

CBS CAMPUS SUSTAINABILITY PROFILE & GOALS 2020-2025

The goals outlined in this document adhere to the *CBS Sustainability Strategy* approved in 2018.

This document outlines CBS' plans to make our campus more sustainable. The sustainability plans fall under three main categories: *Social*, *Environmental* and *Economic*. Under each category, there are specific goals to improve the campus's sustainability outcomes.

To achieve these sustainability goals, CBS must establish new policies and activities through an organized process of meetings and workshops involving university and community members. The success of the 'CBS Sustainability Plan' will not only depend on implementing the ambitious goals set out in this document but will depend on a spirit of community focused on the emergence of a more sustainable campus. It will take the hard work of individuals, associations, study boards, research centers and platforms, operational divisions and management. This shared effort may require changing behavioral and cultural practices and habits to support new initiatives or adapt the organization's existing procedures.

We will develop and implement a prioritized project list through our ongoing *portfolio management* based on the initiatives discussed in this document. We will analyze the business case for additional funding using a *triple bottom-line* that considers our activities' economic, environmental and social impacts. We will use the rigorous research informing these business cases to quantify our goals and identify the best means to achieve them.

SOCIAL ASPECTS

Public areas: *Public spaces are the core of the social interaction on campus, promoting informal meetings among CBS' community and the public. Furthermore, they are a key point of integration with the city of Frederiksberg more broadly.*

1. Institute a sustainable master plan, focused on human well-being in the built environment.
2. Cultivate CBS' facilities to enhance accessibility, connectivity and engagement across the campus.
3. Develop a sustainable campus environment by certifying all new buildings and major building retrofits according to third-party environmental standards.
4. Publish real-time building data for all CBS buildings.

AD. 1

Baseline:

- CBS is constantly improving the built environment based on the daily input on the campus environment from users, professionals, and research.

Future outcomes:

- CBS will take an inclusive and systematic approach to user involvement, leading to a sustainable masterplan that will reduce the performance gap between users' needs and the built environment to optimize human well-being on campus.

AD. 2

Baseline:

- CBS is mainly situated along the Metro line, giving users fast public transportation.
- CBS buildings have long opening hours and serve as a public space connected with surrounding areas.

Future outcomes:

- The Metro city line will cross Solbjerg Campus in 2019.
- CBS will create more diverse public spaces integrated with the city, especially improving the outdoor areas e.g. creating a cross fitness area near Kilen.

AD. 3

Baseline:

- Solbjerg Campus's masterplan is in the certification process under the DGNB sustainable building standard.

Future outcomes:

- DGNB will be used as a tool to analyze impacts in building projects around campus.

AD. 4

Baseline:

- Data on several buildings at CBS has been generated.

Future outcomes:

- Relevant building data, e.g. information about empty study areas, is posted live on screens at building entrances and, where relevant, published and archived openly online.

Learning and office spaces: *Develop learning and working spaces focused on students' and employees' changing needs to increase human well-being and prepare for future ways of working and studying.*

5. Develop methods to evaluate the building stock, especially learning and office environments.

AD. 5

Baseline:

- "Teaching and Learning" are constantly evaluating learning facilities and developing new teaching and learning methods.
- Offices are evaluated every third year through the "APV".

Future outcomes:

- Conduct a survey on human well-being in office and learning spaces to understand users' needs and to define appropriate projects (Linked to Social Aspects, Goal 1).

Indoor climate: *Improve CBS' indoor climate to increase human well-being and strengthen building performance.*

6. Increase focus on thermal / air quality, visual and acoustic conditions of the indoor environment.

AD. 6

Baseline:

- A central unit controls the indoor climate, regulating heat and CO2 levels.
- Automatic and manual switches regulate artificial light.
- Retrofits generally address acoustic considerations.

Future outcomes:

- Studying potential environmentally and financially sustainable improvements in the cooling and ventilation systems at Solbjerg Plads 3, with the potential to upscale strategies to the rest of CBS.
- Studying potential improvements in visual indoor climate using daylight simulation or artificial light.
- Implement aesthetically pleasing greenery that also improves acoustics and air quality.

Health: *Support students' and employee's health, wellness and safety to increase human-well-being and lower absences due to illness.*

7. Instigate institution-wide health and wellness initiatives for all CBS stakeholders.
8. Develop a human well-being map of campus, including interventions to support employees' and students' health and well-being.
9. Monitor to ensure a safe work and study environment.
10. Support student clubs and organizations fostering health and well-being on campus.
11. Support communication and outreach initiatives to increase student, staff and faculty knowledge and use of health and wellness services.

AD. 7

Baseline:

- At Solbjerg Plads 3 there is a fitness center in the basement and employees can get a discount on membership at fitness.dk, next to Solbjerg Plads 3.

Future outcomes:

- Create spaces that encourage people to do physical training e.g. by creating a cross fitness area in the nearby of Kilen or by exposing the fitness center at the ground level to create greater awareness and identity.

AD. 8

Baseline:

- Campus Services identifies potential areas to create informal learning spaces and common areas all over campus.

Future outcomes:

- Encourage students and employees to participate in an overall mapping of areas of well-being to understand users' needs and inform future well-being areas' placement.

AD. 9

Baseline:

- CBS conducts APV, MTU and UMV.

Future outcomes:

- We will conduct a survey on office and learning spaces to understand users' needs in relation to the well-being. (Linked to Social Aspects, Goal 5).

AD. 10

Baseline:

- CBS provides space to numerous student organizations.

Future outcomes:

- Partner with organizations that promote health and well-being on campus.
- Create outdoor environments that support sports, e.g. a soccer field in the northern part of Solbjerg Campus.

AD. 11

Baseline:

- CBS issues no special communications on health and human well-being.

Future outcomes:

- Support on-campus campaigns and projects related to health and human well-being.

Food: *Manage CBS's food system to improve stakeholders' health and well-being while minimizing environmental impact.*

12. Buy local, seasonal and sustainable food for our campus and avoid food waste.

13. Support urban gardening and develop learning opportunities for sustainable food related issues, waste reduction, and healthy food choices.

AD. 12

Baseline:

- Spisestuerne has achieved a bronze medal in ecology and avoids food waste selling leftovers inexpensively.

Future outcomes:

- Our menus will incorporate more local, seasonal and vegetarian food.

AD. 13

Baseline:

- CBS currently has no urban gardening.

Future outcomes:

- We will support urban gardening.

ENVIRONMENTAL ASPECTS

Procurement guide: *Develop a university-wide procurement policy with clear sustainable purchasing commitments.*

1. Develop a Sustainable Purchasing Guide to help students, faculty and staff to make purchasing decisions that are economically, socially and environmentally sustainable.
2. Implement an item-exchange system across campus, to limit new item purchases.

AD. 1

Baseline:

- There are guidelines about purchasing but not from a sustainability perspective.

Future outcomes:

- Publish sustainability guidelines without product specifications to help CBS' users purchase sustainably.
- Implement award criteria in tenders that include sustainability measures as evaluation criteria.

AD. 2

Baseline:

- CBS reuses durable inventory, like furniture and computers, internally.

Future outcomes:

- Explore circular economy strategies – e.g. CBS gives used furniture back to the supplier, who upcycles and resells it.

Emissions: *Commit CBS' assets, campus land, and utilities as a hub for sustainable innovation implementing aggressive greenhouse gas (GHG) reduction targets to contribute to the global challenge of climate change.*

3. Achieve a 100% reduction in GHG emissions by 2050 and align CBS' greenhouse gas emissions with Frederiksberg Kommune's climate strategy - reducing GHG emissions per user to 65% below 2005 levels by 2025.
4. Conduct an annual GHG inventory to monitor and report campus emissions and progress toward zero emissions (Scope 1, 2,3).
5. Develop and regularly update a CBS Transportation Policy.

AD. 3

Baseline:

- CBS' GHG emissions come mainly from energy use in buildings and transportation.
- In 2013 an emissions analysis showed half of CBS' emissions come from transportation - mainly flying.
- Energy use in buildings per user has, on the other hand, decreased by 20% over the past decade.

Future outcomes:

- Based on the GHG inventory from 2005-2018, with updates each year, CBS will lower emissions from energy use and transportation e.g. CBS' entire fleet will be electrified.

AD. 4

Baseline:

- CBS has a system monitoring buildings' energy use.
- There is no transportation monitoring, but data about flying is available through CBS' finance systems. However, we lack adequate translation between the number of flights and emissions.

Future outcomes:

- Develop a method (potentially with other universities) to monitor the emissions from sources other than energy use in buildings and transportation e.g. plastic use or meat served in the cafe.

AD. 5

Baseline:

- There is a policy on travel with economic requirements.

Future outcomes:

- The travel policy will include environmental requirements as well.

Energy use: *Design an energy management plan to reduce energy consumption, GHG emissions and environmental impact and save resources.*

6. Self-fund energy projects to reduce energy consumption and energy expenditures.
7. Publish real-time energy data for all CBS buildings.

AD. 6

Baseline:

- Campus Services are evaluating savings with energy consultants as part of ongoing maintenance of campus energy systems.
- Both ventilation and cooling systems are being renovated at Solbjerg Plads 3.

Future outcomes:

- Every identified potential saving with a payback time shorter than the project lifetime will be proposed as new projects.
- We will study district cooling and renewable energy as potential projects.

AD. 7

Baseline:

- There are no published real-time energy data.

Future outcomes:

- Data or alarms about energy use at the source will be put in place to encourage behavioral change.

Waste: *Develop a CBS Zero Waste Action Plan focused on applying a campus-wide waste management program with circular economy principles, reducing waste generating and lowering material use.*

8. Achieve 100% overall waste diversion by 2025.
9. Implement waste reduction procedures for paper, food, single use plastics, and interior furnishings.

AD. 8

Baseline:

- Almost 2/3 of the waste at CBS is sorted into specific fractions leaving 1/3 as general waste.

Future outcomes:

- Sorting will be available throughout campus so employees and students can sort trash locally, reducing general waste to 1/5.

AD. 9

Baseline:

- There are currently no official procedures regarding waste reduction.

Future outcomes:

- We will implement procedures to achieve at least 20% waste reduction.

Water management: *Develop a new Water Action Plan in collaboration with Frederiksberg Kommune and Frederiksberg Forsyning to save water and direct future water management activities and investments.*

10. Invest in water management tools and technologies to monitor and minimize water waste across campus.
11. Manage cloudbursts (skybrud) as a resource for the campus and Greater Copenhagen Region.

AD. 10

Baseline:

- Leaks in the water system are detected in a monitoring system that connects to each water meter at CBS.

Future outcomes:

- We will establish new practices to reduce water e.g. by using rainwater or by optimizing taps, toilets etc.

AD. 11

Baseline:

- In the masterplan for Solbjerg Campus there is a recreational rainwater basin placed in the "CBS park". Frederiksberg Forsyning has been part of the planning process.

Future outcomes:

- Partner with Frederiksberg Forsyning to prevent overflowing and use rainwater as a resource.

ECONOMIC ASPECTS

Space management: *Improve space utilization to get the most out of the building stock and create more common/informal learning spaces where students, researchers and administrative staff can get together to work and talk informally.*

1. Monitor space utilization and create policies about space management in relation to building retrofits.

AD. 1

Baseline:

- Space management is based on users' needs.

Future outcomes:

- Digital space management tools will allow more standardized space management to use each square meter efficiently.

Life cycle cost (LCC): *Consider the total ownership cost in all building projects and portfolio management decisions to make the best long-run economic decisions.*

2. Implement tools to calculate total cost of ownership as an integrated part of all Campus Services' projects.

AD. 2

Baseline:

- CBS has no tools evaluating total ownership cost.

Future outcomes:

- Campus Services will use tools to calculate total ownership cost for all projects.

Maintenance plan: *Establish a long-term portfolio investment plan to monitor the lifecycle of all university assets to prioritize initiatives.*

3. Monitor the building project portfolio by evaluating projects on a 50-year timeline, the standard time span before all building components have been renovated.

AD. 3

Baseline:

- The building stock is evaluated on a yearly basis as part of portfolio management.

Future outcomes:

- The initiatives mentioned in this document are added to a timeline, informing portfolio management, preventing overlaps and identifying synergies.