based on verifiable quantitative and qualitative data: targets; material investments; intangible investments (such as research and development); management; sold products' performance; policy engagement; supplier engagement; client engagement; and business model.

Some things we have learnt from the assessments done in ACT's pilot phase are:

- within five to 15 years, electric producers will burn all their carbon budget to 2050;
- car manufacturers do not really have transition plans that go beyond five years; and
- retailers are still not playing their vital role in supporting the low-carbon circular economy.

The good news, though, is that many leading large companies are ready to be benchmarked with these innovative assessment methodologies. But what about SMEs and mid-cap companies?

During 2017, ADEME tested ACT methodologies with 30 SMEs and mid-cap companies in France with national decarbonisation pathways. The results are illuminating. ACT methodologies can be easily adapted to these smaller companies without compromising the quality of the assessment. The companies sampled by ADEME appreciated being 'equipped' with these new tools, as many felt unsure about what the decarbonisation challenge meant for them.

When setting pathways, small companies say it is more meaningful to reduce the target year to 2030, as 2050 is too theoretical. This is often an issue for large companies, too. Sometimes it is hard to shape a relevant decarbonisation pathway for a particular sector, because existing macro-level exercises – like national low-carbon transition strategies – might be not specific enough. Smaller companies expect to be guided through decarbonisation pathways, and so wait for more advice and support before taking action.

13 CLIMATE ACTION

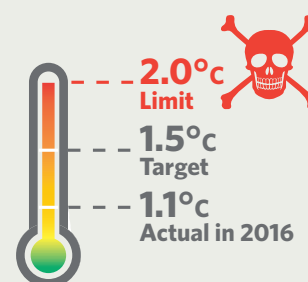


Take urgent action to combat climate change and its impacts

Paris Agreement

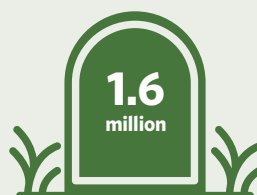


Record was set in 2016 for warming at 1.1°C above pre-industrial period



The number of **deaths** attributed to **natural hazards** continues to rise, despite progress in implementing disaster risk reduction strategies.

From 1990 to 2015, more than **1.6 million** people died in internationally reported **natural hazards**.



Global sea ice fell in 2016 to its second lowest extent on record



In 2016, atmospheric CO₂ levels reached 400 parts per million. Drought conditions predominated across much of the globe, influenced by the El Niño phenomenon. In addition to rising sea levels and global temperatures, extreme weather events are becoming more common and natural habitats such as coral reefs are declining

Source: The Sustainable Development Goals Report 2017, United Nations

Avenues of opportunity

For the first time, the limits of what the planet can accept without irreversible and hazardous change for humankind is the main driver for sustainable development. This challenge is opening avenues of opportunity and innovation for many corporate actors, while signalling oblivion for others.

Efforts to mitigate climate change will transform the entire global economy,

generating winners and losers both in terms of companies and investors.

So, calling all company bosses: the good news is that tools and methodologies exist right now to help you outline your firm's pathway to a decarbonised economy. Why not start by setting science-based GHG reduction targets now, coupled with the relevant plan and means to achieve them? Do that, and you can be ready for the low-carbon world that is coming. ●