



PROJECT BRIEFING #7 CLIMATE-NEUTRAL HELMHOLTZ ASSOCIATION

CASE STUDY II | VERSION #1 | SEPTEMBER 2020



CLIMATE-NEUTRAL HELMHOLTZ ASSOCIATION

CASE STUDY II VERSION #1 | 18.06.2020

AIM

This Project Briefing provides an overview of the Case Study II within Cluster | Net-Zero-2050 and its status quo.

GOALS

The goal of the climate-neutral Helmholtz Association case study is to develop a roadmap. This will describe a non-binding strategy towards a net-zero Helmholtz Association. It should be understood as an aid for the centres in order to be able to develop and advance independent climate strategies and to give an overview of the status quo. The structure of the net-zero strategy is integrated into Net-Zero-2050 of the "Helmholtz Initiative Climate Adaptation and Mitigation" in project 1.1 "National Roadmaps Net Zero".

In the context of this case study, the term net zero CO_2 emissions, or CO_2 neutrality, is used to describe that all anthropogenic CO_2 emissions caused by the Helmholtz centres are balanced by means of anthropogenic CO_2 removals over the period until 2050 (see Project Briefing #1 "P1-Structure and Project Briefing #3" CO_2 (avoided & removed)). The case study could lay the foundation for the Helmholtz Association to do its part.

STATUS QUO

It is currently important to get the energy consumption data of the centers. Therefore, the focus is currently on the design of the data query. For this, I am in regular contact with the representatives of the "Sustainability Network of the Helmholtz Association". In addition, the responsible contacts at the centers must be identified. For this purpose, the office in Berlin sent a letter to the center management and asked for support for the project. A contact person for the case study was named from all 19 centers. A contact person for the case study was named from all 19 centers. After these were named, I sent the query to all of the named contacts. The feedback so far can be seen in Figure 1. So far, 11 of the 19 centers have transmitted their energy data. I expect feedback from 4 other centers shortly. The first evaluations will be available by October 30, 2020.

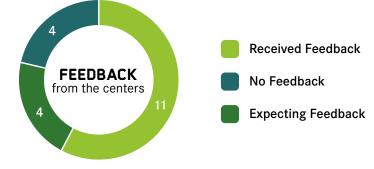


Figure 1. Overview on the feedback status.



SCOPE AND SUBCHAPTERS

The content of the case study is based on the three scopes of the Greenhouse Gas Protocol. This represents a global standard, which enables wide comparability in application. Therefore, the energy and the derived emission data are initially classified into the following criteria (see figure 2).

- First, the direct emissions of the organisation, defined as scope 1, include all emissions that are emitted by the centre itself. In this context, for example, the combustion of heating oil and the use of natural gas should be mentioned, but also the vehicle fleet owned by the centre.
- Scope 2 includes all indirect energy sources that are made available by third parties. This comprises electricity and district heating.
- Scope 3 goes further and considers indirect upstream and downstream emission values. These include for example the supply chain, transport and waste produced. As part of this scope, the focus of data collection is set on business trips (in this case air travel) to the respective centre. Due to the complex nature of this third scope, other indicators can be neglected in this work.

In summary, the basis of the case study is defined by the scopes. These indicate the system boundaries and an orientation for the project.

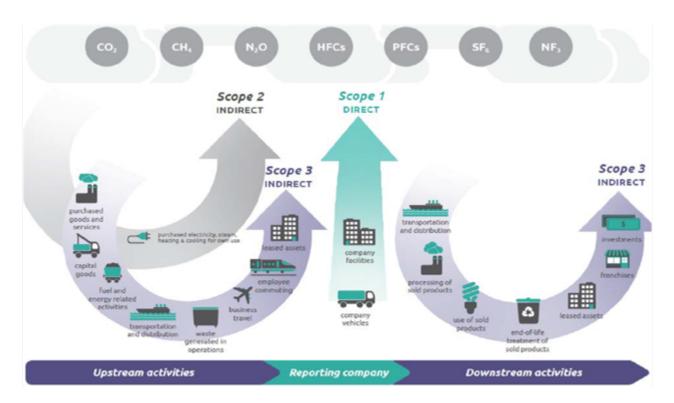


Figure 2. The three scopes of the GHG protocol. Source: https://ghgprotocol.org/blog/you-too-can-master-value-chain-emissions

Another very important factor is the cooperation with the centres. In order to be able to successfully manage the project, a transparent representation of the energy consumption mentioned by the centres is essential. These form the basis of every climate management system and are the central component of the status quo, which is also to be determined in this case study.



AUTHORS

Aljoscha Born¹, Fiona Köhnke², Björn Rau³, Gonzalo Rodriguez Garcia⁴

- 1 Helmholtz-Zentrum für Ozeanforschung Kiel,
- 2 Climate Service Center Germany (GERICS) | Helmholtz-Zentrum Geesthacht,
- 3 Helmholtz-Zentrum Berlin,
- 4 Helmholtz-Zentrum Dresden-Rossendorf

CONTACT PERSON

Aljoscha Born | aborn@geomar.de

The Helmholtz Climate Initiative (HI-CAM) is funded by the Helmholtz Association's Initiative and Networking Fund. The authors are responsible for the content of this publication.

More results from the project Net-Zero-2050 are available here:

www.netto-null.org www.helmholtz-klima.de/en/press/media-library June 2020