



The Deloitte Academy 5-minute read

The risks and opportunities of climate change, 14 October 2019

This was the second in a series of four climate crisis discussions run by The Deloitte Academy, in collaboration with Chapter Zero, the UK Chapter of the World Economic Forum (WEF) Climate Governance Initiative. Richard Gillingwater, Chair of SSE plc, Dr Daniel Klier, Group Head of Strategy and Global Head of Sustainable Finance at HSBC Holdings plc and Karina Litvack, Non-executive Director of Eni SpA were welcomed to the Academy to discuss the risks and opportunities that climate change presents.

Case study: The SSE business strategy

Richard Gillingwater used his experience as Chair SSE plc to outline how a board can help develop and embed investment strategy to combat climate change.

- SSE's vision is to find profitable solutions to the problems of climate change.
- To enable the effective implementation of the strategy, it has taken the decision to put low-carbon electricity networks and renewable energies at the heart of its business.
- SSE announced the disposal of its household energy supply business and of its interests in gas production and exploration as they do not fit its agenda of de-carbonisation.

- SSE has been pursuing a low-carbon endeavour for over a decade. The board has aligned its business strategy to four of the UN Sustainable Development Goals (SDGs). The SDGs most material to SSE are: climate action; affordable and clean energy; innovation, industry and infrastructure; and economic growth. It then set four further goals for 2030 and the remuneration committee linked the pay of its most senior directors to these:
 - Cut carbon intensity by 50 percent.
 - Help accommodate 10 million electric vehicles.
 - Treble renewable energy output.
 - Champion fair tax and a real living wage.

How did SSE get there?

- 11 years ago legislation was passed to cut carbon by 80 percent when compared to 1990. This was combined with the European Renewable Energy Directive and far-reaching changes in the energy market that led to the end of coal-fired generation. The UK is one of the first countries in Europe to take such a principled stand, and to grow such a strong renewables market.
- 10 years ago SSE generated energy from 1/3 coal, 1/3 gas and 1/3 renewable. Direct emissions were around 25 million tonnes of CO₂. SSE had a choice of two paths, it chose de-carbonisation.
- It reduced emissions from coal-fired stations and is consulting on closing its last plant.
- It acquired a renewables business and made huge investment in a transmission network to take power from the renewables-rich north to the south. This has grown 10-fold.
- Emissions are now nine million tonnes of CO₂. Its

transmission network now carries almost only renewable energy.

- In 2017, SSE published a post-Paris agreement report which identified opportunities and risks on how it would meet the 1.5 degree pathway. It built on this with a Sustainability Report.
- It appointed a Chief Sustainability Officer who attends board meetings and, with the finance team, leads the discussion with investors.
- For consumers, 5G offers vastly improved performance, faster speeds to handsets, the ability for more people to connect, low latency (the speed at which the network reacts) and improved reliability. For businesses, 5G technology will bring opportunities to disrupt and transform industries.
- We are likely to see an increase in the number of mobile-only homes, but 5G does not give the operators the ability to target fixed substitution en masse as fixed subscribers use 50 times more capacity than mobile users.

Sustainable finance and the transition to a low-carbon economy

Dr Daniel Klier picked up on the opportunities and risks in sustainable finance and investments:

- Over US\$100 trillion investment in infrastructure by 2030 is required globally under a two degree scenario, i.e. US\$6-8 trillion every year, a significant investment. From a banking opportunities perspective there are few areas with a similar growth rate, but we are not investing at the speed needed. Around US\$1 trillion has been invested globally into climate change adaptation.
- From a risk perspective regulators are looking at transition in two ways. If we transition too quickly there will be risks and potentially stranded assets. If the transition does not happen we have significant physical risks. This applies particularly to the insurance industry and to banks, affecting real estate and mortgages.
- The Bank of England issued a consultation paper asking financial institutions to consider four things:
 - Integrate climate risk in your board governance.
 - Integrate climate risk in your risk management.
 - Integrate climate risk in your disclosure.
 - Start scenario analysis and stress testing.
- Later this year, the Bank of England will issue a reference scenario and will expect the industry to stress test their portfolio against this, forcing boards to really think it through.
- In 2017, HSBC made five commitments to report against every six months. This publicly demonstrated its commitment and defined its work for the next 10 years:
 - Provide US\$100 billion of financing to the transition to a low-carbon economy.
 - Source 100 percent of electricity from renewables by 2030.
 - Reduce exposure to thermal coal and manage the transition for high-carbon sectors (utilities, metals and mining, oil and gas, transportation, construction and chemicals).
 - Adopt recommendations from the TCFD.

– Lead and shape debate around sustainable finance and investment.

- In 2019 HSBC disclosed that 22 percent of its wholesale balance sheet is exposed to transitional risk sectors.
- Dr Klier is leading a Bank of England working group to build enough data to evidence that projects aligned to the Paris Agreement are lower-risk investment in the long term.

Getting climate change into the boardroom

Karina Litvack highlighted that it is more difficult to get climate change into the boardroom than investors think.

- Investors are experiencing pressure from their own clients (insurance and pensions, some sovereign wealth funds, such as the Norwegian oil fund) to demonstrate they are taking ESG into account.
- Banks are far more nimble than many industrial companies, particularly those with high fixed-cost legacy assets that will need to be converted into something fit for purpose in a net-zero world.
- In oil and gas we are rewarded for what is bad for the climate and penalised commercially for doing what is good. There is not a sufficient financial incentive to move as quickly as needed to a net-zero world because of perverse fiscal and regulatory signals in the economy.
- Climate change is relevant to virtually all core aspects of board oversight, from strategy, to risk management, capex modelling, remuneration and more, so we as directors need to develop new skills to help our companies effect this transition.
- Six years ago Eni created a board-level committee to look at sustainability and scenarios together. The Board continues to undertake strategic planning on a four-year rolling basis, but now has also introduced a 10-year outlook, thereby enabling it to see the near-term plan in the context of its longer-term transition strategy.
- Real opportunities lie in the technology (e.g. carbon capture) that are already out there.
- Industrial carbon capture and storage (CCS) remains very costly, but real opportunities lie in CCUS, i.e. carbon capture, utilisation and storage technology, which involves chemically transforming the CO₂ molecule into useful new products while storing carbon. Many of these technologies are already technically viable and require investment to scale them up.

“The time to move from talk to action is long overdue and that will have repercussions for everyone.”

Nick Owen

“The key function of the board is to set ambitious and strategic goals.”

Richard Gillingwater

“This is one of the few topics that allows banks to find a role in society again. Ten years after the financial crisis we are still the outcasts and this is a way of demonstrating that we have a value. We finance the real economy and the transition, we’re not just doing this for ourselves.”

Dr Daniel Klier

“If nobody in the boardroom possesses these skills (and in some cases even the awareness), these issues are not going to be properly discussed or incorporated into a strategy.”

Karina Litvack

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