

# EXECUTIVE SUMMARY

A FRAMEWORK FOR  
COLLECTIVE CARBON  
NEUTRALITY

APRIL 2020



carbone 4



NET  
ZERO  
INITIATIVE

THE PRIVATE SECTOR'S "CARBON NEUTRAL" OR "NET ZERO" COMMITMENTS ARE MULTIPLYING; THESE ARE PRESENTED AS AN APPROPRIATE RESPONSE TO HALT GLOBAL WARMING AND ECOLOGICAL DEGRADATION, WHICH ARE BOTH ACCELERATING BEFORE OUR VERY EYES. YET, THERE IS NO SHARED DEFINITION OF WHAT CONSTITUTES A COMPANY'S NEUTRALITY, DESPITE THE FACT THAT THERE ARE STRONG STATEMENTS FROM THE NON-STATE SECTOR TO ACT CONSISTENTLY WITH SCIENCE. CARBONE 4, THROUGH THE NET ZERO INITIATIVE PROJECT, PROPOSES TO GIVE THIS CONCEPT A NORMATIVE DEFINITION, THAT COMBINES AMBITION, TRANSPARENCY AND EFFICIENCY.

# UNDERSTANDING CARBON NEUTRALITY

**GLOBAL CARBON NEUTRALITY IS THE ONLY ONE THAT IS RIGOROUSLY DEFINED BY SCIENCE**

Science defines global carbon neutrality as a balance between anthropogenic CO<sub>2</sub> emissions and anthropogenic CO<sub>2</sub> removals. Removing as much CO<sub>2</sub> annually as the emissions that are produced is the only way to stop the build-up of CO<sub>2</sub> in the atmosphere, and thus stabilize the temperatures later on. In order to meet the 2°C or 1.5°C objectives, the realization of global carbon neutrality must be achieved by the middle of the century. In addition, to comply with the Paris Agreement, we must not only achieve this "net zero carbon" objective early on, but also reduce emissions of other greenhouse gases fast enough. In the IPCC's definition, "carbon neutrality" and "net zero" mean the same thing.

To achieve global carbon neutrality, human societies must act on two major fronts:



## THE REDUCTION OF EMISSIONS

CO<sub>2</sub> emissions of fossil fuel origin and from deforestation [2]



## THE INCREASE IN SINKS

Afforestation/reforestation, agricultural practices and technological solutions

In view of the effort required, both in terms of reducing emissions and increasing the removals, achieving global carbon neutrality will necessarily have to go hand in hand with profound and radical socio-technical transformations. Carbon neutrality is a breakthrough concept.

[1] IPCC 1.5°C Special Report (2018) : « Net zero carbon dioxide (CO<sub>2</sub>) emissions are achieved when anthropogenic CO<sub>2</sub> emissions are balanced globally by anthropogenic CO<sub>2</sub> removals over a specified period. Net zero CO<sub>2</sub> emissions are also referred to as carbon neutrality. »

[2] To be more precise, it is about reducing CO<sub>2</sub> fossil fuel emissions, from industrial activities, and coming from the land sector (land use, land use change, forestry). To be consistent with the 2°C/1,5°C targets, other GHG emissions will also need to decrease at a rapid pace.

## "COMPANIES' CARBON NEUTRALITY": THE BIG BLUR

Today's demands for neutrality in the corporate world are essentially based on a process of three theoretical steps: "**Measure, Reduce and Offset**". Within this framework, "carbon neutrality" can be achieved each year, by immediately "cancelling out" (or "offsetting") an organization's emissions through the purchase of "carbon credits".

But this reasoning suffers from many limitations, both theoretical and practical. First of all, the **scope** of the emissions taken into account may overlook the most significant emissions' sources in which the company's activities depend on. Secondly, the ambition of the targeted **reduction** is rarely compatible with the 3% to 7% per year reduction in global emissions required to comply with the Paris Agreement. Finally, the very idea of "**offsetting**" is based on physically questionable principles (for example, the equivalence postulate between a reduction at the source and the purchase of carbon credits; or between *certain* and *immediate* emissions, and *presumed* and – in some cases – *future* reductions/removals, etc.) and induces a psychological bias on the part of the credit buyers (the belief in the possibility of "cancelling out" the climate problem at a little cost, etc.). Finally, there is one sole label being used, "carbon neutral", which is used for private initiatives which have very different ambitions; this leads to counterproductive leveling-down.

In general, there are other limitations in defining carbon neutrality as a static and individual state at an organizational level, including:

- ▶ The possibility of achieving "zero net emissions" each year **makes the evolution of actual greenhouse gas emissions over time invisible**, which does not encourage the organization to implement effective actions to reduce emissions at source.
- ▶ Since anthropogenic emissions far exceed the amount of "offsets" available worldwide, **this concept is not universally applicable** and therefore cannot be considered a viable solution on a large scale.
- ▶ This implicitly conveys the message that the **elimination of "climate risk" depends only on a set of accounting entries** ("offsetting"), which actually anaesthetizes the contributors and slows down their creativity when faced with the problem that needs to be solved.

**In short, the concept is not successful.** The idea of "corporate neutrality" that can be achieved through offsetting is not capable of triggering concrete action which is up to the challenge. Thus, there is an urgent need to change this concept, in line with the effort to align corporate action with the imperatives of climate science initiated at the COP21; and to **offer organizations a reference framework for action on carbon neutrality that is proportionate with the global challenge.**

# THE NECESSARY RECONNECTION OF “CORPORATE NEUTRALITY” WITH THE OBJECTIVE OF GLOBAL NEUTRALITY

To achieve this, two paradigm shifts are needed:

## 1. A COMPANY IS NOT CARBON-NEUTRAL: IT *CONTRIBUTES* TO NEUTRALITY

This means in practice that:

▶ **The process is no longer static, but dynamic.**

The company must shift its focus from achieving one-off and immediate neutrality to dynamically managing its climate performance to maximize its contribution to achieving global neutrality.

▶ **The objective is no longer individual, but collective.**

Giving up a quest for "neutrality in its own right" makes it possible to understand the inclusion of one's activity in the rest of the system. The company can then assess the compatibility of its activity to a carbon-neutral path within the world through several indicators, which are not interchangeable with each other, which better reflects this systemic but very real complexity.

## 2. YOU DON'T *OFFSET* ANYMORE, YOU *CONTRIBUTE*

Financing low-carbon projects outside of a company's value chain is useful practice for the collectivity, as it helps to finance mitigation and preservation or the development of sinks for projects that would not necessarily achieve this without external assistance. As mentioned above, the problem arises when this funding is used to "cancel out", "offset" or "neutralize" the company's own emissions, which incidentally contravenes conventional carbon reporting rules [1].

The standard proposes to no longer use the term offset, and to replace it with the term contribution, which does not implicitly convey the idea of "cancelling out" emissions through project financing. The concept of voluntary carbon financing is retained, which increases the financial flows necessary to comply with the Paris Agreement.

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[1] For example, according to the Science-based Targets Initiative : « *The use of offsets is not counted as reductions toward the progress of companies' science-based targets. The SBTi requires that companies set targets based on emission reductions through direct action within their own boundaries or their value chains. Offsets are only considered to be an option for companies wanting to contribute to finance additional emission reductions beyond their science-based target/net-zero* ».

# THE NET ZERO INITIATIVE FRAMEWORK

## MAIN PRINCIPLES

The Net Zero Initiative provides organizations with a way to describe and organize their climate action to maximize their contribution within achieving global carbon neutrality.

The framework is based on several key principles:

1. The word "carbon neutrality" (or "net zero") refers **only to the global goal of balancing the emissions and removals**. It does not apply to an organization.
2. Organizations can only **contribute** to the trajectory towards global carbon neutrality.
3. **Emission reductions** and **negative emissions** (also called "removals") are rigorously distinguished and counted separately.
4. The concept of "contribution to global neutrality" is broadened to include the **marketing of low-carbon products and services**. "Avoided emissions" are separated into two groups: those that correspond to a real absolute decrease in the level of emissions, and those that provide only a "smaller increase" compared to the initial situation.
5. Carbon finance can trigger avoided or negative emissions, but **it cannot "cancel" the company's operational emissions**; it has to have a separate account for this.

## THE NET ZERO INITIATIVE DASHBOARD

The framework is based on the idea that an organization must, at its level, act in three complementary ways in order to contribute to global neutrality:

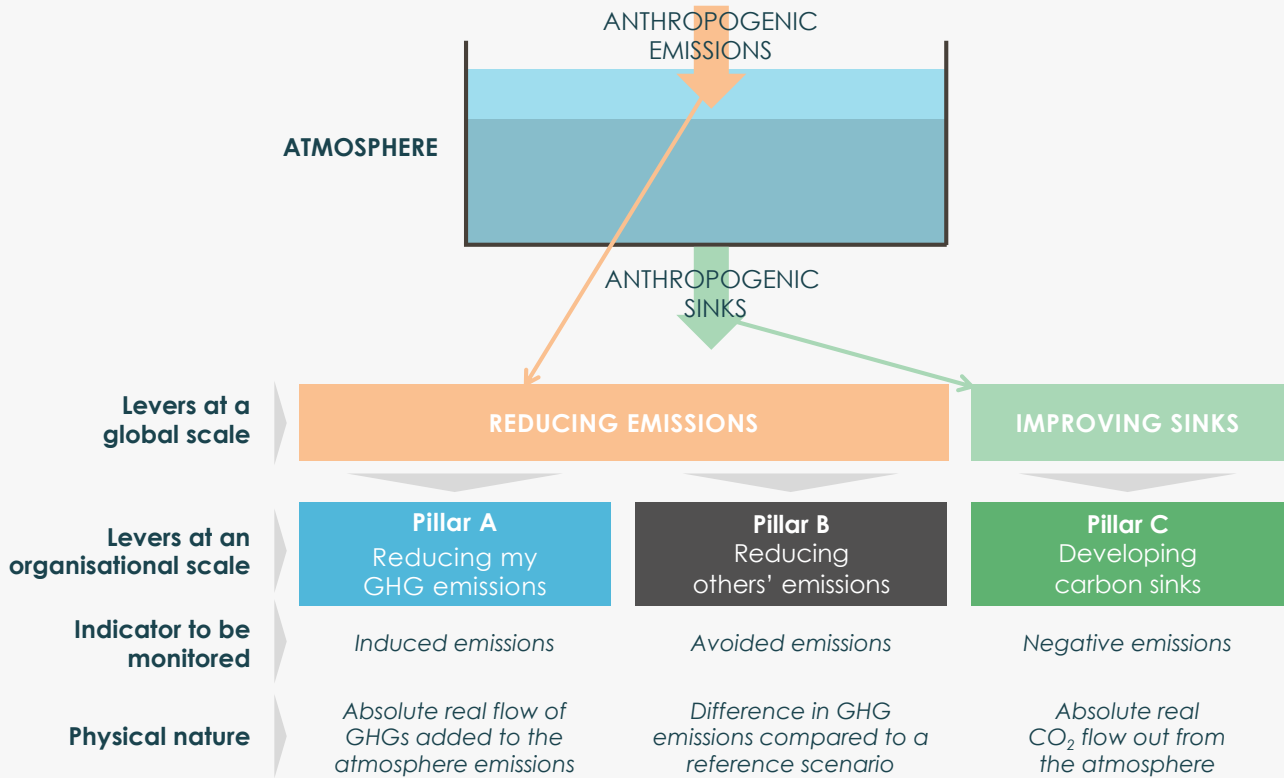
**In order to contribute to the global reduction in emissions, it must:**

1. **Reduce its direct and indirect emissions**
2. **Reduce the emissions of others:**
  - By **marketing** low-carbon solutions, under certain conditions
  - By **financing** low-carbon projects outside of its value chain

**In order to contribute to the increase in global removals, it must:**

3. **Improve carbon sinks:**
  - By **developing** carbon removals within its operations and in its value chain
  - By **financing** carbon sequestration projects outside its value chain

# DECLINING GLOBAL ACTION AT A COMPANY LEVEL



# THE NET ZERO INITIATIVE DASHBOARD

		<b>Pillar A</b> Reducing my GHG emissions	<b>Pillar B</b> Reducing others' emissions	<b>Pillar C</b> Developing carbon sinks
In my value chain	In my operations	Direct emissions (« scope 1 »)	-	Direct removals
	Upstream and downstream	Indirect emissions (« scope 2+3 »)	Emissions avoided by my products and services	Indirect removals
Outside of my value chain		-	Emissions avoided through the financing of reduction projects	Removals through the financing of absorption projects

▶ Each company is then encouraged to:

1. **Measure** its performance on these three pillars;
2. **Set ambitious objectives** for each of them;
3. **Manage them dynamically** over time.

## A.

# Pillar 1: Reducing my GHG emissions

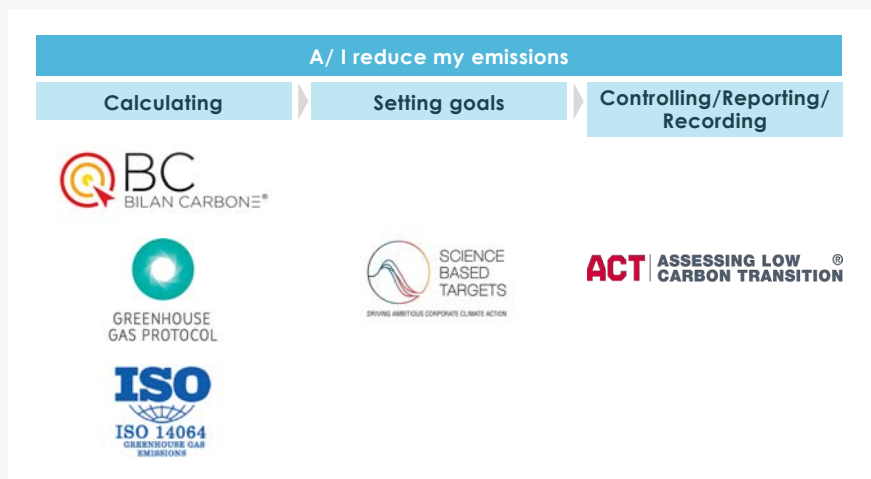
**Indicator:** Induced Emissions

**Physical Nature:** Actual, absolute flow of GHG emissions into the atmosphere

**Description:** This pillar encourages the organization to assess and monitor the reduction of its absolute direct and indirect greenhouse gas emissions over time.

**Method:**

1. **Measure** (usually annually) the emissions, all scopes combined, using standard reporting frameworks: ISO 14064/14069, Carbon Footprint, GHG Protocol, etc.
2. **Set targets :**
  - Through **scenario analyses** carried out by themselves to understand their dependence on activities with emissions within their operations and from others;
  - Alternatively, by using **frameworks** for defining trajectories within the private sector (Science-based Targets).
  - Failing this, **global** (IPCC, IEA, etc.), **national** (National Low Carbon Strategies, NDCs, etc.) and **local** (local and regional climate plans, etc.) **decarbonization scenarios** can be adapted to the scale of the organization.
1. **Dynamically manage the performance** using dynamic assessment tools such as ACT (ADEME & CDP)



## B.

# Pillar 2: Reducing others' emissions

**Indicator:** Avoided emissions.

**Physical nature:** Difference in the level of GHG emissions compared to a reference scenario, caused by an "intervention" by the organization within its environment.

**Caution:** It is necessary to determine whether or not this difference corresponds to a real decrease in emissions compared to the existing situation ("really reduced" emissions vs. "less increased" emissions)

**Description:** This pillar encourages the organization to assess and increase its contributions to decarbonization within third parties:

- Either as a result of its **products and services sold**, which replace a more carbon intensive use by the end users;
- Or as a result of **financing emission reduction projects outside its value chain** (purchases of certified emission reductions, direct participation in projects, low-carbon energy contracts under certain conditions, etc.).

**Method:**

1. **Measure** the organization's avoided emissions each year by using an array of robust methodologies and official reference scenarios (UNFCCC, domestic carbon certification labels, international standards, etc.).

- Set targets** for avoided emissions through its products and by financing projects outside the value chain; in order to contribute to the decarbonization of others "at the right level" expected by the organization, considering the collective effort required.
- Dynamically manage the performance** and evaluate it against the set trajectory.



## C. Pillar 3: Developing carbon sinks

**Indicator:** Negative emissions (or "removals")

**Physical nature:** Real, absolute flow of CO<sub>2</sub> removed from the atmosphere

**Description:** This pillar encourages the organization to assess and increase its contribution to the enhancement of the world's natural and technological carbon sinks:

- Either **in its value chain**, by developing its own carbon sinks (direct removals) or those upstream (in the supply chain) and downstream (within its customers or end-users)
- Or **outside of its value chain**, due to its financing of sequestration projects (purchases of certified carbon sequestration, direct participation in projects, etc.).

**Method:**

- Measure** each year:
  - The negative emissions in the organization's value chain using existing standards (ISO 14064, GHG Protocol Guidance on Removals, etc.).
  - The negative emissions caused by project financing, due to robust methodologies (UNFCCC, domestic carbon certification labels, international standards, etc.).
- Set targets** for the carbon removal outside and inside its value chain, to help increase the sinks "at the right level", given the collective effort required.
- Dynamically manage the performance** and evaluate it in accordance to its set trajectory.





## Next steps

- ▶ This framework is the first stone laid to generate a major paradigm shift: the transition from an autonomous declaration of neutrality to action that is part of a collective movement.
- ▶ This framework can now be used by organizations and notably companies; the methods exist for taking an inventory of the emissions over the entire value chain, for accounting for avoided emissions compared to existing ones, and finally for accounting for the removals.
- ▶ In the light of the objective of global neutrality, these methods are sometimes incomplete, but they provide a basis on which to start working. **Carbone 4 therefore calls on all companies to take up this way of looking at things right now**, to trigger action in all areas of their activities (in the sales and marketing roles for its avoided emissions, in the production and organization roles for the induced emissions, in R&D, strategy and finance for all three pillars, etc.). Placing the organization's actions in a "path towards neutrality", is a project that involves all collaborators; unlike the short-term search of an individual neutrality state.
- ▶ In particular, it is necessary to specify what could be the "right" trajectories for each of the pillars. An essential step for a given company is to set concrete short-term objectives, as well as an assessment of the ambition of its own commitments, which will have to relate to the framework's three pillars.
- ▶ Ambitious climate action by the private sector will therefore involve experimentation from now on, and then gradual harmonization of the terms and concepts used. This is why **we invite all stakeholders, companies, project holders, consultancy firms, "offset" operators, and civil society actors to grasp the concepts described here in order to accelerate collective action towards global net zero**; to which Carbone 4 hopes to have contributed to through the reference framework proposed here.

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