Climate Strategy 2030

Karolinska Institutet

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Steering Committee for One KI for Sustainable Development

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Karolinska Institutet 2030

Karolinska Institutet (KI) intends to contribute its share in meeting global climate challenges. In 2019, KI signed the Climate Framework, the purpose of which is to increase the pace of society's climate adaption. KI is committed to implementing climate initiatives in accordance with the Paris Agreement and the so called 1.5 degrees Celsius target. For KI, this means driving the development of knowledge about climate change and health, while at the same time minimising our own negative impact on the climate.

Overall goals for 2030:

- KI shall markedly increase its educational and research efforts related to climate change and health.
- KI shall at least decrease by 50% its greenhouse gas emissions by 2030, with the ambition of becoming carbon neutral in accordance with international and national agreements. We will achieve this by:
    - achieving climate neutrality in energy consumption;
    - cutting greenhouse gas emissions from travel by over 50%; and
    - greatly reducing greenhouse gas emissions from goods, services, food and waste.

The Climate Strategy is part of the realisation of KI's Strategy 2030. In 2030, KI is a groundbreaking, engaged and global university. One prerequisite for this work is that sustainability is included in every aspect of the university's operations. Among other things, this demands the long-term environmental and social sustainability of our campuses.

In June 2019, as part of its commitment in contributing to meet the challenges of global warming, KI signed the Climate Framework, an initiative by KTH Royal Institute of Technology and Chalmers University of Technology that brings together 37 Swedish higher education institutions. The purpose of the framework is to increase the pace of climate adaption in the Swedish society.

Clear ambitions

The Climate Strategy is one way for KI to highlight its ambitions in the field of climate change.
The strategy contains overall goals for 2030, goals for 2030 and interim goals for 2024 in the areas of education, research, collaboration and utilisation, business travel, energy consumption, goods and services and waste management. These areas are common to the Climate Framework and selected because it is where the higher education institutions can make the greatest difference. The strategy also contains performance indicators to monitor development.

The goals of the strategy will be broken down in KI's *Action Plan for the Environment and Climate*, an existing tool for working in the university's environmental management system.

By adopting a climate strategy, KI sends a clear signal of solidarity with present and future generations and the importance of these issues to our common future.

Continuous improvement

KI's systematic environmental management is followed up on an annual basis and presented to the University Management. Goals and outcomes are also reported to the Swedish Environmental Protection Agency. This Climate Strategy will be included in this systematic monitoring and subject to quality enhancement measures as part of KI's continuous improvement of its operations.

KI's climate work will also be followed up in cooperation with other higher education institutions within the scope of the Climate Framework.

The safeguarding of our climate is an area that demands large efforts and in which there is a great deal at stake. Conditions change over time and the strategy will therefore be revised as and when necessary based on current research and the Sustainable development Goals (SDGs) that KI must contribute to achieving.

The Climate Framework stresses the importance of collaboration with students. There has been a continuous dialogue with students throughout the process of formulating the Climate Strategy and it is clear that they like to see more ambitious goals[1] for KI's climate work beyond the ambitions of the present strategy. The Climate Strategy should be considered as a first step to highlight KI's ambitions in the field of climate change.

We have a shared responsibility

The ultimate responsibility for compliance with the strategy rests with the President.

The strategy's objectives will be broken down into timetabled activities and responsibilities delegated in KI's *Action Plan for the Environment and Climate.* The President will decide on the Action Plan. The Action Plan will be broken down for implementation by departments and equivalent organisational units, committees, and the University Administration.

All employees at KI have a responsibility to reduce their own climate impact and that of the organisation.

Budget

There are no resources directly allocated for the implementation of the Climate Strategy. Resources for implementation will be detailed during the ongoing and coming process.

Development of the strategy

The strategy has been prepared by a working group consisting of Professor Karin Dahlman-Wright, environmental coordinator Stina Jaensson, Hanna Karlsson, chair, and Shervin Shahnavaz, deputy chair, of the KI Council for Environment and Sustainable Development and student representative Sandra Swartling. The working group has consulted with experts within the organisation and referred the strategy to the Council for Environment and Sustainable Development, as well as to the project group for One KI for Sustainable Development. Revisions have been made based on comments received. The project group for One KI for Sustainable Development has also acted as steering committee for the strategy. In addition to having the strategy presented at meetings, the steering committee has also conducted a workshop on the topic, with revisions made to the strategy based on feedback received.

[1] Students want to see emissions reduced by 50% 2022 and climate neutrality achieved by 2030.

Target areas

Education

Goal for 2030:

- In 2030, KI is a leading medical university at the international forefront of education regarding climate change and health.

Interim goal for 2024:

- In 2024, there are intended learning outcomes in all educational programmes where students will acquire knowledge and skills in the field of climate change and health as part of teaching related to sustainable development.

Key performance indicators:

- Percentage of educational programmes with intended learning outcomes related to climate change.
- Number of degree projects related to climate change.

Background

Each year, KI educates around 8,000 students at first, second and third cycle. To ensure that they gain knowledge about future challenges, KI has been working to ensure that all students have at some time during their studies discussed issues related to sustainable development and the global Sustainable Development Goals. This work shall continue and increase in intensity and to this end KI should ensure that teaching staff receive relevant training. Climate change and health, climate-friendly healthcare, behavioural science, and preventive healthcare linked to climate change – all of these are considered to be important elements of sustainable development.

Research

Goal for 2030:

- In 2030, KI is a leading medical university at the international forefront of research into climate change and health, climate-friendly healthcare, as well as research into behavioural science and preventive healthcare linked to climate change.

Interim goals for 2024:

- In 2024, KI is conducting more active research in the fields of climate change and health, climate-friendly healthcare, as well as behavioural science and preventive healthcare linked to climate change.
- In 2024, KI has one or more professorships, lectureships, or postdoctoral fellowships in one or more of the fields climate change and health, climate-friendly healthcare, or research into behavioural science and preventive healthcare linked to climate change.

Key performance indicators:

- Research grants (in SEK) obtained in the fields of climate change and health, climate-friendly healthcare, and behavioural science and preventive healthcare linked to climate change.
- Through bibliometrics, number of articles published by researchers affiliated to KI with the keyword ‘climate change’.
- Number of seminars and conferences arranged by KI on the topic climate change and health, climate-friendly healthcare, and behavioural science and preventive healthcare linked to climate change.

Background

KI is conducting research at the international forefront in order to promote better health for all. There is, however, limited research conducted in the fields of climate change and health, climate-friendly healthcare, and behavioural science and preventive healthcare linked to climate change. KI is in a position to strengthen research in these fields, thus contributing to the climate adaption of society from a health perspective and reducing climate change. Research in these fields is also a component of KI’s ambition to contribute to achieving the SDGs of Agenda 2030. To succeed, it is important that we encourage, communicate and disseminate research in these fields. A centre or network should be established to address these issues.

Collaboration for utilisation

Goal for 2030:

- In 2030, issues of climate change and climate change and health play an integral role in KI's collaborations.

Interim goals for 2024:

- In 2024, climate issues are integral to KI's collaborations with its most important partner, the healthcare sector.
- In 2024, climate issues are included in all major collaborative projects in which KI participates.
- In 2024, KI contributes its expertise in health related to climate change to several broad societal projects.
- In 2024, KI plays an important role in the higher education sector's work on climate issues.

Key performance indicator:

- Total number of cooperation and collaboration agreements addressing climate issues.

Background

According to Strategy 2030, engagement is one of KI's three strategic choices and should permeate the entire organisation. Today, KI is engaged in a multitude of contexts locally, nationally, and globally and we are constantly seeking new arenas in which we can contribute our knowledge and expertise, but also learn from others. In engaging, it is important that KI not only bring its expertise in health to the table, but also addresses how this engagement can be achieved while reducing negative climate impact and increasing knowledge about the relationship between climate change and health.

The partnership with the regional healthcare authority Region Stockholm is central to KI. KI is dependent on the healthcare sector to conduct education and clinical research and it is in healthcare that the results of much of KI's research are utilised. It is therefore important that we not only cooperate with Region Stockholm on joint initiatives in healthcare and organisational issues related to climate change, but also contribute our expertise on climate change and health to other areas of the Region's operations, such as regional planning.

KI cooperates in the sector with other higher education institutions and has signed the cross-sectoral Climate Framework, which commits KI to implementing measures by 2030 that bring us into line with the Paris Agreement and to the so called 1.5 degrees Celsius target. KI can be a more active stakeholder in this cross-sectoral work.

KI students have an important role to play in climate adaption, both during their studies and by bringing the knowledge they gain with them into their professional career. Collaboration between students, teachers and researchers must be active and pronounced if we are to advance the issue of health and climate change. Student initiatives and commitment to climate change issues must be taken advantage of.

Business travel

Goal for 2030:

- In 2030, carbon dioxide emissions per full-time-equivalent from business travel are 60% lower than in 2015.

Interim Goals for 2024:

- In 2024, carbon dioxide emissions per full-time-equivalent from business travel are 40% lower than in 2015.

Key performance indicators:

- Carbon dioxide emissions from business travel:
    - Total
    - Per full-time-equivalent
    - Broken down by department
    - Broken down by means of transport

- Percentage of international journeys undertaken by train.

Background

KI is an engaged, global university. Business travel facilitates meetings that are vital to research, education, and collaboration. That said, air travel has a major impact on climate change. Travel accounts for the largest share of KI's carbon dioxide emissions, at approximately 1.4 tones per employee and year. While air travel remains by far the most common form of travel, during 2018 and 2019 the percentage of journeys undertaken by train increased. According to KI's regulations on business travel, train travel shall be chosen for all journeys of less than 500 kilometres, which is mostly the case at present. The most common destinations to which KI employees fly are London, Copenhagen, Amsterdam, Oslo and Helsinki; however, these are not necessarily the final destinations but may be a transient stop on a longer journey.

If we are to remain an engaged, global university, we must be able to meet new and old contacts and acquire and share knowledge, not only in Sweden, but also in other parts of the world. New digital working methods offer possibilities to meet and interact without travelling, something that has been made obvious during the COVID-19 pandemic as travel has come to an almost complete ceased. Digital meetings can be conducted regardless of the whereabouts of the participants and time that would have been spent traveling can instead be spent on research, teaching or supervision. New travel regulations should be developed to support departments and staff in reducing travel. Here, the emphasis should be on reducing travel and, when a journey is deemed necessary, ensuring that trains are chosen to a greater extent than is the case today, including for international travel.

By highlighting travel-related greenhouse gas emissions at departmental level, we raise awareness of the climate impact of the department's own travel, thus facilitating dialogue regarding which journeys should be prioritised and which means of transport should be chosen.

Energy consumption

Goals for 2030:

- In 2030, the production of the electricity, heating and cooling procured by KI is climate neutral.
- In 2030, KI's energy consumption per square meter is significantly lower than in 2019[2,3].

Interim goals for 2024:

- In 2024, carbon dioxide emissions from KI's energy consumption is 50% lower per square meter than in 2019.
- In 2024, KI's energy consumption per square meter is 15% lower than in 2019.

Key performance indicators:

- Energy consumed in KI's buildings in kWh and CO_2e. Total per m^2 and full-time-equivalent.
    - Property electricity
    - Business electricity
    - District heating
    - District cooling
    - Steam

Background

KI rents property and purchases electricity, heating and cooling from the landlord. The electricity consumed in the majority of KI's premises is certified as a Good Environmental Choice by the Swedish Society for Nature Conservation and is not considered to cause any carbon dioxide emissions, nor does cooling result in any such emissions. The district heating currently in use does cause some emissions; however, the company that supplies district heating does have the stated ambition of fossil-free production. Our main landlord Akademiska hus, which owns 90% of KI's premises, has installed solar panels on several of the buildings leased by KI. At present, these solar cells provide just over 1% of the electricity consumed on our premises. Akademiska hus has set the goal of climate-neutral property operations by 2025.

As KI leases its premises, it has limited control over energy consumption and the implementation of measures. KI must work closely with property owners to jointly achieve energy-efficient solutions on our premises. KI can make a difference by procuring energy-efficient products and by influencing the behaviour of staff and students in order to reduce energy consumption. It is also vital that KI demands energy-efficiency and low carbon dioxide emissions whenever premises are built or renovated for use by the university. KI can review the utilisation of premises to ensure that they are being used efficiently. Changing patterns of work as a result of the COVID-19 pandemic may contribute. The efficient utilisation of premises can save both energy and money.

[2] This objective relates to purchased energy (cooling, heating, electricity) consumed on KI's premises.
[3] A more specific target will be set at a later date in discussion with Akademiska hus.

Goods and services

Target for 2030:

- In 2030, emissions of carbon dioxide equivalents (CO_2e) from goods and services procured by KI are significantly lower than in 2021[4].

Interim Goals for 2024:

- In 2024, KI has data about its emissions from the consumption of goods and services.
- In 2024, wherever possible sustainability and climate requirements are included in all relevant procurements, call-offs and purchases. These requirements are followed up.

Key performance indicators:

- Percentage of procurements that include sustainability and climate-related requirements.
- The distribution of emissions between various categories of procurement[5].

Background

Each year, KI purchases goods and services for SEK 1.7 billion. It is likely that, carbon dioxide emissions generated by these goods and services are considerable. KI does not however currently measure the climate impact of this consumption. Sustainability requirements are currently included in over half of all procurements by KI. It is the responsibility of departments, or equivalent organisational units, to set environmental requirements and the responsibility of the Purchasing and Procurement Unit to ensure compliance with the Swedish Public Procurement Act. Increased knowledge and understanding of environmental requirements in procurement is needed within the organisation.

By setting the correct requirements when procuring goods and services, we can reduce our climate impact. If we are to work in a structured manner with those product groups that have the greatest climate impact, a study is required to identify these groups of products. Requirements also need to be included when placing capital and commissioning building projects. Communication initiatives are required to encourage and make it easier for organisational units to choose goods that are better from a climate perspective from among those already procured in frame agreements. Monitoring of compliance with set climate requirements is required to ensure that KI receives the goods specified in procurement processes.

[4] Travel and energy excluded, as these are dealt with separately. This assumes that a study of emissions is conducted during 2021. Measurable targets will be set once a study of greenhouse gas emissions from goods and services has been conducted.

[5] A study of KI's greenhouse gas emissions from goods and services will be conducted in 2021.

Waste management

Goals for 2030:

- In 2030, the total waste per full-time-equivalent generated on KI's premises has decreased by 20% compared to 2019.
- In 2030, the amount of residual waste generated on KI's premises has decreased significantly as a fraction.

Interim Goals for 2024:

- In 2024, the total waste per full-time-equivalent generated on KI's premises has decreased by 10% compared to 2019.
- In 2024, food waste is collected from all kitchenettes on KI's premises.

Key performance indicators:

- Amount of waste. In total and per full-time-equivalent. Excluding hazardous waste.
    - Sorted by source
    - Combustible
    - Food waste

Background

An organisation such as KI generates a large amount of waste every year. This waste has a major impact on the climate and the environment. The priority should be to reduce the quantity of waste. Waste that cannot be eliminated shall be used as a resource. It is currently possible for KI employees to sort waste into 17 categories. Sorting is not homogeneous and it differs from one department to another. Departments are free to decide which categories of waste they sort on their premises. KI's landlords are responsible for contracting waste collections and contracts are put out to tender approximately every five years. There are different contractors in Solna and Flemingsberg. This makes the task of compiling statistics and following developments over time more difficult.

There is no food waste collection on KI's campuses. Collected food waste could be used for biogas and bio-fertilisers, which can replace fossil-based alternatives.

Waste generated at KI should be eliminated and where this is not possible it should be sorted and used as a resource. A common and strategic waste management initiative is called for.

This objective does not relate to hazardous waste (e.g. chemicals, sharps, radioactive waste), which is subject to specific legislation.