

CLIMATE ACTION PLAN VUB

THE CURRENT SITUATION, GAP-ANALYSIS AND PLAN OF ACTION

Approved by executive committee November 14th 2022
Management summary, Version of November 15th 2022



VRIJE
UNIVERSITEIT
BRUSSEL

BEFORE: PARIS CLIMATE TARGETS

AND EUROPEAN ORDINANCE 2021/1119

1.1°C, is the increase in temperature since 1990

1.5°C, is the increase in temperature at which 5 irreversible climate changes, also known as tipping points, are reached with unseen consequences

8 times the annual emission, is the global carbon budget left before the temperature rise will reach approximately 1.5°C.

Now is the time to live up to the VUB vision, and put other measures into action in a climate-wise way. Because the world needs us.

Information based on reports by the IPCC,
validated by prof. Wim Thiery.

CONTENT

1. Why a Climate Action Plan?
2. What framework are we using?
3. Our impact in 2019 and 2030?
4. Where do current policies take us?
5. Pathways for future policy
6. Plan of action and governance

The development of a climate action plan is SAP Action 17

1. WHY A CLIMATE ACTION PLAN?

Value-driven:

We walk the talk: exemplary role of the university, and care for the future of our students.

Catalyst for stakeholders, e.g. suppliers becoming climate neutral.

National climate plans are not enough; we are committed to achieving 1.5°C (Paris, and EU Climate Law).

Important criterion in Times Higher Education (THE) Impact Ranking, in particular SDG 13: Climate Action.

Strategic:

A realisation of the transversal policy Sustainability (ASP4) and the Sustainability Action Plan (DC.109/A1/04).

Leads to accelerated energy savings and independence.

2. WHAT FRAMEWORK ARE WE USING?

OUR GOALS

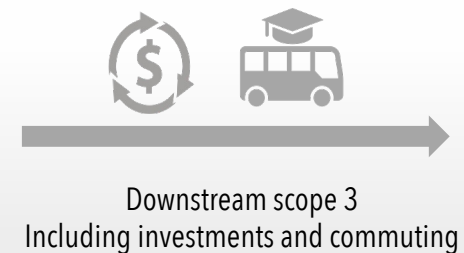
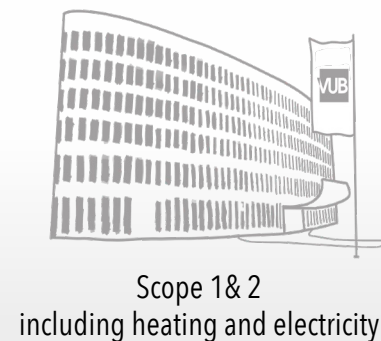
Science-based targets (sciencebasedtargets.org) are a concrete translation of the Paris Agreement for the VUB (climate neutral in 2050)

For scope 1&2

At least -46.2% between 2019 to 2030 (or -4.2% per year), including the growth of VUB

For scope 3

At least -18.4% between 2019 and 2030, including the growth of VUB

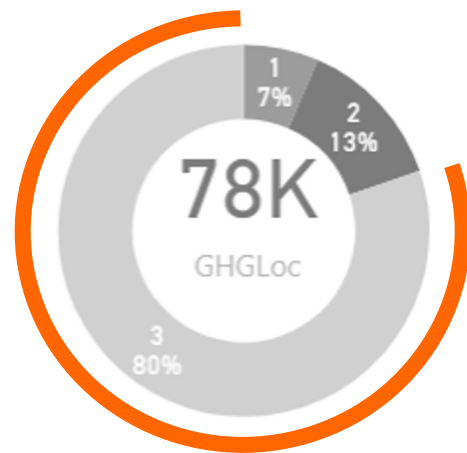


3. OUR IMPACT TODAY AND TOMORROW

3.1. OUR BASELINE IN 2019

Our climate footprint in 2019 was **78,444 tonnes of CO₂eq**

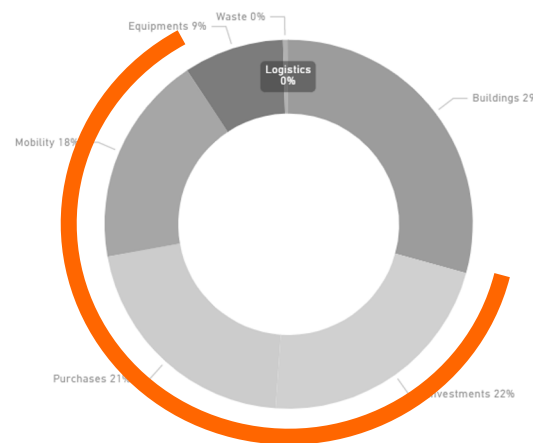
GHG Emission by Scope



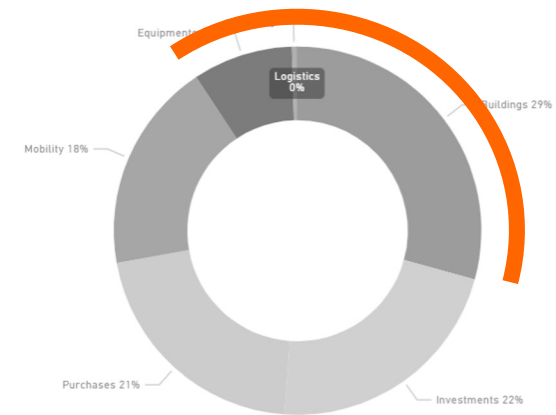
Scope 3 represents **80%** of our climate impact

GHGloc by PURPOSE

- Buildings
- Investments
- Purchases
- Mobility
- Equipments
- Waste
- Logistics



Investment, purchases and mobility account for **61%**



Equipment, waste and buildings account for **39%**

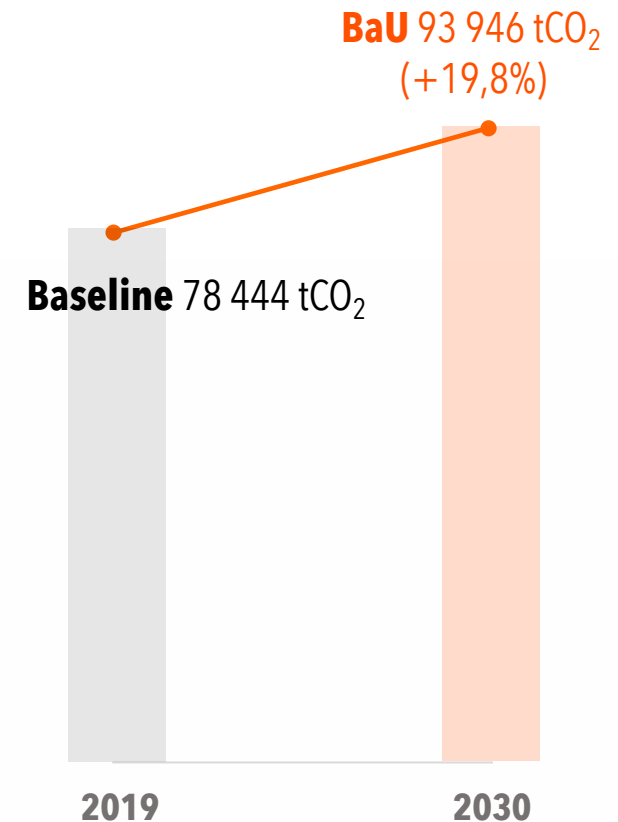
3. OUR IMPACT TODAY AND TOMORROW

3.2. BUSINESS AS USUAL IN 2030

The prognosis of a BaU scenario takes into account the expected growth, based on current trends, of the following drivers:

- number of students
- number of staff
- number of m² (of planned projects)
- research budget

In good 10 years, our climate impact will increase by almost 20%, if we do not take action.



4. WHERE DO CURRENT VUB POLICIES TAKE US?

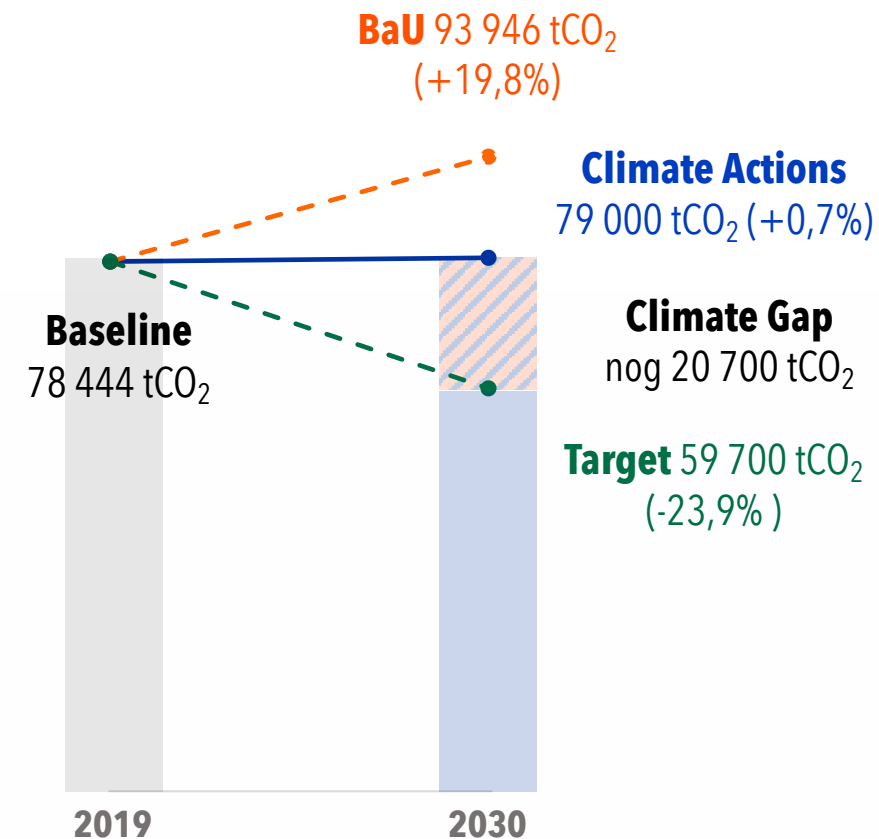
4.1. OVERVIEW OF GAP-ANALYSIS (SCOPE 1, 2 & 3)

The projection of a reduction scenario takes the **identified measures (i.e. Climate Actions)** into account if:

enough data available,
technical and operational feasibility is demonstrated,
in policy or policy-in-design (internal and external e.g. BXL LEZ),
aligned with budgetary priorities.

According to current policy, we will **stabilise our climate impact at most.**

The total Climate Gap in 2030 remains around 20 700 tonnes CO₂eq.



4. WHERE DO CURRENT VUB POLICIES TAKE US?

4.2. FOCUS GAP-ANALYSIS (SCOPE 1 & 2)

For our own, direct emissions (i.e. scope 1 and 2), the target is at least -46.2% (or -4.2% per year) compared to 2019, including growth.

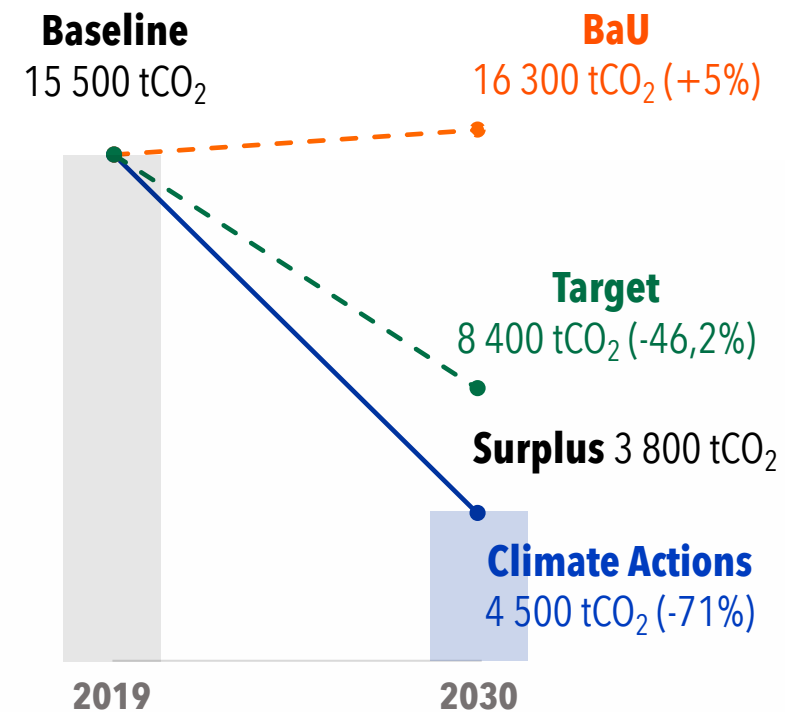
Identified measures:

priority planning Infrastructure

Green electricity (through GVA); own generation through Combined Heat and Power (CHP) and solar panels (PV)

Conclusion 1:

Reducing direct emissions is feasible, provided these measures are prioritised and additional (co)financing is secured. An approved climate plan can strengthen this fundraising.



4. WHERE DO CURRENT VUB POLICIES TAKE US?

4.2. FOCUS GAP-ANALYSIS (SCOPE 1 & 2)

Measures (calculated using Brussels emission factors cfr. PLAGE and EFRO)	Reduction in 2030 compared to BAU (in tons of CO ₂ eq)
Further roll-out of PV panels → 2000 kWp in total by 2030	- 498
Monitoring and control HVAC (ETT+JETTE) (heating, ventilation and cooling) gives savings in gas; electricity and heat (heat up to -15% by 2030)	- 564
Renovation of buildings → labs G8-G10 (-1300 MWh gas, -950 MWh electricity; Braem (gas: -350 MWh) and WVDM (gas: -900 MWh)	- 1420
Heat recovery on all ventilation	- 977
LED lighting everywhere (ETT: -2500 MWh elec. + JETTE -500 MWh elec.)	-1185
Cogeneration in ETT (= own production of electricity, in addition to heat)	- 1240
Renovation of substations (ETT&Jette)	- 640
Purchase of green electricity (was not the case in 2019, since 2020 again)	- 4889
Cooling gases: more efficient cooling (cf. BEO-field Jette, G ETT) and refrigerant max GWP 550	- 293

4. WHERE DO CURRENT VUB POLICIES TAKE US?

4.3. FOCUS GAP-ANALYSE (SCOPE 3)

For indirect emissions (i.e. scope 3), the target is at least **-18.4%** compared to 2019, including growth.

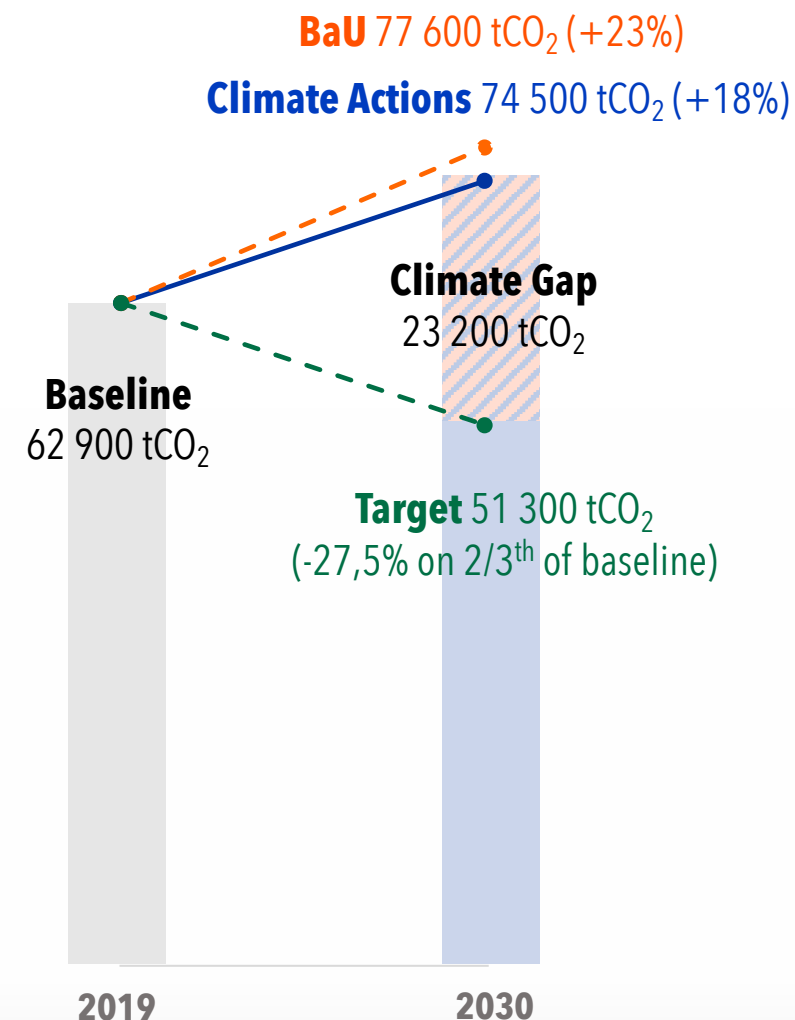
Identified measures:

Policy measures in mobility plan and travel ABC

Secondary impact of actions on scope 1 and 2

Conclusion 2:

Reducing indirect emissions still requires a multitude of additional efforts. The carbon footprint makes priorities clear and outlines potential.



5. PATHWAYS FOR FUTURE POLICY

5.1. OVERVIEW, WHERE TO FIND 23.200 tCO₂?

Our climate impact:

per scope

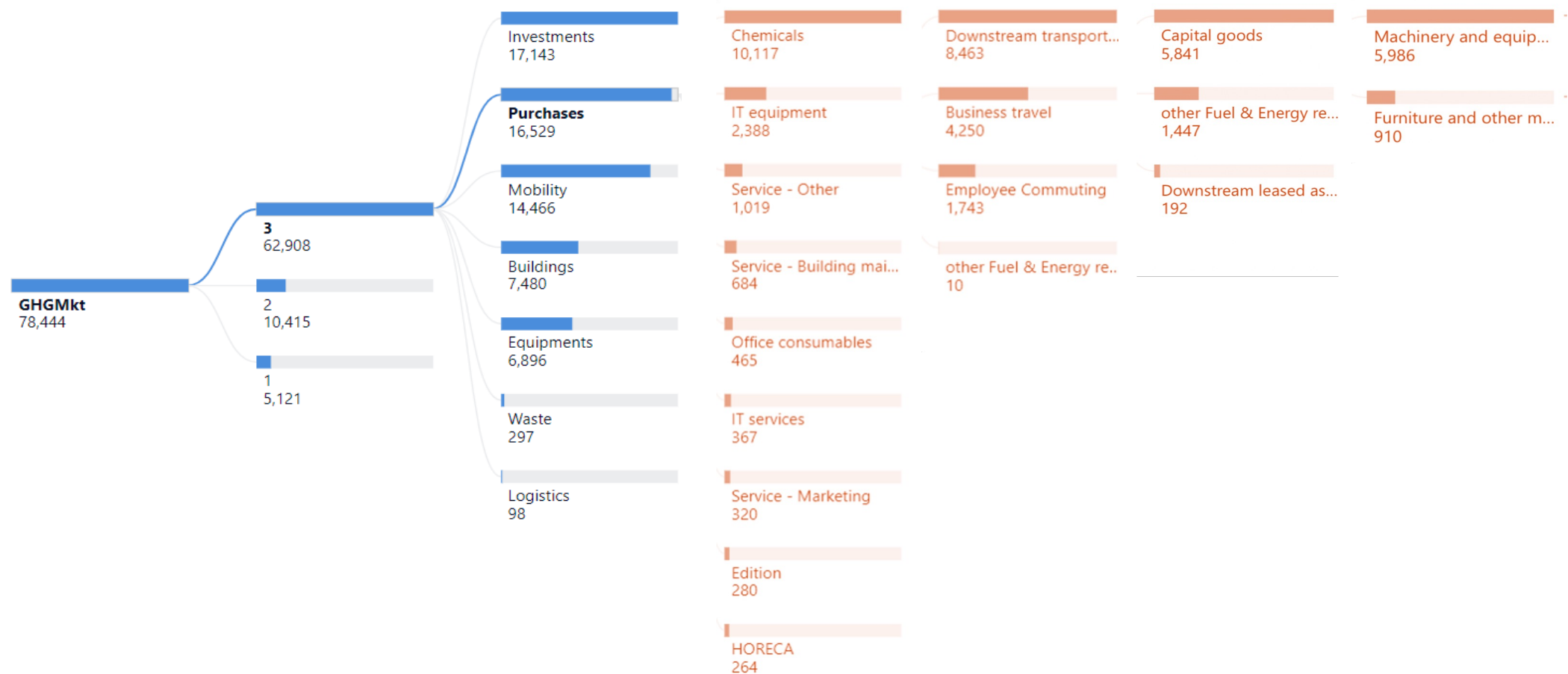
per function

Detail purchases

Detail mobility

Detail buildings

Detail equipment



6. CLIMATE PLAN OF ACTION

6.1. PLAN OF ACTION

3-step approach

1. Implementation of first set of measures by relevant boards and vice-rectorates as soon as possible
2. Design and analysis of next set of measures by directors and vice-rectorates
3. Monitoring progress and impact of measures

This requires action at 2 levels

At plan level: design, monitoring and adjustment of the plan and its actions.

At project level: rolling out organisational and practical measures.

(details see next slide)

6. CLIMATE PLAN OF ACTION

6.1. PLAN OF ACTION (DETAILS)

Approach in 3 steps

1. Implementation of **first set of measures** by relevant boards and vice-rectorates as soon as possible

Timing: as soon as possible, because clear ROI

Leverage: a climate action plan also underpins subsidy applications

2. Design and analysis of **next set of measures** by directors and vice-rectorates

Timing: include climate impact in decisions and policy plans now

Q2 2023: additional scope 3 measures identified, calculated and ambitions increased where necessary

Start AY 2023-24: roll-out of measures at project level

3. Monitoring progress and impact of measures by directors and vice-rectorates

Timing: Q2 2023: CF 2022