

AURORA

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Sustainable Campus Action Plan

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Introduction

Originally formed in 2016, Aurora is a consortium of research-intensive universities deeply committed to the social impact of our activities, and with a strong history of engagement with our communities. Our overall vision is to use our academic excellence in education and research to influence societal change. In the first phase of our collaboration we have prioritized maximising societal impact of research, strengthening diversity and inclusion, and using student engagement to drive innovation in teaching and learning.

Our objectives are to:

- Equip a diverse student population with the skills and mindset enabling them to act as **social entrepreneurs and innovators, willing and able to tackle the major challenges of our societies.**
- Make **collaboration** with external stakeholders and students' regular practice in education, research and outreach – at local, national, European, and global levels.
- **Lead by example and inspire others** as pioneers in sustainability, reducing the footprint of our individual and collective activities and making substantial contributions to addressing the Sustainable Development Goals (SDGs).

We will therefore build an enduring and sustainable infrastructure to support the collaborative activities of the alliance and increase the sustainability of the partner universities and the AURORA Alliance as a whole.

Goals of the Sustainable Campus Action Plan

We aspire for all AURORA campuses to be leading examples in sustainability among the universities in their countries. Each of our campuses will be more sustainable than in 2020, supported in this by the joint AURORA sustainability effort and by our joint external commitments to the SDG Accord. Our sustainable campus program will make the university infrastructure energy efficient and free from fossil fuels. Buildings will become more energy efficient, renewable energy will be produced on site, virtual meetings will become the norm – turning travel into a reasoned exception. Ecologic and regional food will be offered, waste will be reduced and sustainable procurement will be normal.

Topics of the Sustainable Campus Action Plan

Universities have a wide range of activities and infrastructure. Many of them are related to energy and greenhouse gas emissions, the use of a variety of resources or other topics relevant for sustainability such as accessibility. Therefore, a wide range of activities is covered by this action plan.

The following topics are seen relevant for most universities:

- **Buildings energy efficiency standards** (standards for new buildings and renovations in terms of insulation, reduction of external solar gains, reduction of internal gains and maybe materials)
- **Energy demand** of Universities (amount of energy demand, timely course, energy carriers, CO₂-equivalent emissions) potentially detailed in:
 - Space heating (offices, lecture/seminar rooms, laboratories),
 - Space cooling, (offices, lecture/seminar rooms, laboratories),
 - air conditioning, (offices, lecture/seminar rooms, laboratories)
 - electricity demand (hot water production, offices, laboratories, IT-infrastructure, etc.)
- **Energy produced** on site (photovoltaics, solar thermal plants, heat pumps using environmental heat, use of waste heat e.g. from cooling machines of HVAC and laboratories, cascading heat use). By maximizing the use of own energy from the site and integrating the university into the local energy network for the exchange of still needed or surplus energy, universities will become part of an “energy community” as prosumer.
- **Mobility** of employees and students, including commuting, business travel and long-term mobility such as exchanges is a major source of greenhouse gas emissions. This requires measures like CO₂ tracking, the creation or adaptation of a respective travel codex, creation of incentives and options for the use of low emission mobility modes and the setting of operational structures to collect the needed information for the KPIs.
- **Water, waste water and waste** management including chemicals
- Food and accommodation, meaning fostering of sustainable food in canteens and the provision of sustainable solution for short- to longer term housing.
- **Procurement**, is a significant lever to increase the sustainability of organizations. Implementing sustainable procurement procedures including extrinsic cost considerations contributes to maximize positive environmental and social effects of procurement while mitigating its negative effects.
- **Accessibility** of buildings, lecture halls and venues as well as informational or educational resources is required to provide an inclusive environment for research, teaching and learning.
- **Biodiversity** stewardship of green campus environments.
- **Monitoring & reporting** of data and measures taken in order to improve sustainability on campus will increase accountability, raise awareness and legitimize efforts.

Implementation Steps

The AURORA Universities are committed to sustainability and will take necessary steps to achieve their goals. However, they also acknowledge the differentiated responsibilities and capacities of the inhomogeneous situations of the partner Universities. Therefore, each University partner will be responsible for setting its own goals as well as for taking the implementation steps in order to achieve them. However, the Sustainable Campus Action Plan will act as a high-level principle to guide those individual approaches and suggest the following potential steps for implementation:

- Define final goals (e.g. University wants to have zero carbon footprint in 2035)
- Define KPIs how the goals can be measured (qualitatively AND quantitatively).

- Develop organization processes and the needed measurement points (e.g. heat, electricity, gas, water, indoor air quality like temperature, humidity and CO₂) in the Universities to collect quantitative data for KPIs
- Determine the baseline (starting values).
- Define a roadmap to reach the final goals including interim setpoints e.g.:
 - Energy standards for new buildings
 - Renovation of buildings (timeline for the different buildings)
 - Energy demand of the campus, divided in buildings (heat/cold, electricity), laboratories (electricity, cold, water), mobility (fossil fuels, electricity)
 - Phase out of fossil fuels (reduction of the percentage of fossil fuels used for all sectors)
 - Reduction of travel km, phase out of fossil fuels for travel
 - Reduction of water demand and waste, increase of waste sorting
 - Sustainable procurement (share of certified products in the portfolio)
- Monitor and evaluate the roadmap using the KPIs and put them into annual (biannual) sustainability reports

The expected outputs are:

- Aurora Sustainable Campus Action plan (sustainability strategy) authorized by university leadership and published as official statement
- Annual sustainability reports

Organizational structure

A suggestion for a potential organizational structure is outlined below, which can be used as a blueprint but also be adjusted to the requirements and needs of a specific university:

- Appointing of a responsible person for the sustainable campus action plan (or for sustainability in general) by the highest governing body of the university.
- Form a core group (sustainability coordinator, possibly members from university leadership, a representative from the organizational unit responsible for Infrastructure and other relevant departments or service units). This group will be responsible for the gathering and combining all information, the implementation of organizational measures in line with the Sustainable Campus Action Plan and the respective monitoring and reporting.
- Form an accompanying group of all units that may be needed for the implementation of the sustainability process and act as stakeholders and information hub to the different university groups (e.g. faculties, organizational units), e.g.:
 - unit for infrastructure for buildings (HVAC, energy production on site),
 - travel management,
 - central procurement
 - chemical and waste logistics,
 - informatics office (for the implementation of the processes as automatic routines),
 - canteens
 - legal office (data protection issues),
 - public relation office

- include faculty members that can be of help (measurement, big data handling, data safety, building physics, HVAC, sustainable mobility, water and waste water handling, waste management, questionnaires, etc.)
 - if needed include external stakeholders from case to case
- The core group defines a first discussion paper and conducts workshops with the accompanying group and potentially additional stakeholders in order to develop the final version of their version of a Sustainable Campus Action Plan
- The final version of the individual Sustainable Campus Action Plan or Sustainability Strategy will be approved by the highest governing body of the university.
- The core group continuously works on the action plan and reports to the accompanying group, which will act as multipliers and contribute to the implementation of respective measures in the different units of the universities.

AURORA Footprint Reduction Plan

Once an individual Sustainable Campus Action Plan is approved and in place at all partner universities, AURORA will continue in taking concrete actions towards increased sustainability on campus by setting clear, comprehensive and measurable goals for the reduction of the ecological footprint.

Goals along the topics defined in the Sustainable Campus Action Plan will be set by each partner university for their campus. The goals will be published through AURORA and monitored annually. Annual AURORA sustainability reports will be published from 2022.