Climate Positive Organisation

Definition Material inflow: Materials related to our buildings and Procurement of goods and services

CREATING MEANINGFUL EXPERIENCES

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Material inflow: Executive Summary

BUas will transform its procurement and building practices to create positive environmental and social impact, ensuring every purchase and construction decision actively contributes to our climate positive ambition and the wellbeing of all life.

- **Why it matters**

Material inflow – procurement of goods and services - represents 58% of BUas' total carbon footprint, making it the single largest source of our indirect emissions. Addressing procurement and building materials is therefore essential for achieving climate positive status. Beyond carbon reduction, sustainable procurement enables BUas to drive positive social change through fair labour practices, support local economic development, and demonstrate leadership in responsible resource use. As a public institution spending significant resources annually, BUas has both the responsibility and opportunity to influence market transformation towards sustainable practices.

- **Material inflow at BUas**

Material inflow encompasses two interconnected areas. First, materials related to the built environment, including all construction materials, building systems, and maintenance supplies for existing campus buildings. The ambition here is to be a good example by minimising environmental impact throughout material lifecycles whilst increasing circularity and demountability. Second, procurement of goods and services, which means making purchasing decisions that create maximum positive environmental impact across product lifecycles whilst reducing overall consumption through efficiency and circularity. Where possible, BUas aims to maximise positive social and local economic benefits.

- **Our ambition**

For building materials, BUas aims to be a good example through phased implementation of environmental impact assessments, circularity metrics, and demountability requirements. For procurement of goods and services, BUas sets a frontrunner ambition with three core aims: reduce overall consumption through improved efficiency and circularity, minimise environmental footprint whilst maximising ecological value of procured goods, and maximise positive social and economic impact. The approach begins with food and beverages (representing 65% of procurement emissions) in 2026, establishing carbon reduction targets and broader sustainability KPIs before expanding to 2-3 additional categories annually. BUas will become a Zoöp organisation, giving non-human life a voice in procurement decisions.

- **Making it happen**

For building materials, BUas will develop practical guidelines and checklists in 2026 to integrate environmental impact, circularity, and demountability requirements into procurement processes, with evaluation of full building-level assessments in 2027. For goods and services, 2026 focuses on establishing robust data collection through supplier engagement, selecting appropriate carbon monitoring methodologies with Royal Haskoning support, and setting concrete reduction targets for food and beverages. Progress will be measured through category-specific KPIs covering carbon emissions, biodiversity impact, waste reduction, and social benefits. The measurement framework includes annual monitoring, biennial carbon impact analyses, and periodic target adjustments. Success requires close coordination with waste, energy, and nature teams to avoid duplication and maximise overall climate impact.

- **Investment**

The 2026 financial requirement is €5,000 for procurement plan implementation, primarily covering data support from Royal Haskoning across scope 3 categories. Future years will require assessment of ongoing external support needs. The more significant investment is human resources: contract owners and stakeholders must dedicate time to establish KPIs and implement category-specific changes, with requirements varying by product category. A procurement advisor or contract manager will need structural availability to manage and monitor the overall process. The exact time commitment will be determined through 2026 pilot work with food and beverages, providing baseline estimates for scaling to other categories.

The investment in material inflow is an investment in BUas' climate positive transformation and long-term sustainability leadership.

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1 Available information

Sustainable procurement has emerged as a critical strategy for organisations to address environmental and social challenges whilst advancing responsible sourcing practices. Research demonstrates that procurement decisions extend far beyond financial considerations, generating significant environmental impacts across supply chains.

Public sector procurement represents a powerful lever for change. Globally, the public sector represents the largest single buyer of goods and services, accounting for more than 17% of global GDP. In the EU alone, public authorities spend approximately €1.8 trillion annually on procurement. Public procurement is responsible for 10% of the total carbon footprint of the European Union.

1.1 Best practices national and international

University of Amsterdam (UvA)

The UvA has implemented comprehensive waste and procurement sustainability measures with quantifiable outcomes. In 2019, the university conducted a baseline measurement finding that purchased products and services had a footprint of 21,934 tonnes of CO2 equivalent. The university achieved significant results: total waste decreased from 1,020 tonnes in 2019 to 960 tonnes in 2022 (6% reduction). Recycling rates increased from 19% to 36% between 2019 and 2022.

Paper consumption decreased by 70% between 2019 and 2022. Single-use coffee cup consumption fell from 5.1 million to 3.0 million (42% reduction). The university discontinued single-use water bottle sales in August 2021.

Erasmus University Rotterdam (EUR)

EUR has embedded sustainable procurement within its Strategic Plan 2018-2023. The university employs a Triple Top Line approach, maximising positive social impact through procurement by considering environmental aspects such as circularity and CO2 reduction, and social aspects such as stimulating social return.

University of Cambridge (UK)

The University of Cambridge announced the first science-based target among universities globally, committing to reduce energy-related carbon emissions to absolute zero by 2048 with an aspiration to achieve this by 2038. The Procurement Services department aims to meet ISO 20400 standards for sustainable procurement.

University of Edinburgh (Scotland)

Following the Procurement Reform (Scotland) Act of 2014, public institutions have a Sustainable Procurement Duty requiring consideration of sustainability in all regulated purchases over £50,000. Edinburgh utilises the Sustainable Public Procurement Prioritisation Tool and employs APUC's Sustain database for supplier performance assessment.

University of Exeter (UK)

Exeter's sustainable procurement policy contributes to achieving the university's Net Zero carbon commitment by 2030. The policy includes a sustainability weighting of at least 20% in procurement decisions, with questions drawn from UN Sustainable Development Goals.

1.2 Frameworks and Standards

- ISO 20400:2017 – Sustainable Procurement: provides guidance for organisations to integrate sustainability into procurement processes.
- UN Sustainable Development Goals (SDGs).

- Manifesto on socially responsible commissioning and procurement from the expertise centre for tendering in the Netherlands (Pianoo).
- MVOI criteria tool.

1.3 Legislation and regulations

- Ecodesign for Sustainable Products Regulation (ESPR): entered into force on 18 July 2024, establishing a framework for setting ecodesign requirements on specific product groups.
- The Climate Act (Klimaatwet): sets legally binding greenhouse gas emissions reduction targets, requiring the government to reduce emissions by 55% by 2030 compared to 1990 levels and achieve climate neutrality by 2050.
- 2012 Public Procurement Act: Contains opportunities and obligations relating to sustainability.

1.4 Current data

- RHD-XX-ZZ-ME-Z-0001-BUas Roadmap - Ambition setting.pdf: Document delivered at the end of 2024 by Royal Haskoning on the definition and roadmap towards a climate-positive organisation.
- Baseline data from Royal Haskoning (RHK) with the baseline measurement of procurement of goods and services over the year 2023.

2 BUas definition

Material inflow refers to materials related to the built environment and the procurement of goods and services.

2.1 Materials related to the built environment

For existing buildings, the overall ambition (to set a **Good Example**) is to minimise the environmental impact of materials throughout their entire lifecycle, and to increase their circularity and demountability potential.

Below elements of built environment can be measured against below KPI's:

- **Environmental impact:** MPG Life cycle assessment (LCA).
- **Circularity:**
    - % of recycled or biobased materials
    - Origin preference: from local, national to international origin in last resort
    - % of material that can be reused in the future
- **Demountability:** Ensure that the building's components can be disassembled and reused or recycled at the end of their lifecycle, and set Losmaakbaarheidsindex (LI) % target.

In anticipation of our suppliers' readiness to meet these requirements, as well as BUas' to perform such monitoring, the team suggest a phased in approach building up guidelines and checklists for building projects procurement strategies. It should establish minimum requirements rather than hard KPI such as:

- Preference for materials with Environmental Product Declarations (EPDs);
- Consideration of circular alternatives where technically feasible;
- Requirement to document demountability approach for major building components.

2.2 Procurement of goods and services

The ambition of sustainable procurement of goods and services at BUas means making purchasing decisions that create the most positive environmental impacts possible throughout the entire lifecycle of products and services. Where we can, we try to have a positive social and (local) economic impact. Buas set an ambition to be a frontrunner in this subtheme.
This results in three aims:

- Reduce our overall consumption of goods and services through improved efficiency and circularity;
- Minimise environmental footprint and maximise ecological value of procured goods;
- Where possible, maximise the positive social and economic impact of our procurement practices. This means:
  - social benefits: fair wages, supporting vulnerable groups, good working conditions;
  - Economic benefits: supporting local businesses, creating jobs, stimulating regional economy.

Ambitious and measurable targets:

- Reduce our overall consumption of goods and services through improved efficiency and circularity;
- Reduce carbon footprint of bought goods and services in scope, starting with food & beverage items (since these items have greatest carbon impact, 65% of our total emission on procurement of goods and services) and seek to increase positive impacts;
- Set specific carbon footprint reduction targets for all categories within scope;
- In addition to carbon reduction, establish other KPIs that we will monitor for the product categories. For example, KPIs that affect the Zoop initiative and other KPIs that do not directly relate to carbon emissions, such as biodiversity loss, water reduction, toxicity and chemicals, etc.

- Integrate sustainable procurement strategies into purchasing decisions;
- Foster partnerships with suppliers and governmental bodies committed to sustainable practices;

We will set targets and implement actions one by one for each category. This "learn by doing" approach allows us to refine methodologies before scaling.

Climate Positive Contribution: This topic is critical because procurement typically represents 50-70% of a higher education institution's total carbon footprint (Scope 3 emissions)[1]. For BUas specifically, this was 58% in 2023. Addressing material inflow directly tackles the largest source of indirect emissions, making it essential for achieving climate positive status.

ZOÖP initiative: A Zoöp (from Greek "zoë" = life + cooperation) is an innovative organizational model from the Netherlands that gives non-human life—plants, animals, fungi, insects, soil organisms—a seat at the decision-making table. The goal is to transform organizations from extractive to regenerative – actively improving their ecosystems rather than just minimizing harm. BUas is in the process of becoming a ZOÖP. This means that the ZOÖP objective is also taken into account when purchasing goods and services. For 2026, it has been decided to focus on food and beverages as the goal for this initiative. The speaker of the living from the ZOÖP initiative will provide advice on this.

Sustainable Development Goals: Procurement is most directly linked to SDG 8 (Decent Work), SDG 12 (Responsible Consumption), and SDG 10 (Reduced Inequalities), while also contributing to climate action (SDG 13), gender equality (SDG 5), and clean energy (SDG 7).

[1] IUCA website

3 Scope

Locations in scope: all campus locations and buildings (Frontier, Horizon North & South and Ocean, including the campus outside area. In addition, future new building(s) on campus.

3.1 Scope materials related to the built environment

This topic encompasses the purchase and contracting of any new activities with regards to:

- Existing building Materials & Construction: all material elements of maintenance, renovation projects, new build);
- Existing building Systems & Infrastructure: HVAC, plumbing, electrical, safety and security and building automation material);
- Maintenance & Operations (parts for building systems, preventive and reactive maintenance materials).

Out of Scope

- New build development: shall a new build be developed on Buas campus, it should measure to much higher standards according to national and internation legislation. It should display state of art sustainability features to profile Buas as a front runner, and a separate vision or requirement document should be established to support this ambition.
- Utilities & External Services: Energy supply contracts (Energy), water, sewerage, waste collection services (Waste), telecommunications.
- Professional Services: Architectural and engineering design, project management consultancy, legal and financial advisory.

3.2 Scope procurement of goods and services

This topic encompasses the following aspects and categories:

- Purchase of specific goods and services by Buas;
- Vendor selection processes;
- Procurement policies and procedures;
- Contract management related to goods and services.

The following goods and services categories are in scope:

- AVM resources;
- Books and magazines;
- Cleaning services;
- Event catering;
- Food & Beverages;
- Indoor greenery;
- Interior design;
- Kitchen equipment;
- Laundry;
- Office supplies;
- Outside area maintenance;
- Printing;

- Sanitary items;
- Workplace equipment.

Out of scope:
The following goods and services categories are out of scope based on the GHG protocol criteria scope 3:

- Corporate gifts;
- Signing;
- Pay machines;
- Beverage dispensers;
- Software licences;
- Security;
- Insurances;
- Consultancies;
- Digital vendors/creditors;
- all other product categories.

According to this protocol, these are categories that are not significant in terms of carbon reduction. This does not mean that we do nothing with it. In accordance with our procurement policy, we also purchase these products as sustainably as possible. Some products are very visible within the organisation.

4 Relation to other CPO themes

Material inflow affects many other climate areas. Good communication between teams is essential to make sure we don't duplicate work and achieve maximum impact.

Connections per theme:
1. Waste: The strongest connection: it overlaps with packaging materials from procured goods, end-of-life planning for purchased goods, repairing and reusing instead of buying new.
2. Energy: A strong connection: Buying energy-efficient equipment and installations, contracting energy suppliers, balancing purchase cost vs. running costs.
3. Mobility: a light connection with international travels, buying sustainable travel methods.
4. Nature and climate adaptation: a low connection with choosing/buying supplies for climate adaptation targets and biodiversity targets.
5. Health: a low connection with choosing/buying supplies for air quality, good acoustic, thermal comfort and ventilation.

Procurement touches almost everything in the CPO program. Success requires:

- Regular communication (monthly with closest partners);
- Clear agreements on who does what;
- Focus on overall climate goal, not competition between teams;
- Simple coordination structures (not overcomplicated);
- Practical problem-solving when issues arise.

5 Stakeholders and partners

5.1 Internal stakeholders

BUas has a hybrid procurement and contract management model.
In practice, this means on a central level:

- Strategic procurement and contract management;
- Large, organisation-wide contracts and framework agreements;
- Procurement policy and procedures;
- Supplier management for key parties.

Decentralised level:

- Operational procurement close to the departments;
- Specific needs vary per service/academy;
- Fast, local decisions;
- Knowledge of specific market or departmental needs.

When defining the stakeholders, account was taken of the criteria that RHK has defined as having the greatest impact in the area of sustainability. This has led to the following biggest internal stakeholders being defined:

Team Procurement and Contract Management.
The Procurement and Contract Management Team is responsible for providing strategic advice on procurement and contract management and supervises European and complex multiple private tenders. The contract managers manage the high-impact contracts within BUas. In addition, the team is responsible for the contract administration of all contracts.

Team C&WS
Major client for procurement services; responsible for facility-related contracts including cleaning, event catering, office supplies, interior design, energy, and waste management and others.

Team ICT
Major client for procurement services; responsible for ICT-related contracts including AVM and workplace equipment.

Team Library
Client for procurement services, responsible for the contract books and magazines.

Academy for hotel and facility
Major client for procurement services, responsible for the facility related contracts food-non food and Laundry.

Servicedesk and other designated decentralised applicants
Operational procurement officers. The operational procurement process within BUas is still under development. Not everything is handled by the operational procurement officers yet. This will be further developed in the coming years.

Students
Students can be used to support the route towards becoming a climate-positive organisation, for example by conducting (partial) studies, providing feedback on the process, analysing data, etc.

5.2 External stakeholders

Suppliers
Commercial partners providing goods and services meeting BUas sustainability requirements, especially the ones from the categories that are in scope.

Municipality of Breda and Province of Noord-Brabant
Regional partners with shared sustainability goals and coordination opportunities.

PIANOo (Dutch Public Procurement Expertise Centre)
National expertise centre providing guidance, tools, and training on sustainable public procurement.

6 Action plan

6.1 Short term actions: 2026

Goods and services:

- Exploring the improvement of our data collection and how to analyse this in the future.
- Start with product category Food & Beverages because it is our most impactful category.
- Have conversations with the supplier of F&B to implement improvements in the data.
- Finalise which data and methods we will use to periodically monitor carbon emissions in this category and set realistic carbon reduction targets for this category.
- In addition to carbon reduction, establish other KPIs that we will monitor for this product category. For example, KPIs that affect the Zoop initiative and other KPIs that do not directly relate to carbon emissions, such as biodiversity loss, water reduction, toxicity and chemicals, etc.
- Bring awareness to our suppliers about our climate positive ambition.

Material inflow – buildings:

- Guidelines/checklist development: develop practical guidelines and checklists for building projects to operationalise material inflow targets across the campus buildings. These tools will enable project teams to integrate MPG, embodied carbon, origin, circularity, and/or demountability requirements into decision-making from early design phases through execution.

6.2 Long term actions: 2027 and beyond

Goods and services:

- Continue improving the data and set concrete KPIs for all other product categories within scope, including identifying internal contract owners, have conversations with suppliers and create action plan of immediate opportunities/next steps. The proposal is to analyse two or three categories each year.
- Conduct a carbon emissions impact analysis on all categories every two years.
- Evaluate targets after each impact analysis and adjust them if necessary.
- Further develop the procurement & contract management policy with regard to sustainability at a tactical and operational level.
- Train orderers/operational purchasers in (sustainable) ordering/raising awareness, also per category.
- Integrate sustainability criteria into tender templates, including for all private requests for quotations that are carried out without the assistance of a procurement advisor.

Material inflow – buildings:

- Evaluate actual need to perform building-level material assessment
- From guideline to standard process: establish whether material inflow requirements can be embedded into BUas' procurement and project tendering processes (tender templates).
- Evaluate added value or requirement for material passports per building

7 Timeline

7.1 Timeline procurement of goods and services

2026:

Quarter	Actions	Milestones
Q1 2026	• Finalise Material Inflow definition document • Meet with Royal Haskoning about our (baseline) data and our data platform • Involve the future contract owner of F&B in the process (AHF)	✓ Definition document approved ✓ Current state analysis completed
Q2 2026	• Request emissions data from our current F&B supplier • Research and select carbon monitoring methodology with help of RHK • Develop additional sustainability KPIs for F&B	✓ Supplier outreach completed ✓ First supplier data received
Q3 2026	• Analyze collected F&B emissions data • Draft carbon reduction KPIs for F&B • Draft additional sustainability KPIs for F&B • Commencement of the tender process for selecting a new F&B supplier	✓ F&B baseline established ✓ KPIs created ✓ Kick-off tender new supplier F&B.
Q4 2026	• Finalize and approve F&B carbon targets and other additional sustainability KPIs • Establish periodic monitoring process • Year-end evaluation and lessons learned	✓ F&B targets approved ✓ Monitoring process established ✓ 2027 roadmap defined ✓ Q4 Review Meeting

2027 and beyond:

Period	Actions	Evaluation Points
2027 and beyond	• Expand the research from 2026 to 2-3 new product categories per year • Monitor all categories with established baselines • Continuous supplier engagement and collaboration	• **Q4 Annual Review** (every year) • **Periodic Impact Analysis** (2028, 2030, etc.) • **KPIs Adjustments** (as needed after impact analysis)

7.2 Timeline material inflow of build environment

2026:

Quarter	Actions	Milestones
Q1 2026	• Finalise Material Inflow definition document for buildings	• Definition document approved
Q2 2026	• Commission guidelines/checklist development • Establish working group with facility managers and project leads	• Guidelines development commenced • Working group established
Q3 2026	• Draft guidelines and checklists • Internal review and feedback cycle	• Draft guidelines completed • Feedback collected
Q4 2026	• Finalise guidelines and checklists • Present to executive leadership • Year-end evaluation	• Guidelines approved • 2027 roadmap defined • Q4 review meeting

2027 and beyond:

Period	Actions	Evaluation Points
2027	• Evaluate necessity to perform building- level material assessment	**Go/no Go decision**
2028	• Evaluate the necessity of material passport development for existing buildings • Consider the development of a material inflow requirement template for tender purpose.	**Go/no Go decision** **Work group creation**

8 Measuring and monitoring

8.1 Measuring and monitoring materials related to the built environment

Baseline assessment approach, and monitoring should be developed upon decision of proceeding with hard KPI measurements.

8.2 Measuring and monitoring procurement of goods and services

Baseline measurement:
RHK conducted a carbon emissions analysis for all product groups for the year 2023. We are using this as a starting point. For each product category, we will start improving the data about the carbon emissions as outlined in the sections above. The data will be improved and collected with the help of suppliers and RHK.

In addition to data on carbon emissions, we will include other factors per category to collect data on. Carbon emissions do not tell the whole story about the sustainability of a product or service.

KPI's:
Initially, measurement is based on progress per product category. For each product category, we will establish KPIs for making a positive impact on sustainability.

Desired outcomes of this topic:

- Climate-positive principles integrated into procurement;
- Implementation of circular economy principles for materials (using R-ladder strategies);
- Adoption of sustainable procurement practices by staff, students, and suppliers;
- Reduced consumption of goods and services through improved efficiency and circularity;
- Increased positive ecological impact of procured goods and services and reduced negative environmental impact (e.g. carbon footprint, packaging, toxicity etc.).

Monitoring:
We will monitor progress every year. We still need to determine the method for this.

9 Budget and resources

Financial:
For 2026, a budget is required for data support from RHK across all our scope 3 categories, including procurement. For 2027 and beyond, an assessment will be made each year to determine whether budget is required for external support. For 2026, €5.000 is reserved for 'procurement plan implementation'.

Human Resources:
The capacity of contract owners, delegated contract owners and other stakeholders per product category is needed to make decisions about KPIs and implement changes to achieve the KPIs. In 2026, we will need to explore how much time this will take. This will also vary per product category. In addition, a procurement advisor or contract manager will need to be available on a structural basis to manage and monitor the process. In 2026, we will also need to explore how much time this will take.

10 Risks and barriers

10.1 Risks and barriers procurement of goods and services

There are several potential obstacles, requiring proactive management:

- **Financial obstacles:** It may be necessary to allocate funds each year to pay for the assistance of RHK or other advisory services. Mitigate through strong business case and phased implementation. Also it could be that by choosing for more sustainable products, the costs are higher: mitigate through reducing amount of procured goods and services over time, lifecycle cost analysis and collaborative procurement.
- **Organisational risks:** Resistance to change and competing priorities: mitigate through training, involvement and communication.
- **Technical barriers:** the carbon emission dashboard of RHK is not user-friendly. Mitigate through training the right people with the right skills to use the dashboard. In addition, it may be that supplier data cannot be compared with each other because different methods are used to calculate carbon emissions.
- **External risks:** Regulatory changes: mitigate through monitoring and flexible programme design.

10.2 Risks and barriers materials related to the built environment

- **Financial obstacles:** Material assessments and specialist consultancy represent significant upfront costs. Sustainable materials may carry higher purchase prices compared to conventional alternatives.
  Mitigation:
  - Develop strong business case demonstrating long-term lifecycle cost benefits
  - Explore grant opportunities for circular building pilots
- **Technical barriers:** BUas has no internal expertise in MPG calculations, embodied carbon assessment, and circularity measurement. Current market availability of materials meeting all targets simultaneously may be constrained.
  Mitigation:
  - Partner with Royal Haskoning and other specialists for knowledge transfer
  - Engage early with suppliers to understand market capabilities and limitations
  - Dare to prioritize action plans and not to pursue non CPO critical measures.
- **Market constraints:** Supply chains for circular and low-embodied-carbon materials may be limited in the Netherlands. Suppliers may lack capacity to meet all BUas requirements simultaneously.
  Mitigation:
  - Build supplier relationships proactively, communicating long-term expectations
  - Accept that some targets will be achieved progressively as market matures
  - Focus initially on materials with established circular supply chains

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