



## The Challenge

To enable investors to manage risks and opportunities related to climate change on an industry level and increasingly on a company level, we need to tackle the following challenges:

- Determine the materiality of the risk and opportunity of climate change on an industry- and company-level. This would involve an understanding on the nature of the impact of climate change on companies and industries.
- Quantify the risks and options related to climate change: This involves identifying value drivers that are most affected by climate change. Via the value drivers, we can quantify and model these impacts into a Sustainable Fair Value.
- Understand the extent to which companies are able to innovate and how well companies are mitigating these risks: This involves an assessment of how effective companies are at reducing their carbon risk exposure and/or capitalizing on the transition towards a carbon-constrained world. This would include the question whether a corporate strategy is sufficient to manage the risks related to climate change. More importantly, this would further include the question whether the extent to which a company innovates is sufficient to capitalize on the challenge of climate change.

## DJSI

SAM Research's role is to help investors understand both the materiality of the issue and the effectiveness of corporate strategies to mitigate the risks relative to peers. Further, SAM Research provides investors with insights on the extent to which companies are able to carve out a competitive edge in an increasingly carbon-constrained business environment. Aspects of the questions related to the carbon strategy e.g. for the automotive industry include:

- Environmental Performance: Total GHG emissions over a period of at least 3 years normalized by sales
- GHG Emissions and Carbon Strategy: Scope according to the WBCSD/WRI protocol, Verification of GHG inventory, reduction targets, strategies and milestones
- Advanced Environmental Management: Current Corporate Average Fuel Economy and trend over several years
- Strategy regarding Decarbonization of Product Portfolio: Specific propulsion systems/fuel mix, i.e. hybrids
- Emerging Economies: carmaker's strategy to achieve environmentally viable and socially non-disruptive mobility in emerging markets

## Insights

Key insights of the DJSI 2002, where SAM Research assessed 1000 companies worldwide across all sectors:

- 300 out of 1000 were able to provide data on their GHG emissions
- 44% of those 300 managed to reduce their GHG emissions over the last three years
- 25% of the 40 companies assessed in the oil & gas sector have externally verified GHG inventories
- 20% of the 40 companies assessed in the oil & gas sector have gained experience in emissions trading schemes

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