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**UNIVERSITÄT  
BERN**

Vice-Rectorate Quality  
**Coordination Office for  
Sustainable development**

# Greenhouse gas report 2019 of the University of Bern

## 1. Starting point

The University of Bern is known worldwide for its research and teaching on the topics of sustainable development and climate studies. Yet sustainability and climate protection aren't just topics addressed in the University's research and teaching – they're actually a matter of special concern with respect to its operations, as well: the University is aware of its responsibility and makes every effort to minimize its operations-related carbon emissions. As a result, it has set itself the goal of becoming a climate-neutral institution by 2025 in all areas in which it has direct influence.

To take stock of where the University of Bern stands in this respect and take its first step toward becoming a climate-neutral institution, the University of Bern has prepared its carbon footprint for 2019.

## 2. 2019 carbon footprint of the University of Bern

### 2.1 System boundaries of the carbon footprint

The University of Bern's carbon footprint considers all relevant greenhouse gases and expresses them in terms of carbon equivalents (CO<sub>2</sub> eq).<sup>1</sup>

The carbon footprint is geared toward the GHG Protocol, which distinguishes between direct emissions (Scope 1), indirect energy-related emissions (Scope 2) and other indirect emissions (Scope 3).<sup>2</sup> The University's carbon footprint factors in emissions from the following sources:

- Scope 1:
  - Heating oil
  - Natural gas
  - Fuels (university's fleet of vehicles)
  - Laboratory gases, experimental areas, livestock

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<sup>1</sup> All greenhouse gases were converted to carbon equivalents (CO<sub>2</sub> eq) based on their specific global warming potential and using a time horizon of 100 years.

<sup>2</sup> The Greenhouse Gas Protocol. A Corporate Accounting and Reporting Standard, Revised Edition. World Business Council for Sustainable Development (WBCSD), and World Resources Institute (WRI).

- Scope 2:
  - District heating
  - District cooling
  - Electricity
  
- Scope 3:
  - Paper (Uniprint)
  - Water
  - Waste disposal (garbage and special waste) and bonuses earned through the collection of recyclable materials (aluminum, PET, paper, toner)
  - Air travel

Due to a lack of available data, the scope of the 2019 footprint does not yet include business travel via public transportation and by car. Going ahead, the University aims to document these emissions as well and report them in its carbon footprint.

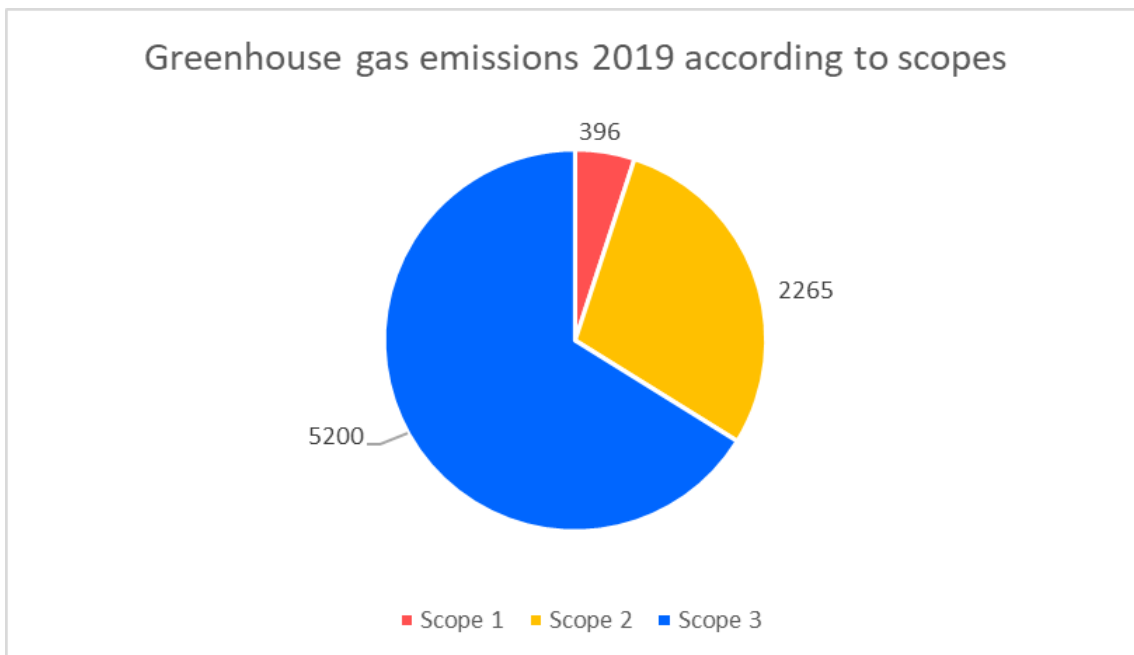
Emissions generated through the procurement of consumables and furnishings (laboratory equipment, furniture, IT devices, laboratory and office consumables) were not included in the carbon footprint due to a lack of data.

Operation of the student cafeteria, which is managed by an external company – ZFV-Unternehmungen – was excluded from the carbon footprint of the University of Bern since ZFV-Unternehmungen prepares its own carbon footprint.

## 2.2 Results of the 2019 carbon footprint

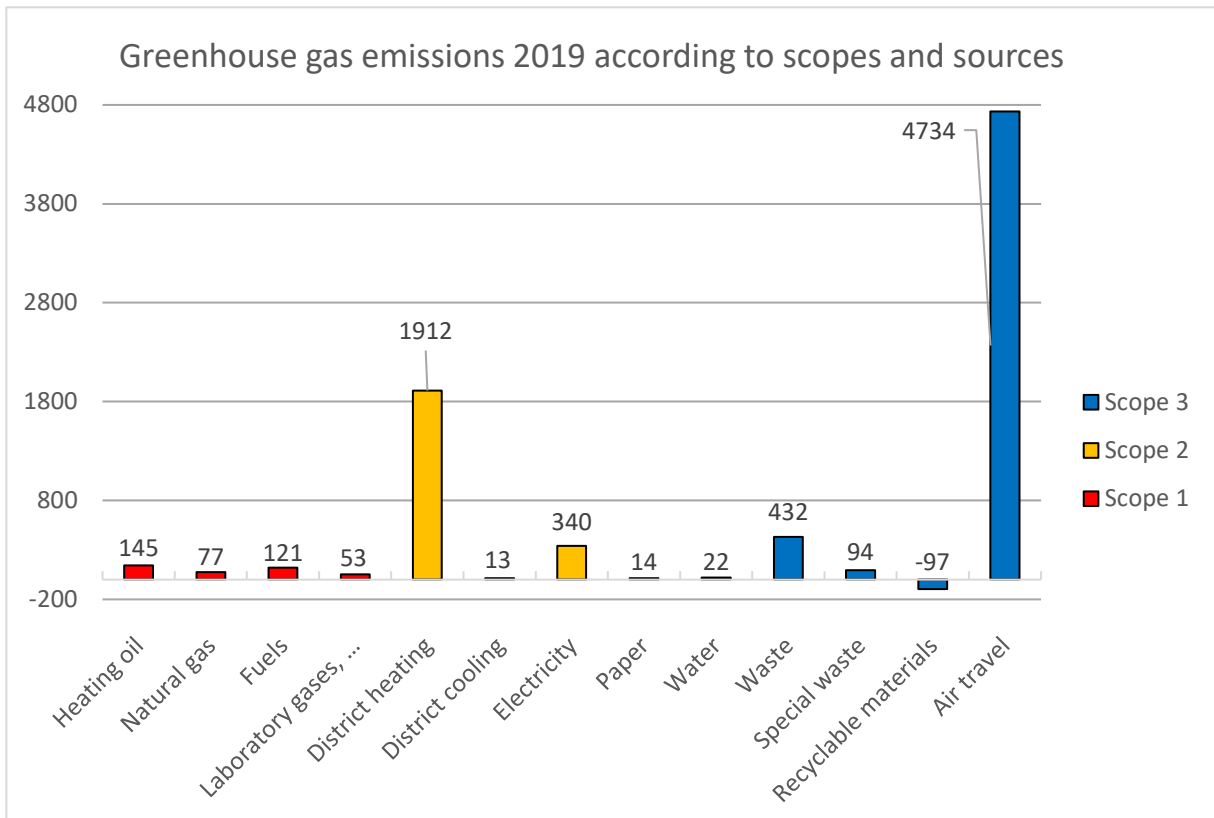
The University of Bern produced a total of around 7,861 tons of CO<sub>2</sub> eq in 2019. With around 4,720 employees expressed in terms of full-time equivalents (FTE), this corresponds to average emissions of roughly 1.67 t CO<sub>2</sub> eq / FTE per year.

At 5%, the direct emissions (Scope 1) of the University of Bern only account for a small portion of overall emissions. Nearly 29% of overall emissions are related to district heating, electricity and district cooling (Scope 2), while the remaining two thirds or so can be attributed to other indirect emissions (Scope 3).



**Figure 1: Greenhouse gas emissions of the University of Bern, 2019.** Scope-based presentation of greenhouse gas emissions in CO<sub>2</sub> eq

Some 60% of overall emissions are produced by work-related air travel (4,734 t CO<sub>2</sub> eq). Nearly a quarter of the emissions (approx. 24%) are generated by the suppliers of district heating. Lower emissions are produced in connection with the disposal of garbage (approx. 5%) and purchased electricity (approx. 4%). Heating oil consumption, operation of the vehicle fleet, special waste disposal and natural gas consumption each account for less than 2% of the overall footprint. Emissions from laboratory gases, experimental areas, livestock farming, the purchase of drinking water, the use of paper and the purchase of district cooling only account for a marginal share of the overall footprint, which amounts to less than 0.7% in each case. Recycling reusable materials has a positive impact on the overall footprint (approx. 1%).<sup>3</sup>



**Figure 2: Greenhouse gas emissions of the University of Bern, 2019.** Greenhouse gas emissions are shown by source, expressed in CO<sub>2</sub> eq and attributed to the various scopes by color.

<sup>3</sup> Since the secondary raw materials gained through the recycling of reusable materials replace primary raw materials, recycling results in a reduction of raw material consumption and a corresponding reduction in greenhouse gas emissions.