

CARBON NEUTRALITY AT CORPORATE LEVEL

EcoAct / ELYS Conseil



AGENDA

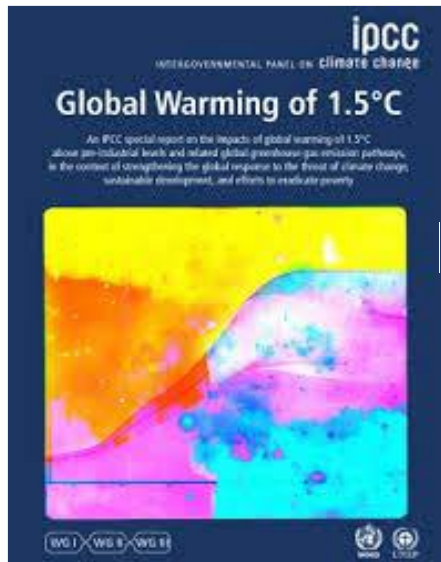
1. Context and objectives of the study.
2. Main lessons from the analysis carried out.
3. 5 key steps of a successful carbon neutrality process for an organization and associated recommendations.

Objectives of the study

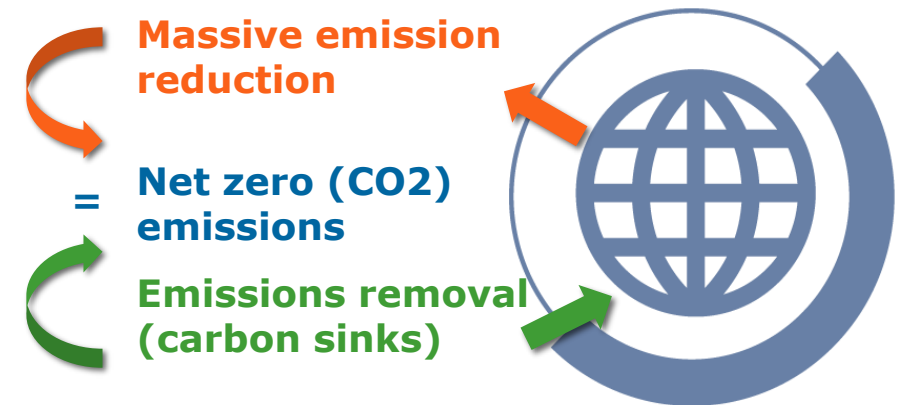
Analyze the work and debates in progress on the basis of clear, impartial and sourced information:

- Identify the different concepts of carbon neutrality;
- Describe and compare them;
- Determine the contribution that LCA concepts may provide to the carbon neutrality methodologies;
- Provide recommendations to facilitate the implementation of carbon neutrality initiatives.

Carbon neutrality / Net Zero at global scale



CO₂ (or GHG) residual **emissions**
————— are **balanced**
With the same amount of CO₂
removal



Carbon neutrality is also referred to as “Net Zero CO₂ emissions”.

Carbon neutrality / Net Zero at corporate scale

Different approaches...

Short term achievement

- Offset only
- Offset + reduction target
- Offset + reduction target + achieved annual objective
- Offset + science-based reduction target + achieved annual objective

Medium/long term achievement

- Removal* + achieved reduction
- Removal + achieved science-based reduction
- Removal + achieved science-based Net Zero reduction

* Could be direct (SCOPE 1) or contracted (offset with sequestration projects)

Carbon neutrality / Net Zero at corporate scale

... Associated to different claims

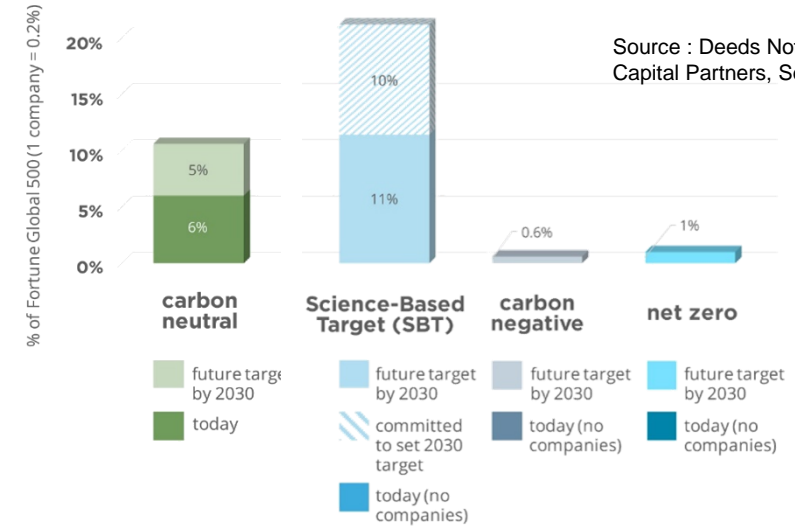
- Net Zero
- GHG neutral
- Carbon neutral
- Carbon free
- Carbon negative
- Carbon positive
- Climate positive

And counting.

Examples:

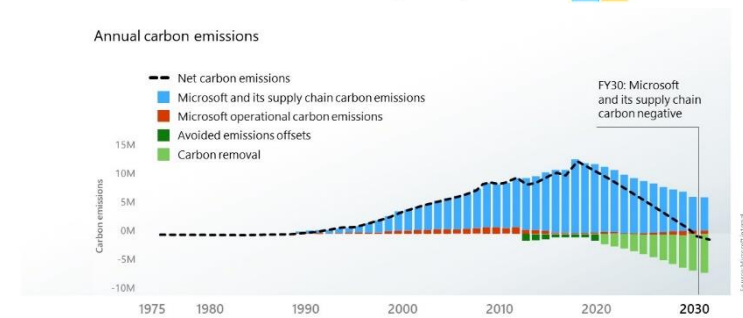


Carbon neutral since 2007.
Carbon free by 2030.



Source : Deeds Not Words, Natural Capital Partners, September 2019 ([link](#))

Microsoft's pathway to carbon negative by 2030



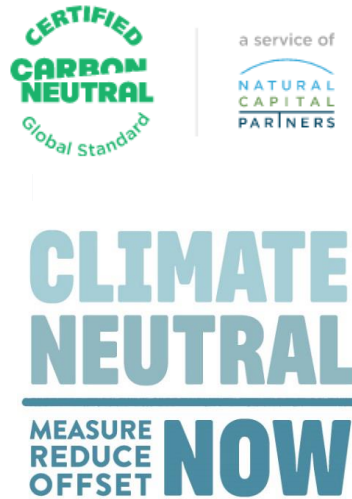
SCORE LCA

Lack of a unique and recognized definition but many standards, guides or position papers available.

Existing:



PAS 2060

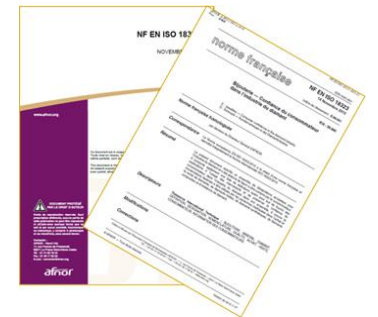


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Work in progress:



SBTi Net Zero



ISO 14 068 standard project: Carbon neutrality

...

LCA based methodological insights to carbon neutrality approach

- ❑ LCA to allow the communication of verifiable, non-misleading information on environmental aspects (organizations, products and services):
 - Carbon neutrality does not mean no impact or no GHG emissions => environmental declaration should be based on a multicriteria assessment (Environmental Product Declaration, Organization Environmental Footprint e.g.) ;
 - Need for the development of environmental declaration program for organizations (public/private).

- ❑ LCA to monitor and justify the effective reduction of GHG emissions
 - Identification of shifting of burdens and actions to mitigate them.

The environmental impacts referring to the production of 1 Kg of plant-based beverage are shown in the table.

IMPACT CATEGORY	UNIT	UPSTREAM PROCESS		CORE PROCESS		DOWNSTREAM PROCESS		TOTAL
		PRICE OF COLLECTOR AND PRODUCTION OF RAW MATERIALS	PACKAGING	PROCESS	DISTRIBUTION	END OF LIFE		
GLOBAL WARMING	kg CO ₂ eq	0.249	0.0861	0.204	0.0762	0.0138		0.649
ACIDIFICATION	kg SO ₂ eq	0.00008	0.00018	0.00116	0.00018	0.0000113		0.00045
EUTROPHICATION	kg PO ₄ -P eq	0.000041	0.000084	0.000076	0.000027	0.00000047		0.000128
PHOTOCHEMICAL OXIDATION	kg NMVOC	0.00214	0.00020	0.00019	0.00025	0.0000076		0.00279

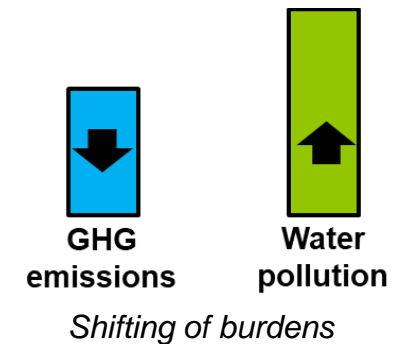
The additional environmental information required by the PCR concerns the indicators outlined in the table. The reference is the functional unit: 1 kg of plant-based beverage.

IMPACT CATEGORY	UNIT	UPSTREAM PROCESS		CORE PROCESS		DOWNSTREAM PROCESS		TOTAL
		PRICE OF COLLECTOR AND PRODUCTION OF RAW MATERIALS	PACKAGING	PROCESS	DISTRIBUTION	END OF LIFE		
WATER SCARCITY	m ³	0.0000	0.00024	0.00074	0.00041	0.0000077		0.00146
HUMAN TOXICITY	kg 1,4-DB eq	0.000	0.0019	0.003	0.000	0.00048		0.0054
ECOTOXICITY OF FRESHWATER	kg 1,4-DB eq	0.002	0.0017	0.012	0.00074	0.00076		0.0164
LAND USE	m ²	0.00	-	0.0000099	-	-		0.00

GLOBAL WARMING
649 g CO₂ eq/ Kg of product

ENVIRONMENTAL DECLARATION OF THE PRODUCT PC 0

Environmental Product Declaration



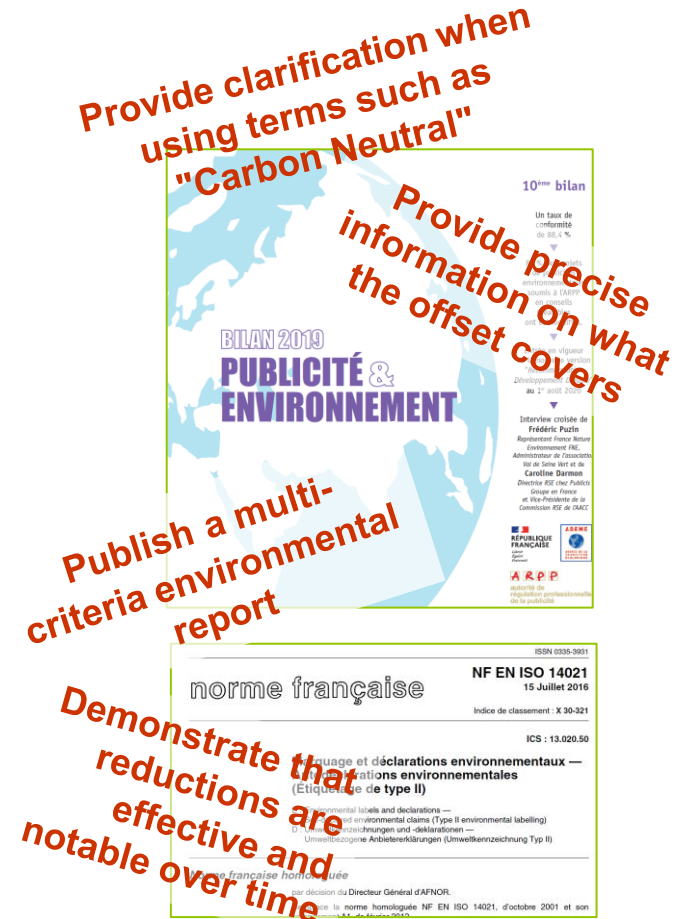
LCA based methodological insights to carbon neutrality approach

- ❑ LCA to prioritize reduction actions and handle with discernment GHG emissions for which scientific uncertainties currently remain
 - Distinction between fossil and biogenic carbon emissions, land use emissions and delayed emissions is a recurring requirement in LCAs.

- ❑ LCA to measure and report or to decide?
 - Assess the possibility of carrying out consequential LCAs for organizations whose actions implemented for carbon neutrality may have consequences on the economy (e.g. suppliers).

Focus on recommendations for communication

- ❑ Do not suggest that carbon neutrality induces overall environmental neutrality.
- ❑ The communication shall be:
 - Proportionate according to the actual actions carried out (reduction of GHG emissions);
 - Accompanied by information on other environmental aspects.
- ❑ Justifications related to the actions undertaken or the properties of the products bearing a claim must be documented and transferable.
- ❑ Use the definition of carbon neutrality according to ISO 14021.
- ❑ If it is not possible to justify overall formulations, formulations such as "contributes to" should be used.



5 key steps for a successful carbon neutrality approach.

Step 1 - Measure and identify the challenges for the organization

- All the activities of the organization.
- Standardized methodology: Bilan Carbone[®], GHG Protocol, ISO 14 064 ...
- All greenhouse gases (not just CO₂).
- All direct and indirect, energy and non-energy GHG emissions.

Rigor, transparency and completeness are necessary.

To go further: multicriteria assessment based on LCA methodology.

5 key steps for a successful carbon neutrality approach.

Step 2 – Plan with ambition for the short, medium and long term

- Define and implement a carbon budget over time.
- “Science-aligned” GHG emissions reduction trajectory.
- Preservation and strengthening trajectory of its carbon sequestration capacity.

Act on its own scale and be **an actor** of change.

To go further : use of consequential LCA for big organizations.

5 key steps for a successful carbon neutrality approach.

Step 3 – Act now: avoid and reduce its GHG emissions, strengthen its carbon sequestration capacity, offset its residual GHG emissions

- ❑ Implement your transition plan.
- ❑ Offsetting, as of today, all of the organization's residual emissions:
 - Finance labeled projects;
 - Pay close attention to the co-benefits of the projects supported;
 - Get involved over the long term;
 - Think about others, here and there..



The objective is to gradually reduce dependence on voluntary carbon offsetting in favor of in the perimeter drastic reductions.

To go further: use of multicriteria studies (LCA) to identify potential shifting of burdens.

5 key steps for a successful carbon neutrality approach.

Step 4 – Follow and evaluate the trajectory

- Set up an annual monitoring system;
- Measure the gaps and, if necessary, quickly implement corrective actions in the event of non-alignment with the trajectory;
- Periodically evaluate the strategy (i.e. every 3 years).

Step 5 - Certify and communicate on the carbon neutrality process

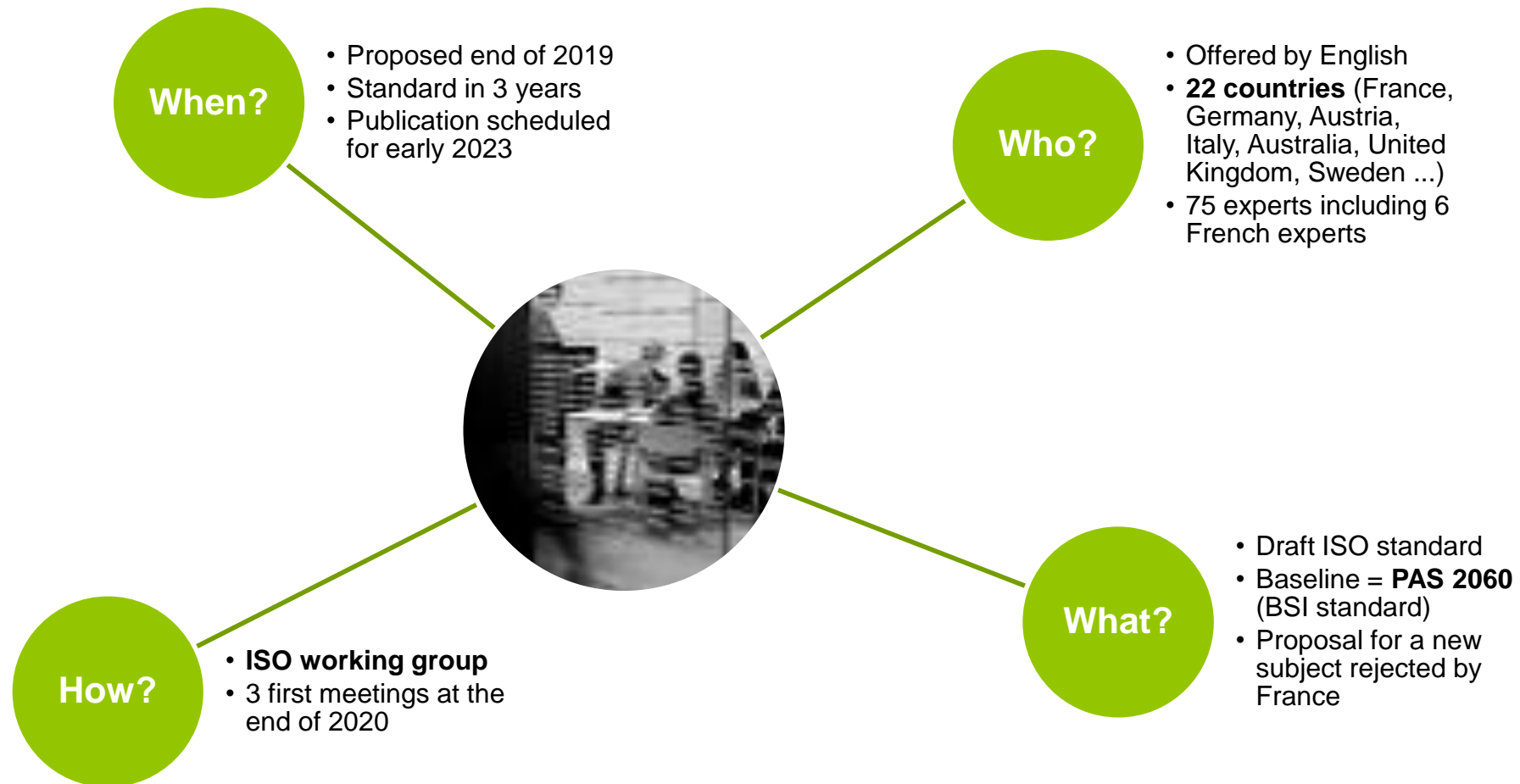
- Certification by an independent third party;
- Communicate internally and externally in a clear and transparent manner: adapt your discourse to your actions and ambitions;
- Ban elements of communication that would suggest a total lack of impact (ex: 'zero carbon product').

ISO 14068: THE DRAFT STANDARD ON CARBON NEUTRALITY

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ISO 14068: the draft standard on carbon neutrality



ISO 14068: the French position

- ❑ Carbon neutrality at corporate level is defined by the elaboration and implementation of a strategy compatible with the Paris Agreement consisting of the **activation of 3 elements**:

A climate strategy compatible with the Paris Agreement

- *A trajectory for reducing direct and indirect emissions*
- *A trajectory for increasing direct and indirect carbon sinks*

Annual funding of offsetting projects

- *Projects of a different nature (avoidance, reduction, sequestration)*
- *Amounts compatible with the Paris Agreement (at least equivalent to the unreduced emissions, direct and indirect, of the organization).*

A trajectory of increased avoided emissions in line with the Paris Agreement

- *Concerns the products, goods and services marketed by the organization*
- *Reflects the fact that the organization contributes to decarbonizing our ecosystem*

- ❑ These three elements are implemented jointly.
- ❑ Each element must separately aim for a long-term objective compatible with the planetary goal of carbon neutrality.
- ❑ They are systematically reported separately.