

Towards the decarbonisation plan of Politecnico di Torino

Update on the emissions
quantification of PoliTo Campus

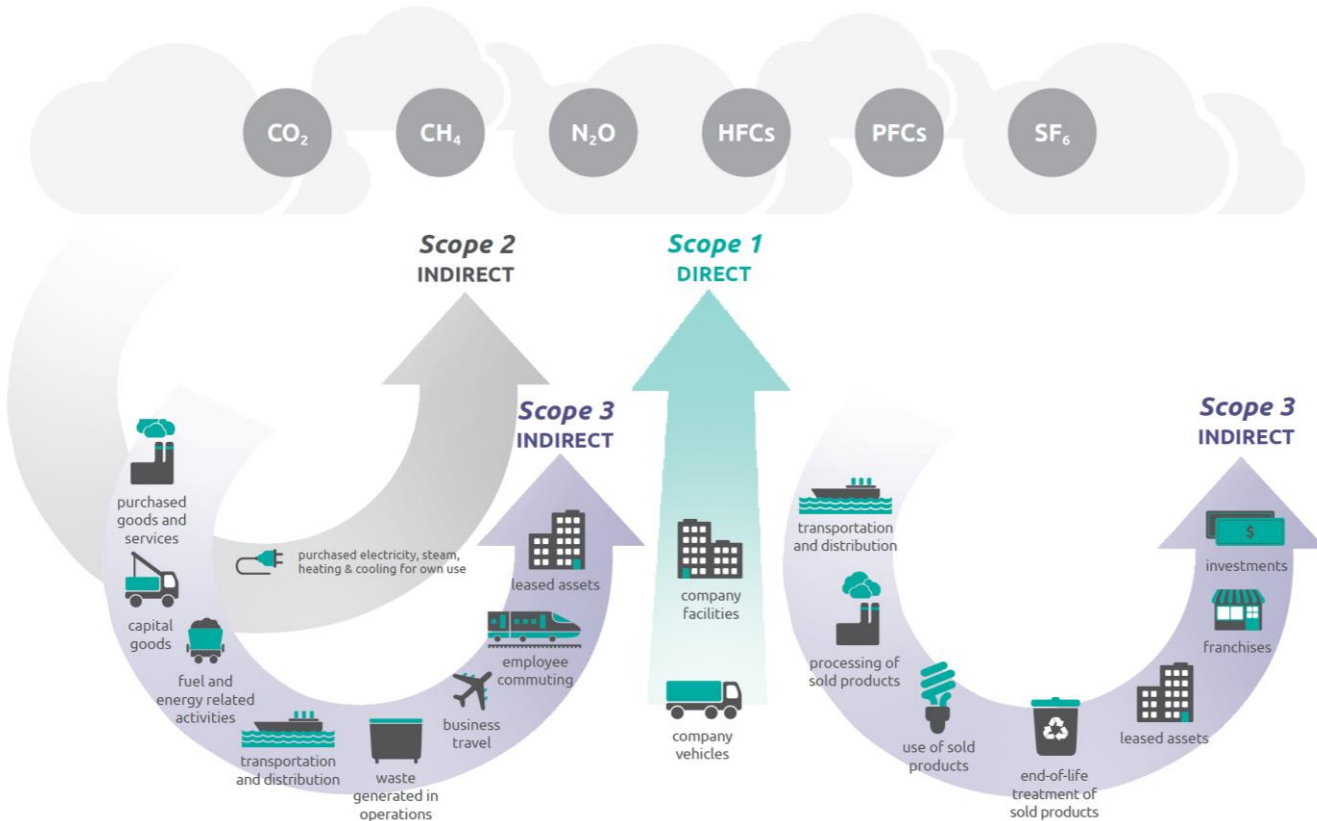
March 30th, 2023



**Politecnico
di Torino**

GHG emissions quantification

GHG protocol and action fields



* Figure from <https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance>

The “**GHG Protocol Corporate Accounting and Reporting Standard (2004)**” protocol (<https://ghgprotocol.org/corporate-standard>) establishes a standardised methodology to quantify GHG emissions.

An organization's carbon footprint has three components (scopes), in particular:

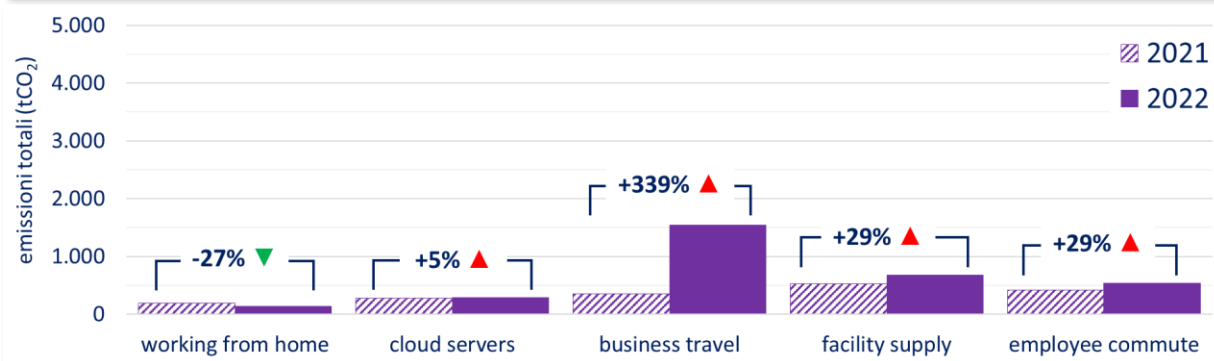
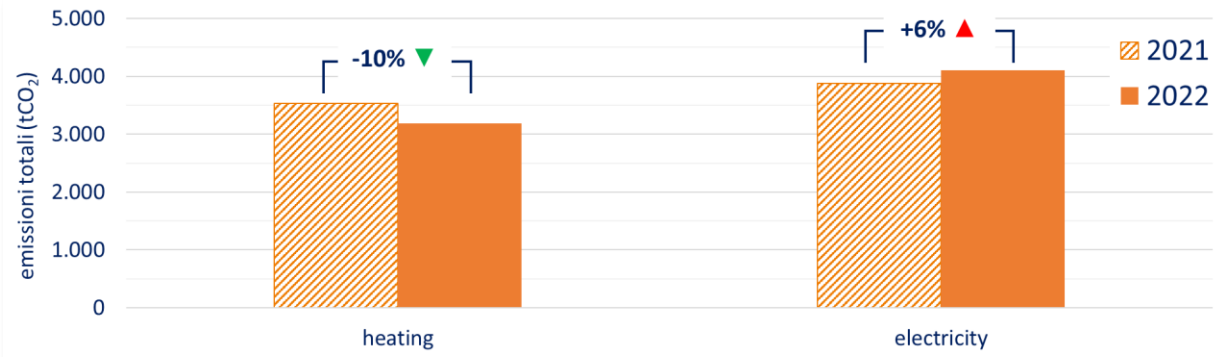
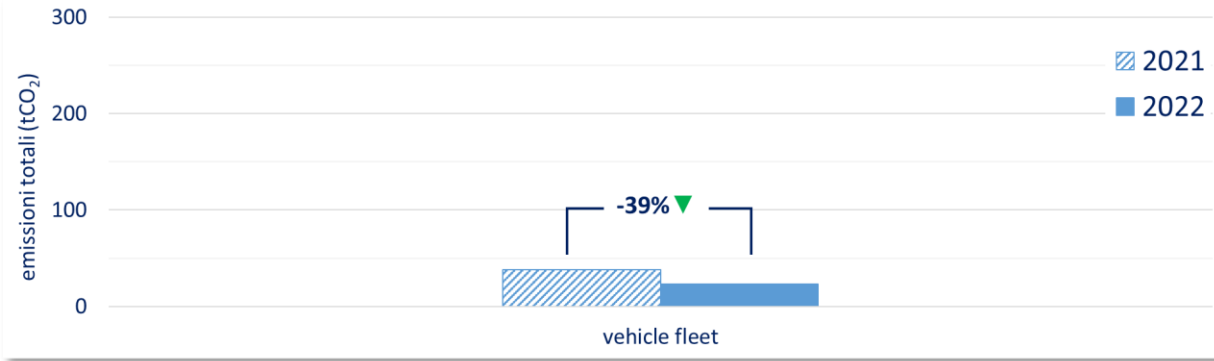
- **Scope 1** > direct GHG emissions that occur from sources that are controlled/owned by an organization;
- **Scope 2** > indirect GHG emissions emissions associated with the purchase of electricity, steam, heat, or cooling;
- **Scope 3** > emissions are the result of activities from assets not owned/controlled by the organization, but that it indirectly affects in its value chain.

GHG emissions: 2021 vs 2022

Activities returned to normality in 2022 (+2.5 months of activities in presence)



GHG emissions: 2021 vs 2022



SCOPE 1

Impact on TOTAL: -0,2% ▼

- Partial renewal of the Campus vehicle fleet

SCOPE 2

Impact on TOTAL: -1,3% ▼

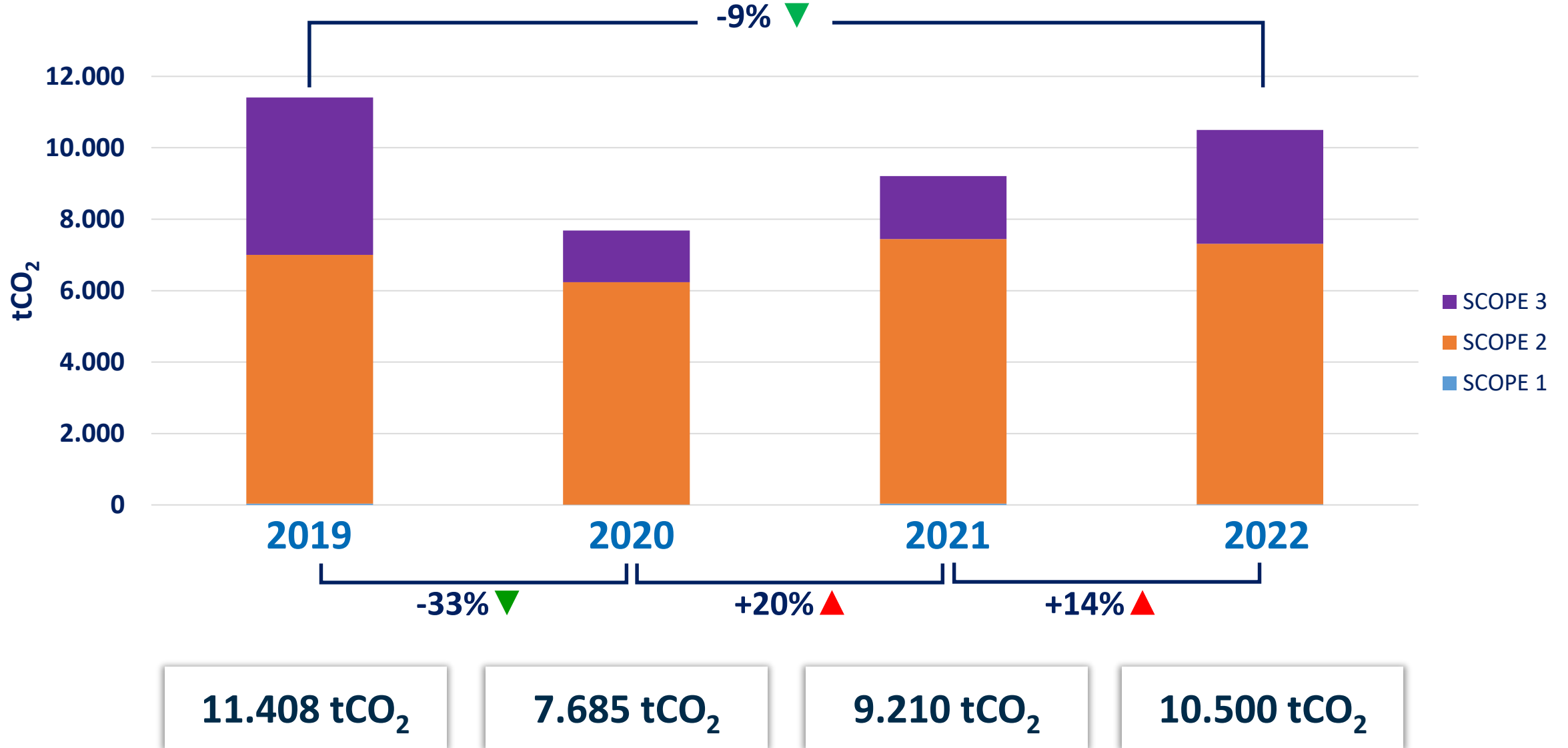
- Restart after Covid-19 pandemic and growth of the number of research facilities
- **Actions related to Energy and Climate Emergency**
- Activation of district heating (at Castello del Valentino)

SCOPE 3

Impact on TOTAL: +15,4% ▲

- 100% of activities in presence (+2.5 months)
- **Significant growth of GHG emissions from BUSINESS TRAVELS** (i.e., emissions almost equivalent to those related to the overall heating demand)

GHG emissions: from 2019 to 2022



GHG emissions: from 2019 to 2022

