

TCFD Report

The Task Force for Climate-related Financial Disclosure, TCFD, defines requirements for transparent reporting on climate-change-related financial risks and opportunities. These requirements cover the aspects of management, strategy, risk management as well as metrics and goals. All four aspects can be tracked and reported to different degrees.

Unless otherwise stated, the references in this document refer to the corresponding chapters in the sustainability report 2020.

Management

The management's responsibility for climate-related issues is described in the Sustainability Organization chapter in the 2020 sustainability report. Accordingly, the responsibility on the executive-board level lies with the CTO. Topics and key figures that are relevant to the climate are regularly presented and discussed in management reviews.

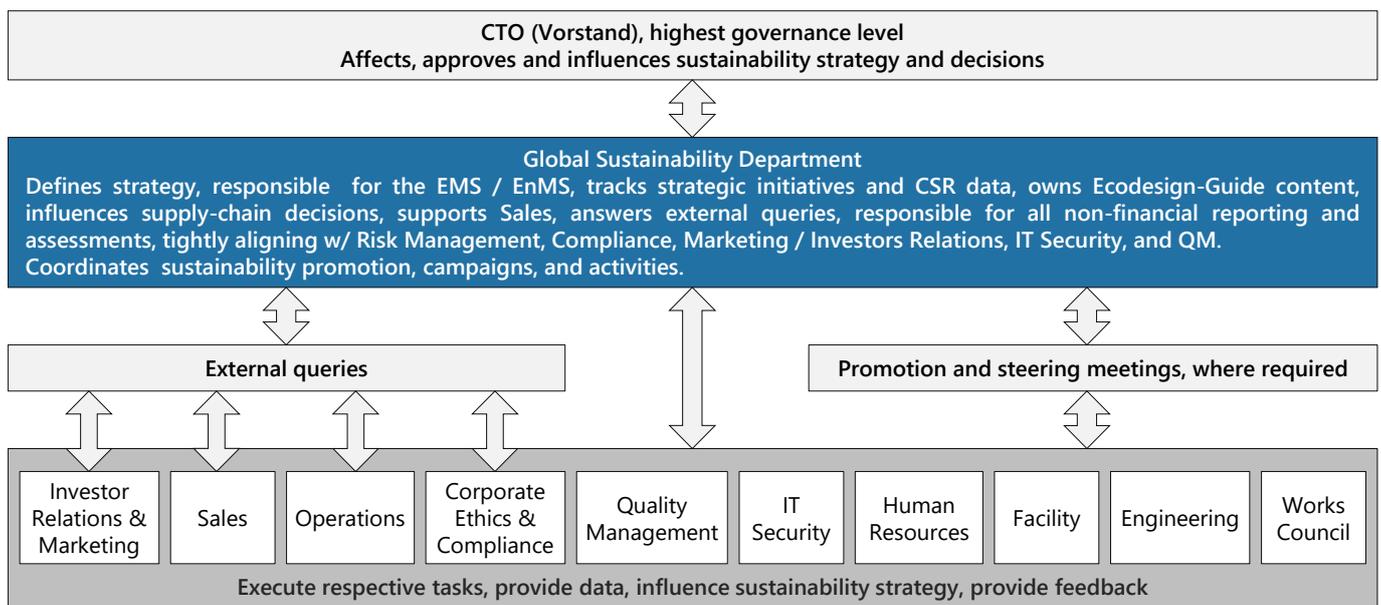
The structure of the sustainability organization and its placement under the executive board is shown in the diagram below.

In the first half of 2021, specific numerical and measurable parameters were defined for climate-related remuneration for the entire executive board. These relate to our three SBTi targets and are based on the nominal annual emissions reductions to be achieved in all three SBTi / GHG scopes.

Strategy

Operational emission reductions have been pursued at ADVA for a number of years. This applies both to the area of our ISO 50001 activities, i.e., electricity-related emissions, as well as to the area of transport and logistics, which is particularly about reducing air freight. Details on this can be found in the chapter on CO2 emissions in the sustainability report 2020.

Since 2019, emissions reductions at ADVA have also been pursued strategically as part of our SBTi participation. Here, we have committed to reductions that are compatible with the 1.5°C target of maximum global warming compared to the pre-industrial state, also see the chapter Environment and Products: Emissions and Circular Economy.



ADVA's sustainability structure with an overview of the most important tasks

Climate Risks and Opportunities

The TCFD recommends the analysis of climate-related risks and opportunities and distinguishes between those that result from the transition phase and physical climate risks. The former result from necessary mitigation measures (see also the chapter on the EU Taxonomy in the sustainability report 2020) or from tightening taxes, regulations or other expenses. The physical risks (there are no opportunities here!) relate to the immediate consequences of global warming. The following table summarizes the identified aspects of our analysis.

Climate Risks and Opportunities

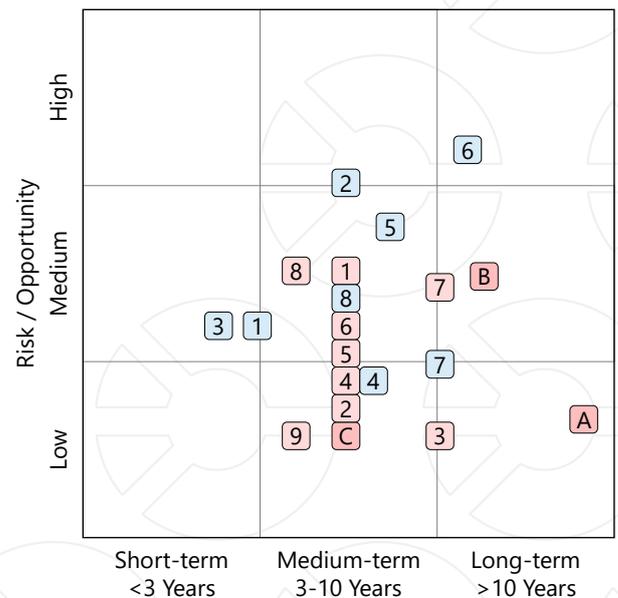
Physical climate risks	
A	Sea level rise 0.3-0.6 m (toward 2100, depending on scenario), especially at US west coast and in Asia
B	Extreme precipitation events in Asia and in the Mediterranean area
C	More consecutive hot days, soil-moisture decrease, higher risk of droughts in Europe, southern US
Transition risks	
1	High required ecodesign effort and cost
2	Higher ISO 50001 effort and cost
3	Fuel switching (buildings), cost, feasibility
4	Fuel switching (cars), cost
5	Transport-mode shift, cost, feasibility
6	Higher carbon taxes
7	Cost for extended CE
8	Effort and cost for any new regulations
9	Negative impact on company image
Transition opportunities	
1	(Government) cooperation and rewards
2	Increase investors' long-term invests
3	Positive company image
4	Carbon-tax savings
5	Revenue through very efficient products
6	Revenue through mitigation/adaptation-enabling ICT
7	Strengthen resilience (company, supply chain)
8	Save transportation / travel cost

For this analysis, we mainly used two relevant references with regard to the transition and physical risks, respectively:

- OECD / IEA. 2017: Energy Technology Perspectives 2017, Catalysing Energy Technology Transformations
- IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp.

The IEA reference describes measures that have to be taken to avoid dramatic climate change. IPCC AR5 describes regional and reference-path-dependent climate and weather events to be expected.

The analysis result is illustrated in the following diagram.

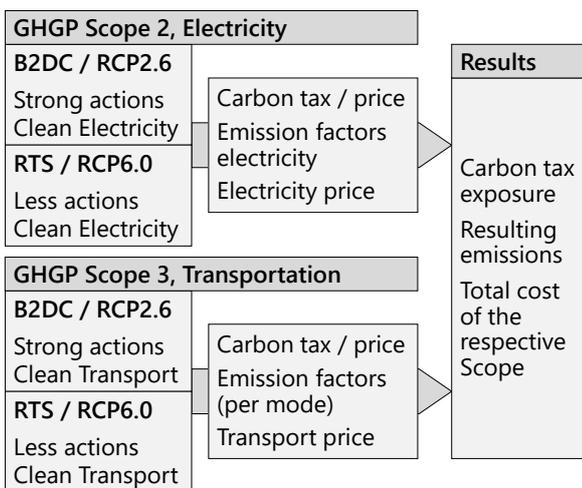


Climate-related risks and opportunities. For the facts presented here, see the table above for explanation.

Scenario analysis

The TCFD recommends climate scenario analyses for quantifying the risks and opportunities. At least two climate scenarios from relevant references should be used. We use the IEA and IPCC sources mentioned above. Two of the scenarios dealt with therein show good agreement. On the one hand, these are the Better-2°C Scenario (B2DS) of the IEA and the Representative Concentration Pathways 2.6 (RCP2.6) of the IPCC. Both describe a path to less than 2°C maximum global warming. This is also the path ADVA is committed to with its 1.5°C SBTi targets. The second scenario is the Reference Technical Scenario of the IEA or the RCP6.0 from the IPCC. These describe a path that, despite certain measures, leads to global warming of more than 2°C. These measures are better than Business as Usual (BAU), but have proven to be insufficient for a target of below 2°C global warming.

We analyze risks and opportunities in the transition phase for two areas: costs, cost savings and emissions with regard to the purchased electricity as well as the same parameters in the area of transport. This is shown graphically below.



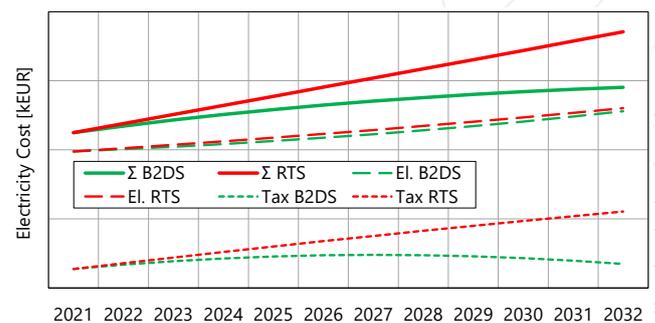
Two climate scenario analyzes. Risks and opportunities (potential costs, cost savings) in the transition phase in the areas of purchased electricity and transport are examined. For this purpose, the scenarios B2DS / RCP2.6 or RTS / RCP6.0 according to IEA / IPCC are used.

At ADVA, the B2DS / RCP2.6 path goes hand in hand with ambitious measures, as are also required in our SBTi participation. In contrast, the RTS / RCP6.0 path is less ambitious.

The resulting emissions and costs are calculated for both cases (electricity, transport). The latter are made up of the prices to be paid to the respective supplier and additional CO₂ taxes.

The best possible and realistic assumptions were made for all parameters – costs, taxes, emission factors, electricity consumption, tonnage volume, distribution of transport modes, etc., which are supported with references where possible. This inevitably leads to certain errors, but our analyses show clear trends that are retained even if the parameters vary greatly.

The quantitative result for costs and possible savings in relation to purchased electricity is shown below. The timeline runs until 2032, the target year for our SBTi goals. Costs are shown as a sum (Σ) and individually for CO₂ taxes and electricity costs for both scenarios.

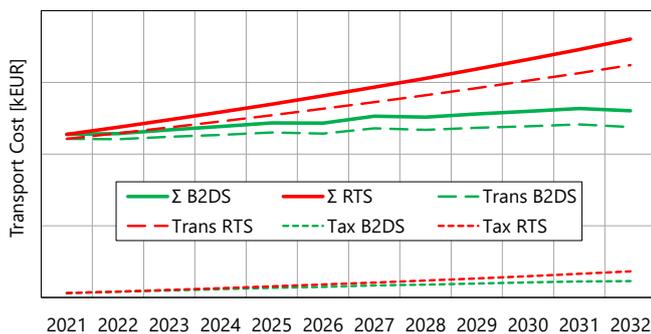


Scenario analysis of the costs for purchased electricity.

A stronger increase for the cost of green electricity was assumed, but at the same time a slight decrease in consumption as a result of more effective ISO 50001 measures. Therefore, the electricity costs over time are almost identical for both scenarios. There is an increasing difference in the CO₂ tax, which results from the reduction in this tax as a result of an increasing share of green electricity.

Overall, there is an increasing cost advantage for the B2DS / RCP2.6 scenario. This scenario will also achieve the SBTi Scope-2 target in 2032. This goal is not achieved by the RTS / RCP6.0 path, although a certain emission reduction is achieved here too.

The quantitative results for the costs and possible savings in the area of transport are shown over time in the diagram below. For reasons of comparability, the time axis runs up to the year 2032, although transport emissions are not an SBTi target for ADVA. However, they are a significant Scope-3 contribution to our emissions.



Scenario analysis of costs in the area of transport.

The diagram again shows transport costs, the related CO₂ taxes and the sum of the two components for the two climate scenarios described above. It should be noted here that the ordinate range shown is exactly eight times as large as in the diagram shown above for purchased electricity.

Cost and emission savings are achieved here (for the B2DS / RCP2.6 path) primarily by changing the transport modes. Air freight is primarily to be reduced here. If necessary, this is supplemented by a certain shift of land transport to railway, as this has significantly better emission factors than road transport (difference of almost a factor of 10!). Cost savings also result from reducing the CO₂ tax.

Here, too, there are emission reductions for the B2DS / RCP2.6 path, in contrast to the RTS / RCP6.0 path, where emissions continue to rise. An annual increase in tonnage is assumed here. It is also assumed that, with the exception of rail transport, the emission

factors of all other modes cannot be reduced significantly by 2032.

In summary, the B2DS / RCP2.6 path is also more cost-effective in the transport sector and leads to emission reductions. However, this will only be achieved if air freight can be reduced further.

Riskmanagement

Due to the potential scope of climate-related risks, these must be taken into account in the analyses, processes and actions of companies, and appropriate measures taken to mitigate the risks. ADVA is committed to this responsibility through a number of measures, including our SBTi participation and this TCFD report.

Climate-related risks and opportunities (opportunities where available) are regularly (at least once a year) and systematically examined at ADVA. This is done in two stages. First, an analysis of the climate risks and opportunities to be expected for ADVA is carried out. This is done in the sustainability department and using relevant reference documents, such as the IPCC AR5.

In accordance with the TCFD specifications, both financial risks / opportunities in the transition phase and those due to physical climate risks such as extreme weather conditions etc. are considered. As far as necessary and sensible, this also extends to the supply chain. Climate scenario analyses are also carried out for selected relevant areas. These include both the selection of suitable scenarios (e.g. B2DS / RCP2.6 or RTS / RCP6.0) and the selection of relevant areas in which significant (cost) risks or opportunities can arise.

In the second stage, the comparison with the company-wide risk management takes place. The analysis from the sustainability department is expanded to include central risk management. Then it is examined whether the previously identified and examined risks need to be included in the company risk report. For this, as described in the corresponding chapter in the annual report 2020, they must be associated with corresponding financial risks within the three following years. If this is the case, the relevant climate risks are also listed in the annual report.

Conversely, they are not listed there if they either represent a lower financial risk or only come into play later or for a longer period of time.

Climate-related risks are mitigated depending on their potential impact. In addition, financial opportunities are seized as long as they do not entail consequential risks in other areas (compare the do-no-significant-harm principle in the EU taxonomy) and can be implemented promptly.

If a climate risk meets the criteria of company-wide risk management, its mitigation rules automatically apply. This includes regular management reviews and dedicated, tracked countermeasures. Again, this is described in the risk report.

Risks and opportunities that are not listed in the company-wide risk report are nevertheless dealt with in a dedicated manner if they are highly relevant. This includes countermeasures up to and including influencing the long-term company strategy. The relevance arises primarily from the materiality analysis, as this, unlike the risk analysis, is not limited to a three-year period.

Examples are global warming or the opportunities identified in the scenario analyses. The (physical) risks of global warming are not listed in the company-wide risk report due to significantly longer periods of time. However, as described in the risk analysis in the sustainability report 2020, we consider this to be very relevant. They are addressed through our SBTi participation, which in turn is part of the company strategy (and the remuneration of the executive board). The corresponding measures to reduce emissions are therefore subject to regular internal and external reviews. Therefore, over time, appropriate countermeasures are initiated as soon as there are significant deviations from the emission-reduction path.

The scenario analyses explained above can lead to considerable cost savings if the corresponding B2DS / RCP2.6 paths are followed. Failure to pursue means associated risks. If the mentioned risk criteria are exceeded, the relevant scenario (or the corresponding

area, e.g. transport) is included in the company-wide risk management and tracked accordingly.

In addition, the scenario analyses were presented in a dedicated management review due to their cost-saving potential, together with further considerations on the CO₂ tax and its possible reduction in some cases. This resulted in follow-up measures, including different responsibilities, aimed at reducing the CO₂ tax as much as possible and thus reducing the associated emissions at the same time. These measures are of a long-term nature, so they will be monitored and reported regularly in the future.

Metrics and Goals

As shown in the chapter CO₂ emissions (Scope 1-3) in Part 1 of the sustainability report 2020, we report all emissions that apply to ADVA, especially in Scope 3.

ADVA pursues science-based emission reduction targets in the SBTi, as described in the chapter CO₂ emissions (Scope 1-3) in Part 2 of the sustainability report 2020. The registration for the SBTi took place in 2016, the official approval of the original 2°C targets in 2019 and the approval of the more stringent 1.5°C targets in 2020. These targets are part of the company strategy and are also part of the management board remuneration.

Around 95% of the Scope 1+2 emissions as well as around 95% of the total emissions (Scope 1-3) are validated externally.

The metrics that are used to calculate climate-related risks and opportunities in the form of scenario analyses essentially come from two reference works that have already been listed in the chapter on climate risks and opportunities. Both references (IEA, IPCC AR5) define several scenarios with which climate change can be mitigated to different extents. Of these scenarios, B2DS (IEA) and RCP2.6 (IPCC AR5) or RTS (IEA) and RCP6.0 fit well together, since they amount to roughly the same levels of global warming in 2100. In addition, the B2DS / RCP2.6 scenario fits well with our SBTi targets.

The risks mentioned in the references (and opportunities in the case of considering the transition phase) are first assessed qualitatively, in particular whether they are relevant for ADVA at all.

For risks of the transition phase, we predominantly consider the cost (and cost savings) related to emissions. An analysis of our emissions shows that it is primarily Scope-2 emissions and Scope-3 transportation emissions that need to be considered. This results from the amount of emissions on the one hand and the risk of rising costs due to CO₂ tax on the other. The results were presented in the scenario analyzes section. Other opportunities were also considered, see the Climate Risks and Opportunities section earlier in this document. However, these were not quantified further, as certain parameters can only be narrowed down imprecisely.

The physical climate risks were examined for their relevance for ADVA with the help of the IPCC AR5. The supply chain was also considered. This results in the relatively high weighting of increasing drought on the one hand and extreme precipitation on the other hand in the corresponding regions. The increasing level of the world's oceans is only seen as a risk for the second half of the 21st century.

