



UNIVERSITAS  
INDONESIA

Veritas, Probitas, Iustitia | Est. 1849



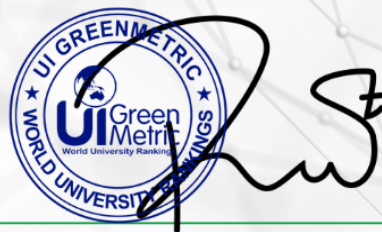
# Certificate

This certificate is awarded to

**Universidad De Antioquia**

**as The 80<sup>th</sup> World's Most Sustainable University  
in 2023 UI GreenMetric World University Rankings**

Jakarta, 5 December 2023



**Prof. Dr. Ir. Riri Fitri Sari, M.M., M.Sc.**  
Chairperson of UI GreenMetric



**UNIVERSITAS  
INDONESIA**

*Veritas, Probitas, Justitia | Est. 1849*



# **FACT FILE 2023**

# **UI GREENMETRIC**

# **WORLD UNIVERSITY**

# **RANKINGS**

**UNIVERSIDAD DE ANTIOQUIA**

**Colombia**

**Calle 70 52-27 P.O BOX 1226 Calle 67 53-108**

# UNIVERSITY PROFILE

**Name** : Universidad De Antioquia

**Established** : 1970

**Country** : Colombia

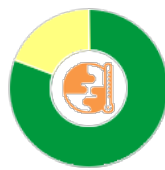
**Tree Rating** : N/A



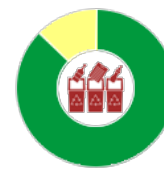
## 1. VERIFIED DATA



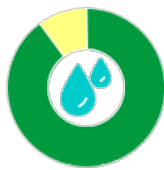
**Setting & Infrastructure (SI)**  
Point: 1175 of max. 1500  
(78.33 %)



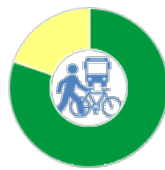
**Energy & Climate Change (EC)**  
Point: 1700 of max. 2100  
(80.95 %)



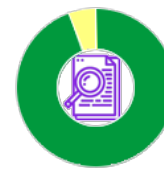
**Waste (WS)**  
Point: 1575 of max. 1800  
(87.50 %)



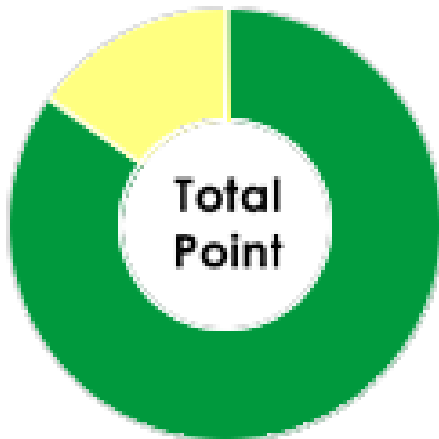
**Water (WR)**  
Point: 900 of max. 1000  
(90.00 %)



**Transportation (TR)**  
Point: 1450 of max. 1800  
(80.56 %)



**Education & Research (ED)**  
Point: 1700 of max. 1800  
(94.44 %)



Point: 8500 of max. 10000 (85.00 %)

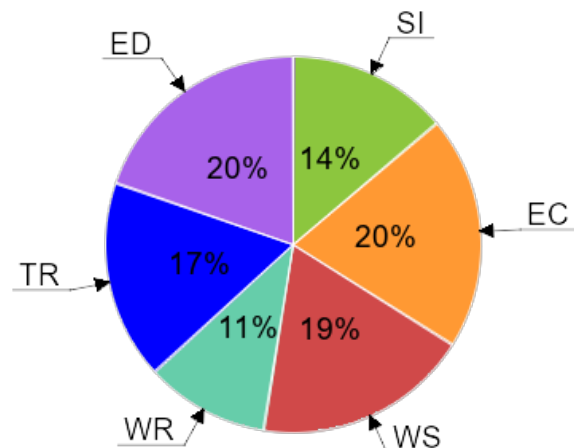


Figure 1.1 Overall Score Diagram

## 2. RESULTS SUMMARY



## 3. WORLD RANKINGS HISTORY

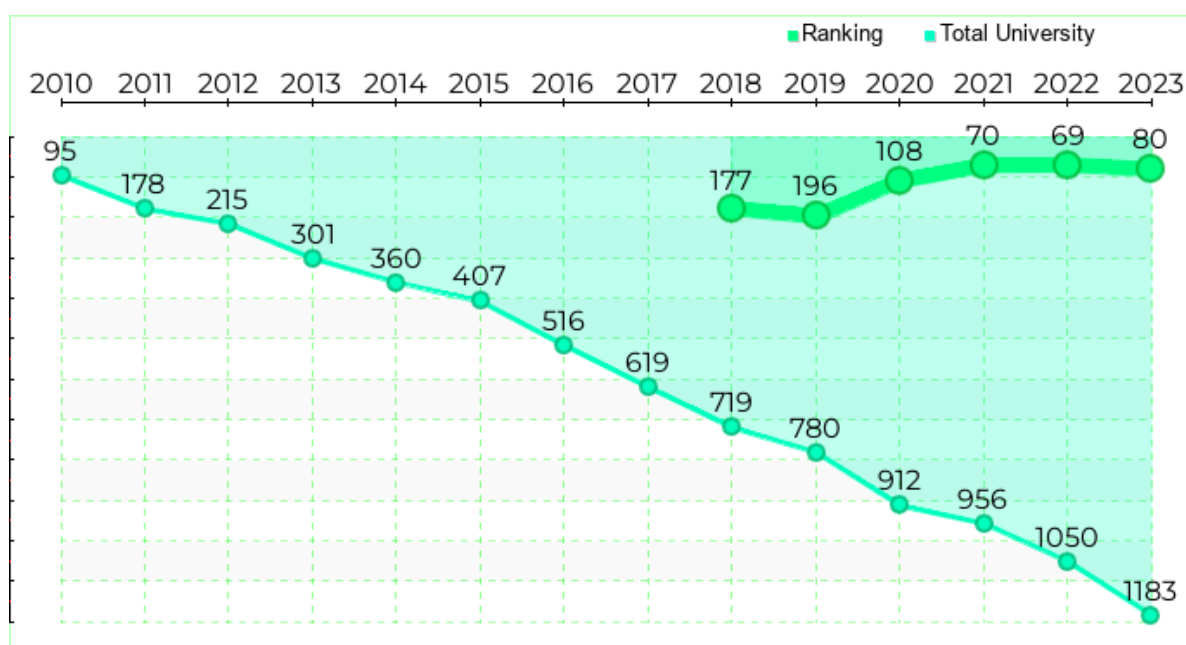


Figure 3.1 World Rankings History Diagram

## 4. RANKING IN COLOMBIA



## 5. RESULTS DETAIL

### Setting and Infrastructure

The campus setting and infrastructure information provides the basic information about the university's policy on green environment. The indicators also show whether the campus deserves to be called a Green University. The aim is to encourage the participating universities to provide more spaces for greenery and safeguard the environment



Indicator		Point
SI.1	The ratio of open space area towards total area	100
SI.2	Area on campus covered in forest	75
SI.3	Area on campus covered in planted vegetation	150
SI.4	Area on campus for water absorbance	100
SI.5	The ratio of open space area divided campus population	50
SI.6	University budget for sustainability effort	200
SI.7	Percentage of operation and maintenance activities of building in one year period	100
SI.8	Campus facilities for disabled, special needs and or maternity care	100
SI.9	Security and safety facilities	100
SI.10	Health infrastructure facilities for students, academics and administrative staff's wellbeing	100
SI.11	Conservation: plant, animal and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities	100

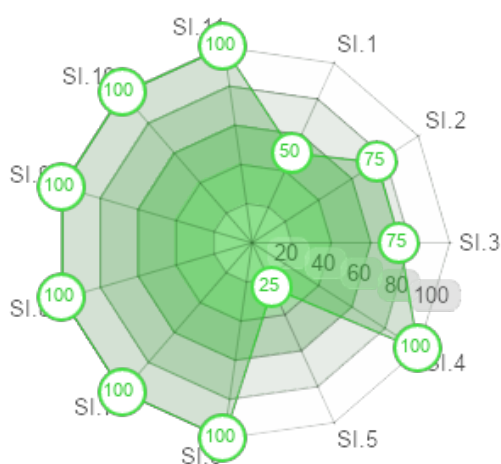


Figure 5.1 Percentage of Score to Maximum Score for Setting and Infrastructure

## Energy and Climate Change

The university's attention to the use of energy and climate change issues has the highest score in this ranking. In our questionnaire, we define several indicators for this area of concern, i.e., energy-efficient appliances usage, the implementation of smart buildings/automation buildings/intelligent buildings, renewable energy usage policy, total electricity usage, energy conservation programs, elements of green buildings, climate change adaptation and mitigation programs, greenhouse gas emission reductions policy, and carbon footprint. Within these indicators, the universities are expected to increase their efforts in energy efficiency in their buildings and to care more about nature and alternative energy resources.



Indicator		Point
EC.1	Energy efficient appliances usage	150
EC.2	Smart building program implementation	150
EC.3	Number of renewable energy source in campus	150
EC.4	The total electricity usage divided by total campus population	300
EC.5	The ratio of renewable energy production towards total energy usage per year	200
EC.6	Element of green building implementation	200
EC.7	Greenhouse gas emission reduction program	200
EC.8	The ratio of total carbon footprint divided campus population	150
EC.9	Number of innovative program(s) in Energy and Climate Change	100
EC.10	Impactful university program(s) on climate change	100

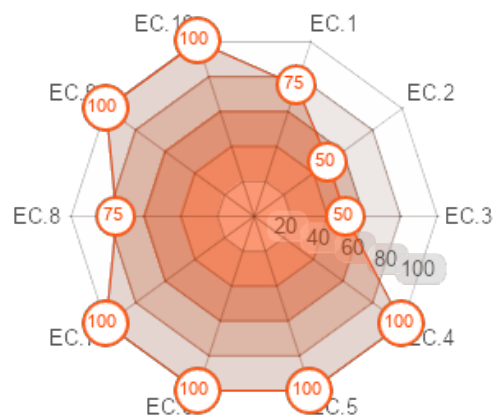
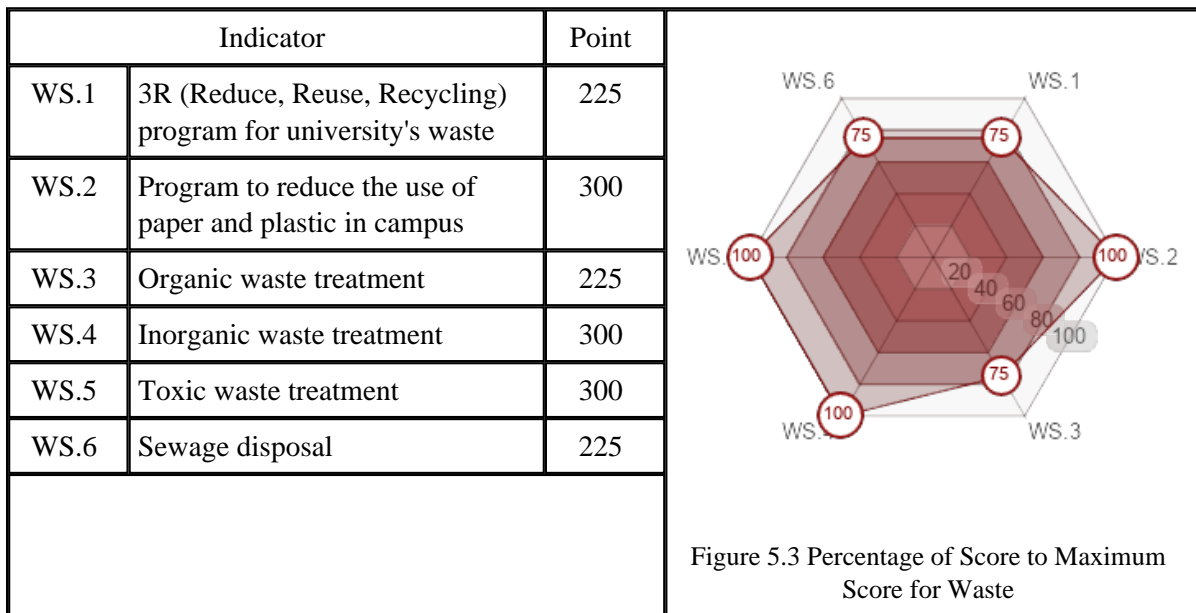


Figure 5.2 Percentage of Score to Maximum Score for Energy and Climate Change

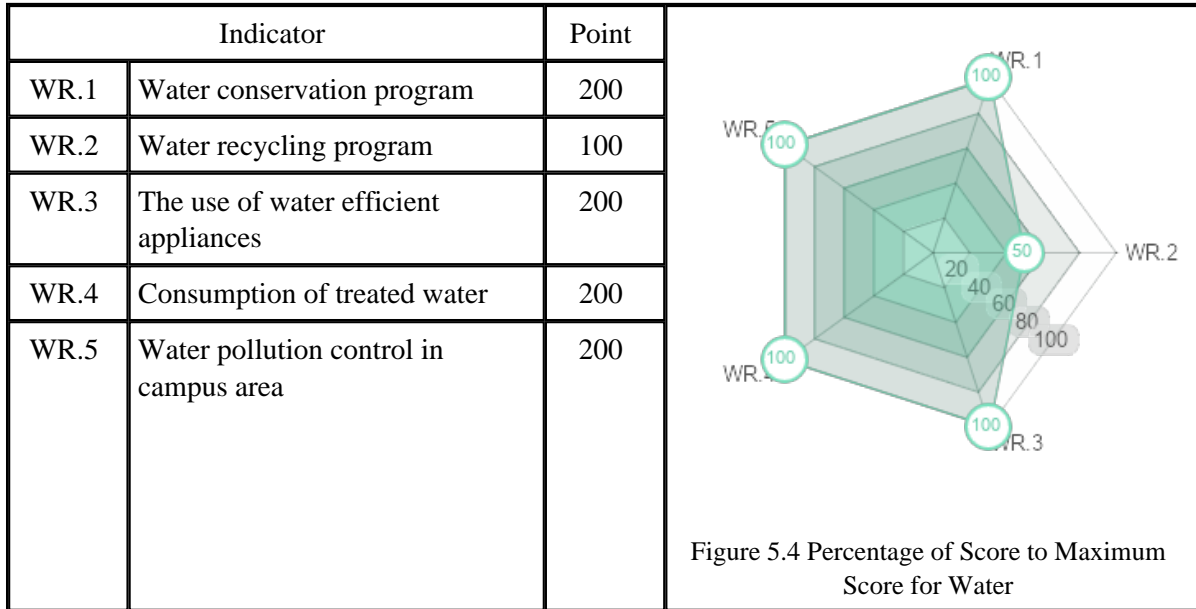
## Waste

Waste treatment and recycling activities are major factors in creating a sustainable environment. The activities of university staff, students, and communities around university produce a lot of waste; therefore, some recycling and waste treatments programs should be among the concern of the university, i.e., 3R (Reduce, Reuse, Recycle) program, organic waste treatment, inorganic waste treatment, toxic waste recycling, sewage disposal, policies to reduce the use of paper and plastic on campus.



## Water

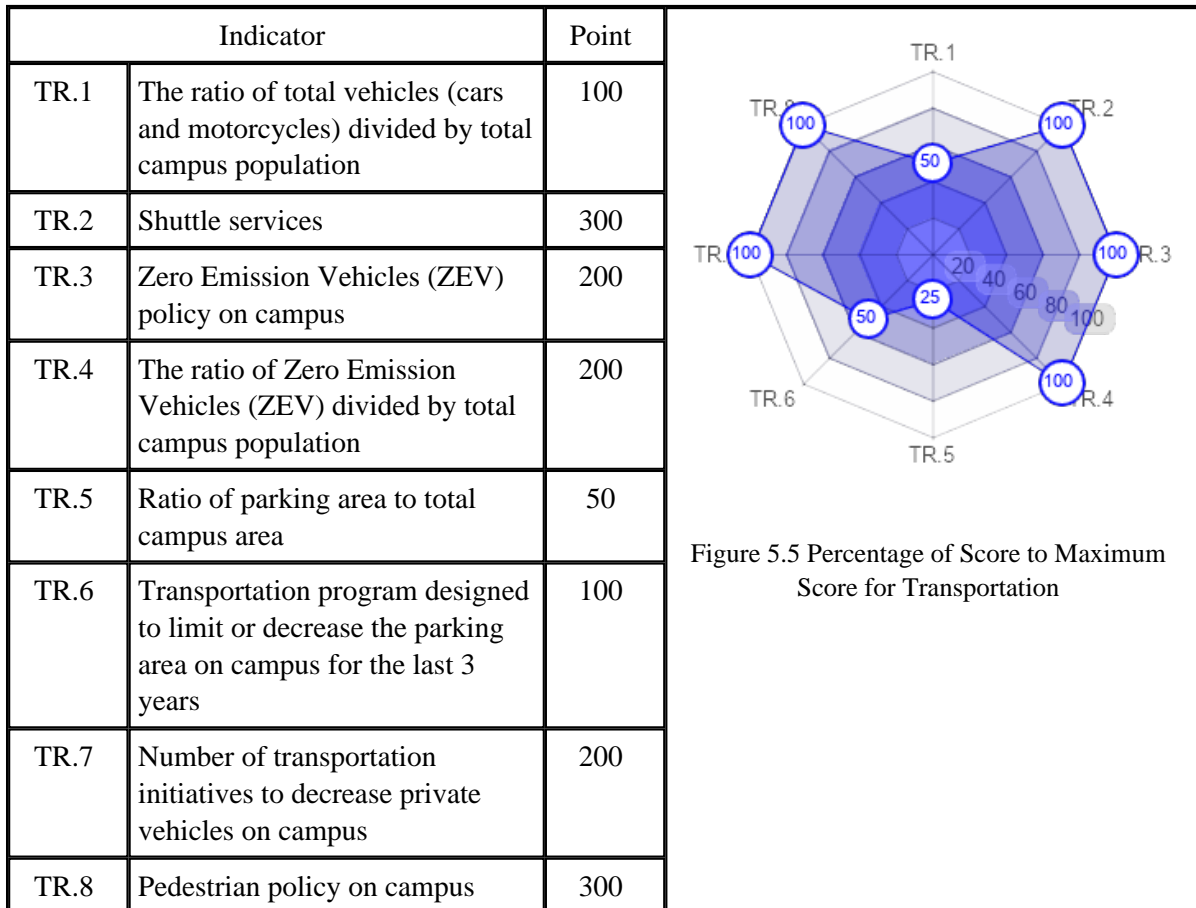
Water usage at university is another important criterion in the UI GreenMetric. The aims are to encourage universities to decrease groundwater usage, increase water conservation programs, and protect habitats. Water conservation programs, water recycling programs, water-efficient appliances usage, and treated water usage are among the criteria





## Transportation

Transportation systems play an important role in carbon emission and pollutant levels at universities. Transportation policies that limit the number of motor vehicles on campus and encourage the use of campus buses, shared vehicles, and zero emission vehicles (i.e. bicycles, electric cars, electric motorcycles, canoes, snowboards, etc.) will encourage a healthier environment. The pedestrian policy encourages students and staff to walk around campus and minimize the use of private vehicles. The use of environmentally friendly public transportation will decrease the carbon footprint around campus.



## Education & Research

The university's education and research information provide basic information about the university's policies and actions in creating and supporting their students, academic and non-academic staff with sustainability awareness. This criterion also encourages universities to report their sustainability activities, strategies, and targets to their stakeholders.



Indicator		Point
ED.1	The ratio of sustainability courses towards total courses/modules	300
ED.2	The ratio of sustainability research funding towards total research funding	200
ED.3	Sustainability publications	200
ED.4	Sustainability events	200
ED.5	Activities organized by student organizations related to sustainability per year	200
ED.6	Sustainability websites	100
ED.7	Sustainability report	100
ED.8	Cultural activities on campus	100
ED.9	University sustainability program(s) with international collaborations	100
ED.10	Sustainability community services project organized and/or involving students	100
ED.11	Sustainability-related startups	100

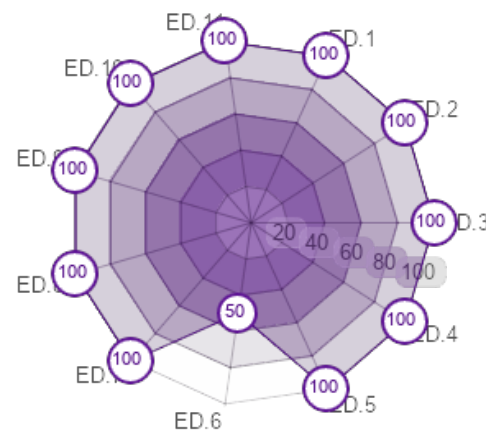


Figure 5.6 Percentage of Score to Maximum Score for Education



# UI GREENMETRIC WORLD UNIVERSITY RANKINGS

## About UI GreenMetric

UI GreenMetric World University Rankings is an annual publication of university rankings on sustainability. It is an initiative from the University of Indonesia that ranks universities around the world based on their commitment and actions towards sustainability. UI GreenMetric World University Rankings aims to increase university awareness towards sustainability.

## History

UI GreenMetric World University Rankings is a non-profit initiative of University of Indonesia developed since 2010.

In 2009 the University of Indonesia hosted an International Conference on World University Rankings. The conference was attended by World University rankers such as Webometrics, HEEACT, and others. In 2010, Prof. Dr. der Soz. Gumilar Rusliwa Somantri as Rector of the University of Indonesia at that time-initiated UI GreenMetric World University Rankings and appointed Prof. Dr. Ir. Riri Fitri Sari, MM., M.Sc. as the chairperson. Soon a team consisting of Dr. Junaidi, S.S., M.A., Dr. Budi Hartono, S.Si., MKM, Dr. Allan Frank Lauder, M.A., and Prof. Ir. Gunawan Tjahjono, M.Arch., Ph.D formulated UI GreenMetric Questionnaire and introduced UI Ranking to the world. In 2011, 11 new indicators in 5 categories have been added. Subsequently Education has been added as a new category in 2012. By the year 2015, a massive improvement was introduced including carbon footprint and a more systematic data collection. In 2016 an online based review and validation system has been set for the assessors.

UI GreenMetric took Policy into Action in 2016; Global Partnership for Sustainable Future in 2017; Universities, Impacts, and Sustainable Development Goals (SDGs) in 2018; Sustainable University in a Changing World: Lessons, Challenges and Opportunities in 2019; Universities' Responsibility for Sustainable Development Goals and World's Complex Challenges in 2020; Universities, UI GreenMetric, and SDGs in the Time of Pandemic in 2021; Collective Actions for Transforming Sustainable Universities in the Post-Pandemic Time in 2022; and Innovation, Impacts and Future Direction of Sustainable Universities in 2023 as its annual themes. In 2023, 1183 universities from 84 countries participate in the rankings.

To reach and coordinate more participating universities, UI GWURN was established in 2017 with a national coordinator in each country. To make it work, Junaidi formulated strategic framework for the network. Currently, there are 39 national coordinators in Asia, America, Africa and Europe. Each voluntarily organizes national workshop inviting other universities in their country. Since its establishment in 2010, it has been increasingly recognized as the first and only universities ranking on sustainability and has been used by participating universities to benchmark and do continuous improvement in the area of sustainability.

As a member of IREG, more activities and collaboration among participating universities are expected to achieve our common goal: sustainable university for sustainable future. UI GreenMetric itself developed its own ranking system by studying other ranking systems such as: The Times Higher Education World University Rankings (THE) sponsored by Thompson Reuters, the QS World University Rankings, the Academic Ranking of World Universities (ARWU) published by

Table 1. UI GreenMetric Timeline

UI GreenMetric Timeline	
2010	UI GreenMetric published for 95 Universities
2011	UI GreenMetric added 11 new indicators within 5 categories
2012	Education became one of the categories
2015	Introducing Carbon Footprint and fact file document
2016	Focusing on university action toward sustainability
2017	UIGWURN established
2018	Focusing on SDGs and enlargement of memberships
2019	Improving questionnaire and data collection method
2020	Three new questions on social and economic impacts, such as (1) Startup for the green economy; (2) Public access to open spaces; (3) Community services
2021	Introducing social, cultural, economic, and pandemic aspects in the questionnaire
2022	Adding an indicator related to water pollution and adjusting related to the current pandemic condition
2023	Adding an indicator related to 3R waste program, student organization activities and international collaboration

Shanghai Jiao Tong University (SJTU), and the Webometrics Ranking of World Universities (Webometrics), published by Cybermetrics Lab, CINDOC-CSIC in Spain.

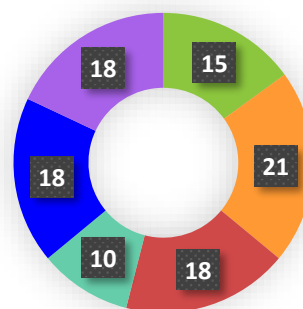
### Methodology

UI GreenMetric collects data through an online questionnaire. All participants answered some questions for some period. After that, UI GreenMetric expert members and reviewers validate the answers based on the evidence that participants provide. This year's categories and weighting of points are shown as follows. The specific indicators and their points awarded are shown in Table 3. Each indicator has been uniquely identified by a category code and a number (e.g., SI 5).

In our list, universities with the same total score will be ranked according to the highest weighted indicators, i.e firstly based on its Energy and Climate Change (EC) score, then based on the total score for Waste (WS), Transportation (TR), Education (ED). Subsequently it will be based on its Setting and Infrastructure (SI) score, and last will depend on its Water (WR) score.

Table 2. Categories used in the ranking and their weighting

No	Category	Percentage of Total Points (%)
1	Setting and Infrastructure (SI)	15
2	Energy and Climate Change (EC)	21
3	Waste (WS)	18
4	Water (WR)	10
5	Transportation (TR)	18
6	Education (ED)	18
	<b>TOTAL</b>	<b>100</b>



The specific indicators and their points awarded are shown in Table 3. Each indicator has been uniquely identified by a category code and a number (e.g., SI 5).

Table 3 Indicators and categories

No	CRITERIA	Point	Weighting
<b>1</b>	<b>Setting and Infrastructure (SI)</b>		<b>15%</b>
<b>SI1</b>	The ratio of open space area to the total area	200	
<b>SI2</b>	Total area on campus covered in forest vegetation	100	
<b>SI3</b>	Total area on campus covered in planted vegetation	200	
<b>SI4</b>	Total area on campus for water absorption besides the forest and planted vegetation	100	
<b>SI5</b>	The total open space area divided by the total campus population	200	
<b>SI6</b>	Percentage of university budget for sustainability efforts	200	
<b>SI7</b>	Percentage of operation and maintenance activities of building in one year period	100	
<b>SI8</b>	Campus facilities for disabled, special needs, and/or maternity care	100	
<b>SI9</b>	Security and safety facilities	100	
<b>SI10</b>	Health infrastructure facilities for students, academics, and administrative staff's wellbeing	100	
<b>SI11</b>	Conservation: plant (flora), animal (fauna), or wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities	100	
	<b>Total</b>	<b>1500</b>	
<b>2</b>	<b>Energy and Climate Change (EC)</b>		<b>21%</b>
<b>EC1</b>	Energy-efficient appliances usage	200	
<b>EC2</b>	Smart building implementation	300	
<b>EC3</b>	Number of renewable energy sources on campus	300	
<b>EC4</b>	Total electricity usage divided by total campus' population (kWh per person)	300	
<b>EC5</b>	The ratio of renewable energy production divided by total energy usage per year	200	
<b>EC6</b>	Elements of green building implementation as reflected in all construction and renovation policies	200	
<b>EC7</b>	Greenhouse gas emission reduction program	200	
<b>EC8</b>	Total carbon footprint divided by total campus' population (metric tons per person)	200	
<b>EC9</b>	Number of the innovative program(s) in energy and climate change	100	
<b>EC10</b>	Impactful university program(s) on climate change	100	
	<b>Total</b>	<b>2100</b>	

<b>3</b>	<b>Waste (WS)</b>		<b>18%</b>
<b>WS1</b>	3R (Reduce, Reuse, Recycling) program for university's waste	300	
<b>WS2</b>	Program to reduce the use of paper and plastic on campus	300	
<b>WS3</b>	Organic waste treatment	300	
<b>WS4</b>	Inorganic waste treatment	300	
<b>WS5</b>	Toxic waste treatment	300	
<b>WS6</b>	Sewage disposal	300	
	<b>Total</b>	<b>1800</b>	
<b>4</b>	<b>Water (WR)</b>		<b>10%</b>
<b>WR1</b>	Water conservation program & implementation	200	
<b>WR2</b>	Water recycling program implementation	200	
<b>WR3</b>	Water-efficient appliances usage	200	
<b>WR4</b>	Consumption of treated water	200	
<b>WR5</b>	Water pollution control in the campus area	200	
	<b>Total</b>	<b>1000</b>	
<b>5</b>	<b>Transportation (TR)</b>		<b>18%</b>
<b>TR1</b>	The total number of vehicles (cars and motorcycles) divided by the total campus' population	200	
<b>TR2</b>	Shuttle services	300	
<b>TR3</b>	Zero-Emission Vehicles (ZEV) policy on campus	200	
<b>TR4</b>	The total number of Zero-Emission Vehicles (ZEV) divided by the total campus population	200	
<b>TR5</b>	The ratio of the ground parking area to the total campus' area	200	
<b>TR6</b>	Program to limit or decrease the parking area on campus for the last 3 years (from 2020 to 2022)	200	
<b>TR7</b>	Number of initiatives to decrease private vehicles on campus	200	
<b>TR8</b>	The pedestrian path on campus	300	
	<b>Total</b>	<b>1800</b>	
<b>6</b>	<b>Education and Research (ED)</b>		<b>18%</b>
<b>ED1</b>	The ratio of sustainability courses to total courses/subjects	300	
<b>ED2</b>	The ratio of sustainability research funding to total research funding	200	
<b>ED3</b>	Number of scholarly publications on sustainability	200	
<b>ED4</b>	Number of events related to sustainability	200	
<b>ED5</b>	Number of activities organized by student organizations related to sustainability per year	200	
<b>ED6</b>	University-run sustainability website	200	
<b>ED7</b>	Sustainability report	100	
<b>ED8</b>	Number of cultural activities on campus	100	
<b>ED9</b>	Number of university sustainability program(s) with international collaborations	100	
<b>ED10</b>	Number of sustainability community services projects organized and/or involving students	100	
<b>ED11</b>	Number of sustainability-related startups	100	
	<b>Total</b>	<b>1800</b>	

## **UI GreenMetric Office**

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### **Contact**



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