

Comprehensive Action Plan on the Green **Transition**

UNIVERSITY OF MONTENEGRO UNIVERSITY OF PÉCS UNIVERSITY OF SARAJEVO MASARYK UNIVERSITY JAGELLONIAN UNIVERSITY OF KRAKOW J. SELYE UNIVERSITY

PANNON EUROPEAN GROUPING OF TERRITORIAL















Name of the Institution

Guidelines for higher education institutions (HEIs):

What are the **main universal and individual challenges** for HEIs in developing green measures?

Universal (for all HEIs):

Several common challenges for higher education institutions make it difficult to develop green measures:

- Requirements and objectives are often unclear or not detailed enough, so institutions are often unsure about what measures they should implement and how to properly measure and evaluate them.
- Lack of capital for investments is one of the biggest obstacles, as energy upgrades, renewable energy deployment or sustainable infrastructure development require significant resources.
- Most institutions can only take action if there is a specific funding source or incentive, so the green transition is often not proactive but reactive.
- The sustainability approach varies among faculty, students and staff, and institutions do not always have the appropriate tools to shape the approach.
- There may be a lack of an overall strategy, as well as the systems and indicators needed to collect data and measure impact.

Individual (for your institution):

For a given institution, the challenges may depend on the nature of the infrastructure, the location or the available professional and financial resources. For example:

- In our case, the biggest obstacle is the historic nature of the buildings, which significantly limits the possibilities for intervention (e.g. solar panels, type of windows and doors, facade modifications).
- Professional capacity is also limited, there is no dedicated sustainability manager or team to coordinate green processes.
- Tracking sustainability goals and measuring results is still in its infancy, mainly done manually, not automated.

What are the examples of universal green measures the HEIs will implement?

Higher education institutions around the world are implementing similar green measures to strengthen sustainability. These include, for example:

- Green campus development, expansion of green areas, gardening solutions supporting biodiversity
- ullet Installation of solar panels and other renewable energy sources for energy independence and CO_2 reduction
- Development of bicycle and pedestrian-friendly infrastructure, installation of bicycle racks, changing rooms, showers
- Application of smart lighting systems (e.g. motion-sensing LED lighting) for energy

efficiency

- Regular energy audits and interventions based on them
- Paperless, digitalized administration and examination systems (e.g. e-index, online teaching materials, e-learning)
- Efficient waste management systems, selective collection, recycling, composting options
- Incorporation of sustainability aspects into all study programs, for example in the form of mandatory or optional green subjects
- Tendering and implementation of green research projects that offer practical solutions to environmental challenges (e.g. V4 international projects)
- Promoting sustainable transport, e.g. supporting car sharing, public transport discounts

Which target groups are identified as **the most competent stakeholders** at your institution (students, staff, management, others)? Please **rank them** starting from 1 (most important). How will these stakeholders be **involved** in green transition? **Describe below**.

1. University/Faculty Leadership

University and faculty leadership play a key role in the green transition. It is their responsibility to strategically declare their commitment to sustainability, allocate resources, submit applications, and set long-term green goals. In many cases, the measures and projects necessary to achieve sustainability goals can only be implemented with the active support of management.

2. Students

Students are the conscious energy and resource users of the future. Our primary goal is to educate and shape their attitudes – that is why we include sustainability principles in education and provide them with practical experiences (e.g. factory visits, local environmental actions). They are the most important ambassadors for spreading green culture both within and outside the institution.

3. Administrative and support staff

Administrative staff and technical staff are the daily implementers of green operations. They are the ones who save paper through digitalization, manage and maintain energy-efficient systems. Educational organization, examination, documentation processes – all are areas where "green operation" is put into practice.

4. City of Komárno

The university operates in a university city, so close cooperation with the city government and city institutions is key. Sustainable transportation, joint awareness-raising campaigns, and the creation of green spaces can only be effective together. Students are active participants in the life of Komárno, so the city is also a key player in achieving green goals.

5. Civil society, district/sub-regional organizations, student clubs

In the longer term, our goal is to involve various civil organizations, residential communities, student groups, and clubs in green initiatives. This could include community tree planting, organizing green workshops, or raising social awareness at the local level. This way, the social impact can extend beyond the university walls, establishing a regional green network.

What are the main targets your institution sets for its green measures?

Our institution's sustainability efforts are based on gradual implementation, taking into account the available resources. Since major infrastructure investments entail significant costs, we primarily focus on low-cost, yet effective green measures. Their aim is to reduce the environmental burden on the one hand, and to shape a sustainability attitude on the other.

Our short-term, lower-cost goals include:

- Greening the park: placing new flower boxes, planting plants on the campus
- Encouraging movement: reducing the use of the elevator, "Choose the stairs!" with campaigns like
- Building a collection point for used household oil in the dormitory
- Ensuring the selective collection of dead batteries and accumulators in the dormitory building
- Implementing a practical natural science or environmental project within the framework of the Biology subject in the Faculty of Economics and Informatics (FEI) park

These steps are easy to implement, bring quick results, and help involve the community and increase its awareness. Once these smaller-scale goals are met and their positive impact can be proven, our institution aims to gradually introduce long-term green measures that require larger investments – for example, installing additional renewable energy sources, energy-efficient building renovations, or even developing a complex green campus strategy.

What is the **timeline** for achieving those targets at your institution?

The implementation of our institution's green objectives is not tied to a fixed deadline, but is carried out in a flexible schedule due to the nature of the activities and the available resources. The individual green measures are classified as short-, medium- or long-term goals, depending on the required expenditure, especially the cost requirement and feasibility. Our primary goal is not only to launch these measures, but also to be able to operate them in a long-term and sustainable manner. Therefore, smaller-scale, low-cost projects that can be implemented in the short term (e.g. selective collection points, creation of green areas, awareness-raising campaigns) prepare and lay the foundation for more complex investments to be implemented in the medium and long term (e.g. building energy developments, expansion of renewable energy use, development of green transport infrastructure). This gradual approach ensures that all new measures can be integrated into the institution's operations and remain sustainable in the long term.

What partnerships, agreements, project or initiatives will support your institution's green measures? Please describe any existing partnerships, contracts, projects or upcoming initiatives.

Currently, our institution does not have any dedicated partnerships or contracts focused on sustainability, but several developments that indirectly support the green transition have already been implemented. A complex energy renovation project was recently completed, the aim of which was to improve energy efficiency and reduce operating costs.

For example, within the framework of the project:

- the heating system was modernized,
- heat pumps were installed,
- a switch to energy-efficient lighting fixtures was implemented,

• solar panels and solar collectors were placed on the roofs of the dormitory and other university buildings.

The investment was financed from an external, tender source, which is a good example of how the institution can make progress in achieving green goals through targeted project financing.

In the future, our goal is to expand this type of project and actively build partnerships with local government, civil society, and industrial actors in order to implement green measures with an even broader and lasting impact.

Thematic areas of the Action Plan – please describe the measures your institution will implement in each segment.

WASTE MANAGEMENT

Our institution currently operates a selective waste collection system, which we continuously maintain and develop to the best of our ability. Separate collection containers placed in communal areas – in corridors, near classrooms, in dormitories – ensure the separate treatment of plastic, paper and mixed waste.

Our goal is to maintain and maintain this system, as well as to strengthen the environmentally conscious attitude of students and staff.

To this end, we plan to:

- place awareness-raising signs at collection points,
- conduct awareness-raising campaigns on our digital platforms,
- integrate educational modules related to selective collection into the curriculum.

In the medium term, the goal may be to expand other systems supporting recycling (e.g. collection of used batteries, cooking oil) and to further encourage paperless administration and the use of digital curriculum in order to reduce the amount of waste.

ENERGY & GREEN INFRASTRUCTURE

The institution's greening efforts are not only aimed at increasing energy efficiency, but also at the aesthetic and ecological renewal of the environment. As part of this, the greening of the campus's landscaped areas has begun: we intend to make the environment more livable and sustainable by planting new plants. This is complemented by increasing the number of potted plants inside the buildings, which contributes to improving air quality and shaping an environmentally conscious attitude.

An outstanding step in terms of energy saving was the installation of solar panels and solar collectors in the building of the Faculty of Economics and Informatics (FEI) and the Sirály Dormitory, as well as the installation of a dormitory heat pump, which can reduce the institution's energy dependence and budget burden.

In addition, several modernizations have been implemented in the spirit of energy-efficient operation, such as:

- installation of motion-sensing lighting in the corridors,
- replacement of windows and doors,
- modernization of radiators, and the introduction of automated solutions that detect open windows and turn off the heating.

PUBLIC PROCUREMENT, CATERING

Our institution strives to take into account environmentally conscious and sustainable aspects in public procurement. This is especially important in the case of purchased equipment – such as IT equipment, furniture, lighting equipment – where we give priority to energy-efficient, long-lasting products and products containing recyclable materials.

Although there is currently no separate green public procurement regulation at the institutional level, our long-term goal is to develop one so that sustainability aspects are also enforced at a systemic level.

One important element of sustainable institutional operation is reducing the environmental impact of catering. Future objectives include:

- involving local producers in the procurement of raw materials,
- prioritizing seasonal foods,
- reducing the use of plastic packaging and disposable cutlery.

In addition, monitoring and reducing the amount of food waste generated and examining composting options may be options.

MOBILITY & TRANSPORT

Our institution has taken important steps to encourage sustainable transport habits. One concrete example of this is the construction of a bicycle storage facility, which provides students and staff with the opportunity to approach the university in an environmentally friendly way – by bicycle.

In addition, the long-term goal is:

- to support carpooling systems so that more people travel together by car,
- to encourage the use of public transport, especially rail transport (train), as it is one of the most environmentally friendly modes of transport.

WATER MANAGEMENT AND BIODIVERSITY

Our institution pays special attention to the economical use of water and the preservation of biodiversity on campus.

In order to achieve sustainable water management, we currently:

- install water-saving fixtures during the renovation of buildings, which reduce water consumption,
- plant plants in landscaped areas that require less irrigation, thereby reducing water use.

In order to support biodiversity, we aim to:

- plant local, native plant species to help preserve and enrich local wildlife,
- maintain green spaces using natural, chemical-free methods,

• and install bird feeders and other habitat enhancements to support campus wildlife.

Our further development plans include the utilization and collection of rainwater for irrigation of the park, which can contribute to reducing the institution's water consumption in the long term.

EDUCATION & AWARENESS

Our university is committed to integrating sustainability and environmental awareness into its study programs as much as possible. To this end, we strive to incorporate as many "green" subjects and sustainability-themed courses as possible into various majors. This way, students can gain not only theoretical but also practical knowledge in the field of environmental protection and sustainable development.

We also consider it important to raise awareness:

- We organize regular information and campaigns for the university community,
- We encourage the participation of lecturers and students in sustainability events and workshops.

Our goal is for the green mindset to become an integral part of the institution's everyday operations and culture.

EXTERNAL COOPERATION

Our university considers it important to work more closely with the city of Komárno, as well as with local NGOs and supporting partners, in order to achieve sustainability goals. These relationships will allow us to jointly develop effective green measures, share good practices and raise environmental awareness more widely.

In the future, we plan to:

- launch regular joint projects,
- involve NGOs in university programs,
- encourage the active participation of the local community in sustainability initiatives.

This cooperation will strengthen the integrated approach to the sustainable development of the university and the city and contribute to the effective implementation of green goals.

STUDENTS AND STAFF ENGAGEMENT

Our university considers strengthening the community spirit in the field of sustainability to be of utmost importance. We consciously strive to ensure that students and staff are active participants in green initiatives.

To this end:

- we regularly communicate and highlight the positive effects of sustainability measures,
- we encourage environmentally conscious behavior and the spread of sustainability values within the university community,
- we also support awareness-raising and community participation with various programs, workshops and events.

Our goal is to make sustainability not only an individual but also a community value, and to make everyone an active player in the green transition.

Monitoring and evaluation - Please describe the ways in which your institution will oversee the abovementioned practices and assess whether the outlined targets have been met.

Our institution continuously monitors the implementation of sustainability measures and regularly evaluates the results. The steps taken – such as the installation of new green equipment, the operation of selective waste collection or energy efficiency improvements – are clearly visible and measurable, so it is easy to check whether the set goals have been achieved.

Visegrad Grant No. 22420082

We also plan to collect and analyze data on energy consumption, water consumption and waste management to get a more accurate picture of the effectiveness of sustainability measures. This will ensure that the measures are not only implemented, but also operate in a sustainable manner.