

CARBONE 4 – SPECIALISED CLIMATE DATA PROVIDER FOR THE FINANCIAL SECTOR

Marketing material for professional / institutional / accredited investors only

Carbone 4 was created in 2007 by climate and energy experts Jean-Marc Jancovici and Alain Grandjean. Initially a consulting firm specialising in low carbon strategy and climate change adaptation, Carbone 4 has expanded its activities with Carbon4 Finance – a specialised data provider for the financial sector. Carbone 4 employs more than 50 climate professionals across Carbone 4 and Carbon4 Finance.

Leveraging Carbone 4's expertise in assessing companies' climate strategies and their environmental impact through their proprietary methodology, Carbon4 Finance provides investors with specialised data on issuers' and securities' climate impact. This ranges from the GHG emissions saved from investing in a green bond, to a qualitative assessment of the credibility of issuers' climate strategies.

Carbon4 Finance is not a mainstream ESG ratings provider, but rather a truly specialist actor providing a consistent assessment of risk linked to climate change.

Carbone 4's value-add for the Climate Bond Fund

The value add of Carbon4 Finance as a data provider for our Climate Bond Fund stems from one of the key challenges in green bond investing – assessing the environmental impact. An estimate of environmental impact is typically reported by issuers in their impact reporting, but methodologies and assumptions often differ rendering comparability difficult and consistency poor. As investors in this universe, the need for comparable and unbiased data is paramount to ensure meaningful impact indicators for clients. Moreover, the climate data science skillset is complex, and therefore using a robust external provider adds considerable value.

There are two main areas where we will leverage Carbone 4's expertise. Firstly, at the green bond level, Carbone 4 provides

us with quantitative data on the environmental impact of each bond, and in particular a key KPI on GHG emissions saved by investing. This allows us both to ensure a meaningful impact from each potential investment, and also compare the green impact of our current and potential universe.

Carbone 4 also provides this data at the issuer level and qualitative assessments of issuers' climate strategy – a useful input when conducting our own internal research. It is important to note that while we use Carbone 4 as a specialised data provider, the investment process is based on our own internal framework (see our Green bond framework document) and research processes. As such, the data does not dictate our investment decisions but rather is an input into our own research.

Carbone 4 will also support the production of the annual impact reporting of the fund. This will mainly be through the calculation of aggregated environmental KPIs at the fund level. For example, it includes GHG emissions savings (for a certain amount invested), alignment of the fund to a 1.5°C / 2°C temperature rise, and other KPIs. This is another area where it is important to provide our investors with a credible and transparent estimate of the environmental impact of their investment into the fund. The full methodology and assumptions are available on request to investors.

We are leveraging Carbone 4's climate risk data and methodology to provide a transparent calculation of impact at the bond and fund level.

Atlanticonnium S.A.
Geneva

Granular methodology to assess climate impact of the fund

To assess the carbon impact of each green bond, Carbone 4 uses a proprietary methodology which calculates both the induced emissions and avoided emissions from projects financed. The net between both is the calculation for emissions saved. To draw an example, when building a solar farm the calculation would consider the emissions saved through green energy generation less the emissions induced by the construction and purchase of material to build the farm.

Saved emissions are calculated by comparing the project's GHG emissions' impact with a reference situation (typically based on an average for the sector in the country). For example, the net emissions saved from a solar farm in Spain is calculated comparing the net carbon emissions of the solar project, compared to carbon emissions from electricity generation in Spain using the average energy mix.

This methodology provides a more granular indicator of impact. To continue the example, solar projects in different countries will not have the same impact as the calculation depends on the underlying energy mix: the cleaner the energy mix, the less incremental impact.

The calculation of the net emissions saved then leads to a rating for the green bond depending on its contribution to climate change mitigation. The key indicator to determine the rating is the Carbon Impact Ratio, which determines the climate efficiency of the project. This is the saved emissions divided by the induced emissions, or the amount of emissions avoided per emission induced. The higher the ratio, the higher the climate yield of the green bond.

For more information, please visit GAM.com

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Level of contribution to climate change mitigation

- A:** High contribution
- B:** Significant contribution
- C:** Limited contribution
- D:** Insufficient contribution
- E:** Incompatible

* Overall rating is calculated from the CIR and other sectorial indicators, for each sector.

The analysis is conducted bottom-up by analysing the data provided by issuers on the type of project financed, geographic split, and any other detail provided. Carbone 4 then uses its database of carbon efficiency of different green project types to determine the overall emissions savings of project categories (net emissions induced), and the reference situation emissions to which projects are compared.

This is particularly useful to calculate emissions from financial institutions that typically only disclose information on an aggregated basis (by category and not on a project-by-project basis), given the large number of projects financed and confidentiality issues.

Overall, the methodology provides a transparent estimate of emissions saved by the green bond, then aggregated at the portfolio level. We firmly believe that through the use of a specialised data provider, we can report credible quantitative impact metrics to our investors.