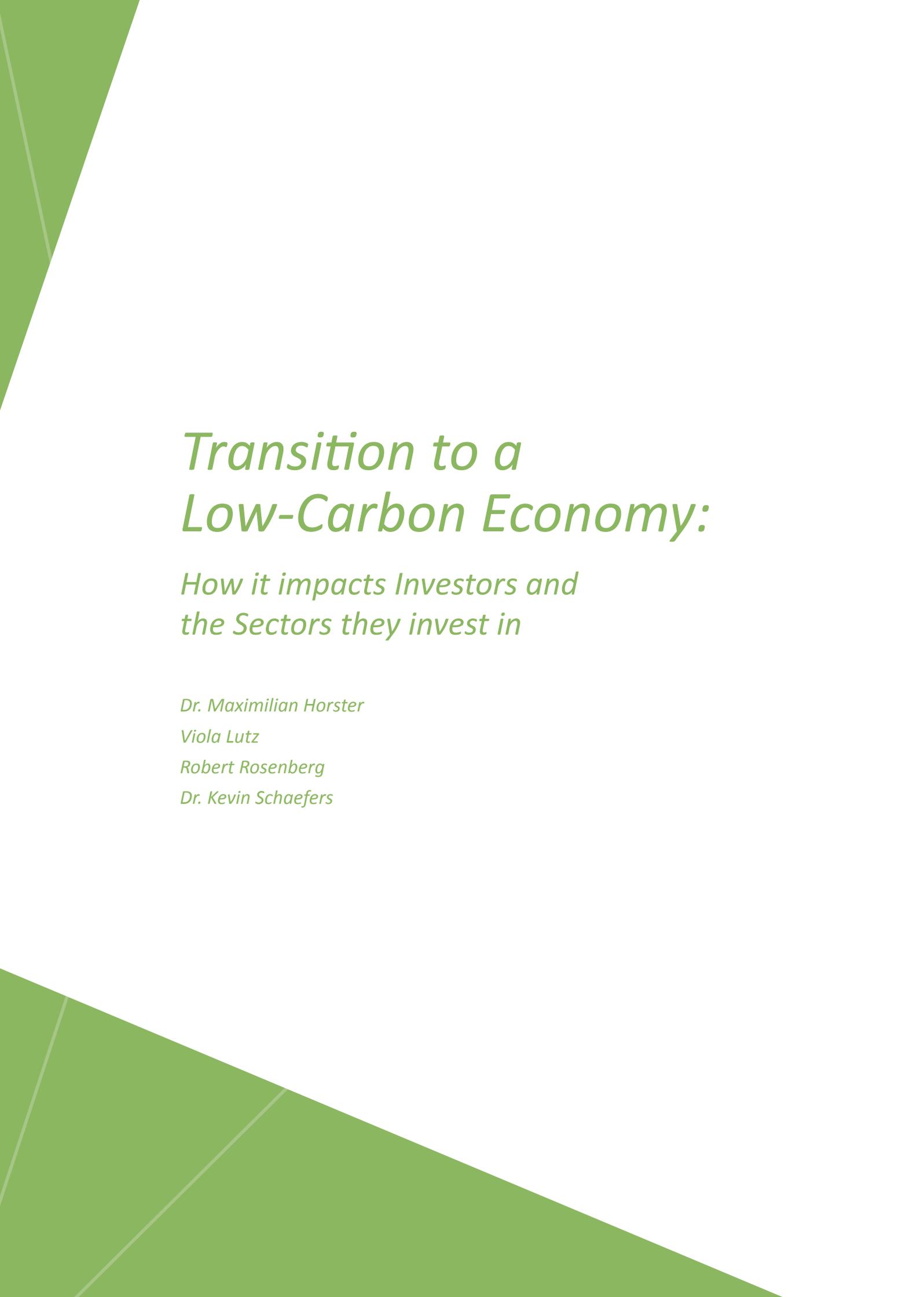


Transition to a Low-Carbon Economy:

*How it impacts Investors and
the Sectors they invest in*





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Preface

Dear Readers,

The climate impact of investors and the impact of climate change on investors has over the past years been propelled to the top of the climate change agenda. Specifically, in Article 2.1.c of the Paris Agreement the objective was stated to make *financial flows consistent with a low carbon economy*.

The transition to such a low carbon economy will require profound changes to our societies, economies, and companies. The year 2017 has further propelled the requirements for investors and has continued the fast pace of changes and thought leadership in the industry.

At the beginning of 2017, the decarbonisation process and its impact for investors and asset owners on certain sectors was highlighted in a formal study, which was conducted as a joint analysis project by the FERI Cognitive Finance Institute and the World Wild Life Fund for Nature (WWF) Germany.

A busy summer of 2017 included both the publication of the final Taskforce on Climate Related Financial Disclosures (TCFD) recommendations in June and the High-Level Expert Group (HLEG) on Sustainable Finance (established by the European Commission) interim report publication in July. This report highlighted the finance sector's role for addressing risks and opportunities related to climate change.

To provide an overview across all main sectors of risks and opportunities in relation to a low carbon transition, the FERI Cognitive Finance Institute, a private research initiative of FERI Group, is cooperating with ISS-Ethix Climate Solutions (formerly part of South Pole Group), a part of the Institutional Shareholder Services Inc. ("ISS") responsible investing unit.

Our goal is to sensitise the various actors around the topic of a transition to a low carbon economy and crucial future developments. Therefore, this report, launched at COP23 in Bonn, intends to give an overview of current discussions in this area, drivers of the transition and potential pathways for actively managing it from the perspective of a financial institution. It also tries to address urgent and legitimate questions on behalf of private and institutional investors, regarding potential investment risks and opportunities related to the evolving "low carbon transition process". Please reach out to us if you are interested in further information.



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1 Executive Summary

At COP 21 (COP stands for the “Conference of the Parties”) in 2015 in Paris, over 190 countries agreed to address the risks of global warming, limiting the global temperature rise to a maximum of 2 degrees Celsius (2°C) above pre-industrial levels. As the timelines associated with forecasts become current, different developments will shape the situation investors face:

1. Discrepancy between decarbonisation commitments and required actions to achieve the transition.
2. The various structures of a low carbon economy and reliance on different technologies.
3. Continued subsidies for fossil fuels in many markets.

Three underlying opportunities exist to address low-carbon objectives: *improving energy efficiency, reducing carbon intensity of electricity and end-use of energy*. Climate change and decarbonisation are having wide-ranging impacts on all industry sectors, but the impacts will vary in their severity, duration and imminence. Key sectors responsible for a high share of direct emissions are electricity and heat production (25%), agriculture, forestry and other land use (AFOLU)

(24%), industry (21%), transport (14%) and buildings (6.4%)¹. Progress in key technologies needed for the low-carbon transition as tracked by the International Energy Agency (IEA) has so far been insufficient, with many sectors currently failing to develop or deploy the necessary technologies.

Investors can take several steps to manage their exposure to the transition to a low carbon energy transition:

1. **Evaluate progress towards low carbon economy:** Observing the essential insights provided by sectors, countries or regions on their expectations for future developments.
2. **Monitor technology exposure:** Monitor not only the sector but also technology exposure of investments to manage alignment with key areas of potential future innovation.
3. **Assess companies’ preparedness to manage risks and capture opportunities:** An analysis of companies can reveal their preparedness to manage a low carbon transition.

This will allow investors to manage risks and be positioned to take full advantage of the low carbon transition.



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