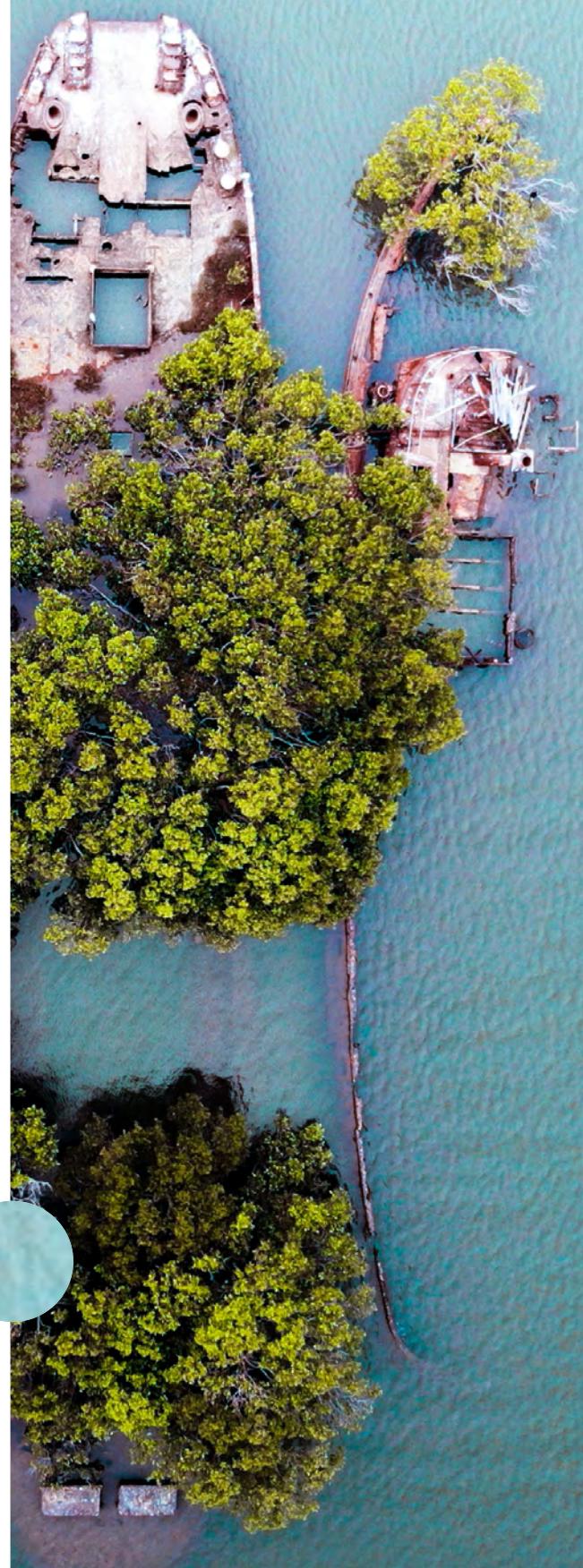


On the Green Brick Road to Net Zero

Our Climate Strategy



APRIL 2023
Marketing communication

About the authors.

Alix Chosson

Lead ESG Analyst – Environmental Research & Investments



Alix Chosson joined Candriam in 2020 as the Lead ESG Analyst for Environmental Research & Investments.

Alix has thirteen years of experience as ESG Analyst in SRI research and portfolio management teams. She started her career at Amundi in 2010 and has more recently been sell-side ESG analyst at Natixis before joining in 2018 DNCA to contribute to the creation of the SRI team and range of funds.

Alix graduated from Science Po Lyon with a master in economics and finance in 2010. In 2011 she obtained a Master in Portfolio Management from the IAE Paris 12.

Marie Niemczyk

Head of ESG Client Portfolio Management



Marie Niemczyk heads Candriam's ESG Client Portfolio Management Team. Her role is to deliver Candriam's unique ESG expertise and sustainable solutions to investors.

Marie joined Candriam as Head of Insurance Relations in 2018.

Previously, she was Strategy & Development Director at AXA Investment Managers in Paris. She has also held several positions with Fidelity in London, Frankfurt and Paris. Before that, she was an Economist with EY in London, and a Research Associate with The Advisory Board Company in Washington D.C..

Marie has an M.Sc. from the London School of Economics, a B.A. from Swarthmore College, and holds IMC and CISI qualifications.



**The change we need
is unprecedented and
systemic.**



Table of contents.

Foreword	06
-----------------	-----------

Part I	
Code red for humanity	08

Earth temperatures are rising.	
Faster and faster	08

Without immediate action,	
Earth will no longer be habitable	09

The human cause of global warming	
is unequivocal	10

The elephant in the room:	
our dependency on fossil fuels	11

Climate action is needed now.	
Tomorrow will be too late	12

Action is costly, but inaction	
will cost much more	12

Part II	
Taking a turn to the	
Green Brick Road	14

Good news, governments - and corporates -	
are taking action. Bad news: what's being done	
currently is still insufficient	14

Our responsibility as investors:	
help bridge the financing gap	15

Climate change presents both	
risks and opportunities	17

Integrating climate	
in the way we invest	18

Part III

Our climate strategy, building on 15 years of climate integration

1/ Excluding activities that are deemed incompatible with the Paris goals	20
2/ Integrating climate risks and impacts in our investments	20
3/ Engaging with high emitting companies to accelerate their transition strategy	28
4/ Reporting on the climate impacts of our portfolio in a comprehensive and transparent manner	31

Part IV

Our net zero strategy: changing gear in our climate commitment

1/ Active engagement	34
2/ Aligning our investments with net zero	36
3/ Decarbonizing our portfolios	38
4/ Promoting green finance and financing the ecological transition	39

Next steps	41
-------------------	-----------

Notes & References	42
-------------------------------	-----------

Foreword.

Our climate is changing faster and faster, bringing our world closer to disastrous social and economic consequences every year. We are reaching the tipping point on every planetary boundary, meaning that at the current pace, we will reach a point of no return in this decade, threatening the future of both our planet and mankind.

2022 may have served as a wake-up call by highlighting the negative impacts that a fossil fuel dependent economy can have on the environment and society. The war in Ukraine revealed that our dependency on fossil fuels was not only a threat to climate stability, but also a near term threat to our democratic values. This helped to emphasize the urgency of the situation and encourage an accelerated timeline for transition.

The change we need is unprecedented and systemic. The good news is that we do have the technologies and the financing power to facilitate the necessary transition, however COP27 showed us that we still lack the coordination and solidarity to balance climate action and social justice at a global scale.

At Candriam, we are taking part in the fight against climate change because we believe it is our responsibility as a global investor, and because we believe it is the best way to protect our clients' investments in the long run. As a result, we committed to becoming net zero by 2050 at the end of 2021. This will redefine the way we invest, impact how our investment teams manage climate risks and ultimately create positive climate benefits.

We will continue to build on our climate strategy along with our stakeholders and we look forward to reporting on our progress next year.





TIME IS RUNNING
OUT!

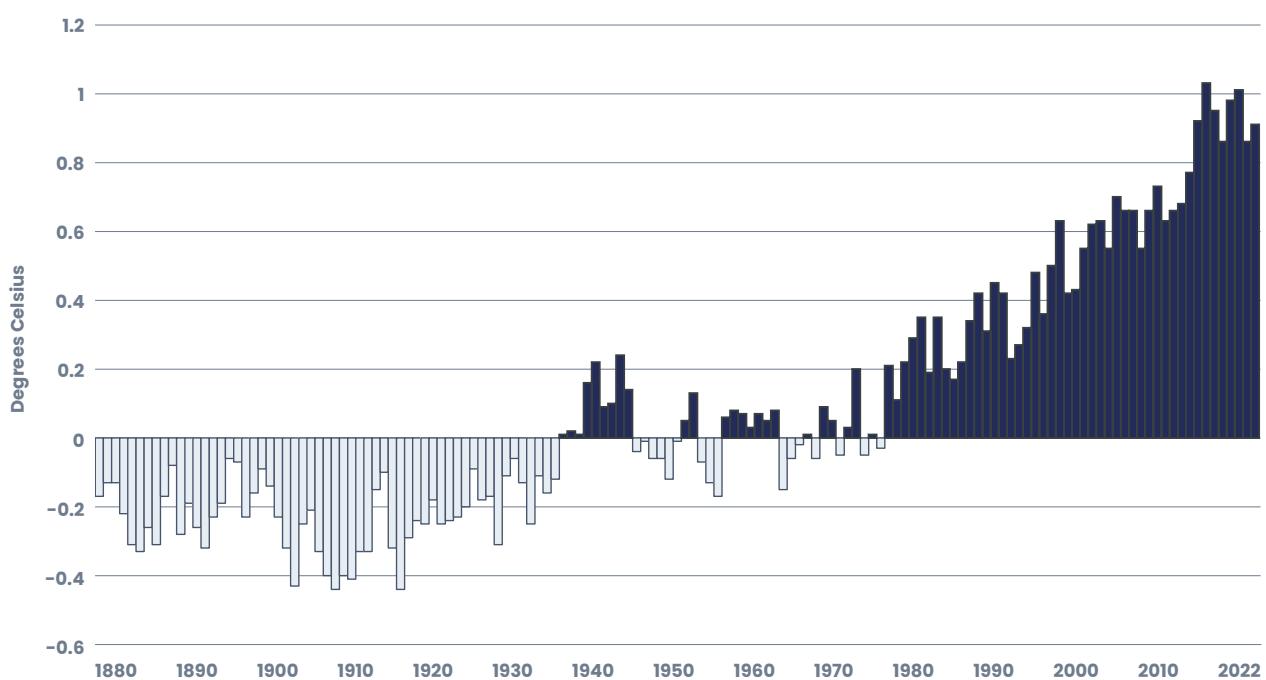


Part I – Code red for humanity.

Earth temperatures are rising. Faster and faster

The last eight years have been the hottest years ever recorded on earth, 2021 being the sixth warmest year¹. Presumably, 2022 will be part of this league table.

Figure 1:
Annual global surface temperature anomalies



Source: NOAA National Centers for Environmental Information, Climate at a Glance: Global Time Series, published February 2023, retrieved on February 27, 2023 from <https://www.ncdc.noaa.gov/access/monitoring/climate-at-a-glance/global/time-series>

Global temperature anomaly data come from NOAA's Merged Land Ocean Global Surface Temperature Analysis (NOAAGlobalTemp), which uses comprehensive data collections of increased global coverage over land (Global Historical Climatology Network-Monthly) and ocean (Extended Reconstructed Sea Surface Temperature) surfaces. These datasets have data from 1850 to the present. The land and ocean datasets are blended into a single product to produce the combined global land and ocean temperature anomalies. The available timeseries of global-scale temperature anomalies are calculated with respect to the 1901–2000 average, while the mapping tool displays global-scale temperature anomalies with respect to the 1991–2020 base period. For more information on these anomalies, please visit [Global Surface Temperature Anomalies](#).

Without immediate action, Earth will no longer be habitable

In other words, to avert the worst impacts of climate change and preserve a liveable planet, the **global temperature increase must be limited to 1.5 °C** above pre-industrial levels. Currently, the Earth is already about 1.1 °C warmer than it was in the late 1800s, and emissions continue to rise at a pace that is accelerating².

This roughly 1 °C degree increase might seem small, but it translates into a significant increase in accumulated heat. Consequences of climate change have become concrete, impacting ecosystems and societies on a daily basis.

For example, Canada experienced a record high of 49.5 degrees, comparable to the Sahara desert. Other regions have seen tropical cyclones, wildfires, deadly floods and droughts. Additionally, we are experiencing reduced snow cover and sea ice, acidification of oceans which is damaging marine ecosystems (coral bleaching) but also impeding the ocean's ability to act as a carbon sink.

Many of the changes to our climate system are becoming irreversible. As we are pushing beyond planetary boundaries, natural and human systems are reaching tipping points where remediation, and even adaptation, are getting more and more difficult.

Biodiversity loss is becoming a threat to human life on earth. Action is urgently needed, through “drastic changes” in our economies, production methods and consumption habits.

“

It's 'now or never' to limit global warming to 1.5 degrees³.

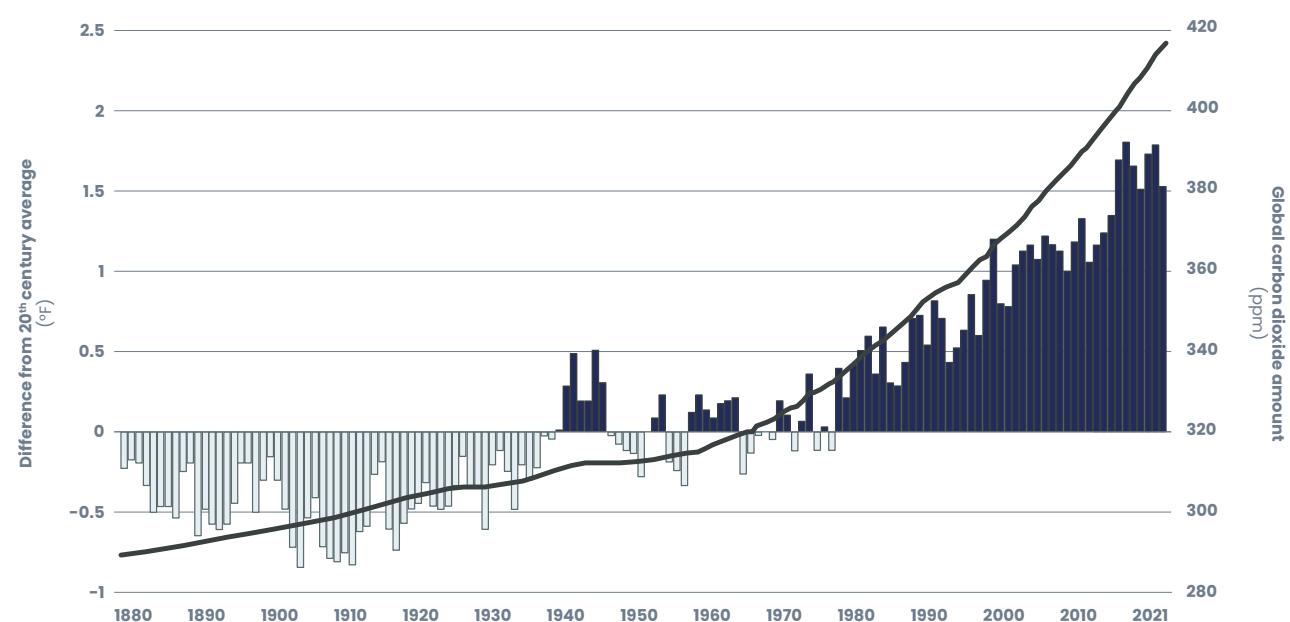
– United Nations

The human cause of global warming is unequivocal

With harmful carbon emissions at their highest level in human history, the world is on a “fast track” to disaster. The rise of global temperature has been very closely correlated with the rise of greenhouse gas (GHG) emissions (Figure 2), and most of the rise in CO₂ concentration is due to the burning of fossil fuels. What this means is that we **urgently need to decorrelate GDP growth from the rise in GHG emissions**. The fastest way to do that is to drastically reduce our dependency to fossil fuels as our main source of energy.

Figure 2:

Changes in global temperature and average atmospheric carbon dioxide (1880–2021)



Source: NOAA Climate.gov, <https://www.climate.gov/media/13840>

Yearly temperature compared to the twentieth-century average (grey and blue bars) from 1880–2021, based on data from NOAA NCEI, plus atmospheric carbon dioxide concentrations (black line): 1880–1958 from [IAC](#), 1959–2019 from [NOAA ESRL](#). Original graph by Dr. Howard Diamond (NOAA ARL), and adapted by NOAA Climate.gov.

The elephant in the room: our dependency on fossil fuels

The need to **drastically reduce our dependency on fossil fuels** is highlighted by the International Energy Agency (IEA) in its final statement at COP26. In its "Net Zero by 2050" report⁴ which presents an economically and technologically viable trajectory to get on track with our 1.5 °C carbon budget, the **IEA clearly states that we need to reduce demand for coal by 90%, oil by 75% and natural gas by 55% by 2050 (Figure 3).**

Power generation is still the largest contributor to emissions, due to its dependency on fossil fuels.

Global efforts need to focus on decarbonizing power as soon as possible as low carbon alternatives already exist and are economically viable – all the more so as electrifying hard-to-abate sectors is a key lever of decarbonization.

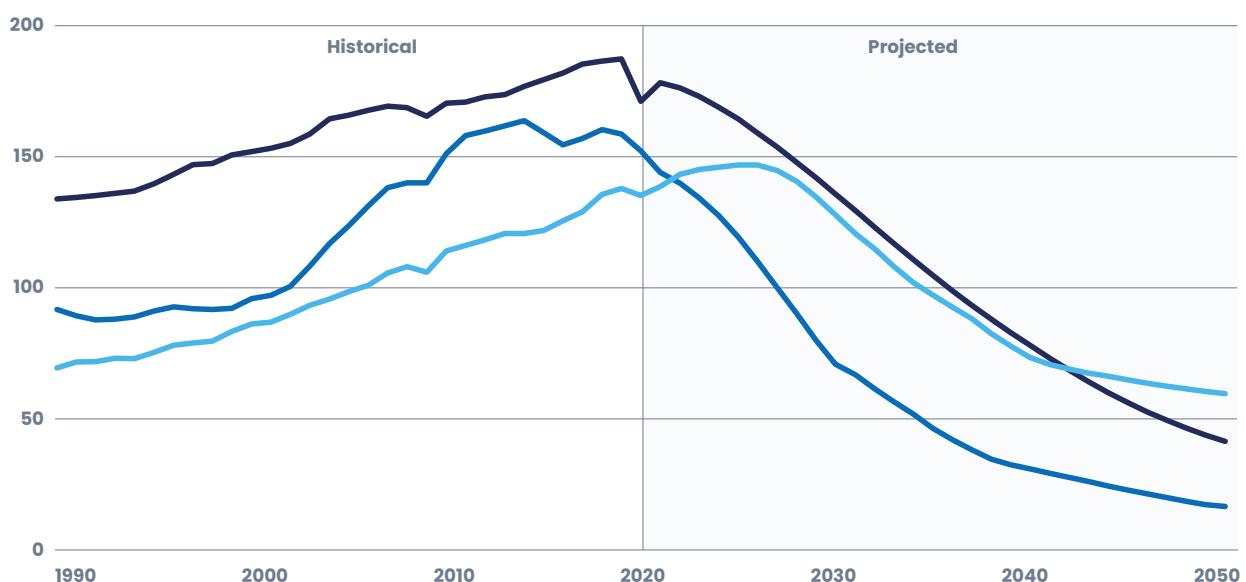
Achieving net zero by 2050 means that our power systems have to reach net zero by 2040 or sooner, and even 2035 for the US and Europe.

**This is about a dozen years from now.
This is tomorrow.**

Figure 3:

Coal, oil and natural gas production in the NZE (Net Zero Emissions by 2050 scenario)

— Oil — Coal — Natural gas



Source: International Energy Agency (2021), Net Zero by 2050, IEA, Paris: Net Zero by 2050 Scenario – Data product – IEA. <https://www.iea.org/data-and-statistics/data-product/net-zero-by-2050-scenario>, License: Creative Commons Attribution CC BY-NC-SA 3.0 IGO.

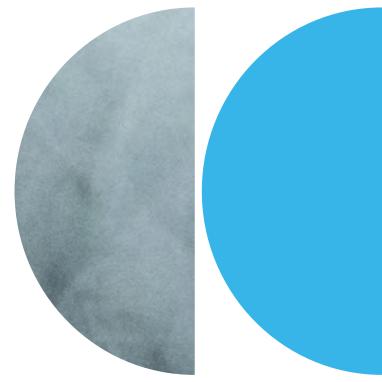
Climate action is needed now. Tomorrow will be too late

All reports signal a clear **code red for humanity**. According to IPCC⁵, there is now a 50-50 chance that global warming will exceed 1.5 °C in the next two decades. This means that **unless there is “immediate, rapid and largescale” action to reduce GHG emissions**, the objective of limiting global warming to 1.5 °C or even 2 °C by the end of the century could be beyond reach before 2040. There is still a tiny window for action, but it requires immediate and drastic changes not only to our energy mix, but to the ways we produce, consume, and move.

What does this mean concretely? To keep global warming to no more than 1.5 °C – as called for in the Paris Agreement – GHG emissions need to reach net zero by 2050, but more importantly, **GHG emissions need to peak as soon as possible and be reduced by 50% by 2030.**

Action is costly, but inaction will cost much more

As demonstrated by numerous studies, the cost of inaction is much higher than the cost of acting now. This has been stressed again by the International Monetary Fund which recently cited estimates that **achieving net zero by 2050 would mean an extra investment of 0.6%-1% of annual global GDP** over the next two decades, amounting to a cumulative \$12-20 trillion. Is this unmanageable? No. For comparison purposes, the global economy shrunk by 4.3% in 2020 due to the Covid crisis. So this is a cost we can take.



“

The cost of inaction is much higher than the cost of acting now.

Continuing on the current "business-as-usual" trajectory would result in tremendous global economic losses. Temperature rises of 1.6 °C by 2030, 2.4 °C by 2050 and 4.4 °C by 2100 would result in economic damage of 2.4% of GDP by 2030, 10% by 2050 and 18% by 2100, according to a Reuters poll of climate economists. In contrast, decisive climate action limiting temperature rise to approximately 1.4 °C by the end of the century would reduce the loss in global output to "only" 2.0% by 2030, 2.3% by 2050 and 2.5% by 2100, according to the same forecasts.⁶

Figure 4:

Global economic cost of climate change

■ Temperature rise ■ Economic damage (% of global GDP)



Source: Reuters Polls

Reuters poll of climate economists conducted Sept 16 – Oct 20, 2021. Climate action path to achieve Paris agreement goals: very low greenhouse gas emissions SSP1-1.9. Business-as-usual path: very high greenhouse gas emissions SSP5-8.5

Part II – Taking a turn to the Green Brick Road.

Good news, governments – and corporates – are taking action. Bad news: what's being done currently is still insufficient

On the positive side, the climate urgency has been acknowledged – to some extent. There is a clear political shift in momentum towards stronger climate action throughout the world, from governments, companies and investors.

To this date, 195 parties (representing 98% of GHG emissions) have committed to the **Paris Agreement**, a legally binding international treaty. This means they have committed **to reducing their emissions by 45% by 2030 and to reaching net zero by 2050**, i.e. cutting GHG emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for example. Currently, more than two thirds of countries around the world have committed to net zero, including the highest emitters such as the US (2050), China (2060) and Europe (2050).

Corporates, too, are rolling up their sleeves: at the end of 2021, more than 2,200 companies, covering over a third of the global economy's market

capitalization, were working with the Science Based Targets initiative (SBTi) on net zero target setting. 400 companies and organizations have even committed to net zero carbon by 2040, i.e. aiming to reach the goals of the Paris Agreement ten years early (The Climate Pledge⁷).

Although this looks encouraging, **it remains insufficient both in terms of ambition and implementation**. As illustrated by the report published in September 2021 by the United Nations Framework Convention on Climate Change (UNFCCC), **the current Nationally-Determined Contributions are still insufficient to achieve the temperature goal of the Paris Agreement**. Communicated ambitions at end of 2020 indicate changes in these countries' total emissions of less than -1% in 2030 compared to 2010. This is very far from the targeted -45% goal required to contain global temperature rise to 1.5 °C⁸.

Our responsibility as investors: help bridge the financing gap

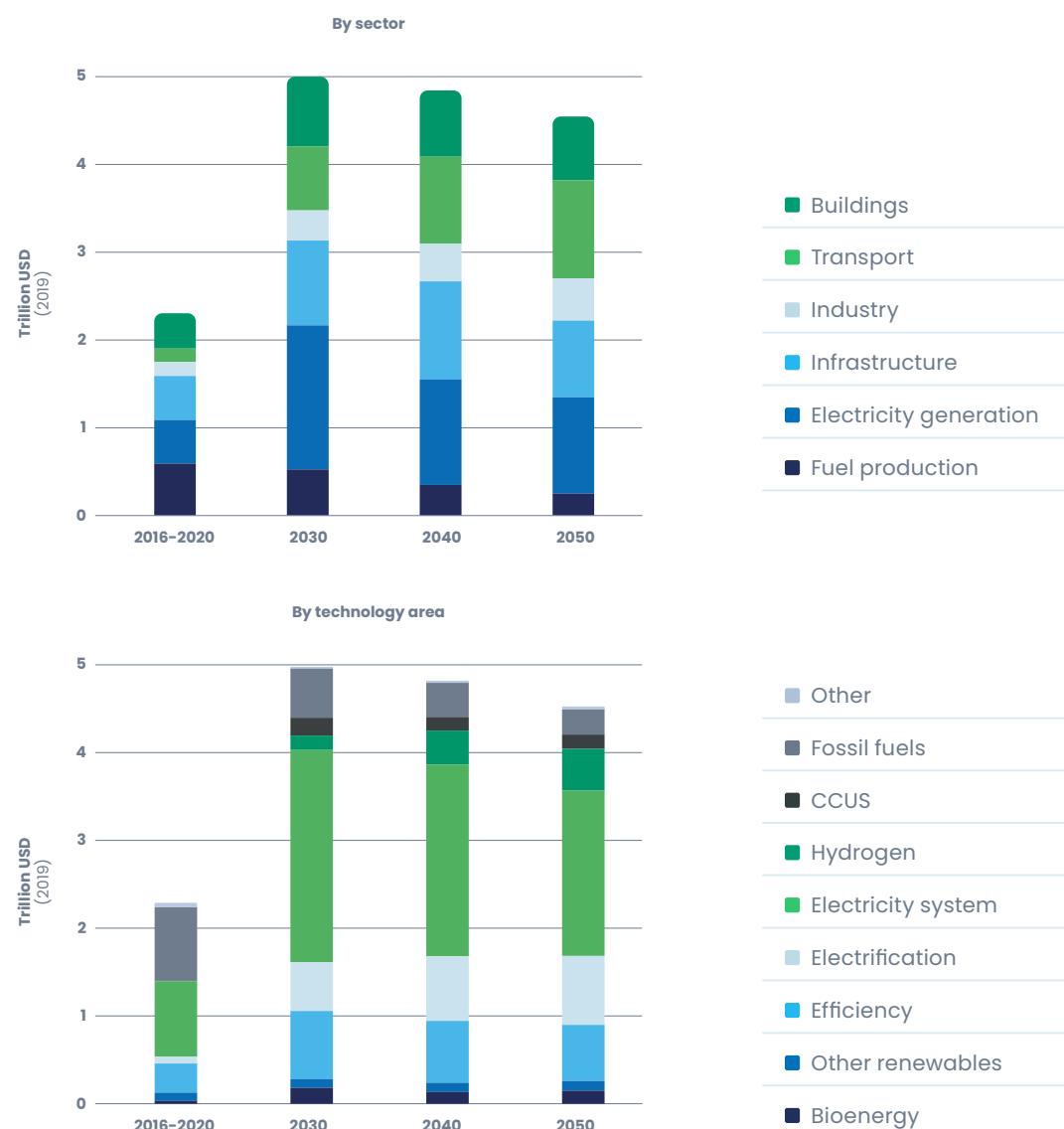
As part of the Paris Agreement, developed nations have committed to spend **USD 100 billion per year** to fund climate mitigation and adaptation needs in developing countries. Unfortunately, we are still far from these levels, that were initially seen as a floor, not as an optimal level, and that are now considered very insufficient.

In its “Net Zero by 2050” report⁹, the IEA estimates that energy transition investments need to increase from just over 1 trillion \$ in 2020 to reach about 4 to 5 trillion \$ annually by 2030. Capital investments in fossil fuels that represent about a third of total energy investments will need to be reduced to less than 10% by 2030 (Figure 5).

While much of the spotlight has been put on government financing, **the private sector is key to shifting from billions to trillions**. In its report, the IEA has estimated that “around 70% of clean energy investment over the next decade will need to be carried out by private developers, consumers and financiers”¹⁰. Green finance and even more importantly “greening” finance is an absolute priority if we want to allocate the necessary capital to the energy transition.



Figure 5:
Annual average capital investment in the NZE



Source: 'International Energy Agency (2021), Net Zero by 2050, IEA, Paris'



**Green finance and even more importantly
“greening” finance is an absolute priority if
we want to allocate the necessary capital to
the energy transition.**



Climate change presents both risks and opportunities

Climate change generates risks, generally categorized as **physical risks** and **transition risks**.

- **Physical risks** are changes in both weather and climate that impact economies. They may be acute (related to extreme weather events like cyclones or rainfalls) or chronic (associated with gradual shifts in climate: temperature change or higher sea levels); they may appear with a significant time lag and the frequency and severity of each type of risk may vary considerably and become increasingly difficult to predict. The location, timing and magnitude of specific physical events cannot be controlled.
- **Transition risks** are the societal changes arising from a transition to a low-carbon economy. They can arise through changes in public sector policies; innovation and changes in the affordability of existing technologies (e.g. that make renewable energy cheaper or allow for the removal of atmospheric GHG emissions); or investor and consumer sentiment towards a greener environment.

Note that all climate scenarios are associated with increasing climate risks. As we accelerate the transition, we will face higher transition risks, but physical risks will be reduced. On the contrary, the more we delay action, the less we will face transition risks; however we will have to deal with the much larger , and more costly, physical impacts of climate change, in the form of natural disasters, heat waves, sea level rise etc.

There is however some good news. The vast majority of the technologies needed to achieve a 50% reduction of GHG emissions by 2030 already exist, many of which are already economically competitive – or close to reaching this stage –, creating significant investment opportunities.

Let's just take our energy systems, which are instrumental in reaching net zero. Their transition requires massive electrification as well as greening of the production of electricity. It also entails a significant increase in the flexibility of electricity systems – smarter grids, energy storage – to ensure reliable supplies. This will translate in a further acceleration in the deployment of all available clean energy technologies (renewables, energy storage, smarter grids etc.) – between now and 2030. Renewable energies in particular are already cost competitive in most regions. While solar photovoltaics (PV) and wind costs have slightly increased

recently due to higher commodity and transport prices, the competitiveness of renewable energy sources has further improved compared to fossil fuels, due to sharp increases in gas, coal and oil prices.

This creates significant opportunities for companies and investors. But governments also need to play their part in ensuring stable and attractive frameworks to speed up the development of already mature low-carbon technologies and to incentivize innovation in the new technologies that will be required post 2030. **According to the IEA, about 50% of the technologies that are needed to bring our world to net zero by 2050 are currently in the demonstration or prototype phase.** This is especially the case for hard-to-abate sectors (for example heavy industry, long-haul transport).

Integrating climate in the way we invest

If, as phrased by the IPCC, aligning with a 1.5°C trajectory requires “drastic changes” in the way our economies function and in the way we produce and consume, this cannot come without changing the way we invest as well. Central banks and supervisory bodies are already working on integrating climate into their risk assessment methodologies and into the way they supervise and support our banking systems.

Many investors have worked on integrating the risk-side of climate change, generally via transition risks and more rarely so, physical risks. But as we engage on a net zero journey, we need to **integrate climate as an investment objective, not just as a looming risk we should limit.**

Committing to net zero by 2050 and targeting a reduction of carbon emissions by 50% by 2030, demands that we integrate climate in our investment decisions as a “constraining” factor. We need to adjust our “carbon budgets” in the same manner as the world is adjusting its remaining carbon budget to contain the rise of temperature to +1.5°C. This new notion of “carbon budget” has to be integrated into our investment objectives and processed in the same manner as “risk budgets”, which means adding a third dimension to the risk-return balance.

Now is the time for investors to walk the talk.

Part III – Our climate strategy, building on 15 years of climate integration.

For over 15 years, climate change mitigation and adaptation have been firmly embedded in Candriam's ESG analysis across its sustainable investment strategies. We have also been recognised as an **industry leader on climate reporting** by the United Nations Principle for Responsible Investment¹¹.

For several years now, we have been measuring and disclosing the carbon footprint of our sustainable funds with the overarching ambition to gradually reduce the footprint of these strategies. In 2020, we set the objective for our SRI strategies¹² to **reduce their carbon footprint by 30% compared to their benchmarks**.

Our climate approach has always been based on four complementary pillars:

Figure 6:

The four complementary pillars of our climate strategy



Source: Candriam

1/ Excluding activities that are deemed incompatible with the Paris goals

Climate science and scenarios are very clear: there is no room for thermal coal if we want to achieve the Paris goals. This is why we decided to exclude coal from our investments in 2018. The exclusion applies to all companies that derive over 5% of revenues from coal-fired power generation or coal mining, and those that develop new thermal coal projects.

Our SRI strategies¹³ also apply additional exclusions targeting the oil and gas sector: all companies deriving over 5% of revenues from the extraction, refining, transport and distribution of oil and gas, both conventional and unconventional, as well as companies deriving over 50% of revenues from the provision of equipment dedicated to the oil & gas industry are excluded from SRI strategies. Only those companies that demonstrate a credible decarbonization strategy in line with the goals of the Paris Agreement according to our net zero analysis can be eligible.

2/ Integrating climate risks and impacts in our investments

We have developed several tools to assess climate risks and associated impacts and have integrated these dimensions into our investments: carbon metrics, a transition risk analysis tool, and an analysis of temperature alignment.

Carbon metrics

We have measured and integrated carbon metrics since 2018, starting with SRI strategies and expanding progressively to all our investment strategies where carbon calculation is possible and relevant. We first focused on scope 1 and scope 2 emissions. Since the start of 2023, scope 3 emissions are measured and full scope data are being made available to all investment teams.

Since 2020, most of our SRI funds¹² have the objective of reducing their carbon footprint by at least 30% compared to their benchmark.

Carbon footprint vs carbon intensity: what is the difference?

“Carbon footprint” is measured as the total amount of CO₂ emitted by a company (either scope 1&2 or scope 1, 2 & 3), divided by the company’s market capitalization or enterprise value. It is expressed in t CO₂/M€ or \$ invested.



It is a convenient metric for investors as it expresses the carbon content of investments in a straight-forward manner.



Market capitalization and enterprise value being very volatile metrics, market effects can result in wide variations in carbon footprints that have nothing to do with a reduction in the amount of carbon that is emitted.

Weighted Average Carbon Intensity (WACI) is measured as the total amount of CO₂ emitted by a company (either scope 1&2 or scope 1, 2 & 3 emissions), divided by the company’s revenues. It is expressed in t CO₂/M€ or \$ of revenues.



It is agnostic of market effects and less volatile than carbon footprints over short periods, as it is based on revenues that are reported every year.



It does not “allocate” the emissions of a company to its investors, and only considers the carbon intensity of the activity itself. A fund’s WACI will be the same whether the investor invests 1 million euros or 1 billion dollars.

WACI is thus more relevant for comparing companies with each other, especially within the same sector, but it is less convenient for investors communicating on their own carbon responsibility.

Source: Candriam

Transition risks

Climate risk mitigation goes much further than studying carbon footprints. We have developed **an internal proprietary model to assess the specific transition risks** faced by issuers in high-stake sectors. This tool allows us to identify the companies that are likely to face high risks related to the transition to a net zero world, such as the risk of stranded assets or the risk of seeing their business outlook impacted by climate-related regulation.

The model combines the expertise of our ESG team and our quantitative team. It is based on both the company's specific exposure to transition risks, linked to its activities and countries of operation, and its management of climate risks.

The Candriam tool for transition risks analysis

Transition risks corresponding to the potential financial impact on companies resulting from the low carbon transition are generally classified under four sub-categories: regulatory change risks, technological change risks, shifts in demand risks and reputation risk.

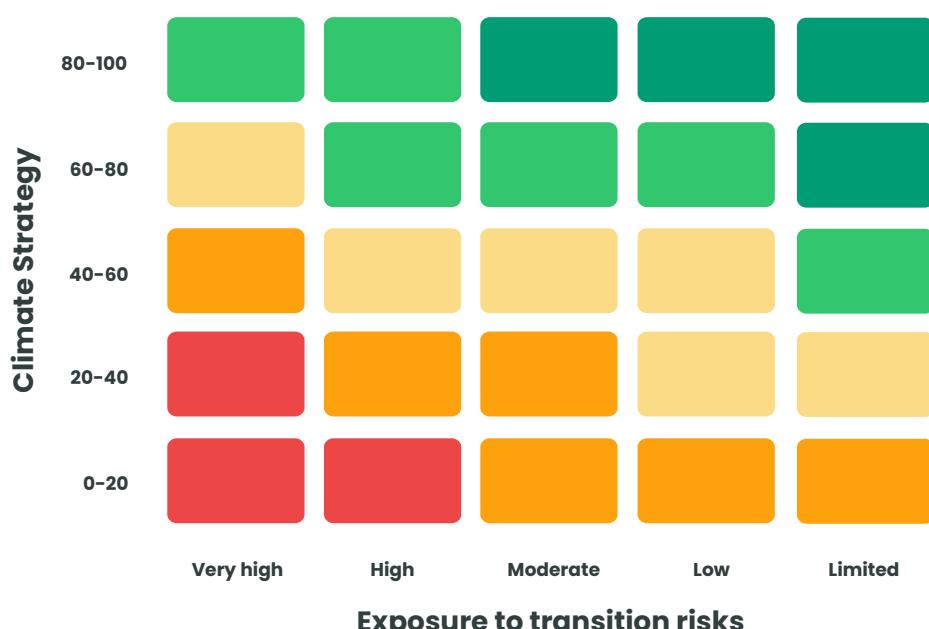
Our proprietary analysis tool identifies and measures the transition risks faced by companies. The analysis is carried out at the level of individual issuers and combines two dimensions:

- **The exposure to transition risks**, which combines the assessment of the impacts of the companies' activities on climate with the company's geographical footprint. Various activities face various level of transition risks depending on where they are located and the nature and speed of the transition in each region or country.
- **The corporates' climate strategy**, which assesses the quality and credibility of companies' climate strategy and how they manage their transition risks.

We combine these two factors to rank companies according to their management of transition risks in five categories: Highly insufficient / Insufficient / Average / Good / Excellent. **This assessment feeds our investment analysis and is used to target our engagement efforts**: we prioritise the companies facing the highest risks.

Figure 7:

Transition risk matrix



Source: Candriam

Temperature alignment

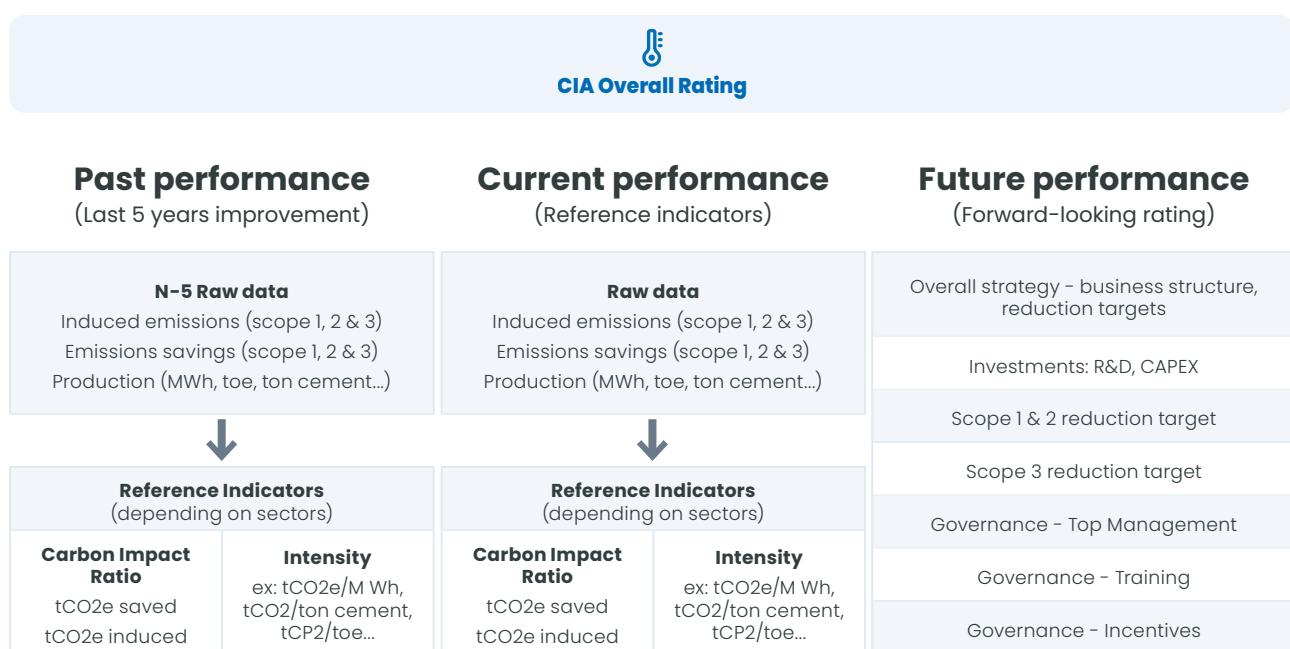
We have a partnership with Carbon4Finance that helps us assess the temperature alignment of a portfolio, i.e. which climate trajectory the portfolio is aligned with.

This analysis is based on both historical and prospective data and allows us to assess the impact of each company and the whole portfolio on the pursuit of a decarbonization trajectory that would maintain the increase in temperature "well below 2 °C".

Carbon4Finance's Climate Impact Analytics (CIA) is based on a measurement of the company's climate performance, using the Sector Decarbonization Approach (SDA) recommended by the Science-Based Targets initiative (SBTi) for high-stake sectors. In addition, the climate impact of the company's products and services is assessed via a detailed scope 3 analysis.

Figure 8:

Carbon4Finance climate impact analysis framework



Source: Carbon4Finance

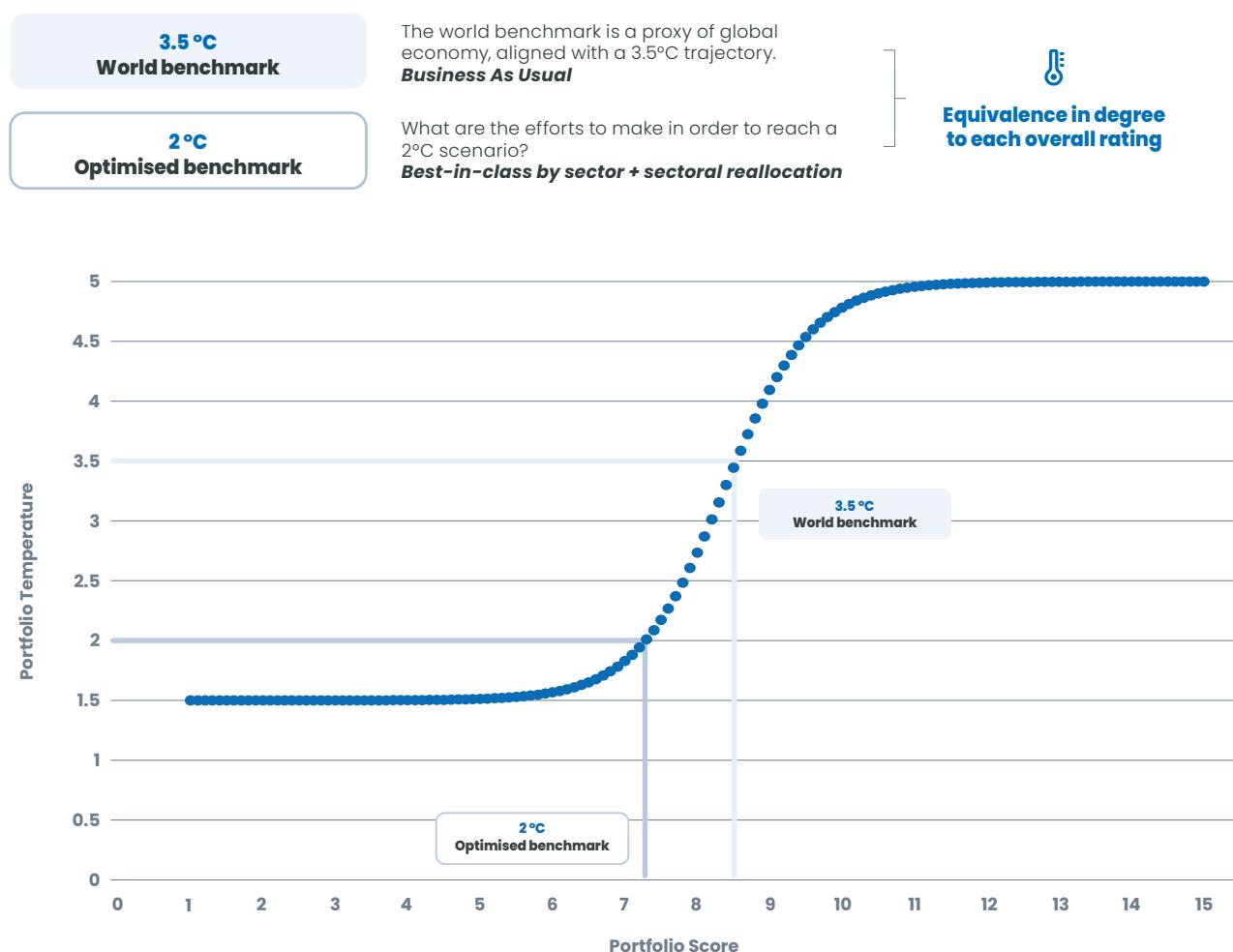
Each company is assigned a rating between 1 and 15, according to its degree of positive or negative contribution to achieving the objectives of the Paris Agreement (1-3 = Strong contributor / 13-15= Incompatible).

This analysis is then aggregated at portfolio level to obtain a temperature, which reflects the portfolio's level of contribution to a decarbonised economy (the temperature ranges from +1.5 °C to +6 °C, with the objective of being below 2 °C to be in line with the Paris Agreement).

The weighted average portfolio climate score, calculated in aggregating issuers' climate score, is computed into portfolio temperature through C4F proprietary climate equation, as highlighted below.

Figure 9:

Calculating portfolio temperature



Source: Candriam, C4F data

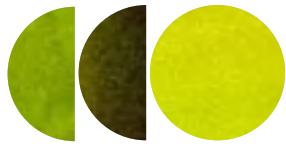
Temperature alignment assessment: Benefits and limits

Temperature alignment assessments have improved over the last 5 years, and are broadly seen as the most sophisticated way of assessing a company's or a portfolio's alignment with the objective of the Paris Agreement.

Assessing temperature alignment usually combines present and forward-looking metrics in order to evaluate the company's decarbonization trajectory and to what extent it compares to a Paris-aligned trajectory. Depending on the method, this assessment can rely on stated objectives only, or it may also integrate analysis of the company's ability to reach them (governance, strategy, capex). It can also be either sector agnostic – applying the same decarbonization rate to all sectors, all companies –, or sector-specific – building sector-specific decarbonization trajectories, based on technology availability and economic factors.

While temperature alignment is the most sophisticated way of assessing alignment with the Paris goals, the key limit and challenge to its assessment is the lack of standards in methodologies, resulting in very different results when using different methodologies for the same portfolio. It therefore makes no sense to compare results obtained from different methodologies, and comparison should be limited to a fund versus its benchmark.

In our view, temperature alignment assessment should be sector-specific. It should also integrate stated objectives – short-, medium- and long-term –, as well as an analysis of the company's ability to reach those (governance, strategy, capex). In high-stake sectors, we focus a big part of our analysis on assessing short and medium-term capex plans, as current capex are tomorrow's technology and business mix.



Contributing to decarbonizing our economies requires much more than just looking at carbon footprints

While lowering the carbon content of our investments is a central objective to reach net zero, it cannot be the only driver of a climate strategy. Decarbonizing a portfolio is fairly easy, especially when considering only scope 1&2: it just requires divesting from high emitting sectors that are key for the ecological transition (utilities, transport, materials) and investing in sectors that naturally have low carbon footprints (media, telecoms, pharmaceuticals, banks). However, doing this does not mean decarbonizing investments, it means investing *out of the climate question*. This approach will have very little impact on reducing real-world emissions. Contributing to the decarbonization of our economies requires a much more sophisticated approach, that does not only consider carbon footprint or intensity, but rather sector-specific decarbonization trajectories, forward-looking metrics such as capex, or the percentage of revenues in activities contributing positively to the energy transition.



3/ Engaging with high emitting companies to accelerate their transition strategy

Individual and collaborative dialogue, as well as active voting, are central to our investment approach. We believe in the power of dialogue and sharing best practices to help corporates improve. We are particularly attached to the consistency between ESG opinion, outcome of dialogue and orientation of our votes.

Coordinating these activities is ensured by a dedicated team of 5 people within Candriam's ESG department, working in close collaboration with our ESG sector or country specialists as well as our investment teams. We also increasingly include external stakeholders in our engagement activities when we think they may bring value-adding insights that may help better balance our opinion.

When setting priorities for climate engagement on the corporate side, we take into account:

- issuers presenting a weak transition profile (proprietary risk transition model), and/or still highly carbon intensive (Scope 1-2) or with large Scope 3 emissions,
- issuers in high stake sectors largely exposed to fossil fuels,
- and the relative exposure of our portfolios to the above issuers.

In 2020-2021, we have engaged with 867 companies on climate issues, both individually and collaboratively.

We use our experience and leverage in engagement to select the best strategy to achieve our goals. We usually combine individual and collaborative dialogue. We have supported the CDP Disclosure campaign since 2004 and the SBTi since 2021. Candriam also joined the CA100+ initiative in 2017 and has been particularly active with 5 companies mainly from the oil & gas and utilities sectors for the past 5 years. Candriam actively contributes to the "Paris-aligned Accounting" engagement led by IIGCC, which relies, among others, on Carbon Tracker's contributions and aims at an alignment of accounting practices with the Paris Agreement (we are lead investor for a building material company, as well as in a conversation with French representatives of the "Big 4" accounting firms). In 2020/2021, we have actively engaged with the financial sector as well, both through a dedicated IIGCC working group and through the ShareAction initiative, which targets banks and insurance companies that support fossil fuels and particularly coal and non-conventional energy sources. On top of this, we also use direct dialogue, we notably conducted a direct engagement campaign on Finance and Climate over the last few years.

We believe increased transparency provides both companies and stakeholders with critical tools for comprehensively assessing companies' approach to managing climate-related risks. This conviction is naturally integrated in our voting policy and has impacts on how we approach:

- climate risk oversight at board level,
- remuneration plans,
- audits, financial and non-financial reporting,
- mergers, sales, splits and acquisitions,
- Say-on-climate votes, and
- shareholder resolutions.

In addition, when the outcome of an engagement falls below our expectations, we consider potential escalation measures, which can include AGM statements or AGM questions, but also resolution co-filing or pre-announcement of voting intention.

Divestment or engagement?

What is the most efficient way of pushing for the decarbonization of high-emitting sectors and companies: divestment or engagement?

We believe they are not mutually exclusive. These two approaches should reinforce each other. Divesting only, without conducting any dialogue with the targeted companies, will have low impact, at least directly, on improvement of their practices. Similarly, relying on engagement and dialogue only, without having the possibility to divest if improvements are insufficient, will make the engagement toothless.

This is why **our climate approach uses both approaches**. We divest from activities that are deemed incompatible with reaching the Paris goals, and we will divest from companies that are not demonstrating sufficient ambition or action in their transition strategy, despite having conducted engagement efforts.

The transition will be just, or won't be

We address the issue of just transition in our engagement activities via individual dialogues (e.g. our 2019–20 campaign on the European utilities sector), via our vote on Say-on-climate resolutions – just transition being part of the assessment criteria – but also via various investor statements addressed to corporates and sovereigns.

Sovereigns' policies and strategies are of fundamental importance in the just transition to low-carbon economies. Corporates won't succeed in their transition if governments don't support them as well as the most vulnerable people and economies. So far, our engagement with states has essentially been through investors' statements

such as the Global Investor statement on Climate (now Investor Agenda Statement) which we co-signed in 2017. More recently, initiatives such as the Investors Policy Dialogue on Deforestation (IPDD) Initiative, which we have supported since 2020, have shown it is possible to engage more actively with states. Candriam is ready to take part in more initiatives of this kind.

Finally, our stakeholders expect us to transparently report on our engagement activities and their outcomes. Therefore, we regularly report on both [our dialogue and voting activities](#), and disclose our votes on an on-going basis ([VDS Dashboard](#)).

4/ Reporting on the climate impacts of our portfolio in a comprehensive and transparent manner

We have been disclosing carbon emissions of all our sustainable strategies (at the exception of our emerging market bond and asset allocation strategies due to methodological constraints) since 2018, with the overarching ambition to reduce these strategies' footprint year-on-year. Candriam defined specific indicators to assess the companies' performance towards climate change mitigation and adaptation, both at the operational level and at the investment level. We publish scope 1 and 2 emissions for several investment funds as well as dedicated climate change-related indicators for dedicated institutional mandates. Depending on the strategy, the following metrics are disclosed at the fund level:

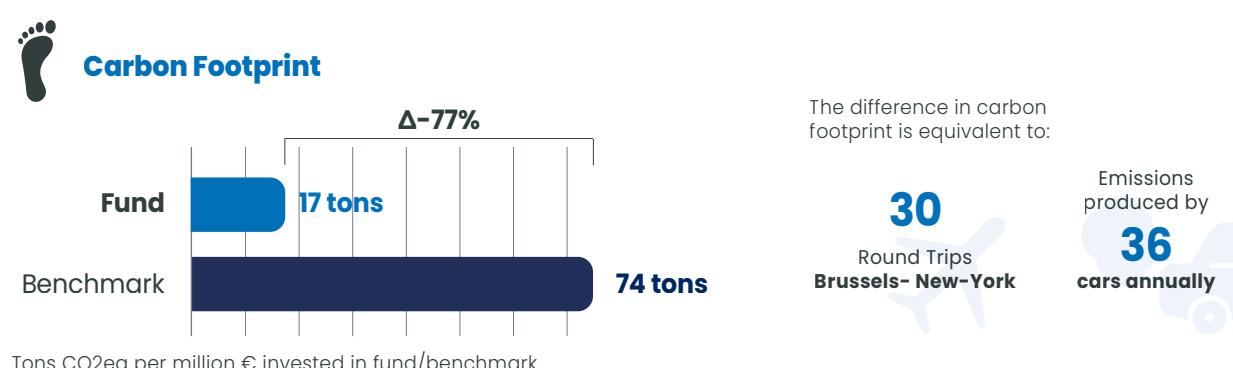
- Carbon footprint
- Carbon intensity
- Weighted Average Carbon Intensity
- Temperature alignment

- Green activities exposure
- Fossil fuel exposure
- Exposure to carbon-related assets in the power generation sector
- Renewable energy production

The quality and transparency of our climate performance will be further improved by progressively integrating scope 3 emissions and aligning our measure of green share with the EU Environmental Taxonomy.

Furthermore, we constantly improve our reports for enhanced transparency. We have worked very hard with our data providers to improve coverage rates, in particular for more challenging asset classes such as high yield or emerging markets. Also, we aim to go a step further in transparency by providing investors with clearer impact indicators as well as their real-life implications, as illustrated below:

Figure 10:
Example: Reporting on the carbon footprint of a fund



Source: Candriam

Part IV

Part IV – Our net zero strategy: changing gear in our climate commitment.

2021 was a landmark year for our climate strategy as **we set the objective of becoming net zero across our activities by 2050**, in line with the Paris goals.

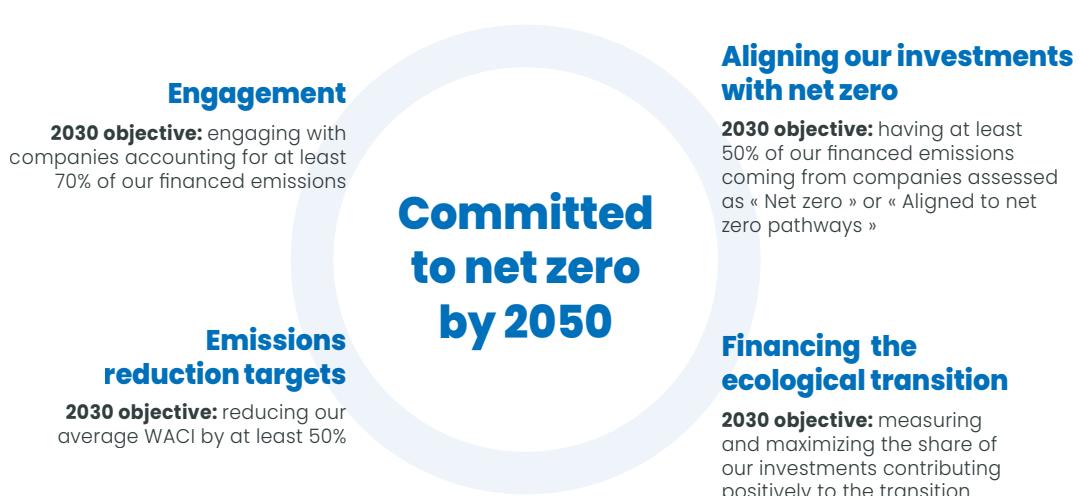
We joined the Net Zero Asset Manager Initiative (NZAMI) in November 2021. The NZAMI brings together asset managers (301 as of 31 December 2022¹⁴) committed to supporting the goal of net zero GHG emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5 °C.

As part of this commitment, we have enhanced our current climate approach and we are setting new climate objectives.

We have defined the initial perimeter of our Net Zero commitment, taking into account both the level of influence – i.e. company ownership – and the ESG positioning of our strategies. **Our initial net zero perimeter accounts for 60.5% of our Candriam-branded Article 8 & 9 open-ended funds.** It accounts for **17% of our total AuM**, our aim being to progressively extend it to 100% by 2050.

Figure 11:

Embedding Net Zero at the Core of Our Sustainable Investment Strategy



Source: Candriam



1/ Active engagement

Engagement is central to our net zero commitment as it further enhances issuers' assessment on climate and influences these investees towards a more systematic integration of climate risk and opportunities into their strategic decisions. It is one of the most powerful ways to create real-world outcomes.

We identify targets and set priorities for our climate engagement taking into account 3 factors:

- issuers presenting a weak transition profile (proprietary risk transition model), and/or still highly carbon intensive (Scope 1-2) or with large Scope 3 emissions,
- issuers in high stake sectors largely exposed to fossil fuels,
- relative exposure of our managed portfolios to the above issuers.

We have set the objective of engaging directly or collaboratively with issuers accounting for at least 70% of our financed emissions by 2030. We are initially focusing on the 40 largest contributors to our carbon intensity, with the aim to reach 100 companies by 2030. We will report annually on our progress and engagement outcomes.

Our objective is to encourage companies to publicly report on how they align with a 1.5 °C trajectory, and to support such an alignment. Beyond any net zero commitment and Scope 1-2-3 absolute emissions disclosure, we will encourage them to provide insights on how their short / medium-term targets are aligned with a scientifically recognized 1.5°C trajectory. In particular, we expect issuers to explain how their strategy and capital expenditures plan serve their decarbonization commitment. For every identified engagement target, we set a timed action plan with precise objectives. In order to measure progress and outcomes, we have developed a framework that mirrors the NZIF (Net Zero Investment Framework) alignment maturity scale.

Our engagement approach may differ depending on the target, the context, our history of dialogue as well as our leverage. In most cases we combine direct and collaborative engagement, and we only consider escalation measures when engagements outcomes fall short of our initial expectations. Such measures are taken in full collaboration with our fund managers.

Our voting policy is a natural continuation of our engagement policy. We systematically analyse any climate resolution as well as a potential sanction vote against directors or auditors. We want our votes to reflect our opinion on the way companies answer the main climate challenges.

Figure 12:

Criteria to assess the Paris-alignment of companies

Higher impact companies: criteria 1-6	<p>1. Ambition: A long term 2050 goal consistent with achieving global net zero.</p>
Lower impact companies: criteria 2,3,4	<p>2. Targets: Short- and medium-term emissions reduction target (scope 1, 2 and material scope 3).</p> <p>3. Emissions performance: Current emissions intensity performance (scope 1, 2 and material scope 3) relative to targets.</p> <p>4. Disclosure: Disclosure of scope 1, 2 and material scope 3 emissions.</p>
	<p>5. Decarbonisation Strategy: A quantified plan setting out the measures that will be deployed to deliver GHG targets, proportions of revenues that are green and where relevant increases in green revenues.</p> <p>6. Capital Allocation Alignment: A clear demonstration that the capital expenditures of the company are consistent with achieving net zero emissions by 2050.</p>
Additional criteria to be incorporated where feasible, as data availability	<p>7. Climate Policy Engagement: The company has a Paris-Agreement-aligned climate lobbying position and demonstrates alignment of its direct and indirect lobbying activities.</p> <p>8. Climate Governance: Clear oversight of net zero transition planning and executive remuneration linked to delivering targets and transition.</p> <p>9. Just Transition: The company considers the impacts from transitioning to a lower carbon business model on its workers and communities.</p> <p>10. Climate risk and accounts: The company provides disclosures on risks associated with the transition through TCFD Reporting and incorporates such risks into its financial accounts.</p>

Source: IIGCC

Regarding sovereigns, engagement on climate is essential. We aim to protect our natural carbon sinks, and act to promote renewable alternatives to fossil fuels, supporting innovation and change in consumer patterns. We wish to participate in rethinking industrialization and trade to reduce the dependence on fossil fuels, as they are key to an effective energy transition. Besides, there won't be transition without a just transition, which means **our climate engagement encompasses a social component**, supporting the most exposed or fragile parts of the population, as well as more sustainable consumption patterns.

Engagement with financials is equally meaningful, because capital flows should be directed to projects that are aligned with the ambitions from the Paris Agreement.

2/ Aligning our investments with net zero

Focusing only on reducing our carbon footprint is very likely to bring very little to the climate question. Why? Because this is likely to result in favoring sectors and activities with the lowest carbon footprint, i.e. generally the sectors that do not contribute to the transition. Therefore, it is absolutely crucial to focus on investing in high-stake companies that are contributing positively or transforming their businesses to credibly align with the net zero goals.

This requires a systematic assessment of how companies are approaching the climate transition, especially those that are key to the transition. We are developing proprietary sector-specific net zero alignment frameworks that will help us position companies on a net zero alignment maturity scale. This is the same assessment that helps target our climate engagement efforts and guides our climate voting policy.

Figure 13:
Proprietary net-zero alignment framework

Ambition	Long-term 2050 goal consistent with achieving net zero	Has the company set a relevant net zero objective?
Targets	Short- and medium-term emissions reduction target (scope 1, 2 and material scope 3)	Has the company set 2030 emission reduction objectives in both relative and absolute terms on its full relevant scope of emissions?
Emissions performance	Current emissions intensity performance (scope 1, 2 and material scope 3) relative to targets	What are the company's current emission levels and how do they compare with the decarbonization pathway of its relevant sector, and with peers?
Disclosure	Disclosure of scope 1, 2 and material scope 3 emissions	Does the company disclose its full scope of emissions? What is the quality and comprehensiveness of the scope 3 emission disclosure?
Decarbonization strategy	Quantified plan setting out the measures that will be deployed to deliver GHG targets	What are the quality and credibility of the company's decarbonization plan? Is the plan sufficiently transparent on the nature and contribution of its decarbonization levers?
Capital allocation alignment	Clear demonstration that the company's capital expenditures are consistent with achieving net zero emissions by 2050	Does the company provide sufficient disclosure on its capital allocation plans? Are investment plans aligned with the decarbonization strategy and a 1.5 °C degree trajectory?
Climate policy engagement	Assessing the climate lobbying position and the alignment of direct and indirect lobbying activities	Does the company provide sufficient disclosure on its climate lobbying efforts? Are these efforts aligned with the objectives of the Paris Agreement?
Climate governance	Oversight of net zero transition planning, and executive remuneration linked to delivering targets and transition	Has the company set relevant governance of its climate strategy with top-level ownership? Are remuneration plans and other performance incentives aligned with climate objectives?
Just transition	Consideration given to the impacts from transitioning to a lower carbon business model on workers and communities	Does the company consider the impacts of the transition to low carbon activities on its stakeholders? What measures did the company take to minimize negative impacts on workers and local communities?
Climate risk and accounts	Disclosures on risks associated with the transition through TCFD reporting and integration of climate risks into financial accounts	Has the company integrated climate in its risk management systems and accounting practices? Does the company provide sufficient information to assess the resilience of its business and strategy to various climate scenarios, including Paris-aligned? Have climate considerations been part of the verification conducted by the auditors on the various risks and accounting matters?

Source: Candriam based on IIGCC framework

All companies operating in high stake sectors will be analyzed on this alignment maturity scale. This assessment will lead to categorizing companies into 5 categories:

Achieving net zero	Current emissions at/ close to 2050 net zero level + investment plan/business model in line with net zero
Aligned to net zero pathway	Companies that have set relevant objectives and implementation plans to align with net zero pathway
Aligning towards net zero pathway	Companies that have set relevant objectives, but not yet implementation plans to align with net zero pathway
Committed to aligning	Companies that have committed to net zero by 2050, but not set any relevant short and mid-term objectives and action plan
Not aligned /incompatible	Companies that have not committed to net zero and/or whose activities are incompatible with reaching net zero by 2050

This assessment will reinforce and grow our Paris-aligned investment strategies, inform our investment decisions, and guide our engagement efforts.

We have set the objectives to have at least 50% of our financed emissions coming from companies assessed as "net zero" or "aligned to a net zero pathway" by 2030. The remaining 50% will be our priority engagement targets. We will report annually on this progress.

3/ Decarbonizing our portfolios

Beyond our participation in the NZAMI which commits us to being net zero by 2050, we have set the objective of **reducing the carbon intensity** (measured as weighted average carbon intensity) **of our portfolios by 50% by 2030** on our net zero perimeter.

The initial WACI of our net zero perimeter was 109t CO₂/m\$ of revenues in 2019.

Our objective is to reach 54.5 t CO₂/m\$ revenues by 2030.

As of December 31, 2022, we have achieved a WACI of **78.09 t CO₂/m\$ revenues**.

This is a **27.3% reduction** taking the same fund perimeter (AuM 2022) and a **17.4% reduction** when not adjusting for AuM evolution.

Implementing our decarbonization commitment

We have selected 3 different methods in order to demonstrate the alignment of our investments with a Paris-aligned net zero target. These 3 methods allow to adapt for the variety of our investments strategies (sector-diversified, thematic, quant...) and their climate positioning:

- **Emission intensity reduction: reducing the portfolio's weighted average carbon intensity (WACI) by 50% between 2019 and 2030.**

We refer to an absolute contraction of the WACI of the portfolio itself, not benchmark relative, or taking a benchmark trajectory as a reference. As many of the funds in our Net Zero perimeter are already well-decarbonized, taking a benchmark-based approach would have watered down our decarbonization objectives and many funds would have had to do very little to be in line with net zero.

We currently measure carbon intensity on the basis of Scope 1 and 2 emissions and are progressively integrating Scope 3. Scope 3 emissions measurement will be systematically included in our investment systems and reporting by 2023. We plan on integrating scope 3 emissions in our climate objectives by 2024.

- **Temperature alignment: decreasing portfolio temperature to below 2 °C by 2030.**

We use temperature alignment metrics that incorporate present and forward-looking climate performance and objectives. Temperature metric goes beyond reference frameworks such as SBTi as it considers not only the objectives but also the company's ability to achieve them, looking at climate governance, strategic planning and capital allocation.

- **EU climate benchmark: decreasing the portfolio weighted average carbon intensity (WACI) to below the level of the fund's relevant Paris-aligned benchmark (PAB)**

Funds that already have a weighted carbon intensity below the WACI of their relevant Paris-aligned benchmark are considered as being already aligned on a net zero trajectory.

We will report annually on the progress made in achieving our 50% emissions intensity reduction objectives, isolating external factors when necessary in order to fully reflect our decarbonization performance.

4/ Promoting green finance and financing the ecological transition

In line with our net zero strategy, Candriam is committed to promoting green finance and to financing the ecological transition. We actively pursue these objectives through several avenues:

Climate-focused investment strategies

Candriam manages a range of thematic, environmental strategies directly focused on climate-related matters. These include for example our Climate Action, Circular Economy, and Future Mobility strategies, which seek to identify and invest in innovative solutions to climate-related problems, including

technologies supporting climate change mitigation and adaptation today and in the future. We continuously work to expand our climate-focused investment offering, seeking opportunities to materially contribute to climate solutions across asset classes.

Commitment to green bonds

Candriam has also developed strategies investing in green bonds and built the relevant expertise both in the ESG analysis and in the financial analysis of such instruments. Our objective with these investments is to finance green activities that make significant positive contributions to the ecological transition. For several fixed income strategies, we have set concrete key performance indicators (KPIs) in the form of minimum allocations to green bonds. Such KPIs are applied in a number of global and euro, corporate and sovereign bond strategies, exemplifying our commitment to financing the ecological transition.

Measurement and reporting of contributions to greening the economy

It is our conviction that thoroughly tracking and understanding our investments' contributions to climate-related matters is essential. Accordingly, Candriam allocates significant resources to the measurement and reporting of its investments' contributions to climate-related matters. We have implemented various indicators, for example avoided CO₂ emissions and green share, to track progression on climate objectives and assess the share of our investments contributing positively to the transition. Further, we have integrated regulatory reporting guidelines, such as the Sustainable Finance Disclosure Regulation and its references to the EU Taxonomy. It is our aim to propose clear, transparent and easy-to-understand reporting and we pay particular attention to the quality and materiality of data used to calculate each indicator.

Promoting green finance beyond our investments

We believe that our role in promoting green finance extends beyond our investment activities. Accordingly, our ESG Investments & Research Department conducts and publishes expert research on the ecological transition and organizes events, such as roundtables and conferences, allowing investors to gain better insight into the role that finance plays in facilitating this transition. Moreover, Candriam has developed several partnerships with renowned academic institutions to foster research on environmental matters and offers a public, free training program on sustainable investing, which includes reference material on climate-related matters.

Next steps.

We have taken this commitment of becoming net zero by 2050. It is indeed a long-term ambition, but it already has significant impacts on the way we integrate climate in our investments.

First, because we are integrating a carbon budget in the very heart of our investment processes. And we will go much further by systematically conducting a net zero “sanity check” when we invest in sectors with high climate stakes. From 2023, we plan on rolling out a series of tools and solutions allowing real-time monitoring of every aspect of climate performance across our investments.

Of course, one of our key objectives in the next two years will also be to increase the perimeter of our net zero commitment. We started with the “easy” part, Candriam-branded funds, on which we have a direct influence. Now we need to conduct extensive dialogue with our clients and partners in order to increase this perimeter much further than the current 17% of AuM.

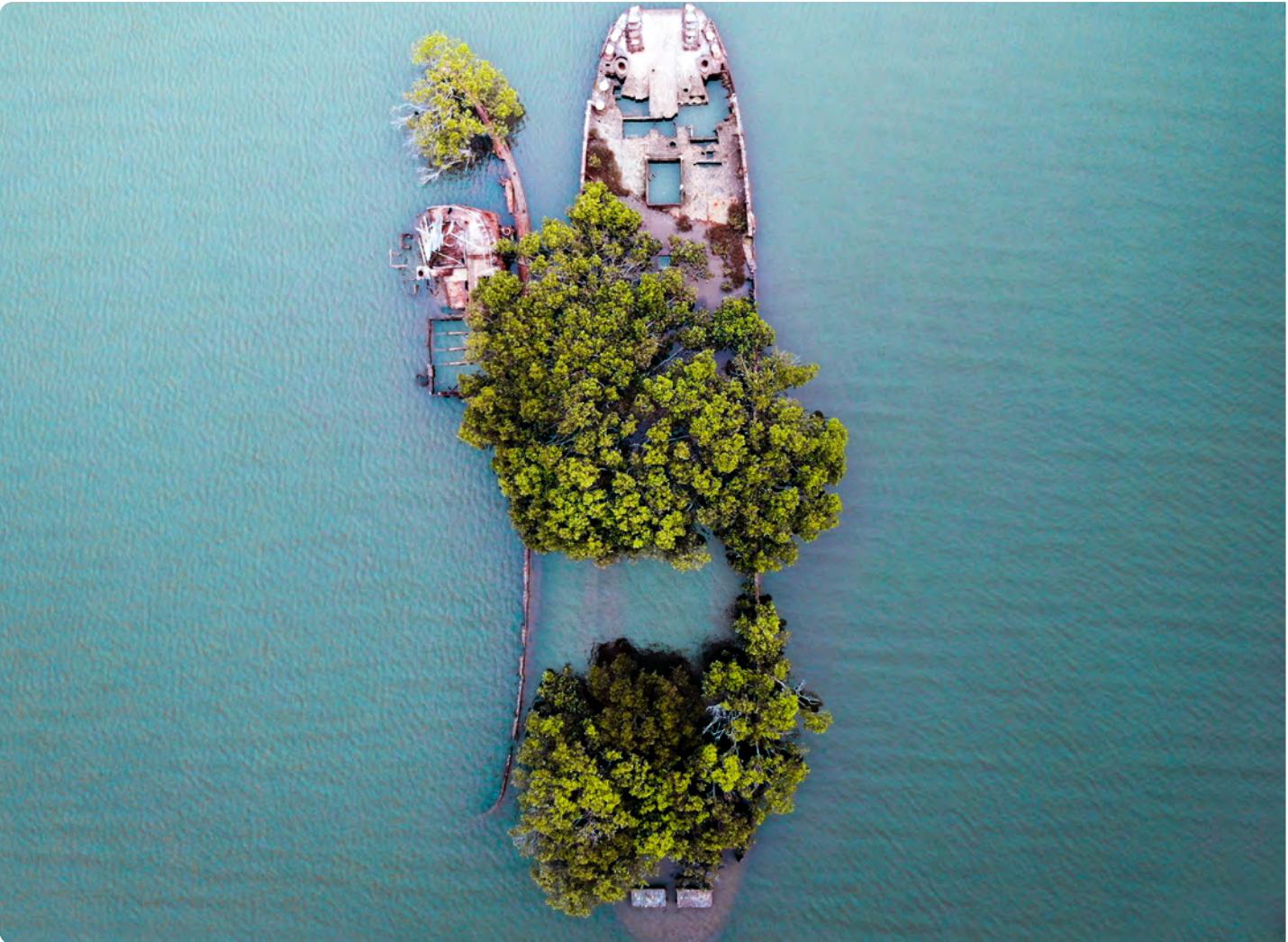
Finally, our paramount objective is to offer and maintain a very high level of transparency on what we do and why we do things the way we do. We need clear, consistent and ambitious standards in setting net zero commitment and objectives, in order to avoid greenwashing but even more importantly, in order for net zero commitments to translate into real-world decarbonization. We will continue advocating for the highest level of ambition in this regard.

This progress report will be published every year. In the meantime, we welcome any question or feedback you may have.

All our investment strategies involve risks, including the risk of loss of capital.

Notes & References.

- 1** Annual 2021 Global Climate Report | National Centers for Environmental Information (NCEI), <https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/202113>
- 2** Net Zero Coalition, United Nations, <https://www.un.org/en/climatechange/net-zero-coalition>
- 3** UN climate report: It's 'now or never' to limit global warming to 1.5 degrees, UN News, <https://news.un.org/en/story/2022/04/1115452>
- 4** Net Zero by 2050 – A Roadmap for the Global Energy Sector, https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZero-by2050-ARoadmapfortheGlobalEnergySector_CORR.pdf
- 5** <https://www.ipcc.ch/sr15/chapter/spm/>
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- 9** Net Zero by 2050, IEA, <https://www.iea.org/reports/net-zero-by-2050>
- 10** <https://www.iea.org/articles/the-cost-of-capital-in-clean-energy-transitions>
- 11** Leaders' Group 2020, PRI reporting analysis, <https://www.unpri.org/showcasing-leadership/leaders-group-2020/6524.article>
- 12** SRI strategies where setting such an objective is possible and relevant, which excludes money market funds, green bonds and thematic funds. For environmental thematic funds, climate objectives have been set using a temperature metric.
- 13** Candriam Sustainable SICAV, article 9 funds
- 14** 301 signatories as of 31 December 2022, representing USD 59 trillion in assets under management. Source: The Net Zero Asset Managers initiative – An international group of asset managers committed to supporting the goal of net zero greenhouse gas emissions, <https://www.netzeroassetmanagers.org/>



€139 B

AUM at end
December 2022*



600

Experienced and
committed professionals



+ 25 years

Leading the way in
sustainable investing

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*As of 31/12/2022, Candriam changed the Assets Under Management (AUM) calculation methodology, and AUM now includes certain assets, such as non-discretionary AUM, external fund selection, overlay services, including ESG screening services, [advisory consulting] services, white labeling services, and model portfolio delivery services that do not qualify as Regulatory Assets Under Management, as defined in the SEC's Form ADV. AUM is reported in USD. AUM not denominated in USD is converted at the spot rate as of 31/12/2022.



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