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# U-GREEN

## Guidelines for Education and Training Institutions



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# U-GREEN

## Guidelines for Education and Training Institutions

### Content

- 1. INTRODUCTION ..... 4**
  - 1.1. U-GREEN Consortium ..... 5
  - 1.2. U-GREEN Objectives ..... 6
- 2. U-GREEN Guidelines for Education and Training Institutions ..... 8**
  - 2.1. Objectives ..... 8
  - 2.2. Main areas ..... 8
- 3. U-GREEN STANDARDS DESCRIPTIONS..... 10**
  - 3.1 AREA 1. Infrastructure & Resources ..... 14
    - TOPIC 1 - Energy efficiency and adoption of new forms of energy ..... 14
    - TOPIC 2 - Water consumption and reuse ..... 19
    - TOPIC 3 - Heating and cooling systems ..... 23
    - TOPIC 4 – Recycling, waste management and single-use consumables ..... 27
    - TOPIC 5 - Sustainable food (locally sourced products and offering dietary alternatives with lower environmental impact)..... 34
    - TOPIC 6 - Green travel and mobility (low-emissions means of transport for the main part of the travel, such as bus, train or car-pooling) ..... 39
    - TOPIC 7 - Preventing pollution ..... 44
    - TOPIC 8 - Green areas and maintaining biodiversity ..... 47
  - 3.2. AREA 2. Administrative Management, Teaching & Learning ..... 50
    - TOPIC 1 - Digitalisation of Education and Training Institutions (paperless administrative procedures) ..... 50
    - TOPIC 2 - Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios ..... 55
    - TOPIC 3 - Implementing innovative teaching and learning pedagogies (prioritising pedagogies that are relevant for Agro, Green Biotech and Life Sciences, but extending to other areas of knowledge) ..... 61
  - 3.3. AREA 3. Community Engagement and Awareness..... 64



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# U-GREEN

## Guidelines for Education and Training Institutions

TOPIC 1. Engaging the educational community and reaching out to the wider community for promoting behavioural change (promotion and recognition of voluntary and community work in students' academic results) ..... 64



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# U-GREEN

## Guidelines for Education and Training Institutions

### 1. INTRODUCTION

***U-GREEN Guidelines for Education and Training Institutions*** is the first Result obtained through the U-GREEN Project (***University cooperation for promoting the GREEN transition and sustainable practices in education and training***) co-funded by the European Union under the frame of the Erasmus+ Programme, Action Type KA2020-HED-Cooperation partnerships in higher education, in the Round 1 of Call 2021.

The transition towards a resource-efficient, circular, digitised and climate neutral economy requires a change in peoples' behaviour and new skills to think and act green, starting with Education and Training institutions as catalysts of change. Education and Training institutions, through their leaders, professionals and experts, have a fundamental role in:

- a) training and empowering the next generation of EU citizens and workforce;
- b) generating and transferring knowledge and practices to society in order to solve global problems; and
- c) introducing green and sustainable practices.

More than ensuring that buildings meet today's energy standards, the greening of Education and Training institutions needs skilled teaching and non-teaching staff that cooperate towards embedding green and sustainability practices and that lead by example to enable a change in their local ecosystems.

Even though there are international rankings addressing the sustainability performance of HEIs, they tend to focus more on infrastructural or quantitative aspects. However, the common vision of the U-GREEN Consortium is that the greening of Education and Training institutions is a process that extends beyond the use of resources; it requires a true transformation of teaching and learning and of how institutions operate, are managed and reach out to their local communities.

U-GREEN Consortium members have been working towards promoting, in their institutional ecosystem and among local communities, sustainable development, and they are aware that Education and Training Institutions share the same mission and a common need to:

- Reduce the environmental footprint and enhance the greening of institutions from a transversal point of view;
- Promote the adoption of green and sustainability principles and embed such principles in all aspects of HEIs action, including as part of curricula, teaching and learning, and mobility;



# U-GREEN

## Guidelines for Education and Training Institutions

- Favour sustainability education and the development of green skills, as well as to build the capacities of staff to become agents of change and master the green transition;
- Empower Education and Training institutions in acting as catalysts and in promoting behavioural change that supports the green transition among students and the wider community;
- Reinforce working networks at EU level, promote the exchange of practices and experiences and test new cooperation models for more inclusive ecosystems;
- Strengthen the role of HEIs in generating and transferring the knowledge and skills that will help society to address common problems, such as climate, environmental and sustainability challenges.

### 1.1. U-GREEN Consortium

A consortium of nine institutions (8 universities) has been created for the development of this project. These are the members of this consortium:

- **Agricultural University of Iceland**  
Focuses on sustainable use of land and animal resources, including traditional agriculture, horticulture and forestry, nature conservation, environmental planning, landscape architecture, planning, restoration sciences and sustainable development.
- **Agricultural University – Plovdiv (Bulgaria)**  
Occupies leading positions in Crop Science, Animal Breeding and Husbandry and Plant Protection in Bulgaria, according to the Rating System of the Higher Education Institutions.
- **Paris Sup'Biotech (France)**  
Trains the best biotechnology engineers in Europe through a multidisciplinary approach that brings together science and engineering, management skills, industrial knowledge of national and international biotechnology markets.
- **Polytechnic of Coimbra (Portugal)**  
IPC is a Higher Education Institution and was founded in 1979. It is composed by 6 colleges, inheriting the tradition and experience which makes it today one of the largest polytechnic schools in the country and one of the top 10 among portuguese HEIs.
- **University College of the Province of Liège (Belgium)**  
Collaborates closely with the educational, social, economic and cultural environment, providing services to the community and developing partnerships with professional circles.

5



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# U-GREEN

## Guidelines for Education and Training Institutions

- **University of Almeria (Spain)**  
UAL has achieved a high specialization in the agri-food sector, being one of the leading Spanish universities in agricultural sciences, biotechnology, engineering, and others linked, as business or law.
- **University of Modena and Reggio Emilia (Italy)**  
Founded in 1175, it is one of the oldest universities in the world with strong links to industry and numerous companies producing agricultural machinery, automated industrial equipment, etc.
- **Warsaw University of Life Sciences (Poland)**  
The oldest agricultural academic school in Poland and one of the firsts in the world. It focuses on sustainable rural development, resource protection, biodiversity and socio-cultural environment.
- **INCOMA (Spain)**  
It is a training and research centre with extensive know-how and experience in the development and coordination of international cooperation projects mainly funded within the framework of EU programmes, especially in the field of education, training and research.

## 1.2. U-GREEN Objectives

U-GREEN Project - University cooperation for promoting the GREEN transition and sustainable practices in education and training - seeks to improve the readiness of Education and Training institutions to tackle the green transition and act as catalysts in promoting behavioural change and in promoting green skills among a new generation of committed European citizens. This will be achieved through the development and implementation of a common framework to assess and update green and sustainability practices, at the same time building the capacities of experts to master the Green transition and, also, promoting the transfer of knowledge through a Virtual Knowledge Hub.

Within this Main Aim, specific objectives of the project are:

- To foster sustainable Education and Training infrastructures by providing easily adoptable standards on topics such as energy efficiency, water consumption, heating and cooling systems, sustainable food, recycling and waste management, digitalisation practices, as well as how to engage the community;
- To empower Education and Training institutions in acting as catalysts and in promoting behavioural change that supports the green transition among students and the wider community; - To embed green and sustainability



# U-GREEN

## Guidelines for Education and Training Institutions

- principles in curricula and to promote the development of green skills among a new generation of committed European citizens;
- To raise-awareness on how to adopt green and sustainability principles among teaching and non-teaching staff and to increase the number of HEIs professionals that master more green/sustainable alternatives and strategies;
  - To strengthen and implement new cooperation models among Education and Training institutions and to promote the exchange of practices and experiences;
  - To reinforce the role of HEIs in generating the knowledge and skills that help society to address common problems, such as climate, environmental and sustainability challenges.



# U-GREEN

## Guidelines for Education and Training Institutions

### 2. U-GREEN Guidelines for Education and Training Institutions

U-GREEN Guidelines for Education and Training Institutions is a document that provides recommendations for incorporating green and sustainability practices that Education and Training institutions can easily follow in order to contribute to achieve EU goals.

This guide contains a set of common standards to support the green transition in Education and Training institutions, which have been defined by considering information coming from different sources:

- Focus Groups (carried out by consortium members) inputs
- By valorising internationally recognised standard and practices
- The experience and know-how of Consortium members

U-GREEN Guidelines for Education and Training Institutions gathers a total of 98 standards, each of these standards has been defined with baseline information as an approach to its implementation and monitoring. The standards are grouped by areas and topics, allowing each institution to determine which ones it considers suitable and feasible for implementation.

#### 2.1. Objectives

Main objectives of U-GREEN Guidelines for Education and Training Institutions are:

- To **foster** the green transition adapted to the context and needs of Education and Training institutions
- To offer **recommendations** for incorporating updated green and sustainability practices in line with EU goals and policies in Education and Training institutions
- To provide **tips** and guidance towards creating a road map to become a carbon neutral institution

#### 2.2. Main areas

The following three areas have been established as the main areas to be covered by this guideline. Furthermore, each area has been divided in several specific topics in order to allow an appropriate classification of the defined standards included in this document.

##### 1) **Infrastructure & Resources area:**

- a. Energy efficiency and adoption of new forms of energy
- b. Water consumption and reuse





# U-GREEN

## Guidelines for Education and Training Institutions

- c. Heating and cooling systems
  - d. Recycling, waste management and single-use consumables
  - e. Sustainable food (locally sourced products and offering dietary alternatives with lower environmental impact)
  - f. Green travel and mobility (low-emissions means of transport for the main part of the travel, such as bus, train or car-pooling)
  - g. Preventing pollution
  - h. Green areas and maintaining biodiversity
- 2) **Administrative Management, Teaching & Learning area:**
- a. Digitalisation of Education and Training institutions (paperless administrative procedures)
  - b. Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios
  - c. Implementing innovative teaching and learning pedagogies (prioritising pedagogies that are relevant for Agro, Green Biotech and Life Sciences, but extending to other areas of knowledge)
- 3) **Community Engagement and Awareness area:**
- a. Engaging the educational community and reaching out to the wider community for promoting behavioural change (promotion and recognition of voluntary and community work in students' academic results).

The number of total standards included in this guideline per area and topic are shown in the next table:

AREA	TOPIC	Nº STANDARDS
AREA 1. INFRASTRUCTURE & RESOURCES	Energy efficiency and adoption of new forms of energy	9
	Water consumption and reuse	7
	Heating and cooling systems	7
	Recycling, waste management and single-use consumables	11
	Sustainable food	10
	Green travel and mobility	8
	Preventing pollution	6
	Green areas and maintaining biodiversity	5
<b>TOTAL AREA 1</b>		<b>63</b>
AREA 2. ADMINISTRATIVE MANAGEMENT, TEACHING & LEARNING	Digitalisation of Education and Training institutions	8
	Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios	9
	Implementing innovative teaching and learning pedagogies	6
	<b>TOTAL AREA 2</b>	<b>23</b>
AREA 3. COMMUNITY ENGAGEMENT AND AWARENESS	Engaging the educational community and reaching out to the wider community for promoting behavioural change	12
	<b>TOTAL AREA 3</b>	<b>12</b>
<b>TOTAL NUMBER OF STANDARDS</b>		<b>98</b>

Table 1. Number of standards per Area and Topic





# U-GREEN

## Guidelines for Education and Training Institutions

### 3. U-GREEN STANDARDS DESCRIPTIONS

In general terms, the standards presented in this guideline provide references on how to establish green practices in any Education and Training institution, taking into account that the data included is only a guide and may vary from one institution to another, as well as from one country to another. Nevertheless, it presents a number of ideas to introduce green and sustainable practices in any organisation, which can be selected according to needs and developed at different levels. They may be used as well as a reference to implement similar practices aimed at reaching the same objective.

U-GREEN Guidelines for Education and Training Institutions gathers the 98 standards presented in the following tables and described in the next section.

<b>AREA 1. Infrastructure &amp; Resources</b>	
<b>TOPIC 1 - Energy efficiency and adoption of new forms of energy</b>	
<b>1.1.1.</b>	<b>Renewable energy</b>
<b>1.1.2.</b>	<b>Implementation of Energy Efficiency in Buildings</b>
<b>1.1.3.</b>	<b>Installation of renewable sources of energy</b>
<b>1.1.4.</b>	<b>Drafting of the University Energy Plan: (for monitoring of thermal and electrical consumption)</b>
<b>1.1.5.</b>	<b>Certified Renewable Sources Implementation</b>
<b>1.1.6.</b>	<b>On-Campus Sensor Lights Installation</b>
<b>1.1.7.</b>	<b>Agreements with public and private institutions (including Administration) to develop energy efficiency actions</b>
<b>1.1.8.</b>	<b>Responsible use of electronic devices</b>
<b>1.1.9.</b>	<b>Installation of photovoltaic solar panels in parkings and buildings</b>
<b>1.1.10.</b>	<b>Re-use of water to irrigate green spaces and gardens</b>
<b>TOPIC 2 - Water consumption and reuse</b>	
<b>1.2.1.</b>	<b>Rain and snow water conservation and use</b>
<b>1.2.2.</b>	<b>Installation of rainwater harvesting systems</b>
<b>1.2.3.</b>	<b>Use of water recycling systems</b>
<b>1.2.4.</b>	<b>Water Use Reduction and Reuse</b>
<b>1.2.5.</b>	<b>On-Campus Tap Water fountains</b>
<b>1.2.6.</b>	<b>Installation of low-consumption faucets and/or faucets with a flow reduction system</b>
<b>TOPIC 3 - Heating and cooling systems</b>	
<b>1.3.1.</b>	<b>Installation of energy-efficient cooling and heating systems</b>
<b>1.3.2.</b>	<b>Heating and Cooling Systems' Optimization and Monitoring</b>
<b>1.3.3.</b>	<b>Geothermal Energy Implementation</b>
<b>1.3.4.</b>	<b>Smart eco-design of buildings</b>
<b>1.3.5.</b>	<b>Automated control of air quality, temperature and humidity</b>

10



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## Guidelines for Education and Training Institutions

<b>1.3.6. Sealing and interlocking of buildings</b>
<b>1.3.7. Temperature limitation system</b>
<b>TOPIC 4 – Recycling, waste management and single-use consumables</b>
<b>1.4.1. Management Plan for hazardous waste</b>
<b>1.4.2. Waste Recycling</b>
<b>1.4.3. Single-use Plastic Bottles Reduction</b>
<b>1.4.4. Waste Sorting</b>
<b>1.4.5. Reduction/Abolition of single-use consumables</b>
<b>1.4.6. Implementation of Strategic Waste Management Plan</b>
<b>1.4.7. To promote the Circular Economy through purchasing policy</b>
<b>1.4.8. On-Campus Separate Waste Collection Bins' Installation</b>
<b>1.4.9. Separate Management of electrical and electronic waste</b>
<b>1.4.10. Implementation of a non-hazards waste management plan</b>
<b>1.4.11. Waste recycling systems in the campus</b>
<b>TOPIC 5 - Sustainable food (locally sourced products and offering dietary alternatives with lower environmental impact)</b>
<b>1.5.1. Information of the origin and nutritional information of the food served in Campus</b>
<b>1.5.2. Information on sustainable and healthy food in the welcoming days of new students</b>
<b>1.5.3. Conferences about sustainable nutrition</b>
<b>1.5.4. Development of organic and community gardens</b>
<b>1.5.5. The use of local and seasonal products in cafeterias</b>
<b>1.5.6. To promote healthy and eco-friendly cafeterias</b>
<b>1.5.7. University Canteens Vegetarian Food Offer</b>
<b>1.5.8. Sustainable food using a vending machine</b>
<b>1.5.9. Delivered Sustainable Food (organic fruits and vegetables)</b>
<b>1.5.10. Sustainable food delivery and consumption at the students' canteen or cafeteria</b>
<b>TOPIC 6 - Green travel and mobility (low-emissions means of transport for the main part of the travel, such as bus, train or car-pooling)</b>
<b>1.6.1. Strategy for Sustainable models of transports</b>
<b>1.6.2. Sustainable Mobility Grants</b>
<b>1.6.3. The use of public transport and soft mobility</b>
<b>1.6.4. To promote the use of public transport and soft mobility</b>
<b>1.6.5. Installation of electric chargers for vehicle charging on university premises</b>
<b>1.6.6. On-Campus Green Mobility Implementation</b>
<b>1.6.7. Promotion plans to use green transports.</b>
<b>1.6.8. Agreements with public transports Administrations to improve the public transport system</b>
<b>TOPIC 7 - Preventing pollution</b>
<b>1.7.1. Elimination of fuel and combustion energy systems strategies</b>
<b>1.7.2. Collection of hazardous waste</b>



# U-GREEN

## Guidelines for Education and Training Institutions

1.7.3.	<b>“Carbon Footprint” Computation</b>
1.7.4.	<b>Bee hives, Insect hotels and Green spaces Installation</b>
1.7.5.	<b>Use of biofuel in boilers</b>
1.7.6.	<b>Limitation of parking car spaces</b>
<b>TOPIC 8 - Green areas and maintaining biodiversity</b>	
1.8.1.	<b>Organic Gardens and Vegetable Roofs Implementation</b>
1.8.2.	<b>To develop green spaces to conserve local biodiversity</b>
1.8.3	<b>Student-Managed Organic Gardens</b>
1.8.4	<b>Sustainable criteria in the contracts signed with gardens ‘maintenance service/companies</b>
1.8.5	<b>Celebrate "Sustainability days" inside and outside the campus</b>

Table 2. Area 1 Standards. Infrastructure & Resources.

<b>AREA 2. Administrative Management, Teaching &amp; Learning</b>	
<b>TOPIC 1 - Digitalisation of Education and Training Institutions (paperless administrative procedures)</b>	
2.1.1.	<b>Paper free institution</b>
2.1.2.	<b>Paperless Transition Acceleration</b>
2.1.3.	<b>Adopt and promote innovative digital teaching practices</b>
2.1.4.	<b>Paper Waste Reduction Strategy (hard and soft)</b>
2.1.5.	<b>Paperless Administration, Teaching and Learning Transition Acceleration</b>
2.1.6.	<b>Intranet Educational Platform Implementation</b>
2.1.7.	<b>Digital Library resources and digital teaching materials</b>
2.1.8.	<b>Environmental Management System externally verified</b>
<b>TOPIC 2 - Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios</b>	
2.2.1.	<b>Formative actions for teaching staff in order to include Sustainability in the curricula.</b>
2.2.2.	<b>Sustainability courses in the education curricula</b>
2.2.3.	<b>Green and sustainability principles in HE curricula Transversal Integration</b>
2.2.4.	<b>Impactful Green Practices Campaign</b>
2.2.5.	<b>SDG-based Content Courses Offered to All Students</b>
2.2.6.	<b>Sustainability-based Publications Promotion</b>
2.2.7.	<b>To promote attendance of subjects in the field of sustainability</b>
2.2.8.	<b>Review syllabuses and include Green and sustainability principles in HE curricula</b>
2.2.9.	<b>To adopt and promote innovative digital teaching practices.</b>
<b>TOPIC 3 - Implementing innovative teaching and learning pedagogies (prioritising pedagogies that are relevant for Agro, Green Biotech and Life Sciences, but extending to other areas of knowledge)</b>	
2.3.1.	<b>External practical experts invited as guest lecturers</b>



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## Guidelines for Education and Training Institutions

<b>2.3.2. Sustainable Engagement Promotion</b>
<b>2.3.3. Transversal Green Contents Teaching</b>
<b>2.3.4. E-library Implementation</b>
<b>2.3.5. Creation of innovative teaching groups within teachers of different knowledge areas.</b>
<b>2.3.6. Inclusion in the teaching sessions of external persons with experience in sustainability</b>

Table 3. Area 2 Standards. Administrative Management, Teaching & Learning.

<b>AREA 3. Community Engagement and Awareness</b>	
<b>TOPIC 1. Engaging the educational community and reaching out to the wider community for promoting behavioural change (promotion and recognition of voluntary and community work in students' academic results)</b>	
<b>3.1.1.</b>	<b>Implementation of environmental education activities</b>
<b>3.1.2.</b>	<b>To involve students in the practical resolution of sustainability problems existing at the University</b>
<b>3.1.3.</b>	<b>Development of a communication plan on green initiatives carried out by the university</b>
<b>3.1.4.</b>	<b>Sustainable food community</b>
<b>3.1.5.</b>	<b>University knowledge experts' dissemination</b>
<b>3.1.6.</b>	<b>Sustainability awareness events</b>
<b>3.1.7.</b>	<b>The Institutional Green Prize</b>
<b>3.1.8.</b>	<b>Organization of the climate campaign</b>
<b>3.1.9.</b>	<b>Organization and participation of cultural and open community events and activities, related to sustainability, bio-economy, green transition and behavioural change</b>
<b>3.1.10.</b>	<b>Inclusion of the Sustainability in the University webpage</b>
<b>3.1.11.</b>	<b>Agreements with local or regional administrations for the organization of joint activities</b>
<b>3.1.12.</b>	<b>Development of a Sustainable passport (participation in local voluntary activities). Development of extracurricular modules about sustainability for students with ECTS credits</b>

Table 4. Area 3 Standards. Community Engagement and Awareness.



## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Energy efficiency and adoption of new forms of energy

## 3.1 AREA 1. Infrastructure & Resources

### TOPIC 1 - Energy efficiency and adoption of new forms of energy

1.1.1. Renewable energy	
<b>Short description</b>	The standard assesses the institution's development and use of energy from renewable sources. Renewable energy generation leads to increased energy security, climate change mitigation and reduction of greenhouse gas emissions. Increasing the use of renewable energy would allow to replace carbon-intensive energy sources and significantly reduce the global warming effects. Universities as educational institution have to encourage the decarbonisation and climate neutral society.
<b>Prerequisites</b>	Installation of PV systems or Wind driven electric generators. Or signed contracts with producers of renewable energy. Depending on national regulations
<b>Involved groups</b>	Management staff, Administrative staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Infrastructure costs Installation costs
<b>Resources Needed</b>	Land for building the installations. Or roofs on building preparation for installation of PV panels.
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Average electricity used per person in campus. Measured in kWh per person per year</li> <li>• Share of renewable energy used in campus. Measured as percent of total energy</li> <li>• Production of renewable energy in the university – measured in kWh</li> </ul>

1.1.2. Implementation of Energy Efficiency in Buildings	
<b>Short description</b>	Improvement energy efficiency through for example replacement of window frames and luminaires for LED Technology, install motion sensors for lights and etc.
<b>Prerequisites</b>	National and European regulations concerning energy consumption
<b>Involved groups</b>	Upper Management, Financial & Administrative staff, Building management & support staff
<b>Time needed for implementation</b>	6 - 18 months



## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Energy efficiency and adoption of new forms of energy

<b>Costs</b>	Costs of purchases and installation needed Administrative cost Maintenance cost
<b>Resources Needed</b>	Luminaires for LED Technology Light sensors Energy efficient windows
<b>Indicators</b>	% of lights in buildings using LED technology Energy consumption in MWh within buildings in comparison with a baseline year % of lights with sensors in buildings

<b>1.1.3. Installation of renewable sources of energy</b>	
<b>Short description</b>	Renewable energy should be the main source of energy for the university. So, green energy solutions should be installed on all buildings on the university campus. For example, installing solar panels, you can generate your own renewable energy. The same goal could also be reached by being connected to a wind energy farm.
<b>Prerequisites</b>	In case of solar panels, they need a lot of space, so it has to be taken into consideration if there is enough space on the roofs that are facing the sun. Maybe special permission must be applied for in advance when installing solar panels. Other prerequisites here refer to practical aspects regarding how the university could be connected to a renewable energy source.
<b>Involved groups</b>	Financial & Administrative staff, energy companies, Building & support staff, Executive management
<b>Time needed for implementation</b>	6 – 36 months
<b>Costs</b>	Price of materials and technology Installation cost Administrative cost Cost of energy
<b>Resources Needed</b>	Human resources Material resources
<b>Indicators</b>	% of energy generated through renewable sources out of total energy CO2 emissions from energy sources in comparison to a baseline year Number of buildings connected to a renewable energy source out of total buildings



## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Energy efficiency and adoption of new forms of energy

<b>1.1.4. Drafting of the University Energy Plan: (for monitoring of thermal and electrical consumption)</b>	
<b>Short description</b>	<ul style="list-style-type: none"> <li>- Collect and update available information on building envelope and existing energy systems</li> <li>- Inventory of annual energy consumption</li> <li>- Monitoring of thermal and electrical consumption,</li> <li>- Identifying possible critical issues</li> <li>- Define and plan short, medium and long-term actions to reduce energy consumption</li> </ul>
<b>Prerequisites</b>	Previous energy data collection
<b>Involved groups</b>	Academic staff, Administrative staff
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	Human resources costs related to data collection and plan drafting
<b>Resources Needed</b>	Staff Materials
<b>Indicators</b>	Yearly release of the Energy Plan: yes-no

<b>1.1.5. Certified Renewable Sources Implementation</b>	
<b>Short description</b>	Implementation of renewable sources (photovoltaic, wind, geothermal, biomass, solar thermal) for local energy production and/or purchase guarantees of origin that certify the origin of the energy used from renewable sources.
<b>Prerequisites</b>	To have a University Energy Plan and an inventory of annual energy consumption
<b>Involved groups</b>	Administrative staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Infrastructure costs for renewable energies and certified origins
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Renewable energy production/ Total energy consumption kW/h Purchase of guarantees of origin - certificates / Total energy consumption





## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Energy efficiency and adoption of new forms of energy

<b>1.1.6. On-Campus Sensor Lights Installation</b>	
<b>Short description</b>	Installation of sensors light in classrooms detecting movements. Motion detectors could also be connected to the heating system.
<b>Prerequisites</b>	Electric mapping of the existing facilities
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Staff, material and maintenance costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Proportion of sensor lights to traditional lighting systems

<b>1.1.7. Agreements with public and private institutions (including Administration) to develop energy efficiency actions</b>	
<b>Short description</b>	<p>Signing agreements with the Municipality, the regional and the national authorities in order to invest in the energy reduction system of the university, and to promote the consumption reduction in the Administration buildings and in the University buildings.</p> <p>Agreements signed with Energy production companies to install efficient energy systems and to promote the clean energy production and consumption.</p> <p>Agreements signed with the energy production companies to certificate that energy used in the university is generated by clean energy sources.</p> <p>Agreements with private institutions (companies, associations, etc.) to promote the use of clean and efficient energy in both parts (University and private institution)</p>
<b>Prerequisites</b>	National regulations
<b>Involved groups</b>	Administrative staff, Public Administrations, energy companies, local companies
<b>Time needed for implementation</b>	1 – 20 months
<b>Costs</b>	None
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Number of agreements and contracts signed Reduction of energy consumption, in Kw



## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Energy efficiency and adoption of new forms of energy

<b>1.1.8. Responsible use of electronic devices</b>	
<b>Short description</b>	Energy saving in electronic devices. All PC, tablets, Screens, etc. will have stickers remembering the users to switch them off. All the halls and corridors of the university's buildings will have a poster remembering this. All the electronic devices will be configured with low energy consumption modes.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Administrative staff, infrastructures
<b>Time needed for implementation</b>	1 – 6 months
<b>Costs</b>	Stickers, posters, etc. Revision of devices by the administrative/infrastructure staff of the university
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Consumption of energy, in Kw.

<b>1.1.9. Installation of photovoltaic solar panels in parkings and buildings</b>	
<b>Short description</b>	The infrastructure of covered car parks and buildings that allow it would be used for the installation of photovoltaic solar panels to cover the energy demand of the University, located in one of the points with the most hours of sunshine in Europe.
<b>Prerequisites</b>	Preliminary feasibility and capacity studies
<b>Involved groups</b>	Infrastructure Department Staff
<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	Depending on the viable area.
<b>Resources Needed</b>	Infrastructure staff. Researchers and alliances with external partners
<b>Indicators</b>	1. Surface area of installed solar panels 2. Percentage of energy consumption coming from solar energy

#### TOPIC 2 - Water consumption and reuse

1.2.1. Re-use of water to irrigate green spaces and gardens	
<b>Short description</b>	To ensure that all the water used to irrigate the gardens and the green spaces of the university is recycled water
<b>Prerequisites</b>	National regulations
<b>Involved groups</b>	Gardening staff
<b>Time needed for implementation</b>	1 – 20 months
<b>Costs</b>	Infrastructures costs Human resources or external services
<b>Resources Needed</b>	Infrastructures staff of the university Water pipes Water treatment plant
<b>Indicators</b>	Litres of water consumed in the irrigation of green areas and litres and origin of this water

1.2.2. Rain and snow water conservation and use	
<b>Short description</b>	The standard observes institutions policies, programs and implementation of practices for rainwater conservation and use. The development of practices and green infrastructure for rainwater management, can help in reduction of erosion and minimize water consumption. It is cost-effective and stimulates efficient use of resources. Storing rainwater helps in preventing urban flooding and can be used for irrigation practices or consumption. The rain and snow water use also has indirect effect in greenhouse emissions reduction.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Management staff, Administrative staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Infrastructure costs Installation costs
<b>Resources Needed</b>	Build or installed water tanks. Infrastructure and technical requirements
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Institution rainwater management policies, plans, or guidelines.</li> <li>• Capacity of water conservation tanks for gathering of rain and snow melting water. Measured in m<sup>3</sup></li> <li>• Share of used rain and snow water in total water consumption.</li> </ul>

## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Water consumption and reuse.

1.2.3. Installation of rainwater harvesting systems	
<b>Short description</b>	Rainwater can be collected in storage containers such as barrels or larger cisterns to later use it for watering the garden or flushing the toilets at the university. By doing so, you can take control of your water supply and replace all or at least a substantial portion of your water needs since rainwater is mostly relatively clean, and therefore, you waste less water and reduce your environmental footprint.
<b>Prerequisites</b>	Installation of storage is necessary. For storing water for watering the garden, rain barrels can be put up at a gutter downspout. To store larger amounts of rainwater, whole rainwater collection systems have to be put up and enough space for that is necessary.
<b>Involved groups</b>	Financial & Administrative staff, Building and support staff, Management staff
<b>Time needed for implementation</b>	3 – 36 months
<b>Costs</b>	Material and installation cost Maintenance cost
<b>Resources Needed</b>	Staff to build the water collection system and staff to maintain it Materials to build the system, such as barrels, pipes, filters etc. Infrastructures: there must be enough space and pipes connecting the university buildings
<b>Indicators</b>	Number of buildings with a rainwater harvesting system out of total buildings % of water use compared with a baseline year

1.2.4. Use of water recycling systems	
<b>Short description</b>	The standard assesses institutions water recycling management and capacity. Recycling wastewater can improve water quality, save energy and decrease discharge and disposal costs of wastewater. The conservation, water recycling and reuse are important in maintaining and protecting groundwater supplies. In addition to the cost-effective aspect, water recycling helps in preserving aquatic life and biodiversity by reducing pollution.
<b>Prerequisites</b>	National or local regulations
<b>Involved groups</b>	Management staff, Administrative staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Infrastructure costs Installation costs
<b>Resources Needed</b>	Water tanks for collecting used water. Mechanical and chemical recycling infrastructure.

## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Water consumption and reuse.

<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Water recycle plan and/or strategy</li> <li>• Capacity of water recycling infrastructure – m<sup>3</sup></li> <li>• Percent of recycled water from total water used.</li> </ul>
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1.2.5. Water Use Reduction and Reuse	
<b>Short description</b>	<p>The aim of this standard is to save water and promote sustainable use of water in various aspects. The standard consists of 3 parts related to 3 different goals. To implement the standard, the following goals are required:</p> <ul style="list-style-type: none"> <li>- Providing access to drinkable water in public spaces within the university campus via drinking fountains. As a result, we can reduce of the plastic bottles (PET) used in packaging.</li> <li>- Setting retention water tanks and a proper use of collected water (i.e. for watering of green areas)</li> <li>- Opting for the application of permeable surfaces and pavements on the campus</li> </ul>
<b>Prerequisites</b>	Applying of the standard / practice requires the necessary space for realisation of infrastructure (e. g. retention water tanks and drinking fountains) and also checking technical state of water installations and water quality evaluation.
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Costs related to building infrastructure on the campus and service.
<b>Resources Needed</b>	The standard can be realised by a commercial company and in that case no additional staff, materials are not required at the initial phase.
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• User-based number of drinking fountains</li> <li>• High water quality parameters</li> <li>• Total volume of water retention tanks per sq meters of the campus' surface.</li> <li>• Share of biologically active areas on the campus (sq meters of permeable surface included)</li> <li>• Litres of reused grey water</li> </ul>

1.2.6. On-Campus Tap Water fountains	
<b>Short description</b>	<p><b>Actions:</b> Installation of tap water fountains on all campuses.</p> <p><b>Communication component:</b></p>

## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Water consumption and reuse.

	A communication campaign should inform young people about the locations of the fountains. The first year, students would receive or be able to buy a quality water bottle at a low price
<b>Prerequisites</b>	Drinking water access
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Informative campaign costs Infrastructure and maintenance costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	User-based number of drinking water fountains

<b>1.2.7. Installation of low-consumption faucets and/or faucets with a flow reduction system</b>	
<b>Short description</b>	Installation of energy efficient taps, with water flow reduction system or with sensors and automatic shut-off.
<b>Prerequisites</b>	National and European regulations concerning water consumption
<b>Involved groups</b>	Building and support staff, financial and administrative staff, management
<b>Time needed for implementation</b>	3 – 9 months
<b>Costs</b>	Material and installation costs Maintenance cost
<b>Resources Needed</b>	Human resources Materials: low-consumption faucets, flow reduction valves
<b>Indicators</b>	% of low-consumption faucets out of total faucets in the university buildings Number of buildings with low consumption faucets systems out of total buildings % of water use compared with a baseline year



TOPIC 3 - Heating and cooling systems

<b>1.3.1. Installation of energy-efficient cooling and heating systems</b>	
<b>Short description</b>	Installation of energy efficient air-conditioning and heating systems such as heat pumps (both geothermal and air source) and furnace.
<b>Prerequisites</b>	2016 EU Heating and Cooling Strategy Adequate infrastructure for the installation of energy efficient cooling and heating systems in buildings.
<b>Involved groups</b>	Technical staff, Financial & Administrative staff, Building and support staff, Management staff
<b>Time needed for implementation</b>	6 – 36 months
<b>Costs</b>	Material and installation/replacement cost Maintenance cost
<b>Resources Needed</b>	Human resources Materials Infrastructures
<b>Indicators</b>	Number of buildings with a energy-efficient heating & cooling system out of total buildings Energy consumption in MWh within buildings in comparison with a baseline year

<b>1.3.2. Heating and Cooling Systems' Optimization and Monitoring</b>	
<b>Short description</b>	- Optimising the operation and maintenance service heating and cooling systems. - Collect and update information on building and existing thermal energy production systems, identifying possible critical issues: inadequate thermal insulation, obsolescence of the systems.
<b>Prerequisites</b>	To have a University Energy Plan and an inventory of annual energy consumption
<b>Involved groups</b>	Academic staff, Administrative staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Infrastructure costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Plant performance (Heat produced/energy consumed) according to the EU legal framework (directive...)





U-GREEN Guidelines for Education & Training Institutions  
 AREA 1. Infrastructure and Resources.  
 Heating and cooling systems

<b>1.3.3. Geothermal Energy Implementation</b>	
<b>Short description</b>	Use of geothermal and/ or district sources for heating system
<b>Prerequisites</b>	Existing district heating network
<b>Involved groups</b>	Students, Academic staff, administrative staff, local community
<b>Time needed for implementation</b>	3 years
<b>Costs</b>	Infrastructure and staff costs
<b>Resources Needed</b>	District heating network
<b>Indicators</b>	Geothermal energy consumption / total energy consumption

<b>1.3.4. Smart eco-design of buildings</b>	
<b>Short description</b>	<p>The standard observes university building design related to energy, water efficiency and other environmental features. In addition, institutions green construction and renovation programs are also acknowledged.</p> <p>Buildings are generally the largest user of energy and water on the campuses. Smart design of the campus contribute for reduction both costs and the carbon footprint. In addition, a significant part of the building management processes can be automated. Smart eco design applies the general principles of sustainability; adverse environmental impact and use cost efficient and environmentally friendly materials in operation, and have measurable performance.</p> <p>Renovation of old buildings according energy efficiency. Planning and design of new buildings to be energy efficient and carbon neutral.</p>
<b>Prerequisites</b>	National regulations
<b>Involved groups</b>	Management staff, Administrative staff
<b>Time needed for implementation</b>	Depends on the project
<b>Costs</b>	Renovation old buildings costs Constructions costs
<b>Resources Needed</b>	Experts in the fields of design and construction
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Types of ventilation, heating and cooling of buildings.</li> <li>• Total area of newly constructed or renovated building space</li> <li>• Share of the areas designed by applying the principles of energy/water efficiency, human health and wellbeing</li> </ul>







## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Heating and cooling systems

1.3.5. Automated control of air quality, temperature and humidity	
<b>Short description</b>	The standard observes the system for monitoring air quality, temperature and humidity in the universities. The control of air quality, temperature and humidity is related to not only to cost efficiency but also to human health, well-being and carbon footprint. Insufficient quality of the indoor environment in universities can prevent students and lecturers from progressing in their learning process and effect human health. In addition, the monitoring of air quality, temperature and humidity is related to social and environmental aspect of sustainable development.
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Management staff, Administrative staff
<b>Time needed for implementation</b>	1 – 20 months
<b>Costs</b>	Infrastructure costs Maintanance costs
<b>Resources Needed</b>	Sensors and other infrastructure
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Systems for monitoring of air quality, temperature and humidity.</li> <li>• Guidelines, evaluation of air quality</li> <li>• Data analysis protocols for estimating air exchange rates</li> <li>• Number of sensors for control of air quality, temperature and humidity.</li> </ul>

1.3.6. Sealing and interlocking of buildings	
<b>Short description</b>	Energy improvements in the building envelope. Improving of sealing and interlocking of buildings, changing windows with double glazed windows, and revising the bays and hollows
<b>Prerequisites</b>	Non applicables
<b>Involved groups</b>	Infrastructures staff
<b>Time needed for implementation</b>	1 – 3 years
<b>Costs</b>	Infrastructure costs Human resources costs or external services
<b>Resources Needed</b>	Double glazed windows Restoration of buildings to improve the bays and hollows
<b>Indicators</b>	Number of windows substituted Reduction of energy consumption, in Kw



# U-GREEN Guidelines for Education & Training Institutions

## AREA 1. Infrastructure and Resources.

### Heating and cooling systems

<b>1.3.7. Temperature limitation system</b>	
<b>Short description</b>	Installation of a centralised system to control the temperature of the buildings, limiting this.
<b>Prerequisites</b>	National regulations.
<b>Involved groups</b>	Infrastructures staff
<b>Time needed for implementation</b>	1 – 3 years
<b>Costs</b>	Infrastructure costs Human resources or external services
<b>Resources Needed</b>	Thermostats
<b>Indicators</b>	Reduction of energy consumption, in Kw





# U-GREEN Guidelines for Education & Training Institutions

## AREA 1. Infrastructure and Resources.

### Recycling, waste management and single use consumables

#### TOPIC 4 – Recycling, waste management and single-use consumables

1.4.1. Management Plan for hazardous waste	
<b>Short description</b>	<p>This plan must be an instrument aimed to know and manage all kind of hazardous waste generated by the institution related to its activities, as well as to know the amount of waste generated in order to minimize its production.</p> <p>This plan must contain:</p> <ul style="list-style-type: none"> <li>- Procedures</li> <li>- Activities</li> <li>- Actions</li> </ul> <p>All of them of a technical and administrative nature, necessary to improve and ensure that the management of these wastes is carried out in a responsible manner, in order to prevent their generation and to promote source reduction. It must guarantee, as well, that they are environmentally safe handling.</p>
<b>Prerequisites</b>	Previous identification of activities and facilities that generate hazardous waste. Depending on national regulations.
<b>Involved groups</b>	Students, Academic staff, Administrative staff.
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	Costs of private waste collection or management Costs of waste management training for staff and students
<b>Resources Needed</b>	Staff in charge of hazardous waste management Packaging and containers for waste disposal Secure waste storage facilities
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Number of types of different hazardous wastes</li> <li>2. Reduction in the amount of hazardous wastes generated per year</li> <li>3. Reduction in the amount of hazardous wastes generated per person</li> </ol>

1.4.2. Waste Recycling	
<b>Short description</b>	Use of different bins to separate and collect waste that can be recycled, like: <ul style="list-style-type: none"> <li>➤ Plastic bottle</li> <li>➤ Carboard goblet</li> <li>➤ Paper</li> <li>➤ Can</li> <li>➤ Battery</li> <li>➤ Glass</li> </ul>
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, administrative staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Waste collection service costs
<b>Resources Needed</b>	Staff: to introduce the system to all the collaborator (staff and student) The presentation of the recycling process should be introduced during the back-to-school meeting every year
<b>Indicators</b>	Quantity of waste recycled per year (ton)

1.4.3. Single-use Plastic Bottles Reduction	
<b>Short description</b>	With the aim of reducing plastic consumption, this practice includes: <ul style="list-style-type: none"> <li>- Distribution of reusable 28áter bottles;</li> <li>- Drinking 28áter dispensers throughout the campus</li> </ul>
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, Administrative staff
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	Reusable bottle and infrastructure costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Number of reusable 28áter bottles made available to users



## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Recycling, waste management and single use consumables

1.4.4. Waste Sorting	
<b>Short description</b>	Separate collection of waste (for example metal and paper) to recycle it as secondary raw materials.
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, Administrative staff
<b>Time needed for implementation</b>	6-12 months
<b>Costs</b>	Waste collection service costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	User-based number of sorted waste

1.4.5. Reduction/Abolition of single-use consumables	
<b>Short description</b>	Reduce the use of single-use materials such as paper cups, plastics in cafeterias and other items and replace them with multi-use and eco-friendly materials. This could for example be reached by provision of water dispensers in common area locations on campus.
<b>Prerequisites</b>	Materials such as plastics have to be removed from the university cafeterias. Purchasing data.
<b>Involved groups</b>	Students, Academic staff, Financial & Administrative staff, management and local community
<b>Time needed for implementation</b>	3 – 6 months
<b>Costs</b>	Material costs for example for water dispensers Installation costs if applicable
<b>Resources Needed</b>	Human resources Biodegradable and recyclable materials that can be used in the cafeterias
<b>Indicators</b>	Quantity of single-use items purchased to be used in the university in comparison to a baseline year.

1.4.6. Implementation of Strategic Waste Management Plan	
<b>Short description</b>	<p>The university has established and implemented a strategic plan in order to reduce waste and promote recycling and waste separation of waste to different categories (glass, paper, plastic, metal etc.). This also includes establishing initiatives to reuse waste and promote the circular economy. Within the strategic plan, the university must implement several initiatives, such as:</p> <ul style="list-style-type: none"> <li>- Placement of ecopoints in several locations of the institution to promote the separation of waste</li> <li>- Definition of a collection plan for chemical waste and hospital waste produced in the Institution's laboratories</li> <li>- Establishing partnerships for the collection of waste electrical and electronic equipment and used batteries</li> <li>- Implementation of measures to reduce food waste in the institution's canteens and cafeterias</li> <li>- Compost organic waste from cafeterias</li> </ul>
<b>Prerequisites</b>	<p>National regulations for waste management Data collection for tracking the development of waste and recycling</p>
<b>Involved groups</b>	<p>Upper Management, Academic staff, Administrative staff, Students, Building and support staff The entire university staff, students and even the external community would need to be involved Garbage collecting/recycling companies</p>
<b>Time needed for implementation</b>	6 - 18 months
<b>Costs</b>	<p>Costs associated with the acquisition of ecopoints Costs of private waste collection or management Costs of waste management training for staff and students</p>
<b>Resources Needed</b>	<p>Human resources Material resources Infrastructure</p>
<b>Indicators</b>	<p>% of the generated waste sent for recycling (per year) Waste generated per year by the university in comparison to a baseline year</p>

1.4.7. To promote the Circular Economy through purchasing policy	
<b>Short description</b>	<p>Inclusion of circular and/or environmentally friendly criteria in the various purchases and procurement processes that take place in the institution, including purchases from the University's canteens and cafeterias. Circular and/or environmentally friendly criteria, can be related to for example:</p> <ul style="list-style-type: none"> <li>- Product packaging;</li> </ul>

	<ul style="list-style-type: none"> <li>– Availability of goods and/or services;</li> <li>– Transport of goods and/or services;</li> <li>– Certification of products;</li> <li>– Goods and/or services with less environmental impact;</li> <li>– Among others.</li> </ul>
<b>Prerequisites</b>	<p>National and European regulation regarding circular economy policies</p> <p>Training of employees of the Institution's Procurement and Approval Department - Training in Circular Public Procurement</p> <p>Working definition of circular economy</p>
<b>Involved groups</b>	Upper Management, Academic staff, Administrative staff
<b>Time needed for implementation</b>	1 – 12 months
<b>Costs</b>	<p>Cost involved in public purchases made with circular and/or environmentally friendly criteria</p> <p>Cost of training of employees of the Institution's Procurement and Approval Department - Training in Circular Public Procurement</p>
<b>Resources Needed</b>	<p>Human resources</p> <p>Resources related to the type of acquisition to be made</p> <p>Purchasing data</p>
<b>Indicators</b>	<p>Number of purchases made using circularity criteria in the year compared to a baseline year</p> <p>Number of procurement processes/contracts carried out with the introduction of circular and/or environmentally friendly criteria</p>

<b>1.4.8. On-Campus Separate Waste Collection Bins' Installation</b>	
<b>Short description</b>	<p><b>Actions :</b> Installation of triple sorting bins (cardboard, PMC, other) and ashtrays for all university staff. The bins must be distributed evenly across the sites.</p> <p><b>Communication component:</b> A communication campaign should support the importance of waste separation. This could again take the form of a mini video on the benefits of recycling. The installation of TVs that would play this information over and over again could be a way of insisting on it with young people.</p>
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	Waste collection service costs



## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Recycling, waste management and single use consumables

<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	User-based number of sorted waste

<b>1.4.9. Separate Management of electrical and electronic waste</b>	
<b>Short description</b>	The next kind of wastes have to be managed separately: <ul style="list-style-type: none"> <li>- Fluorescent tubes</li> <li>- Computer equipment</li> <li>- Electrical and electronic equipment</li> </ul> There must be a specific treatment for this kind of wastes, according to the specific regulations, aimed to reuse or recycling.
<b>Prerequisites</b>	National regulations
<b>Involved groups</b>	Academic staff and Administrative staff.
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	Costs of private waste collection or management Costs of waste management training for staff, if necessary
<b>Resources Needed</b>	Staff in charge of management Storage facilities
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Percentage of reuse of this equipment</li> <li>2. Reduction in the amount of fluorescent tubes per year</li> </ol>

<b>1.4.10. Implementation of a non-hazards waste management plan</b>	
<b>Short description</b>	<p>The correct management of waste is subject to the law on environmental matters. It indicates the responsibilities of each of the agents involved in this chain, identifies each type of waste and establishes the procedure for developing an adequate waste management plan.</p> <p>The waste management plan is a report that shows the means and conditions under that management will be carried out, depending on the activity to which they belong.</p> <p>The steps required for the development of this plan should be:</p> <ul style="list-style-type: none"> <li>- Identification and quantification of the waste generated.</li> <li>- Knowledge of applicable laws and regulations.</li> <li>- Measures to minimize the waste that can be generated</li> <li>- Setting targets to reduce waste production.</li> <li>- Separation at source and correct storage by type of waste until its removal</li> </ul>





## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Recycling, waste management and single use consumables

	<ul style="list-style-type: none"> <li>- Registration of waste generated and its final destination</li> </ul> <p>This plan should include, at least, a separate management of:</p> <ul style="list-style-type: none"> <li>- Paper and board waste</li> <li>- Plastic waste</li> <li>- Glass waste</li> <li>- Furniture waste</li> </ul>
<b>Prerequisites</b>	National regulations.
<b>Involved groups</b>	Students, Academic staff, Administrative staff.
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	Costs of private waste collection or management Costs of waste management training for staff and students
<b>Resources Needed</b>	Staff in charge of waste management Packaging and containers for waste disposal
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Reduction in the amount of wastes generated per type and year</li> <li>2. Reduction in the amount of wastes generated per type and per person</li> <li>3. Reduction in the amount of purchased paper per year</li> </ol>

<b>1.4.11. Waste recycling systems in the campus</b>	
<b>Short description</b>	Installation of a recycling systems in the campus to reappraise the different kind of wastes generated in the campus
<b>Prerequisites</b>	National regulations
<b>Involved groups</b>	Infrastructure staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Infrastructure costs Human resources or external services costs
<b>Resources Needed</b>	Infrastructure Human resources or external services
<b>Indicators</b>	Number of wastes recycled, in Tons

#### TOPIC 5 - Sustainable food (locally sourced products and offering dietary alternatives with lower environmental impact)

1.5.1. Information of the origin and nutritional information of the food served in Campus	
<b>Short description</b>	All the canteens and cafeterias of the campus will inform on the origin and nutritional facts of the food served. These information can be offered in posters, digital panels, blackboards, brochures, etc. They will be helped by nutritionists, that can be internal or external staff.
<b>Prerequisites</b>	National regulations. Agreements with canteens.
<b>Involved groups</b>	Canteens, internal or external nutritionists
<b>Time needed for implementation</b>	1 – 20 months
<b>Costs</b>	Costs for external services or human resources
<b>Resources Needed</b>	Brochures, posters, digital panels, blackboards
<b>Indicators</b>	Quantity of food served with information on nutritional facts and origin

1.5.2. Information on sustainable and healthy food in the welcoming days of new students	
<b>Short description</b>	Achieving a healthy and sustainable food is an urgent matter. University will inform to new students about the menus and diets offered in the campus, which will have low environmental impacts. This information can be given in the welcoming days organised by the university. Menus and diets served in the university will be based on a flexible dietary pattern containing local vegetables, seasonal fruits, whole grains, legumes and unsaturated oils; Moderate seafood and poultry and a low quantity of red meat, avoiding processed meat, added sugar, refined grains, etc.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Administrative staff
<b>Time needed for implementation</b>	1 – 12 months
<b>Costs</b>	Dissemination material
<b>Resources Needed</b>	Brochures
<b>Indicators</b>	Number of students informed per year



1.5.3. Conferences about sustainable nutrition	
<b>Short description</b>	University will organise several conferences during the year in which the students and the university's staff will be informed on the importance of sustainable and healthy nutrition Internal or external experts related to this topic will lecture these conferences.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Students, academic and non-academic staff
<b>Time needed for implementation</b>	1 – 12 months
<b>Costs</b>	Dissemination material
<b>Resources Needed</b>	Conferences room
<b>Indicators</b>	Number of people attending the conferences

1.5.4. Development of organic and community gardens	
<b>Short description</b>	Development of organic and community gardens on University Campuses which involve the academic community in its management and production of organic vegetables. The vegetables and legumes produced could be donated to the academic community and social solidarity institutions or used in the cafeterias. If the campus does not have land for gardening, other solutions for on-campus food production are encouraged. The students could be the ones taking care of the gardens, and/or the whole university community.
<b>Prerequisites</b>	Land area or facilities to grow food such as rooftop area, vertical farm etc.
<b>Involved groups</b>	University community and external community.
<b>Time needed for implementation</b>	3 - 18 months
<b>Costs</b>	Costs associated with land preparation for organic and community gardens or installment of facilities Costs associated with the crops that will be produced in the gardens Installation cost (if applicable)
<b>Resources Needed</b>	Human resources University community Tractors (optional) Agricultural hand tools Vegetables / seeds Gardening material
<b>Indicators</b>	Area (square meters) of organic gardens created at the University Number of workers and students involved in the project





## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Sustainable food

1.5.5. The use of local and seasonal products in cafeterias	
<b>Short description</b>	Use local and seasonal products for the preparation of meals in the cafeterias and canteens. Facilitate the purchase of local and small business products by selling them in the university cafeterias.
<b>Prerequisites</b>	Agreements and partnerships with local producers. Knowledge of cafeteria staff on seasonal products Purchasing data
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community, management, financial staff, support staff, cafeteria workers and local producers
<b>Time needed for implementation</b>	1 – 12 months
<b>Costs</b>	Difference in cost between local and other/imported products
<b>Resources Needed</b>	Infrastructures to acquire the local products Human resources
<b>Indicators</b>	Investment relation in local and seasonal products compared to imported products per year compared to a baseline year

1.5.6. To promote healthy and eco-friendly cafeterias	
<b>Short description</b>	University cafeterias should offer food that contributes to a healthy and balanced diet, and that is produced with a lower environmental impact or through eco-friendly practices. This could include offering organic vegetables, fruits, and healthy snacks. Vegetarian or vegan options on the menu should be promoted.
<b>Prerequisites</b>	Knowledge of staff who purchase products for the cafeterias on eco-friendly and healthy products. National regulation on healthy food. Purchasing data
<b>Involved groups</b>	Students, Academic staff, Administrative staff, kitchen staff, local suppliers
<b>Time needed for implementation</b>	1 – 12 months
<b>Costs</b>	Difference in cost between eco-friendly and healthy products and other products
<b>Resources Needed</b>	Human resources Food (eco-friendly and healthy) Partnerships with local and/or eco-friendly producers
<b>Indicators</b>	Number of vegetarian/vegan options on the university's cafeteria menu per week. Investment relation in healthy and eco-friendly products compared to other products per year compared to a baseline year.



1.5.7. University Canteens Vegetarian Food Offer	
<b>Short description</b>	Always have the vegetarian alternative available in university canteens
<b>Prerequisites</b>	Existing Canteen Facilities
<b>Involved groups</b>	Students, Academic staff, Administrative staff
<b>Time needed for implementation</b>	6-12 months
<b>Costs</b>	Food Delivery costs
<b>Resources Needed</b>	Staff Materials
<b>Indicators</b>	Number of vegetarian/vegan alternatives compared to the total number of dishes on the canteen menu.

1.5.8. Sustainable food using a vending machine	
<b>Short description</b>	Implementation of vending machines that deliver food from organic farming in short circuit and seasonal. Moreover, the food is packed in glass jar that is re-used after cleaning and sterilisation
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, administrative staff
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	Service costs
<b>Resources Needed</b>	Staff: to found different supplier Infrastructure: place to store the vending machine
<b>Indicators</b>	Volume of sales per month (kg)

1.5.9. Delivered Sustainable Food (organic fruits and vegetables)	
<b>Short description</b>	The University becomes a take-away point for the organic fruits and vegetables.
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, administrative staff
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	Staff costs





## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Sustainable food

<b>Resources Needed</b>	Staff and/or students: to collect fruits and vegetables and run a pick-up stand every week
<b>Indicators</b>	Number of customers per year

#### 1.5.10. Sustainable food delivery and consumption at the students' canteen or cafeteria

<b>Short description</b>	<p>The standard is directed to the institutions support for a sustainable food system.</p> <p>Institutions can be a role model in encouraging sustainable consumption of organic products, plant-based diet and environmentally friendly and humane farming methods.</p> <p>Universities can require information from their distributors related to the production methods of the food and on that basis to decrease environmental impacts and support fair and resilient food system.</p>
<b>Prerequisites</b>	National regulations or other requirements. Agreements with canteens.
<b>Involved groups</b>	Managements staff, Administrative staff
<b>Time needed for implementation</b>	1 – 20 months
<b>Costs</b>	Extra costs for food
<b>Resources Needed</b>	Non applicable
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Percent of locally produced food in total food delivery</li> <li>• Relative share of organic food in the menu</li> <li>• Relative share of the fruits and vegetables in the menu.</li> <li>• Relative share of plant-based consumption</li> </ul>

**TOPIC 6 - Green travel and mobility (low-emissions means of transport for the main part of the travel, such as bus, train or car-pooling)**

<b>1.6.1. Strategy for Sustainable models of transports</b>	
<b>Short description</b>	The standard monitors the institution movement towards sustainable transport system. The number of hybrid and electronic vehicles, use of alternative sustainable models of transport can help reduce the local air pollution, gas emissions and traffic. In addition, programs and initiatives can encourage implementation of green mobility.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Management staff; Academic staff, students, none academic staff, community
<b>Time needed for implementation</b>	1 – 12 months
<b>Costs</b>	Data collection analysis
<b>Resources Needed</b>	Human resources
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Number of hybrid vehicles</li> <li>• Number of electronic vehicles</li> <li>• Bicycle sharing program</li> <li>• Car sharing program</li> <li>• Paid parking for students and preferential parking for fuel efficient vehicles</li> <li>• Campus infrastructure suitable for bicycles and pedestrians</li> </ul>

<b>1.6.2. Sustainable Mobility Grants</b>	
<b>Short description</b>	Through the bus and train ticket conventions for students, administrative and technical staff enhancing the public transports use. Promote the use of bicycles.
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, Administrative staff
<b>Time needed for implementation</b>	Yearly revision
<b>Costs</b>	University-Incentive funding system
<b>Resources Needed</b>	Staff
<b>Indicators</b>	User-based number of grants

1.6.3. The use of public transport and soft mobility	
<b>Short description</b>	<p>Have a system or options for public transport to the university campus and within the campus. Promote the use of public transport through incentives (such as subsidizing bus cards for students and staff).</p> <p>Provide infrastructure that promotes soft mobility, such as parking area for bicycles and scooters. This can for example be achieved by providing a bicycle renting system to staff and students.</p> <p>Establish partnerships with the local public transport companies and municipalities.</p>
<b>Prerequisites</b>	Space for infrastructure promoting soft mobility
<b>Involved groups</b>	The entire university community and local community
<b>Time needed for implementation</b>	6 – 36 months
<b>Costs</b>	<p>Costs for the implementation and installation</p> <p>Costs for the incentives</p> <p>Maintenance cost</p>
<b>Resources Needed</b>	<p>Human resources</p> <p>Materials for the initiatives</p> <p>Infrastructures: good public transport system</p> <p>Data collection opportunities to measure progress</p>
<b>Indicators</b>	<p>Number of users (bicycle, public transport, walking etc.) of soft mobility options compared to a baseline year</p> <p>Number of times that people use soft mobility options per week</p>

1.6.4. To promote the use of public transport and soft mobility	
<b>Short description</b>	Develop an awareness campaign to promote soft mobility and use of public transport. Definition of an awareness/information strategy to promote the use of public transport and soft mobility among the University's academic community
<b>Prerequisites</b>	Not Applicable
<b>Involved groups</b>	Upper Management, Administrative staff, marketing staff or professionals, communication professionals
<b>Time needed for implementation</b>	6 - 18 months
<b>Costs</b>	<p>Costs associated with designing the campaign</p> <p>Material costs related to the campaign</p>
<b>Resources Needed</b>	<p>Material resources</p> <p>Human resources</p>



## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Green travel and mobility

<b>Indicators</b>	Number of awareness-raising actions and/or events related to the promotion of the use of public transport and soft mobility
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#### 1.6.5. Installation of electric chargers for vehicle charging on university premises

<b>Short description</b>	Development of a plan for the installation of electric chargers for vehicles in the various facilities of the University in order to promote a more sustainable mobility among the internal and external community of the Institution. It is possible to interconnect the University chargers to the national network of electric chargers so that they can be used as a public charging station by the University's external community.
<b>Prerequisites</b>	Area (for example parking spaces). Electricity available
<b>Involved groups</b>	Entire university community
<b>Time needed for implementation</b>	6 - 24 months
<b>Costs</b>	Cost associated with the purchase and installation of the electric chargers Cost associated with maintenance operations that need to be performed on the chargers
<b>Resources Needed</b>	Electric chargers and space to put them Human resources
<b>Indicators</b>	Number of electric chargers installed Number of users of the electric chargers (per year) Amount of energy consumed in the electric chargers (per year)

#### 1.6.6. On-Campus Green Mobility Implementation

<b>Short description</b>	The aim of the standard is to enhance green mobility within university campus and surroundings. The necessary infrastructure includes: <ul style="list-style-type: none"> <li>- Bike/scooters paths linking all university buildings (a planned network) and connection to existing city bike infrastructure</li> <li>- Collision-free entrances</li> <li>- Bike/scooter racks, parking and CCTV</li> <li>- Bike/scooter rental system (i.e. use of commercial company specialised in renting bikes/scooters)</li> </ul>
<b>Prerequisites</b>	Applying of the standard / practice requires the necessary space for realisation of infrastructure.
<b>Involved groups</b>	Students, Academic staff, Administrative staff, optionally local community



U-GREEN Guidelines for Education & Training Institutions  
 AREA 1. Infrastructure and Resources.  
 Green travel and mobility

<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Costs related to building infrastructure and service
<b>Resources Needed</b>	The standard can be realised by a commercial company and in that case no additional staff, materials are not required at the initial phase.
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Number of users per semester</li> <li>• Number of new bicycles paths kilometres</li> <li>• Number of collision-free entrances</li> <li>• Number of parking lots for bikes and scooters</li> </ul>

**1.6.7. Promotion plans to use green transports.**

<b>Short description</b>	Development of promotion plans to use green transports on the trips abroad the university: <ul style="list-style-type: none"> <li>- Attendance to conferences</li> <li>- Research trips</li> <li>- Management trips</li> <li>- Research stays</li> <li>- Teaching stays</li> <li>- Other</li> </ul>
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Administrative staff
<b>Time needed for implementation</b>	1 years
<b>Costs</b>	None
<b>Resources Needed</b>	Administrative Staff
<b>Indicators</b>	Number of promotion plans designed

**1.6.8. Agreements with public transports Administrations to improve the public transport system**

<b>Short description</b>	To increase the use of public transport (bus), in order to reduce commutes in private vehicles. It can be necessary to increase the number of buses or other kind of public transport.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Administrative staff
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	No extra costs for the institution





# U-GREEN Guidelines for Education & Training Institutions

## AREA 1. Infrastructure and Resources.

### Green travel and mobility

<b>Resources Needed</b>	Non applicable
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Number of people using public transport on a daily basis for commuting (students and staff).</li> <li>2. Number and volume of subsidies granted for the purchase of transport passes.</li> </ol>



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**TOPIC 7 - Preventing pollution**

<b>1.7.1. Elimination of fuel and combustion energy systems strategies</b>	
<b>Short description</b>	Energy consumption of non-renewable energy is one of the main causes of CO2 emissions. Efficient and responsible management of this resource helps to reduce the environmental impact and economic cost.
<b>Prerequisites</b>	Alternative energy sources are available
<b>Involved groups</b>	Administrative staff.
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	External services costs
<b>Resources Needed</b>	Human resources
<b>Indicators</b>	1.- Percentage reduction of energy consumption (electricity and gas)

<b>1.7.2. Collection of hazardous waste</b>	
<b>Short description</b>	Waste collection is important, especially concerning toxic waste from laboratories and healthcare related fields, or other operations that use chemicals.
<b>Prerequisites</b>	Law regulations Facilities to collect and manage the hazardous waste Ability to recycle the hazardous waste or contract with recycling companies to dispose of them Training for staff and students on how to dispose of and handle toxic waste
<b>Involved groups</b>	The entire university community
<b>Time needed for implementation</b>	3 – 12 months
<b>Costs</b>	Costs for disposal of waste Costs for collection of waste Costs for training staff
<b>Resources Needed</b>	Human resources Infrastructures for waste collection Partnership with recycling companies Purchasing data
<b>Indicators</b>	Estimation of hazardous waste recycling in comparison to purchased chemicals Establishment of hazardous waste collection points Training sessions conducted with staff

1.7.3. "Carbon Footprint" Computation	
<b>Short description</b>	CFP: is the amount of greenhouse gases emitted. To assess the environmental impact of University activities and propose plans to reduce and mitigate emissions.
<b>Prerequisites</b>	Previous data collection of energy consumption and mobility trends
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-3 year-based computation
<b>Costs</b>	Human resources
<b>Resources Needed</b>	Staff
<b>Indicators</b>	<ul style="list-style-type: none"> <li>User-based CO2 equivalent</li> <li>CO2 equivalent per building's sq meter</li> </ul>

1.7.4. Bee hives, Insect hotels and Green spaces Installation	
<b>Short description</b>	To install bee hives, insect hotels in order to help the conservation of biodiversity offered by organic gardens, to help in pollinating the plants, to protect insects and control insect pest.
<b>Prerequisites</b>	Green spaces
<b>Involved groups</b>	Technical staff Beekeepers
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	Material costs Staff costs
<b>Resources Needed</b>	Staff: Technical staff + Beekeeper Materials: Insect Hotel + Bee Hives
<b>Indicators</b>	Number of Insect hotels Number of Bee hives Green spaces per sq meters

1.7.5. Use of biofuel in boilers	
<b>Short description</b>	<p>The advantages that biofuels present with respect to other conventional fuels, such as oil or coal, are numerous. In the first place, they represent a renewable energy source, whose raw material is inexhaustible. Biofuels are also less polluting. By using organic waste, they are able to synthesize the carbon dioxide they generate, thus minimizing carbon and sulfur emissions. On the other hand, they are efficient and highly profitable energy sources.</p> <p>Pruning and garden cleaning waste may be used as biofuel for heat and hot water boilers. Other Kind of biofuel that may be used are, for example:</p> <ul style="list-style-type: none"> <li>- Biodiesel</li> <li>- Bio alcohol</li> <li>- Biogas</li> </ul>
<b>Prerequisites</b>	Possible technical requirements
<b>Involved groups</b>	Technical staff
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	Costs of possible technical adaptations
<b>Resources Needed</b>	Technical Staff Biofuel
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Percentage of boilers using biofuel</li> <li>2. Decrease of non-biofuel consumption per year</li> </ol>

1.7.6. Limitation of parking car spaces	
<b>Short description</b>	Create reserved parking spaces for car sharing and reduce the number of spaces in the most accessible car parks to encourage the use of public transport.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Administrative staff.
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	None
<b>Resources Needed</b>	Space planning Human resources or external services
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Percentage of parking spaces reserved for car sharing.</li> <li>2. Number of parking spaces</li> </ol>



U-GREEN Guidelines for Education & Training Institutions  
AREA 1. Infrastructure and Resources.  
Green areas and maintaining biodiversity

TOPIC 8 - Green areas and maintaining biodiversity

1.8.1. Organic Gardens and Vegetable Roofs Implementation	
<b>Short description</b>	Revegetation of a maximum of space, roofs in order to contribute to the reduction of CO2 and reduces fine particles in the air, help drain water, help the biodiversity, improves thermal protection and acoustic insulation.
<b>Prerequisites</b>	Roofs must be able to support the weight
<b>Involved groups</b>	Technical staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Roof diagnostic costs Roof repair costs Raw material costs Installation and labor costs
<b>Resources Needed</b>	Staff: Technical staff Materials: Organic carpet, vegetables, potting soil, Infrastructures: Higher Education Establishment
<b>Indicators</b>	Number of Green Roof Sq meters

1.8.2. To develop green spaces to conserve local biodiversity	
<b>Short description</b>	Improve and develop green areas on campus with the intention to preserve local flora and fauna. Education and training activities can be offered to educate the students and the university staff about biodiversity related to this initiative.
<b>Prerequisites</b>	Area on the university campus
<b>Involved groups</b>	Entire university community
<b>Time needed for implementation</b>	3 – 18 months
<b>Costs</b>	Cost of purchases for plants and flowers. Development/Installation cost (if applicable) Material cost (for example irrigation system) Maintenance costs for the gardens.
<b>Resources Needed</b>	Human resources Materials for gardening Infrastructure
<b>Indicators</b>	Area measured in square meters that is dedicated to green spaces for biodiversity conservation

## U-GREEN Guidelines for Education & Training Institutions

### AREA 1. Infrastructure and Resources.

#### Green areas and maintaining biodiversity

#### 1.8.3. Student-Managed Organic Gardens

<b>Short description</b>	Creation of an organic gardens on the campus managed by students.
<b>Prerequisites</b>	Green areas on campuses
<b>Involved groups</b>	Students
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Material cost
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Number of varieties grown Biodiversity index (Shannon, Simpson and Hill)

#### 1.8.4. Sustainable criteria in the contracts signed with gardens 'maintenance service/companies

<b>Short description</b>	In order for these areas to be as sustainable as possible, it is necessary that their management and maintenance apply criteria to protect the diversity of plant and animal species that inhabit them.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Administrative staff.
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	No extra costs
<b>Resources Needed</b>	Suppliers with training in sustainable gardens
<b>Indicators</b>	1. Number of sustainability criteria included in contracts

#### 1.8.5. Celebrate "Sustainability days" inside and outside the campus

<b>Short description</b>	Carrying out different activities aimed at raising awareness and sensitising the university community to the need to adopt habits and practices that allow energy saving, more responsible consumption, more sustainable mobility and reduce waste generation.
<b>Prerequisites</b>	None





# U-GREEN Guidelines for Education & Training Institutions

## AREA 1. Infrastructure and Resources.

### Green areas and maintaining biodiversity

<b>Involved groups</b>	Staff / students
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	Material costs
<b>Resources Needed</b>	Partnerships with institutions outside the campus
<b>Indicators</b>	1. Number of events per year 2. Number of participants



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## 3.2. AREA 2. Administrative Management, Teaching & Learning

### TOPIC 1 - Digitalisation of Education and Training Institutions (paperless administrative procedures)

<b>2.1.1. Paper free institution</b>	
<b>Short description</b>	<p>Elaboration of a plan to implement digital platforms in the institution in order to reduce the use of paper in the institution's processes.</p> <p>Digitalization. Use of Digital Platforms in Institutions with the aim of:</p> <ul style="list-style-type: none"> <li>– Total dematerialization of administrative procedures and documents circulation;</li> <li>– Total dematerialization of procedures for the recruitment of teachers, non-teaching staff, research fellows and researchers;</li> <li>– Dematerialization of human resource management procedures;</li> <li>– Procedures dematerialization global platform with support for all academic activities of students, teachers and staff.</li> </ul> <p>It involves educating the students and the academic staff about the impact of reducing paper use. The university can be equipped with recycled paper. Paper use can be reduced by encouraging students and teachers to work more digitally, e.g., with their tablets or laptops instead of writing on paper or printing everything out.</p>
<b>Prerequisites</b>	Access to digital platforms
<b>Involved groups</b>	Upper Management, Academic staff, Administrative staff, Financial staff
<b>Time needed for implementation</b>	1-18 months
<b>Costs</b>	Cost associated with the implementation of digital platforms Training for the use of digital platforms
<b>Resources Needed</b>	Digital Platforms Human resources
<b>Indicators</b>	% of paper consumption compared to a baseline year % of colour toner consumption compared to a baseline year

<b>2.1.2. Paperless Transition Acceleration</b>	
<b>Short description</b>	<p>The aim of the standard is to create a paperless university by realisation of following activities:</p> <ul style="list-style-type: none"> <li>- Development of procedures that give the possibility to reduce paper documents and use the electronic version</li> </ul>

## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Digitalisation of Education and Training Institutions

	- Implementation of electronic documentation used in administration, research and teaching (e.g., Usage of e-books and creation an e-thesis system)
<b>Prerequisites</b>	Fully operational Internet access and a wireless system at university (e.g., Eduroam)
<b>Involved groups</b>	Students, Academic staff, Administrative staff
<b>Time needed for implementation</b>	1- 3 years
<b>Costs</b>	Costs of building Internet infrastructure and daily maintenance
<b>Resources Needed</b>	The standard can be realised by a commercial company
<b>Indicators</b>	Number of new e-procedures Share of any e-documents elaborated at the university (e.g., e-theses, e-books, e-materials for students and from students) Paper volume used

<b>2.1.3. Adopt and promote innovative digital teaching practices</b>	
<b>Short description</b>	Develop a training plan to create short courses on environmental sustainability for the internal community (students and workers) and external community through digital tools
<b>Prerequisites</b>	National regulation
<b>Involved groups</b>	Entire university community
<b>Time needed for implementation</b>	1-18 months
<b>Costs</b>	Costs associated with the implementation and development of the digital platform Costs associated with the human resources needed to develop the courses
<b>Resources Needed</b>	Digital Platform Human Resources
<b>Indicators</b>	Number of courses on environmental sustainability developed and delivered through digital platforms % of participants in courses developed through digital platforms (staff, students and external community)



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Digitalisation of Education and Training Institutions

2.1.4. Paper Waste Reduction Strategy (hard and soft)	
<b>Short description</b>	Promote the use of recycled paper and the digitization of procedures and teaching materials
<b>Prerequisites</b>	Fully operational internet access Have an information system for the management of teaching and student secretarial services, Online teaching materials
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	Recycled paper costs Infrastructure costs Training costs
<b>Resources Needed</b>	Staff Materials Infrastructures Digital resources
<b>Indicators</b>	Number of digitized practices Recycled paper volume used /non-recycled paper volume used

2.1.5. Paperless Administration, Teaching and Learning Transition Acceleration	
<b>Short description</b>	The idea would be to reduce unnecessary printing of paper by digitalizing procedures. <b>A. Administrative staff (registration, follow-up and invoicing procedures)</b> <b>B. Teaching staff (online teaching platforms, course e-notes)</b>
<b>Prerequisites</b>	Fully operational internet access
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	2-4 years
<b>Costs</b>	Academic Community Training (Teaching, admin staff and students) costs (mandatory) Staff costs Material costs Infrastructure costs
<b>Resources Needed</b>	Academic Community Staff Materials Infrastructure
<b>Indicators</b>	<u>Administrative staff</u> : number of e-procedures <u>Teaching staff</u> : number of e-courses and materials/paper-based materials



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Digitalisation of Education and Training Institutions

2.1.6. Intranet Educational Platform Implementation	
<b>Short description</b>	Use an intranet platform to provide all the educational documents to students. This platform will be also used by administration to manage student registrations
<b>Prerequisites</b>	Fully operational internet access IT materials
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	IT costs
<b>Resources Needed</b>	Staff Materials
<b>Indicators</b>	Number e-procedures Number of digital educational materials

2.1.7. Digital Library resources and digital teaching materials	
<b>Short description</b>	The standard observes the digitalization and digital resources in the university. Digital libraries can contribute to sustainability by reducing carbon footprints, deforestation, pollution, and the use of natural resources. Higher education libraries along with the responsibility to assist in educational process have a role in the context of social responsibility – achievement of sustainable development by providing e-resources and cloud technologies. Digital teaching materials would cause less environmental impact than printed content.
<b>Prerequisites</b>	Hardware and software
<b>Involved groups</b>	Management staff, Academic staff, Administrative staff, students
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Licenses costs
<b>Resources Needed</b>	Human resources / External services
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Share/ number of digital resources</li> <li>• Share/ number of online teaching materials</li> </ul>



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Digitalisation of Education and Training Institutions

<b>2.1.8. Environmental Management System externally verified</b>	
<b>Short description</b>	<p>An external recognition of adequate environmental management in the Institution is a guarantee of the implementation and maintenance of a minimum number of practices and procedures aimed to the environment protection.</p> <p>Main international recognized certification that may be implemented are:</p> <ul style="list-style-type: none"> <li>- Standard ISO 14001</li> <li>- Eco-Management and Audit Scheme. EMAS.</li> <li>- EU Ecolabel</li> </ul>
<b>Prerequisites</b>	No prerequisites
<b>Involved groups</b>	Academic and Administrative staff.
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	<p>Costs of external assistance (if necessary)</p> <p>Costs of staff training (if necessary)</p> <p>Costs of potential necessary actions during implementation</p> <p>Costs of external certification</p>
<b>Resources Needed</b>	Qualified Staff
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Is there any external certificate?</li> </ol>



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios

#### TOPIC 2 - Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios

<b>2.2.1. Formative actions for teaching staff in order to include Sustainability in the curricula.</b>	
<b>Short description</b>	It is necessary to facilitate the inclusion of the Sustainability in the curricula of the different subjects. This, in turn, requires the development of training actions oriented to this end, delivered by internal and external staff.
<b>Prerequisites</b>	Expertise in the field
<b>Involved groups</b>	Academic staff
<b>Time needed for implementation</b>	1 – 3 years
<b>Costs</b>	Material courses External services (e.g. training courses,...)
<b>Resources Needed</b>	Human resources
<b>Indicators</b>	1.- Percentage of bachelor's and master's degree subjects that include sustainability in the curricula. 2. Number of training actions carried out oriented towards teaching staff

<b>2.2.2. Sustainability courses in the education curricula</b>	
<b>Short description</b>	This standard observes the institutions' sustainability course content across the curriculum. Education is one of the important elements that can transfer knowledge and provide an environment for concepts and main principles of sustainability. Universities that implement these principles in their curriculum prepare students to integrate them into their professional fields. Bachelor's or master's programs and courses in different departments of the university show that institution's approach to green education and help students to develop wider understanding on the topic.
<b>Prerequisites</b>	Expertise in the field
<b>Involved groups</b>	Academic staff, students
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Material courses External services (e.g. training courses,...)
<b>Resources Needed</b>	Human resources



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios

<b>Indicators</b>	<ul style="list-style-type: none"> <li>✓ percentage of sustainability-focused courses in all courses;</li> <li>✓ percentage of departments (or the equivalent) with sustainability course offerings;</li> <li>✓ number of bachelor and master courses that are sustainability focused.</li> </ul> <p>Sustainability-focused courses must have a primary and explicit focus on sustainability. This includes:</p> <ul style="list-style-type: none"> <li>• Foundational courses on sustainability (Introduction to Sustainability, Sustainable Development, Sustainability Science)</li> <li>• Courses that have primary and explicit focus on the application of sustainability within a field (Green Chemistry, Sustainable Agriculture, Sustainable Business)</li> <li>• Courses with focus on a major sustainability challenge (Climate Change Science, Environmental Justice, Eco-economy, Renewable Energy Policy). The focus of such courses might be on providing knowledge and understanding of the problems and/or the tools for solving them</li> </ul> <p>The course title or description does not have to use the term “sustainability” to count as sustainability-focused.</p>
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<b>2.2.3. Green and sustainability principles in HE curricula Transversal Integration</b>	
<b>Short description</b>	Implementation in syllabuses of all courses if they include topics about sustainability
<b>Prerequisites</b>	Course Syllabuses
<b>Involved groups</b>	Academic staff and administrative staff
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	Not applicable
<b>Resources Needed</b>	Content Follow-up by the teaching staff
<b>Indicators</b>	Number of courses with green and sustainability principles/total number of courses





## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios

#### 2.2.4. Impactful Green Practices Campaign

<b>Short description</b>	Organizing an academic gathering with the students and staff to raise awareness about the existing green practices at the institutional level. <ol style="list-style-type: none"> <li>1. Create impact (via shocking or humorous contents) on the public by showing the drifts linked to the non-respect of the environment (visual support, gaming experience, gatherings, events).</li> <li>2. This campaign would be organized and designed by creative student activities.</li> <li>3. Cooperation Vs competition – based format</li> </ol>
<b>Prerequisites</b>	Student council support
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	Cooperation Award-related costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Number of participants

#### 2.2.5. SDG-based Content Courses Offered to All Students

<b>Short description</b>	Inclusion of the reference SDGs in each course: Give the opportunity to students of different degree courses to include teaching on environmental sustainability issues in the curriculum, with a focus on the SDGs
<b>Prerequisites</b>	Sustainability Expert Lecturers
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	SDG Training costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Number of degree courses involved in teaching the SDG/ total university degree courses Number of students enrolled in sustainability courses/total number of students



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios

<b>2.2.6. Sustainability-based Publications Promotion</b>	
<b>Short description</b>	Award-based promotion valuing projects or theses' production on environmentally-related themes.
<b>Prerequisites</b>	Student's university registration
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	Award-related costs Staff costs Promotional costs
<b>Resources Needed</b>	Staff Materials
<b>Indicators</b>	Number of awarded project or theses/overall number of project or theses.

<b>2.2.7. To promote attendance of subjects in the field of sustainability</b>	
<b>Short description</b>	Promote attendance of subjects in the field of sustainability as separate curricular units, with a possible exemption from the registration fee. There can be extracurricular classes that can be attended independently from the degree you are attending at the university. Those extra classes could even be accessible to people from the public who are not university students.
<b>Prerequisites</b>	Creation of subjects and classes in the field of sustainability.
<b>Involved groups</b>	Students, academic staff, external public
<b>Time needed for implementation</b>	6 – 36 months
<b>Costs</b>	Costs of human resources Administrative Costs Material Costs
<b>Resources Needed</b>	Staff for teaching Materials for the implementation of the courses Infrastructures: establishment of the courses
<b>Indicators</b>	Number of subjects in the field of sustainability Number of persons visiting the courses % of participants that are included in university community in proportion of total of participants ( external public + university community)



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

Embedding green and sustainability principles in HE curricula and developing green skills for new labour market scenarios

<b>2.2.8. Review syllabuses and include Green and sustainability principles in HE curricula</b>	
<b>Short description</b>	Independent of the degree or master's, some courses educating about sustainability should be obligatory for every student. New degrees or master courses that investigate in the areas of sustainability, biodiversity, etc. can be launched.
<b>Prerequisites</b>	Teachers and professors in the area of sustainability are necessary to teach the relevant courses. National Regulation
<b>Involved groups</b>	Academic staff (students, teachers)
<b>Time needed for implementation</b>	6 – 36 months
<b>Costs</b>	Costs of human resources Costs of implementation
<b>Resources Needed</b>	Staff: professors and teachers in the area of sustainability
<b>Indicators</b>	The number of courses in the university program related with area of sustainability. % of courses that have something to do with sustainability (can be measured with ECTS points.)

<b>2.2.9. To adopt and promote innovative digital teaching practices.</b>	
<b>Short description</b>	The use of e-learning resources, online libraries, and smart teaching technologies has to be promoted and facilitated. Also, paperwork at university can be facilitated by the use of digital tools and platforms to admit students and hand in the necessary documentation, etc. Various e-learning platforms as well as Smart Teaching Technologies such as Cloud Computing can be used to approach teaching from a more innovative perspective.
<b>Prerequisites</b>	Technical equipment and internet connection on the whole campus.
<b>Involved groups</b>	Students and teachers
<b>Time needed for implementation</b>	3 – 24 months
<b>Costs</b>	Costs for the smart teaching technologies, maybe some fees for the e-learning platforms. Costs of training about new digital practices. Costs of registration fee that has to be paid (if applicable)
<b>Resources Needed</b>	Technical equipment, Wi-Fi-connection, and staff being trained in how to use the digital teaching methods.



**U-GREEN Guidelines for Education & Training Institutions**  
**AREA 2. Administrative Management, Teaching and Learning.**  
 Embedding green and sustainability principles in HE curricula and developing  
 green skills for new labour market scenarios

<b>Indicators</b>	The number of digital teaching practices implemented. % of users of new digital practices Number of online library resources Number of electronic documents available.
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## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Implementing innovative teaching and learning pedagogies

### TOPIC 3 - Implementing innovative teaching and learning pedagogies (prioritising pedagogies that are relevant for Agro, Green Biotech and Life Sciences, but extending to other areas of knowledge)

2.3.1. External practical experts invited as guest lecturers	
<b>Short description</b>	The aim of the standard is to increase the access to practical knowledge by providing <ul style="list-style-type: none"> <li>- interdisciplinary lectures with easy access for all academic community</li> <li>- Seminars and workshops with invited practitioners</li> </ul>
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff
<b>Time needed for implementation</b>	6-month long previous scheduling
<b>Costs</b>	Expert staff costs (if any)
<b>Resources Needed</b>	Staff – co-ordinator of external expert Infrastructures – lecture hall / studio room
<b>Indicators</b>	Number of seminars, lectures and workshops/semester-study period Number of participants/event

2.3.2. Sustainable Engagement Promotion	
<b>Short description</b>	This standard is related to the members of institutions where employees and students participate in trainings or/and other forms of scholarships on sustainability topics. In addition, the standard recognizes the institutions involvement in research and projects in the field of green transition and sustainability. Providing support and programs can encourage students and academics to explore the topic.
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Academic staff, students, researchers
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Training costs Staff costs
<b>Resources Needed</b>	Staff Infrastructures
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Percentage of participating employees and/or students in trainings;</li> <li>• Percentage of research-conducting employees and/or students</li> </ul>



## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Implementing innovative teaching and learning pedagogies

	<ul style="list-style-type: none"> <li>• Total budget for sustainability-orientated research</li> <li>• Percentage of departments/faculties that conduct sustainability –orientated research</li> </ul>
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2.3.3. Transversal Green Contents Teaching	
<b>Short description</b>	Green programme will focus on promoting acquisition of green skills at every level to adopt green and sustainability principles.
<b>Prerequisites</b>	Not applicable
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	Staff costs
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Number of students enrolled in the programme / total number of students Number of teaching and non-teaching staff enrolled in the programme / total number of teaching and non-teaching staff

2.3.4. E-library Implementation	
<b>Short description</b>	Give access to all students and staff to an e-library
<b>Prerequisites</b>	Fully operational internet access Licenses
<b>Involved groups</b>	Students, Academic staff, administrative staff
<b>Time needed for implementation</b>	1 year
<b>Costs</b>	License costs
<b>Resources Needed</b>	IT materials
<b>Indicators</b>	Number of licenses

2.3.5. Creation of innovative teaching groups within teachers of different knowledge areas.	
<b>Short description</b>	Creation of groups and lines of research from different scientific disciplines to develop research projects in the fields of renewable energies, waste, new mobility systems, etc...
<b>Prerequisites</b>	None





## U-GREEN Guidelines for Education & Training Institutions

### AREA 2. Administrative Management, Teaching and Learning.

#### Implementing innovative teaching and learning pedagogies

<b>Involved groups</b>	Academic staff
<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Direct costs for activities implementations
<b>Resources Needed</b>	Human resources Social capital
<b>Indicators</b>	1.- Number of teaching innovation projects created, made up of teachers from different disciplines. 2. Number of curricula developed

#### 2.3.6. Inclusion in the teaching sessions of external persons with experience in sustainability

<b>Short description</b>	In order to facilitate the teaching of the principles of sustainability in the different subjects and modules, it is advisable to include external lecturers, so that they offer a more practice-oriented vision and facilitate the connection with the business and social reality.
<b>Prerequisites</b>	None
<b>Involved groups</b>	Teaching staff and external personnel specialised in sustainability
<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	External costs
<b>Resources Needed</b>	Alliances with entities, companies and professionals willing to collaborate in the training processes.
<b>Indicators</b>	1.- Number of external people participating in the training (in relation to the number of people from the university)



## U-GREEN Guidelines for Education & Training Institutions

### AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

### 3.3. AREA 3. Community Engagement and Awareness

TOPIC 1. Engaging the educational community and reaching out to the wider community for promoting behavioural change (promotion and recognition of voluntary and community work in students' academic results)

<b>3.1.1. Implementation of environmental education activities</b>	
<b>Short description</b>	Implementation of environmental education activities involving the entire community (external and internal). Creation and dissemination of awareness-raising materials (promotional videos, flyers) on the Institutions' social networks about several themes of environmental sustainability - water, waste, energy, sustainable mobility, healthy eating and outdoor spaces - having in mind the promotion of more environmental friendly behaviour among the internal (students and employees) and external community.
<b>Prerequisites</b>	Trained staff that can provide and develop the activities Connection to the local community
<b>Involved groups</b>	Entire external and internal university community
<b>Time needed for implementation</b>	3 - 12 months
<b>Costs</b>	Cost of training staff Cost of development of activities Cost of marketing material
<b>Resources Needed</b>	Human resources
<b>Indicators</b>	Number of people participating in environmental education activities Number of activities developed through the initiative

<b>3.1.2. To involve students in the practical resolution of sustainability problems existing at the University</b>	
<b>Short description</b>	Measures to solve sustainability problems should not only be implemented by the university but students should be included in the resolutions of those. This can be achieved by forming student bodies, establishing committees, asking students in which areas they see some problems, and which measures they propose to solve those problems. Probably the students will come up with some innovative ideas to tackle existing sustainability problems at the university and get motivated to help solve them.
<b>Prerequisites</b>	None







## U-GREEN Guidelines for Education & Training Institutions

### AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

<b>Involved groups</b>	Students, academic staff, administrative staff, management staff
<b>Time needed for implementation</b>	1 – 6 months
<b>Costs</b>	Not applicable
<b>Resources Needed</b>	Human resources
<b>Indicators</b>	The number of students involved in the initiative

<b>3.1.3. Development of a communication plan on green initiatives carried out by the university</b>	
<b>Short description</b>	To communicate the actions to a wider audience also outside the university, dissemination should take place through social networks, the website of the university, press releases and etc. Additionally, there can be some events that present the initiatives to a wider audience and the local community. This could promote awareness raising.
<b>Prerequisites</b>	Website and social media channels must be created.
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1 – 6 months
<b>Costs</b>	Marketing costs Cost for possible events
<b>Resources Needed</b>	Social media channels and websites Human resources
<b>Indicators</b>	The number of events that take place The number of people reached via the dissemination on social media Number of visits to the website

<b>3.1.4. Sustainable food community</b>	
<b>Short description</b>	The standard aim to create a sustainable food community with the following actions/steps: <ul style="list-style-type: none"> <li>- Identification of potential food resources produced by university</li> <li>- Elaboration of a sustainable distribution system of university produced raw materials and food to avoid waste (i.e. fruits from university orchards or farms)</li> <li>- Commercialisation of university produced raw materials and/or food</li> <li>- Education related to sustainable food community</li> </ul>





## U-GREEN Guidelines for Education & Training Institutions

### AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

<b>Prerequisites</b>	Existing food resources, e.g. an orchard or vegetables plantations. National regulations.
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	Time for organisation of distribution (ca. 1 year) Time for production of food resources (e.g. vegetation period)
<b>Costs</b>	Costs related to organisation of distribution and food production
<b>Resources Needed</b>	Staff External services
<b>Indicators</b>	Number of community members Amount of reduced wasted food

#### 3.1.5. University knowledge experts' dissemination

<b>Short description</b>	The aim of the standard is to increase the access to expert knowledge by providing <ul style="list-style-type: none"> <li>- interdisciplinary lectures, consultations with easy access for local and academic community</li> <li>- Seminars and workshops with university experts</li> </ul>
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Students, Academic staff, Administrative staffs, local community
<b>Time needed for implementation</b>	1 – 20 month
<b>Costs</b>	none
<b>Resources Needed</b>	Staff – existing university experts Infrastructures – lecture hall / workshop room
<b>Indicators</b>	Number of seminars, lectures and workshops Number of participants

#### 3.1.6. Sustainability awareness events

<b>Short description</b>	Participate as a university, in the dissemination of sustainability issues in the various events organized for the municipality or by private entities that are addressed to environmental issues. Develop specific events to raise local, national and international public awareness on the effects of climate change Examples: festival asvis, Climbing for Climate
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## U-GREEN Guidelines for Education & Training Institutions

### AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

<b>Prerequisites</b>	- Group of people organizing events. - Researchers, teachers, who can participate in events promoted by organization outside the university.
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	Extra costs for activities
<b>Resources Needed</b>	Staff Materials Infrastructures
<b>Indicators</b>	Number of events / year Number of person/events

<b>3.1.7. The Institutional Green Prize</b>	
<b>Short description</b>	On a yearly basis, the university college would award a member of the different communities belonging to the institution (students, academic, administrative staff, manual workers) for their best green practices or projects carried out that year.
<b>Prerequisites</b>	To consult all communities so as to get informed of any green action or practice carried out within the institution (related to any of the areas: 1 or 2).
<b>Involved groups</b>	Students, Academic staff, administrative staff, manual workers
<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	<ul style="list-style-type: none"> <li>• The award itself (it could be the Title of Climate Change Ambassador giving access to trainings and external missions &gt; check EU fundraising options)</li> <li>• Catering for the Yearly Award Ceremony</li> <li>• Internal communication department's contribution (promotion and dissemination phases)</li> </ul>
<b>Resources Needed</b>	<p><b>Staff:</b> The Yearly Award Ceremony (organizing committee), student volunteers, communication department staff (pictures, installation of visual banners, conference room booking and setting), speakers, authorities' representatives, guests (from all communities)</p> <p><b>Materials:</b> catering, audio-visual equipment, invitations (save the date &gt; digital support), mailing lists of all communities' members, promotional materials.</p> <p><b>Infrastructures:</b> a conference room, a reception hall</p>



## U-GREEN Guidelines for Education & Training Institutions

### AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Number of prizes awarded year 1, year 2, year 3, ect.</li> <li>• The representativeness of each and every community awarded (students, practical training teaching staff, lecturers, admin staff, manual workers)</li> <li>• The impact of awarded communities over the years</li> <li>• Internal audits measuring “green awareness raising” among communities thanks to the Institutional Green Prize Ceremony + promotion + dissemination.</li> </ul>
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<b>3.1.8. Organization of the climate campaign</b>	
<b>Short description</b>	The climate campaign would be aimed to aware about climate change. It's a collaborative serious game that explain the cause of climate change and lead to the creation of a campaign with different ideas and actions that could lead to a decrease of carbon footprint
<b>Prerequisites</b>	None
<b>Involved groups</b>	Students and/or Academic staff and/or administrative staff
<b>Time needed for implementation</b>	None1-12 months
<b>Costs</b>	Between 2000-4000€ for 100 to 200 participants
<b>Resources Needed</b>	Staff costs Activities costs
<b>Indicators</b>	Satisfaction survey of the participant Feedback of organiser Number of participants

<b>3.1.9. Organization and participation of cultural and open community events and activities, related to sustainability, bio-economy, green transition and behavioural change</b>	
<b>Short description</b>	The standard monitors campaigns and initiatives that a directed at promoting behavioral change. Campaigns engage the campus community around green transition issues and can help raise student and employee awareness on the topic. On the other hand, these initiatives can stimulate the local community to try sustainable practices and lifestyles. In addition to the initiatives, special programs, materials and publications can contribute to learning about sustainability and green economy.
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Academic staff, students, none academic staff, community





## U-GREEN Guidelines for Education & Training Institutions

### AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

<b>Time needed for implementation</b>	1-2 years
<b>Costs</b>	Direct costs (materials, external services, ...)
<b>Resources Needed</b>	Human resources. External services
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Number of Institution sustainability-related initiatives or campaigns directed to students</li> <li>• Number of institution's sustainability-related initiatives or campaigns directed to local and/or regional community</li> <li>• Active students groups focused on sustainability</li> <li>• Number of cultural, art events, performances, workshops focused on sustainability</li> <li>• Number of initiatives and competitions which audience can learn sustainability life skills</li> <li>• Number of outdoors initiatives that promote sustainability (learning through hiking, sports and other physical activities)</li> </ul>

#### 3.1.10. Inclusion of the Sustainability in the University webpage

<b>Short description</b>	<p>The standard assesses university efforts to encourage and stimulate public engagement though providing information on the topic. The information related to sustainable development and university role in achieving sustainable results is essential for broader commitment of the community.</p> <p>University website design and the external links related to green projects and institutions involvement on the topic can stimulate knowledge transfer and help institutions to promote initiatives, campaigns, projects and trainings related to green growth.</p>
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Management staff, Administrative staff, Non- Academic staff
<b>Time needed for implementation</b>	1-12 months
<b>Costs</b>	Page development costs
<b>Resources Needed</b>	Human resources
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Sustainability pages</li> <li>• Number of links to online resources on the topic</li> <li>• Information related to project, trainings, initiatives and campaigns</li> </ul>



## U-GREEN Guidelines for Education & Training Institutions

### AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

<b>3.1.11. Agreements with local or regional administrations for the organization of joint activities.</b>	
<b>Short description</b>	<p>Organization of joint activities between the Institution and local/regional administration in order to improve the promotion of the activities and reach a larger number of participants, not only university participants.</p> <p>Organized activities related to sustainability may be:</p> <ul style="list-style-type: none"> <li>- Cleaning of beaches and mountains</li> <li>- Public sustainability exhibitions</li> <li>- Plant and garden care</li> <li>- Guided hike in nature</li> <li>- Bird watching</li> <li>- Other sustainability activities</li> </ul>
<b>Prerequisites</b>	No prerequisites
<b>Involved groups</b>	Students, Academic staff, Administrative staff, local community
<b>Time needed for implementation</b>	1-20 months
<b>Costs</b>	Costs derived from any of the promoted activities (staff costs, material costs, incentives for participants...)
<b>Resources Needed</b>	<p>Staff</p> <p>Materials needed for any activity</p> <p>Infrastructures needed for any activity</p>
<b>Indicators</b>	<ol style="list-style-type: none"> <li>1. Number of joint activities carried out per year</li> <li>2. Average number of participants in the activities</li> </ol>

<b>3.1.12. Development of a Sustainable passport (participation in local voluntary activities). Development of extracurricular modules about sustainability for students with ECTS credits.</b>	
<b>Short description</b>	<p>Offering transversal training in sustainability in its triple economic, social and environmental dimension, with the aim of providing students with training in sustainable development that they can apply throughout their working and personal lives. Recognition of voluntary activities carried out by students that contribute to the sustainability of the environment, by means of a sustainability passport, which can be recognised in ECTS.</p>
<b>Prerequisites</b>	Non applicable
<b>Involved groups</b>	Teaching Staff, Administrative Staff and Students



# U-GREEN Guidelines for Education & Training Institutions

## AREA 3. Community Engagement and Awareness.

Engaging the educational community and reaching out the wider community for promoting behavioural change

<b>Time needed for implementation</b>	1-3 years
<b>Costs</b>	Material costs. External costs.
<b>Resources Needed</b>	Human resources. External services.
<b>Indicators</b>	1.- Number of extracurricular modules developed 2.- Average number of students enrolled in the extracurricular modules. 3.- Number of sustainability passports issued



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