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The challenge of neutralization

In 2021, the average increase in the global temperature reached about 1.2 °C, an amount very close to that considered safe by science – around 1.5 °C to 2 °C. If the current pace is maintained, by 2100 we could reach levels close to 5 °C of temperature increase, with disastrous consequences. There is a direct correlation between the accumulated stock of CO2 in the atmosphere and the increase in temperature. The carbon budget is estimated from this correlation, that is, how much CO2 can be put into the atmosphere so as not to exceed the desired maximum temperature. The only way to deal with this problem is to neutralize the emission – both CO2's and other greenhouse gases' – by starting the process in the short term.

Zero net carbon emission is understood as a condition in which a certain value of anthropogenic emissions of CO2 are balanced or removed by an equivalent value of CO2, also of anthropogenic origin. That is to say: human actions that release CO2 into the atmosphere are compensated by other human actions. The calculation of net-zero emissions works well on a global level, with some countries offsetting the action of others. But on a sub-global or subnational scale, or in a cross-company comparison, the discrepancies are larger.

"The Board has a strong role in ensuring the company's culture, which brings a concern with the impact of actions from social, environmental and risk management dimensions."

Renato Franklin, CEO of Movida

Regarding carbon neutrality, the responsibility for these emissions lies with subnational entities or with companies, which must individually be responsible for neutralizing the emissions themselves. In this model, there is the possibility of using offsets, the "purchase" of carbon quotas from another sector of the economy, from another company, or another nation. Both concepts also apply to other greenhouse gases. Net-zero emission does not mean that all companies and countries will have zero-emission. Some will have a positive balance and others a negative one, which zero emissions when put together. Net-zero CO2 refers to the moment of peak temperature when there is stability in the increase of this temperature. Net-zero greenhouse gas (netzero GHG) emission refers to the moment when the temperature begins to decline. This second scenario occurs only 17 years after reaching zero net CO2 emissions, considering the 1.5 °C increase in temperature. If the increase is 2°C, the interval goes up to 30 years^[1].



Orange: net - zero CO2Blue: net-zero GHG

The role of most companies, so far, is to voluntarily show the presence of actions to reduce carbon emissions in their reports. It is up to the boards of directors to encourage and guide companies to integrate environmental causes in strategic planning and reporting in order to anticipate the possible obligation of the subject, in particular to companies regulated by supervisory bodies.

For this to happen, it is essential that the company takes the first step to understand the impact of climate, globally, on the local business itself. When discussing risk and opportunity, we need to bring the issue into the business strategy, not being limited to a specific professional or committee. The strategy should measure, through reliable and auditable indicators, the impact of each business process, also considering scope 3 - which encompasses consumer use after the product or service is sold. The issue should be part of the board's agenda, in a systematic way, with a clear definition of objectives and monitoring of these metrics.

"The technological solutions and the timing are very different depending on the climate ambition."

Roberto Schaeffer, Energy Economics of the Energy Planning Program professor at Coppe/UFRJ

The Carbon Market

A regulated carbon market would set polluting gases emission goals for companies, where they must neutralize their emissions from changing business models or buying carbon credits from other companies. Currently, only the voluntary carbon market is established in the country. It is a growing initiative to try to monetize carbon emissions, by punishing or financially benefiting companies from their own environmental actions.

In Brazil's case, this regulation may come through the Securities and Exchange Commission (CVM), applied to a limited number of companies, through National Congress approved legislation, or through regulations proposed within the Ministry of Economy. This regulatory movement is present worldwide, especially in regulated financial markets. In the United States, for example, the Securities and Exchange Commission (SEC) has launched a public consultation on the topic, indicating the creation of regulation for the market soon.

"We no longer have time to put beautiful things on paper. We have to act."

Walter Schalka, President of Suzano



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"The oil and gas industry contributes greatly to greenhouse gas emissions. If it is part of the problem, it must be part of the solution. Otherwise, it will disappear."

Ieda Gomes Yell, Independent Advisor to listed and private companies (Brazil, UK, USA and France)

New economy for Brazil

The World Resources Institute (WRI), a global institution that promotes the protection of the environment, economic opportunities, and human well-being, launched in 2020 the study "a new economy for a new era", which brings the possibilities of a new economy for Brazil (NEB)^[3]. The actions focus on three pillars: quality infrastructure, industrial innovation, and sustainable agriculture. These are some suggestions from the study:

- Increasing participation in the sale of hybrid flex-fuel vehicles, electric buses, and fuel cell vehicles (light, medium, and heavy trucks);
- Growing share of biojet for aviation kerosene;
- Energy efficiency in buildings;
- Concentrating Solar Power (CSP) and photovoltaic panels in hydroelectric reservoirs;
- Use of charcoal in the iron and steel industry;
- Agriculture and pastures of high productivity.

Source [1]: Reisinger, 2020. https://unfccc.int/sites/default/files/resource/RD%20Pres%20T1%20AReisinger.pdf Source [2]: https://webstore.iea.org/co2-emissions-from-fuel-combustion-2018-highlights Source [3]: https://wribrasil.org.br/sites/default/files/af neb sumarioexecutivo.pdf

Speakers

Opening:

João Carlos Redondo, Chapter Zero Brazil coordinator

Moderator:

Clarissa Lins, Founding Partner of Catavento, member of committees and administrative boards

Panellists:

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