University of Applied Sciences and Arts Northwestern Switzerland

VELOPLUS

Green House Gas Report VeloPlus

Initial situation

Veloplus is a team of 190 enthusiastic cyclists and a leading specialist bicycle shop. Compared to private transport with combustion engines, cycling advances towards a low emission mobility and therefore makes an important contribution to climate protection and improving air quality. By signing the "Bike Charter" and the shiftcyclingculture initiative in autumn 2022, Veloplus wants to drive sustainability within the company and the industry and significantly reduce its own footprint.

Project Goals

- Determine...
  Scope 1 Emissions: Direct and controllable emissions generated in stationary plants, in the vehicle fleet and for heating and cooling
  Scope 2 Emissions: Indirect emissions resulting from the provision of electricity, district heating or steam for all buildings
  Scope 3 Emissions: Indirect emissions resulting from employee mobility, business travel and internal transport of good
- The three Scopes will be summarized in a CO_2 environmental balance

Scope 1
Direct GHG-Emissions

Emissions	kg CO_2 eq
Fuel Consumption of heating systems	**113’322**
Fuel consumption of internal transport vehicles	**4’363**

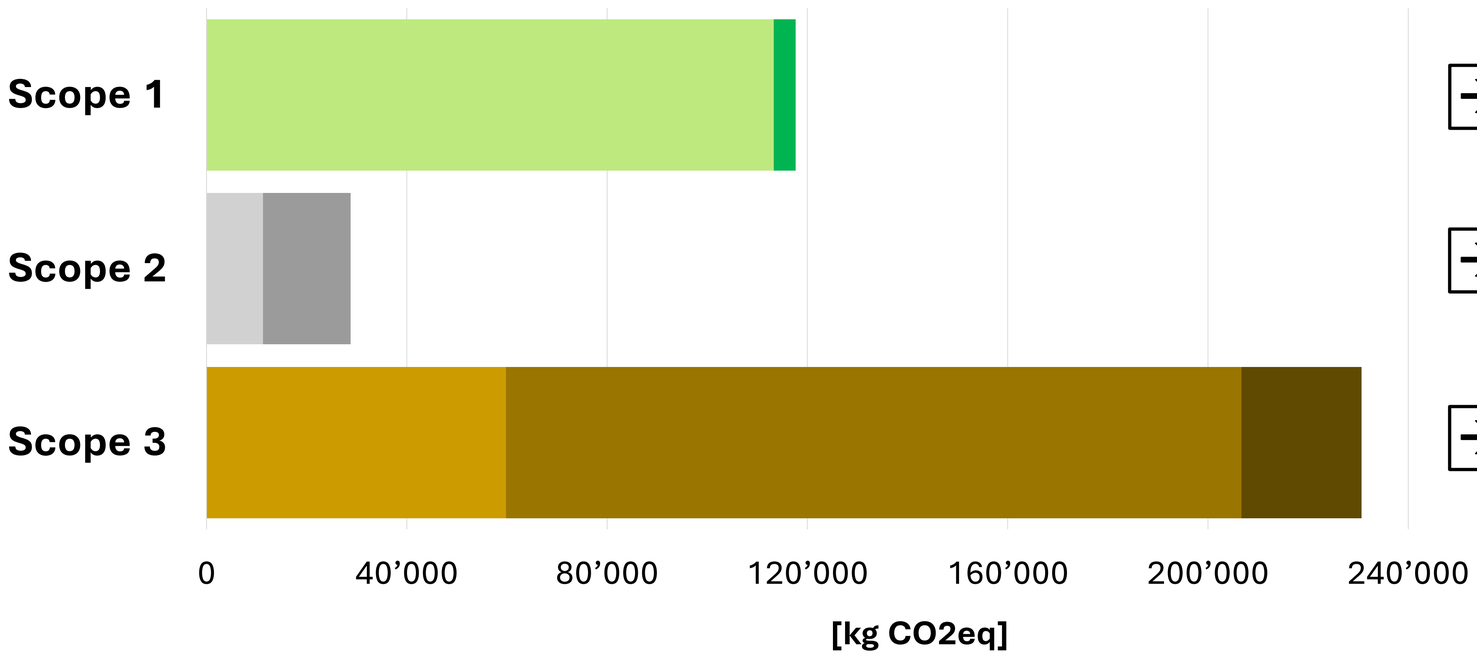
Scope 2
Indirect GHG-Emissions of electricity and external heat

Emissions	kg CO_2 eq
Electricity	**11’277**
District heating	**17’469**

Scope 3
Other indirect GHG-Emissions

Emissions	kg CO_2 eq
Employee Mobility and business travels	**59’788**
Fuel consumption of external transport vehicles	**146’929**
Production of fuel and energy	**23’899**

Total emissions



→ 117’685 kg CO_2 eq

→ 28’746 kg CO_2 eq

→ 230’617 kg CO_2 eq

Recommendation

The graph shows the results of the GHG analysis. The largest emissions occur in the buildings and in external deliveries. The team recommends VeloPlus to analyse these areas in more detail and to quantify uncertainties regarding energy counting and percentage emissions of the delivery more precisely.

In the buildings owned by the company, renewable energy sources like heat pumps can contribute towards reducing GHG emissions. External delivery could be partially replaced by company-owned vehicles and therefore enabling the reduction of emissions by using more efficient vehicles.

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Sources:

www.fhnw.ch/technik