Rapid Transition Alliance

The Business of Rapid Transition

What does aligning business to meet the 1.5°C climate target actually look like?

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Around the world, from the local to national levels, government authorities are declaring climate emergencies and seeking strategies for rapid transition to act accordingly. In the middle of December 2019 that included 1,216 jurisdictions in 25 countries representing 798 million citizens, covering, for example, 80 per cent of the UK population, and 74 per cent in New Zealand. But is there a parallel response for business to act at the scale and speed needed to tackle the climate emergency?

The United Nations IPCC report on 1.5°C, released in October 2018[1], left little room for doubt about the need for rapid transitions in business and across society if catastrophic levels of climate change are to be avoided. It also pulled few punches about the scale of change, calling for 'transformative, systemic change'. So where does this leave business? How far and in what ways are businesses responding to the need to align their corporate strategies with a 1.5°C trajectory?

This briefing provides a summary and background of key discussion points emerging from a meeting[2] of people from business, civil society, foundations and academia aimed at moving this agenda forward in the business community.

First, let us acknowledge the enormity of the task ahead. The world has promised itself to stay below the limit of global heating of 1.5°C, the goal of the Paris Agreement. It is half a degree lower, and so that much safer, compared to the 2°C limit we had worked to before. Indeed, in the wake of the extreme weather events in 2019, discussion has focused on how much damage is already resulting from average global heating of 0.8-1.2°C.

The IPCC is unambiguous about the scale of the challenge, saying that rapid, far reaching and unprecedented change across all sectors of society will be needed to meet the 1.5°C target.[3]

The report noted:

- Limiting warming to 1.5°C above pre-industrial levels will require transformative systemic change, integrated with sustainable development.
- Such change will require the upscaling and acceleration of the implementation of far-reaching, multi-level and cross-sectoral climate mitigation and addressing barriers.
- Such systemic change will need to be linked to complementary adaptation actions, including transformational adaptation, especially for pathways that temporarily overshoot 1.5°C.
- Current national pledges on mitigation and adaptation are not enough to stay below the Paris Agreement temperature limits and achieve its adaptation goals.
- While transitions in energy efficiency, carbon intensity of fuels, electrification and land-use change are underway in various countries, limiting warming to 1.5°C will require a greater scale and pace of change to transform energy, land, urban and industrial systems globally.

The latest *UNEP Emissions Gap* report further confirmed that current pledges leave us on course for 3.4°C of warming with devastating consequences.[4] It means, for example, that current global carbon emissions need to peak by 2020 and halve by 2030 and fall to zero or thereabouts by 2050. And because that is a global target, it means that a wealthy country with a larger historical responsibility like the UK has to go that much further and faster.

Business represents the great paradox of rapid transition. On the one hand, much is expected of business in terms of technological innovation, new models of financing and shifts in business models to adjust to this new reality. On the other hand, many corporate actors are moving slowly or deliberately seeking to delay action on climate change because they profit so much from the status quo. Business is clearly not a monolithic and homogenous sector. Very different dynamics apply to businesses of different scale and ownership structure – from micro social enterprises to medium cooperatives and large shareholder owned corporations. How they respond to and interact with the community and wider world makes a big difference. As one workshop participant put it bluntly 'Big business doesn't do rapid transition!' But small, medium and large businesses have different dynamics.

There are brave and imaginative examples of business-led rapid transition as we discuss below, though in many cases the majority of businesses are not moving remotely as fast as the science demands, despite the considerable benefits to moving early. Yet ironically, despite the vital role business will play in any transition, a lot of energy has been focussed on the constraints of government, and comparatively little on the possibilities of business.

This briefing looks more closely, at the challenge before business as a whole from the point of view of rapid transition. It is informed by a workshop hosted by *The Carbon Trust* and organised by the Rapid Transition Alliance in September 2019 to explore this key question: how far and in what ways are businesses responding to the need to align their corporate strategies with a 1.5°C trajectory?

Challenges

There is a huge and accelerating interest among business across the world about how to face up to the challenge of climate change. From seeing climate change as a threat in the early days of the climate regime, there has been a shift– in some quarters at least- towards seeing action on climate change as an opportunity.[5] Over 760 businesses are committed to meeting the 2 °C target according to the non-profit *Science Based Targets*.[6] There have been over 1,700 commitments to 'bold action' from over 1,100 companies via the global coalition *We Mean Business*.[7] This is a welcome start, of course, but we will need to go further. This is especially so given that emissions took a big leap across the world in 2018, the highest in history, and continued to rise, even if at a slower rate, in 2019. And, the decade 2010 – 2019, was confirmed as the hottest on record.

Here are some of the specific challenges:

Technological change without shifts in levels of consumption

Much of the current debate focuses on 'plug-and play' technological solutions to climate change where the system stays the same, but we plug in different technological solutions.[8] From renewable energies to electrification of transport systems, important progress is being made. But we also need to reduce demand and meet energy, food and transport needs in ways which bring down overall levels of consumption. Without this, we create new resource extraction booms, around lithium and cobalt in the case of batteries for electric vehicles, for example, which bring other damaging social and environmental impacts.[9] This is to say nothing of so-called rebound effects whereby the benefits of more fuel efficient engines have made people even more dependent on their cars.[10] In the US, there has been a rebound effect towards larger cars which has cancelled out much of the benefit of increased efficiency. We need transformative thinking, and lower aggregate consumption, rather than simply more efficient or alternative technologies.

The limitations of mainstream ownership models

The current system of corporate ownership separates the legal ownership of companies from those with moral management responsibility. The shareholder model, geared primarily towards satisfying financial interests, is the main reason why the purpose of businesses has focused too obsessively on a single bottom line, and continues to do so. So how can we integrate multiple purposes into the dominant model of ownership or should major businesses migrate to models with broader ownership and accountability? Are changes in company law and corporate governance required? There are now a range of alternative models of ownership which were discussed at the workshop; from social enterprises to mutuals, community owned enterprises, charities, B-Corps and cooperatives.

Short-termism

This is a linked problem. Commentators and financial analysts expect glowing quarterly reports, and are deeply conservative. They are not keen on unproven, long-term shifts that may involve some element of deferred gratification. Over the past generation, the influence of finance has grown enormously, and in a number of damaging ways. To invest in new technologies and infrastructures, there needs to be a greater role for patient capital. But how do we get there?

A report from *The Carbon Trust* found that businesses are living in two realities: they recognise and accept the risks and opportunities of an environmentally sustainable future, but continue to focus on the short-term. Despite the perception that drivers for change will continue to become stronger in the near future, most businesses appear to have no clear vision on how to manage the transition effectively.[11]

Un-reformable businesses

There is no way around the central problem, which is that if the Paris Agreement is to be taken seriously, there are some industries whose very existence, short of a major re-purposing, is incompatible with a 1.5°C trajectory. For example, the great majority of known fossil fuel reserves cannot be burned if the world is to stay within a carbon budget that avoids catastrophic heating, meaning that no company relying substantially on fossil fuel extraction has a long-term future. Other sectors which are highly fossil fuel dependent will be affected too. Companies like Air France and Air New Zealand have signed up to voluntary climate change compacts – so has Heathrow Airport – but, barring technical changes which are not yet clear, these industries will not exist within two generations. These companies need to have the nerve to seriously diversify, towards a big scale conversion of their underlying purpose. But will they? One participant in the workshop who has worked with the aviation industry gave the example of KLM encouraging their customers to 'fly responsibly' which, as well encouraging carbon offsetting (an option often criticised as unsound and unreliable)[12], also advises customers to look at other travel options.[13]

Lack of leadership

By itself, the Paris Agreement is a simple limit. It suggests no solutions nor any vision of the future. Where this is missing at global or national level, it needs to be provided by companies demonstrating the possibility of change. Transitions are difficult, and especially rapid ones, when it is not clear what the world is transitioning to. This is a leadership issue: BP chief executive John Browne famously led a 'Beyond Petroleum' campaign within his company. But it was his personal idea, and his employees did not buy into it, so it had no roots. Whether or not the initiative was sincere or mere public relations is also open to question given Browne's subsequent active involvement in moves to expand domestic UK fossil fuel production including fracking. Several participants in the workshop suggested that people and employees are ultimately a company's greatest asset and so bringing them along is key to changing direction.

This is key to moving beyond greenwash. The big five oil companies have spent almost equal amounts ($200 million per year) both promoting their green credentials as well as lobbying to weaken climate action.[14] In March 2019 Shell released a new report describing how the world might achieve the Paris goals. The report described a scenario called "Sky", painting a picture of a possible future.[15] It is a future full of fossil fuels: In 2050, it has oil, gas and coal use at respectively 88%, 93%, and 62% of their current levels. Shell describes this as a "rapid energy transition". The world's 50 biggest oil companies are poised to flood markets with an additional 7m barrels per day over the next decade. Shell and ExxonMobil will be among the leaders with a projected production increase of more than 35% between 2018 and 2030 – a sharper rise than over the previous 12 years. This would account for almost two-fifths of the remaining 1.5C carbon budget.[16] It has also been reported that Shell and BP have planned for temperatures to rise by as much as 5C°.[17]

The herd mentality

Many businesses, especially the biggest ones, would prefer to be in the front rank of innovators, but not to be too far out in front. A Norwegian saying - 'The spouting whale gets harpooned' is pertinent here. They need to be in good company before they feel safe enough to put bold proposals to the board. This also a comforting element – it means that others will soon emulate first movers as is happening with electric vehicles. But a failure to move fast and in advance of the public is one reason, perhaps, why less than five per cent of new cars in London roads are electric or plug-in hybrid – compared to San Francisco or Stockholm, and especially to the Norwegian cities which are achieving up to 50 per cent.[18]

The hope

It may be that, given these potential blockages to the "transformational systemic change" that the IPCC says we need, the hope is somewhat slim that we will achieve it. In fact, one recent report suggests that we now have only a 5 per cent chance of keeping warming below this critical threshold unless transformational interventions are forthcoming.[19]

But the IPCC report does specify that their five core elements of responsible policy engagement in climate policy – legitimacy, opportunity, consistency, accountability and transparency – will translate into a series of practical actions that apply to the corporate sector:[20]

- Identifying implications, influences, and opportunities to engage with stakeholders.
- Creating an inventory—together with internal decision makers and external experts—of the company's direct and indirect influences on climate policy.
- Aligning words with actions, ambitions and influences.
- Launching an internal review.
- Reporting on policy positions, influences and outcomes.

What is missing here, beyond this process of transition, is the imagination required for a major shift. This means being able to answer the basic question: what does aligning your business to meet the 1.5° climate target actually look like?

Business people know from experience that, if they manage to answer these challenges and imagine the shift effectively, their supply chains will be more resilient and their business models more robust in the face of rising uncertainties in the face of a mix of physical, social and economic risk. The danger may be that, by emphasising accounting and transparency, the IPCC has provided a means by which corporate boards can shift responsibility for climate-related innovation to the accounting department, rather than taking a lead on it themselves. Huge effort has gone into this, via initiatives such as the Global Reporting Initiative, the Climate Disclosure Standards Board, the Carbon Disclosure Project, the International Integrated Reporting Council and the Sustainability Accounting Standards Board. Something more is required.

Nor should we be too prescriptive about the likely innovation. But we can perhaps draw some conclusions from shifts among some businesses. The Dutch materials company DSM, has completely transitioned from engineering to health and zero-carbon materials. Ørsted, the former Danish oil company, plans to have reduced carbon by 97 per cent as soon as 2023 and has shifted entirely to renewable energy. Unilever, meanwhile, is committed to zero-carbon by 2030. Ikea is pledging to produce as much renewable energy as they use, and have developed a simple package for domestic solar panels for their customers. The Kering group have shifted business model to take into account environmental profit and loss. This identifies large environmental impact and converts it into monetary impact. Kering's 2025 Sustainability Strategy calls for the need to reduce resource consumption albeit as part of 'sustainable luxury'.[21] Meetings among fashion industry representatives convened by the UN have revealed a consensus that a concerted effort from across the sector could lead to significant reductions in greenhouse gas emissions and could put the fashion industry on track to implement the goals of Paris Agreement and the 2030 Agenda for Sustainable Development as part of an initiative on fashion for global climate action.[22]

Although this does not necessarily mean alignment with the 1.5°C limit, others have set Science-Based Targets, including BT, Unilever, Carlsberg and Tescos. BT, for example, set a science-based target set in 2008 and in seeking to decarbonise their fleet they not only use electric cars, but also renewable energy to supply electricity to car depots. Old buildings (telephone exchanges) have been refitted or closed and they have also made savings of over £100 million through energy

efficiency measures. For some companies, the need for speed comes on the back of commitments made over decades.

In other cases, such as Maersk shipping, a commitment was declared without knowing the detail of how it will be achieved - inviting others to join them on a journey of experimentation as part of a collective endeavour. In this case, sectoral targets are set by bodies such as the IMO (International Maritime Organisation) to de-carbonise by 2050. Lead times in sectors like shipping are around 40 years, so rapid transition has to be planned for rather than adapted to. The expectation should be that those companies that can decarbonise easily should be doing it quicker. Certain sectors are under different pressures (i.e. aviation). The speed at which every business gets to zero is the measure but fundamentally, the target is to reach zero.

Despite these examples of rapid change amongst big corporates, it seems likely that key innovations will also come from forward-thinking start-ups and SMEs, because they are often faster and more flexible. More than half a century ago, the General Electric finance company chairman T. K. Quinn put it like this: "Not a single distinctively new electric home appliance has ever been created by one of the giant concerns – not the first washing machine, electric range, dryer, iron or ironer, electric lamp, refrigerator radio, toaster, fan, heating pad, razor, lawn mower, freezer, air conditioner, vacuum cleaner, dishwasher or grill. The record of the giants is one of moving in, buying out, and absorbing after the fact."[23]

Areas of possibility

There are some other areas of hope too, including:

Investment

A 1.5°C consistent pathway requires a transformation in the volume of climate investments and in the direction of finance towards a low emission and climate-resilient economy.[24] Compared to 2012, annually up to a trillion dollars in additional investment in low-emission energy and energy efficiency measures may be required until 2050. *The New Climate Economy* report in 2018 found that about $90 trillion in investment was now likely over the next 15 years, though the financing of 1.5°C would present an even greater challenge.[25]

It is not just about mobilising new funds, however. It is about diverting funds away from carbon-intensive sectors. There does now seem to be an unstoppable trend towards disinvestment in fossil fuels, supported by growing waves of shareholder activism.[26] If, as seems likely, finance continues to be withdrawn from fossil fuels, we should see a radical shift which has the power to deliver the investment to the energy infrastructure we need. In fact, there appears now to be no shortage of investment money seeking a return in climate change related shifts, maybe as much as $30 trillion.[27] Over the past five years, the investment world has seen its own rapid transition: we now also have the governors of 30 central banks concerned with the issue, and a new financial institution disinvesting in oil, coal and gas every week.[28] In the next five years, the change seems likely to accelerate, as the UNEP into a sustainable financial system inquiry showed.[29]

New ownership models

The expectations of returns on investment built into conventional shareholder ownership structures tend to trump most other considerations in business, severely limiting the possibilities of rapid transition. The innovations needed to find ways to operate successfully in tandem with lower aggregate levels of consumption in the wider economy need governance and ownership structures less dominated by the single bottom line. But, more than that, they need ownership and governance structures in which social and environmental flourishing are hard wired to their

purpose – and are not merely a hoped-for side effect. Another area to explore is the forms of ownership and governance that would make the rapid transition of business most likely to happen.

Technology

Common characteristics of rapid transitions are where a new and well-established technology simply substitutes for an old one (LPG, for example), where substitute technologies have been previously used in other markets, benefitting from the experience of early adopters and where the scales – either national or sub-national – are relatively small. Also crucial here is where the technologies offer high tangible benefits for adopters such as health (cookstoves), flexibility (Flexfuels) cost, and convenience.[30] The challenge in the case of rapid transition is to go beyond mere substitution and 'plug-and-play' approaches, to increase the scale and ambition and to harness drivers that are not just about reduced cost and increased convenience- important though these are for consumer acceptance. Industrial policy which actively supports some technology providers and enables the accelerated phase-out of others as the goals of the Paris Agreement require, implies a key role for the state.

Regulation

There will need to be a return to regulation to deepen and accelerate shifts to a zero carbon economy. Air quality regulation has massively reduced the burning of coal around the world and pricing policy has reduced car use in Singapore, Stockholm and London. But other forms of regulation have been weakened by the impact of corporate lobbying. The European emissions trading initiative was much watered down in this way, and has failed to have the impact it could have done. Regulations – for example about the emissions of new cars – or extending producer responsibility schemes will provide an incentive for new kinds of fuel-efficient vehicles.

Culture shift and consumer pressure

Rapid behaviour change has happened before and there is evidence of it happening now.[31] From smoking to attitudes towards gender and diet, there are even signs that society wide shifts may be happening more quickly. Engagement in climate activism from school strikes, to business sectors, the arts, local authorities and protest movements such as Extinction Rebellion has accelerated public engagement with issues of transition in the last few years far more rapidly than many imagined possible. Consumer pressure alone can certainly be effective, from the consumer boycotts of CFCs in the face of evidence about the thinning of the ozone layer in the 1980s,[32] through to today's pressure on companies to phase out plastic. About 400 Esso petrol stations were boycotted in the UK in one day in May 2002, and as a result of growing boycotts, Esso promised to end the flaring of waste gas by 2006. Surveys suggest most young people aged between 18-34 are concerned about global warming, and want to take action to reduce their impact, but often they are not clear how to do so.[33] The company Unilever also believes that by 2025 people will only buy products from companies who they believe 'do good' for society and the planet.[34] And we have seen shifting consumer demand around food. There are now believed to be 3.5m vegans in the UK alone.[35] There are also major trends towards local (farmer markets) production, which reduces inputs or transport costs and localises production in important new ways.

Clearly combinations of these factors shape the possibility of rapid transitions. Key elements include:

- Clear and unambiguous government policy.
- Investors who are looking for opportunities in carbon reduction.
- Pressure from consumers to make the shift combined with broader social pressure.
- Visionary leadership.

These elements all need to be present at sufficient strength and at the same time as part of an ecosystem of change. A report from *The Carbon Trust* found:

- 70 percent of global business leaders are confident that action taken by consumers, governments, and investors will force the change to an environmentally sustainable future.
- 76 percent see bottom line risks from direct impacts of climate change, and 84 percent see business opportunity in an environmentally sustainable future.
- Half believe they would have to fundamentally change products, services, or business models if drivers for environmental sustainability become strong.[36]

What happens next?

For businesses there is a clear need to understand what aligning a company to the 1.5 °C climate target would look like. This implies finding resources and expertise to map out and discuss different options and time frames for sequencing actions. This is partly about company survival and profitability, but also about imagining a world that has successfully shifted. The *Global Commission on the Economy and Climate* says that a potential $26 billion can potentially be earned if their investment proposals are acted on, compared to business-as-usual.[37]

In the end, the survival of business is tied to our collective ability to maintain a habitable planet. This means not shying away from the fact that some businesses or business models may no longer be viable in a zero-carbon society. Business models themselves need to rapidly transition. We can no longer rely on having to make a 'business case' for action on climate change and sustainability. Sometimes a moral case should suffice. There are important conversations to initiate with stakeholders about such a transition including customers and staff. Businesses after all are accustomed to technological and cultural disruption. They have to adapt all the time to threats from competitors and shifts in the landscape of supply and demand and consumer desire. Climate change adds to these pressures while redefining many of them.

Many businesses are also deeply engaged in delivering the UN Sustainable Development Goals. This means attending to a whole series of sustainability challenges and not just climate change. From water to biodiversity, land and food, businesses need to think more holistically about their corporate strategies. This potentially raises an altogether bigger challenge where entirely different models are required. At the moment, growth tends to drown out efficiency every time. There are interesting examples of some companies managing their own decline. Fossil fuel companies might become energy companies over time. The focus will be on the service rather than the technology or fuel. There is currently insufficient recognition and discussion of these bigger issues and alternative economic models. Starting from shared values around meaning, well-being, belonging and prosperity may be the entry point for having these challenging but critical conversations.[38]

3 Key Lessons

- While climate emergencies are being declared from local to national level – business is yet to come to terms with what it means to align with the agreed 1.5 °C target. At the moment, decisions by corporate majors continue to be made as if we are not in a situation of climate emergency.
- The 1.5 °C target needs to be actively incorporated into all business planning from product and service design to expansion and growth plans, innovation and governance, including CEO and board level responsibility for the climate footprint of the company.

- Responding effectively to this challenge means a willingness to experiment and innovate, learn-by-doing, and to adopting new investment strategies. It means business becoming active advocates for new regulation and initiating enhanced forms of cooperation within and across sectors to identify best practice for rapid transition. This might include new coalitions of 'Business for Rapid Transition' following in the wake of 'business declares'.[39]

In the end the motto, **'If not you then who, and if not now then when?'** applies as much to business as to government and individuals.

This briefing is published by the Rapid Transition Alliance, who also organised the seminar on which it is based.

The climate is changing faster than we are – how do we speed up?

The Rapid Transition Alliance is a global initiative learning from where, when and how good things happen quickly. We're gathering and sharing evidence-based hope, to remove excuses for inaction.

For more information you can contact us at:

- **https://rapidtransition.org**
- **Twitter @RapidTransition**
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[2] An event on 'The Business of Rapid Transition' was held at the Carbon Trust in September 2019 in London. We are grateful to colleagues at The Carbon Trust for hosting the event and to all the participants that attended and made valuable contributions. Since the event was conducted under Chatham House rules, we do not attribute particular views or examples provided to specific individuals.

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[39] https://businessdeclares.com/ Business declares (i) commit to tell the truth on the climate and ecological emergency, and to inspire urgent action and debate (ii) celebrate and support all the companies who declare and want to inspire others on this path (iii) use their influence to engage business leaders who want to understand what it means to declare and challenges them to set their own targets and actions (iv) positions themselves as challengers and urge faster action than the Paris agreement. In their words 'We are a coalition of the willing looking to make change happen. We are not claiming to be perfect and we are all on a journey. We commit ourselves to hold each other to account'.