



National Workshop on UI GreenMetric for  
University in Thailand  
23rd August 2022



# 2022 UI GreenMetric Indicators and Data Submission Process



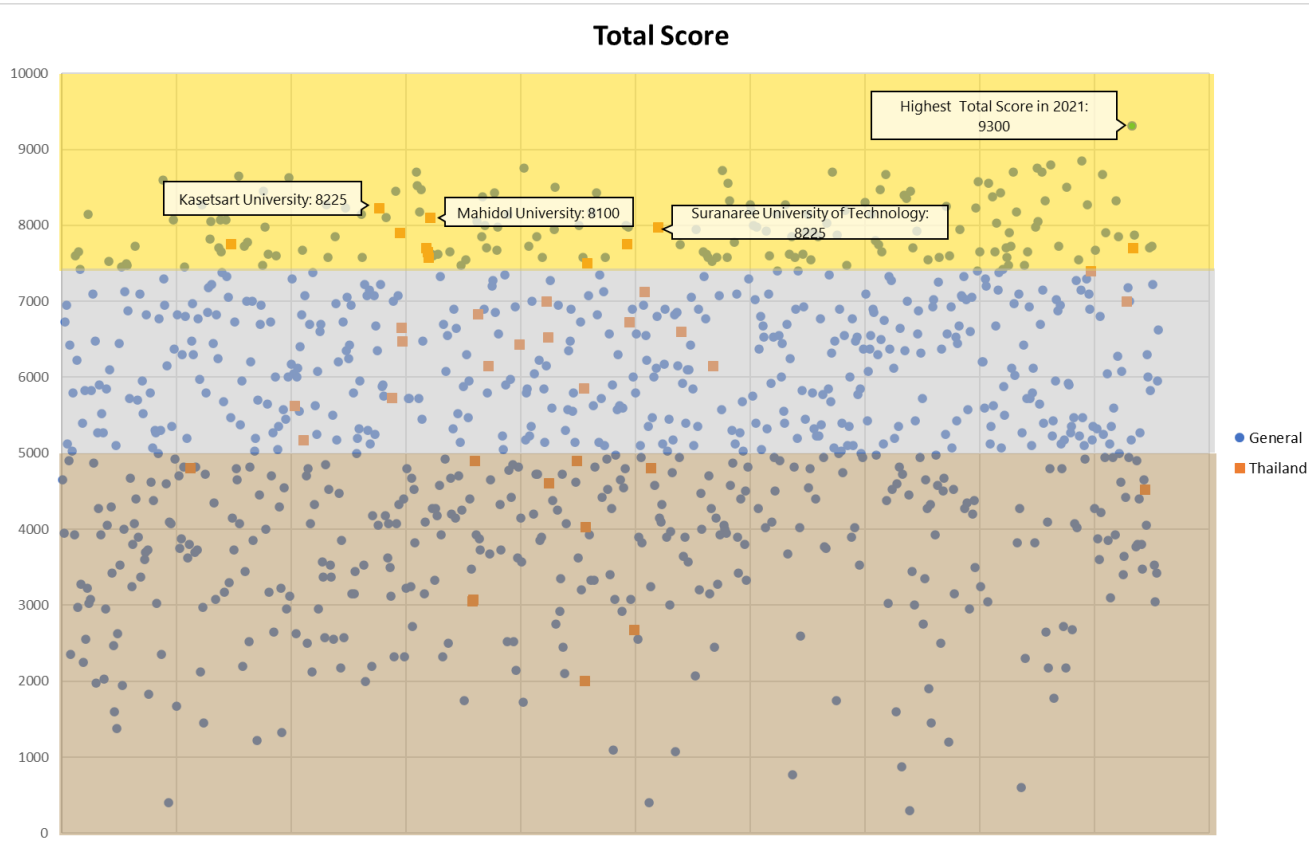
**Prof. Ir. Gunawan Tjahjono, M.Arch., Ph.D**  
Expert Member UI GreenMetric



# UI GREENMETRIC QUESTIONNAIRE AND 2021 REPORT



# PARTICIPANTS PERFORMANCE



## 2021 Participants Performance:

- **Gold Cluster:**

General : 157 University (16.4%)

Thailand : 10 University (25.64%)

- **Silver Cluster:**

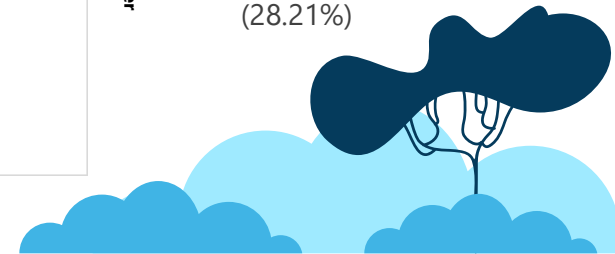
General : 434 University (45.4%)

Thailand : 18 University (46.15%)

- **Bronze Cluster:**

General : 365 University (38.2%)

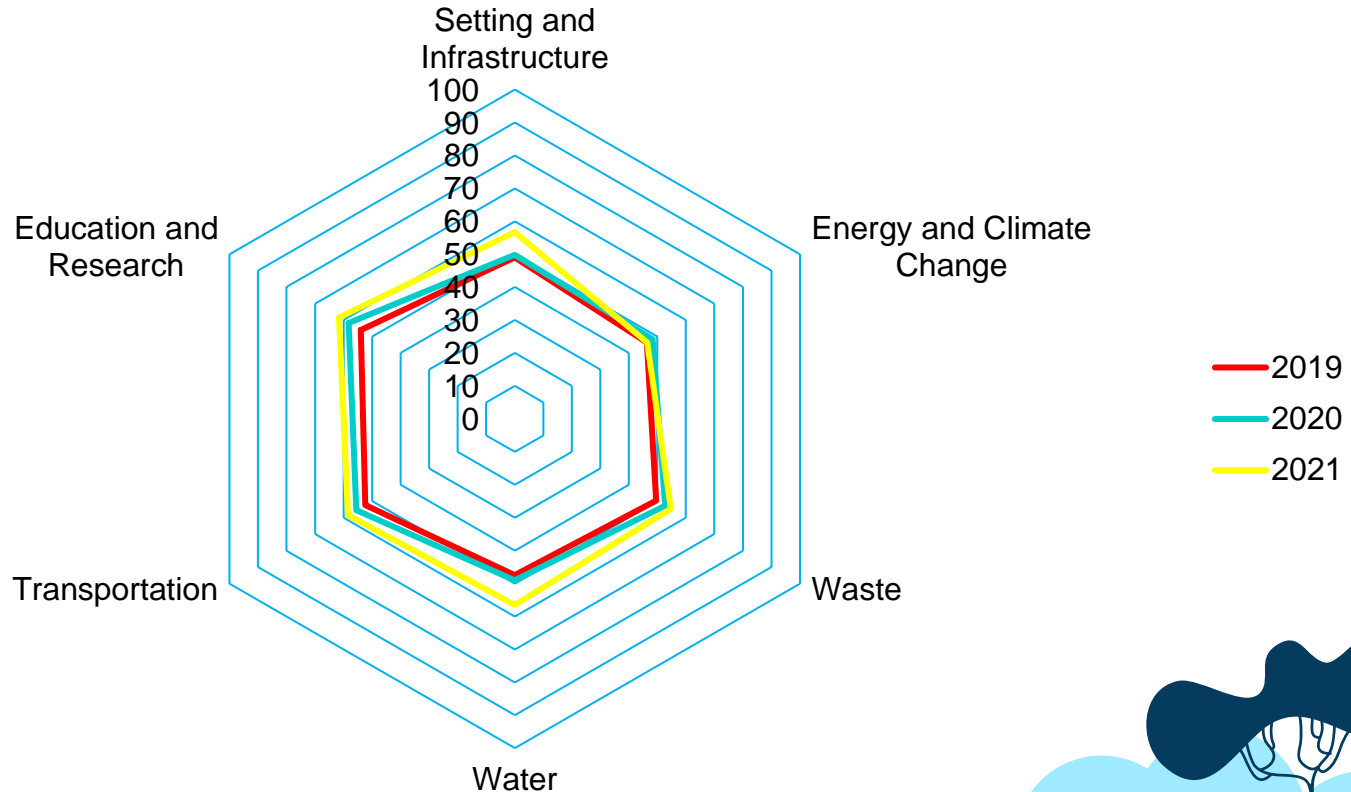
Thailand : 11 University (28.21%)



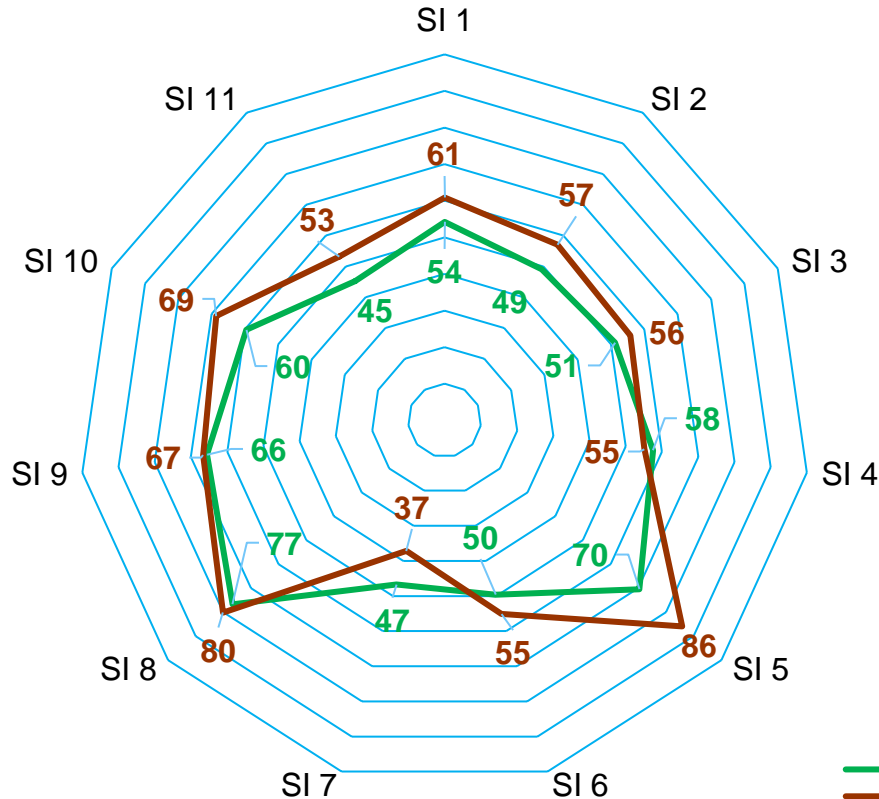
Thailand University Ranks on 2021 UI GreenMetric											
Thailand Rank	World Rank	University	Total 2021	Thailand Rank	World Rank	University	Total 2021	Thailand Rank	World Rank	University	Total 2021
1	45	Kasetsart University	8225	16	278	Naresuan University	6825	30	617	Prince of Songkla University	4900
2	59	Mahidol University	8100	17	290	Silpakorn University	6725			Burapha University	4800
3	75	Suranaree University of Technology	7975	18	306	King Mongkuts Institute of Technology Ladkrabang	6650			Sukhothai Thammathirat Open University	4800
4	83	King Mongkut 's University of Technology Thonburi	7900	19	311	Thaksin University	6600	33	666	Pibulsongkram Rajabhat University	4600
5	101	Dhurakij Pundit University	7750	21	332	Phranakhon Si Ayutthaya Rajabhat University	6525	34	680	Yala Rajabhat University	4525
6	103	Siam University	7750			King Mongkut's University of Technology North Bangkok	6475	35	754	Rajamangala University of Technology Rattanakosin	4025
7	113	Mae Fah Luang University	7700			Northeastern University	6425	36	868	Nakhon Ratchasima Rajabhat University	3075
8	116	Walailak University	7700	23	380	National Institute of Development Administration	6150	37	873	Nakhon Pathom Rajabhat University	3050
9	121	Maejo University	7650			Ubon Ratchathani University	6150			Songkhla Rajabhat University	2675
10	145	Mahasarakham University	7575			Rajamangala University of Technology Isan	5850	39	930	Rajamangala University of Technology Krungthep	2000
11	158	Rajamangala University of Technology Thanyaburi (RMUTT)	7500	25	431	Khon Kaen University	5725				
12	171	University of Phayao	7400	26	454	Hatyai University	5625				
13	209	Srinakharinwirot University	7125	27	468	Huachiew Chalermprakiet University	5175				
14	235	Valaya Alongkorn Rajabhat University Under the Royal Patronage	7000	28	558	Nakhon Si Thammarat Rajabhat University	4900				
15	239	Phetchaburi Rajabhat University	7000	29	615						

# General Results

## UI GreenMetric World Ranking 2021



# Setting and Infrastructure (SI)



— Average from 956 universities in %  
— Average from Thai universities in %

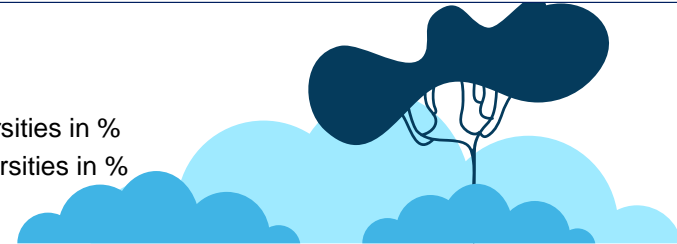
No	CRITERIA
1	Setting and Infrastructure (SI)
SI1	The ratio of open space area to total area
SI2	Total area on campus covered in forest vegetation
SI3	Total area on campus covered in planted vegetation
SI4	Total area on campus for water absorption besides the forest and planted vegetation
SI5	The total open space area divided by total campus population
SI6	Percentage of university budget for sustainability efforts
SI7	Percentage of operation and maintenance activities of building during Covid-19 pandemic
SI8	Campus facilities for disabled, special needs and or maternity care
SI9	Security and safety facilities
SI10	Health infrastructure facilities for students, academics and administrative staff's wellbeing
SI11	Conservation: plant, animal and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities
Total	

# Energy and Climate Change (EC)

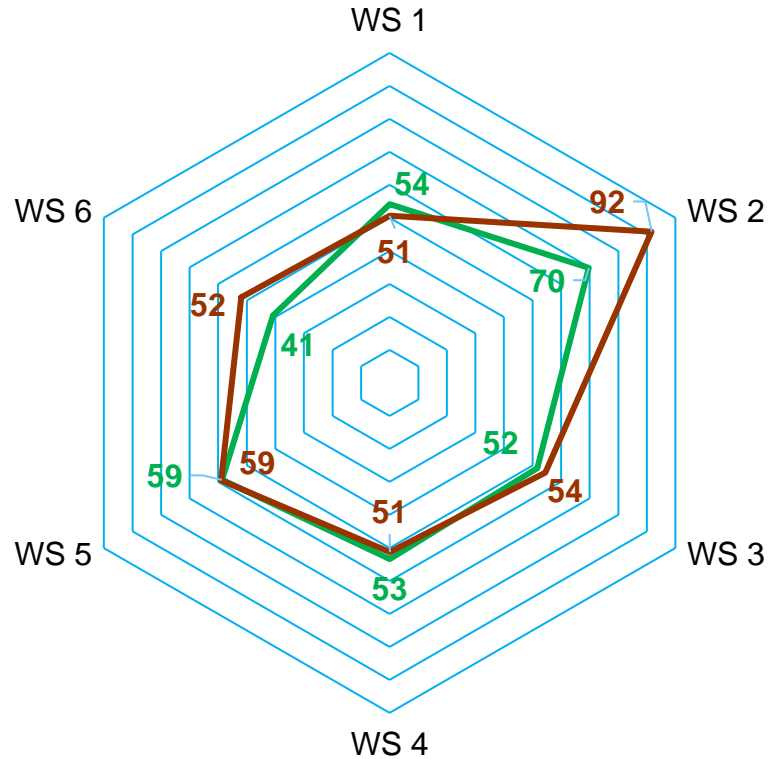


2	Energy and Climate Change (EC)
EC1	Energy efficient appliances usage
EC2	Smart building implementation
EC3	Number of renewable energy sources on campus
EC4	Total electricity usage divided by total campus' population (kWh per person)
EC5	The ratio of renewable energy production divided by total energy usage per year
EC6	Elements of green building implementation as reflected in all construction and renovation policies
EC7	Greenhouse gas emission reduction program
EC8	Total carbon footprint divided by total campus' population (metric tons per person)
EC9	Number of innovative program(s) during covid-19 pandemic
EC10	Impactful university program(s) on climate change
	Total

— Average from 956 universities in %  
— Average from Thai universities in %



# Waste (WS)



3	Waste (WS)
WS1	Recycling program for university's waste
WS2	Program to reduce the use of paper and plastic on campus
WS3	Organic waste treatment
WS4	Inorganic waste treatment
WS5	Toxic waste treatment
WS6	Sewage disposal
	Total

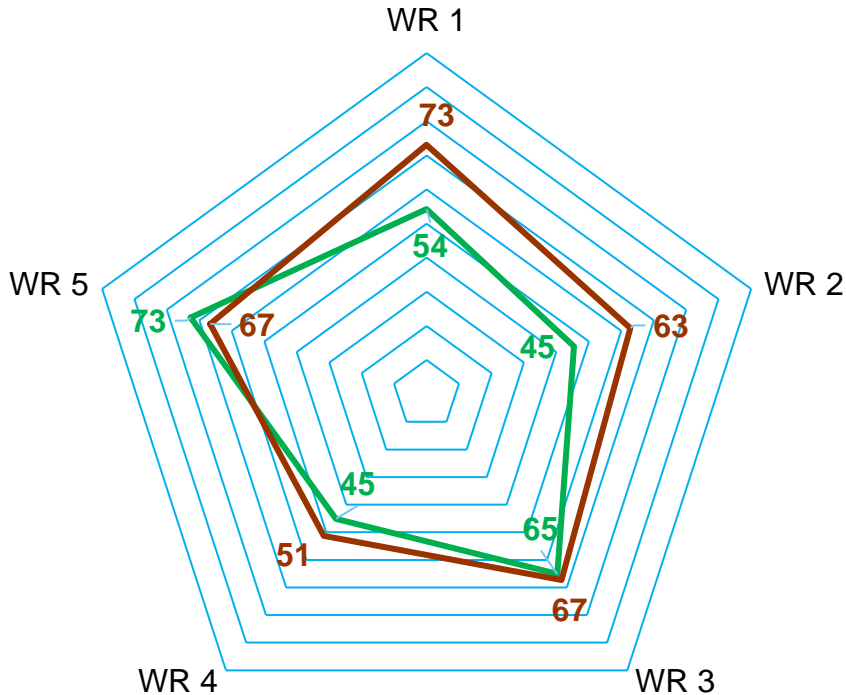
— Average from 956 universities in %

— Average from Thai universities in %





# Water (WR)



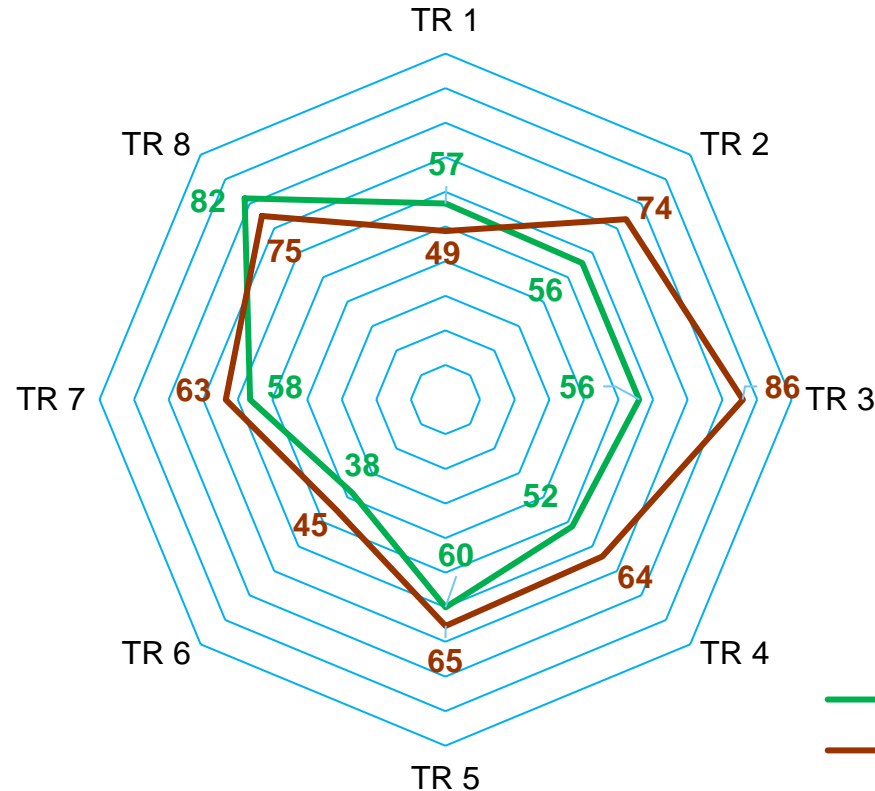
4	Water (WR)
WR1	Water conservation program & implementation
WR2	Water recycling program implementation
WR3	Water efficient appliances usage
WR4	Consumption of treated water
WR5	Percentage of additional handwashing and sanitation facilities during Covid-19 pandemic
Total	

— Average from 956 universities in %

— Average from Thai universities in %



# Transportation (TR)



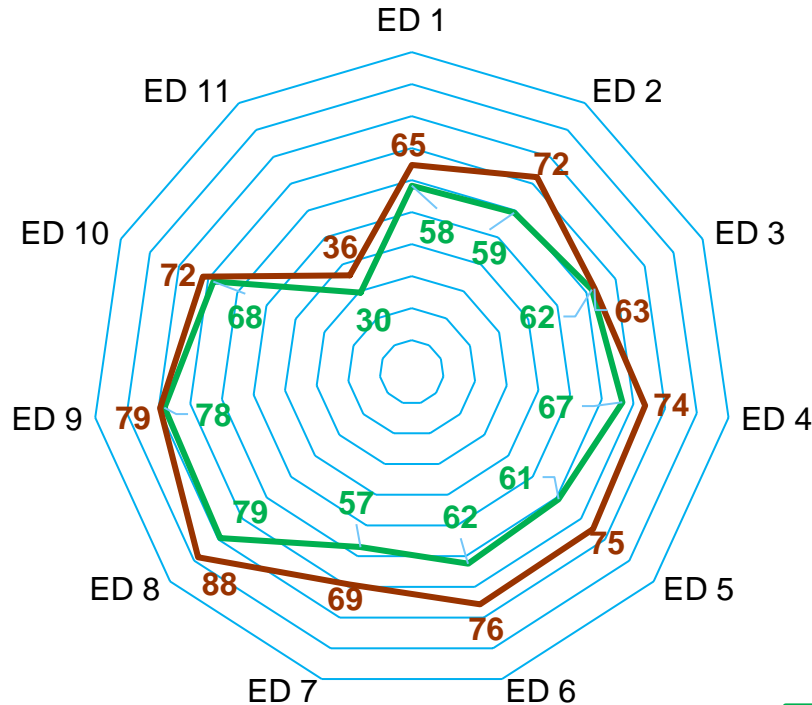
— Average from 956 universities in %

— Average from Thai universities in %

5	Transportation (TR)
TR1	The total number of vehicles (cars and motorcycles) divided by total campus' population
TR2	Shuttle services
TR3	Zero Emission Vehicles (ZEV) policy on campus
TR4	The total number of Zero Emission Vehicles (ZEV) divided by total campus population
TR5	Ratio of ground parking area to total campus' area
TR6	Program to limit or decrease the parking area on campus for the last 3 years (from 2018 to 2020)
TR7	Number of initiatives to decrease private vehicles on campus
TR8	Pedestrian path on campus
Total	



# Education & Research (ED)



— Average from 956 universities in %

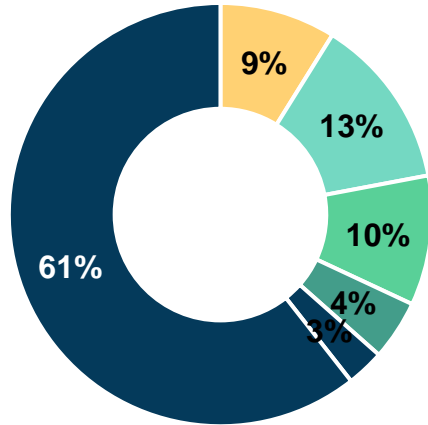
— Average from Thai universities in %

6	Education and Research (ED)
ED1	The ratio of sustainability courses to total courses/subjects
ED2	The ratio of sustainability research funding to total research funding
ED3	Number of scholarly publications on sustainability
ED4	Number of events related to sustainability
ED5	Number of student organizations related to sustainability
ED6	University-run sustainability website
ED7	Sustainability report
ED8	Number of cultural activities on campus
ED9	Number of university program(s) to cope with Covid-19 pandemic
ED10	Number of sustainability community services project organized and/or involving students
ED11	Number of sustainability-related startups
	Total

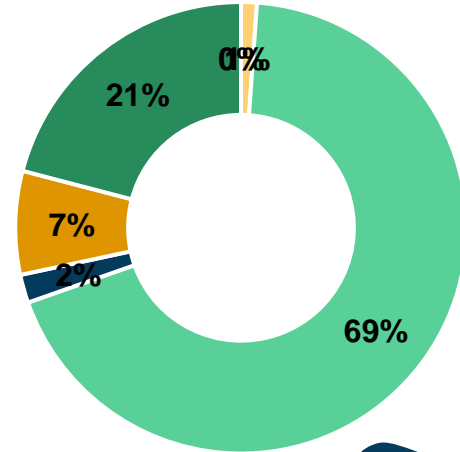


# Universities with Green Start Ups

## By Category



## By Region



# Open Space Data

## Total open space area

107,294,040,748.50 m<sup>2</sup>

## Average of open space area

88,966,866.29 m<sup>2</sup>

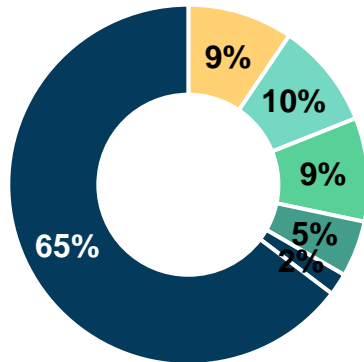
## Average of open space duration for public

82.9 Hours per Weeks

# Community Services (Overall Data)

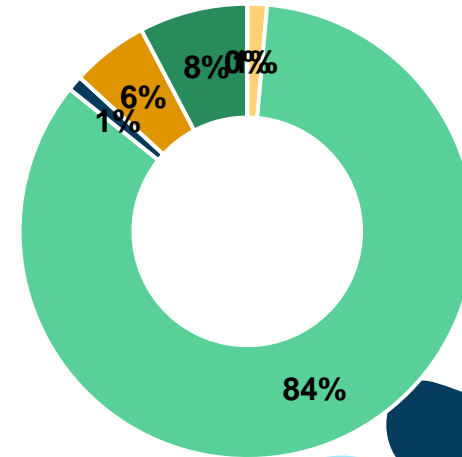
## By Category

- Setting & Infrastructure
- Energy & Climate Change
- Waste
- Water
- Transportation
- Education & Research



## By Region

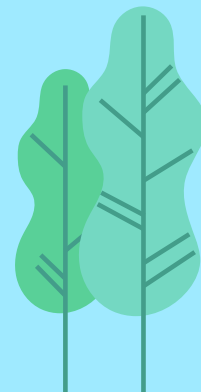
- Africa
- Asia
- North America
- Latin America
- Europe
- Oceania



## WHATS NEW IN 2021?

### **Theme:**

*“Collective Actions for Transforming Sustainable Universities in the Post-Pandemic Time”*



# Setting and Infrastructure (SI)

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), and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities	100	
	<b>Total</b>	<b>1500</b>	

\*) Light green indicates new questions introduced in 2022



# Energy and Climate Change (EC)

2	Energy and Climate Change (EC)		21%
EC1	Energy-efficient appliances usage	200	
EC2	Smart building implementation	300	
EC3	Number of renewable energy sources on campus	300	
EC4	Total electricity usage divided by total campus' population (kWh per person)	300	
EC5	The ratio of renewable energy production divided by total energy usage per year	200	
EC6	Elements of green building implementation as reflected in all construction and renovation policies	200	
EC7	Greenhouse gas emission reduction program	200	
EC8	Total carbon footprint divided by total campus' population (metric tons per person)	200	
EC9	Number of the innovative program(s) in energy and climate change	100	
EC10	Impactful university program(s) on climate change	100	
	<b>Total</b>	<b>2100</b>	

\*) Light green indicates new questions introduced in 2022

# Waste (WS)

3	Waste (WS)		18%
WS1	Recycling program for university's waste	300	
WS2	Program to reduce the use of paper and plastic on campus	300	
WS3	Organic waste treatment	300	
WS4	Inorganic waste treatment	300	
WS5	Toxic waste treatment	300	
WS6	Sewage disposal	300	
	<b>Total</b>	<b>1800</b>	

\*) Light green indicates new questions introduced in 2022

# Water (WR)

4	Water (WR)		10%
WR1	Water conservation program & implementation	200*	
WR2	Water recycling program implementation	200	
WR3	Water-efficient appliances usage	200	
WR4	Consumption of treated water	200	
WR5	Water pollution control in the campus area	200	
	Total	1000	

\*) Light green indicates new questions introduced in 2022

# Transportation (TR)

5	Transportation (TR)		18%
TR1	The total number of vehicles (cars and motorcycles) divided by the total campus' population	200	
TR2	Shuttle services	300	
TR3	Zero-Emission Vehicles (ZEV) policy on campus	200	
TR4	The total number of Zero-Emission Vehicles (ZEV) divided by the total campus population	200	
TR5	The ratio of the ground parking area to the total campus' area	200	
TR6	Program to limit or decrease the parking area on campus for the last 3 years (from 2019 to 2021)	200	
TR7	Number of initiatives to decrease private vehicles on campus	200	
TR8	The pedestrian path on campus	300	
	<b>Total</b>	<b>1800</b>	

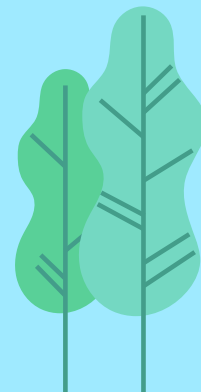
\*) Light green indicates new questions introduced in 2022

# Education and Research (ED)

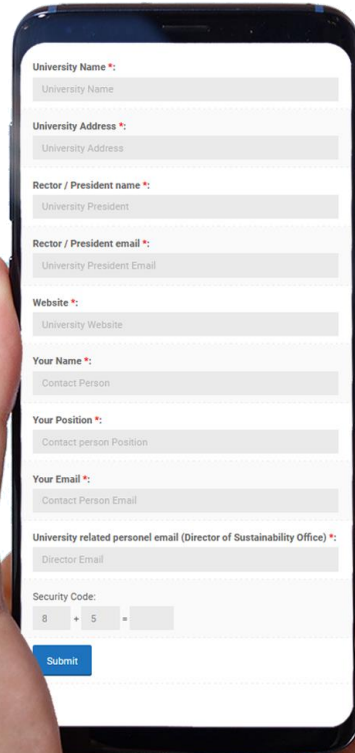
6	Education and Research (ED)		18%
ED1	The ratio of sustainability courses to total courses/subjects	300	
ED2	The ratio of sustainability research funding to total research funding	200	
ED3	Number of scholarly publications on sustainability	200	
ED4	Number of events related to sustainability	200	
ED5	Number of student organizations related to sustainability	200	
ED6	University-run sustainability website	200	
ED7	Sustainability report	100	
ED8	Number of cultural activities on campus	100	
ED9	Number of university program(s) to improve teaching and learning	100	
ED10	Number of sustainability community services projects organized and/or involving students	100	
ED11	Number of sustainability-related startups	100	
	<b>Total</b>	<b>1800</b>	

\*) Light green indicates new questions introduced in 2022

# DATA SUBMISSION PROCESS



# HOW TO PARTICIPATE - REGISTER



University Name \*:

University Address \*:

Rector / President name \*:

Rector / President email \*:

Website \*:

Your Name \*:

Your Position \*:

Your Email \*:

University related personel email (Director of Sustainability Office) \*:

Security Code:  8 + 5 =

If your University would like to join the UI GreenMetric and have not received the invitation, you can register via web at <https://greenmetric.ui.ac.id/registration-page> or via email at [greenmetric@ui.ac.id](mailto:greenmetric@ui.ac.id)



# UI GreenMetric Questionnaire Online Questionnaire – Profile

**UI GreenMetric**

Navigation

- Questionnaire


Profile

- Profile**
- Change Password

Authentication

- Log Out

**Profile**

 **University Profile**  
/ University Profile

Please complete your university profile below.

**Username**

111.ac.id

**University's Name\***

111

**Rector/Leader\***

111

**Email\***

111!111.com

**Website\***

111

**Date Establish\***

06/01/1999

**Country of location\***

Indonesia



**Address\***


asdasd

Activate Windows



# UI GreenMetric Questionnaire Online Questionnaire – Profile



 **Questionnaire**  
🏠 / Questionnaire

### Important Notes

- It is possible to save a partially completed survey on the website as you may gather the data in stages. If you have not acquired the data, you can temporarily put 0 (zero) and save them as draft. This input data can be edited when you revisit the system before submitting the final data.
- Numerical data should be typed without comma or dot (example, 1000 not 1.000)
- For filling in percentage data, you can put a dot (.) for decimal number.
- Decimal number is separated by a dot (not a comma) (example: "two thousands point three" must be written as "2000.3"
- Please provide the evidence document in .doc/.docx/.pdf format, which should be **less than 2MB** for each question.
- You can find a template for some questions that require evidence at the end of each question.
- Please submit the latest yearly (annual) data that you have according to your 12 months data gathering schedule (e.g. for Questions 2.6, 2.8)
- All options in the questionnaire are based on the data submitted in 2020.
- Please validate the data and make sure that the numbers are correct.
- It has been more than a year since the Covid-19 pandemic disrupted universities operation in the world. Consequently, UI GreenMetric has adjusted some points/score of some of the most affected indicators. Campus situation during this Covid-19 pandemic will be reflected in your gathered data.
- In addition, We have added several questions regarding the university's efforts to deal with Covid-19 on campus and included some questions related to social & economic aspects. The new and adjuated questions are coloured in light green in this questionnaire.

LARGER TEXT ☐

# UI GreenMetric Questionnaire - Online Questionnaire Page

Setting & Infrastructure (SI)	Energy & Climate Change (EC)	Waste (WS)	Water (WR)	Transportation (TR)	Education & Research (ED)
<b>Question</b>					
<b>Evidence</b>					
1.1	Type of higher education institution	Type of higher education institution			
1.2	Climate	<ul style="list-style-type: none"><li><input type="radio"/> Tropical Wet and Dry</li><li><input type="radio"/> Semi-arid</li><li><input type="radio"/> Arid</li><li><input type="radio"/> Mediterranean</li><li><input type="radio"/> Humid Subtropical</li><li><input type="radio"/> Marine west coast / Oceanic Climate</li><li><input type="radio"/> Humid Continental</li><li><input type="radio"/> Subarctic</li></ul>			
1.3	Number of campus site	<input type="text" value="5"/>			
1.4	Campus setting	<ul style="list-style-type: none"><li><input checked="" type="radio"/> Rural</li><li><input type="radio"/> Suburban</li><li><input type="radio"/> Urban</li><li><input type="radio"/> In city center</li></ul>			

Click one of the criteria to fill each section

Click the question mark icon for the detail of the question

Upload your evidence.

Select Evidence

\*document in .doc/.docx/.pdf format, size 2MB.

Evidence template

Select Evidence

\*document in .doc/.docx/.pdf format, size 2MB.

Evidence template

Download evidence template.

# How to provide the evidence?

Put your university's logo here

Fill the data correctly

Evidence could be pictures, graphs, tables, data, etc.

Provide explanation in description section for the pictures submitted.

Add some link for an online evidence

Delete this mark

Replace the data with your university's data

Explanation of evidence should be in English.

Put your university logo here



## Template for Evidence(s) UI GreenMetric Questionnaire

University : ...  
Country : ...  
Web Address : ...

[3] Waste (WS)

[3.2] Program to Reduce the Use of Paper and Plastic on Campus

SAMPLE

1	2
3	4

Example of Program to Reduce the Use of Paper and Plastic in Campus (Mahidol University, Thailand)

### Description:

(Please describe the program to reduce the use of paper and plastic on your campus. The following is an example of the description. You can describe more related items if needed.)

1. Mahidol IT supports paperless system to reduce paper in daily workplace. It can reduce a lot of paper use that mean Mahidol University can reduce CO2 emissions and save the world.
2. Solutions of reusable paper in back office, e.g. using 2-side of paper, always recheck your data before print, use online system instead of hard copy.
3. Mahidol University has a policy of "Reduce Reuse plastic bag in the last 3 years. We can reduce around 3 million bags per year or reduce 90% of plastic waste in university".  
"Mahidol Reduce & Reuse Plastic Bag" project is consistent with the campaign's key points of United Nations Environment Program (UNEP) this year focused its campaign on "Waste Plastic Pollution" (Beat Plastic Pollution) is the same direction around the world as "If you cannot reuse it, refuse it".

Additional evidence link:

# UI GreenMetric Questionnaire Online Questionnaire – Submit

<a href="#">?</a>	<input type="radio"/> 2 Programs <input type="radio"/> 3 Programs <input type="radio"/> More than 3 Programs	<small>*document in .doc/.docx/.pdf format, size 2MB.</small> <a href="#">Evidence template</a>
6.15 (ED.10)	Number of sustainability community services project organised and/or involving students (new) <a href="#">?</a> <input type="radio"/> None <input checked="" type="radio"/> 1 Project <input type="radio"/> 2 Projects <input type="radio"/> 3 Projects. <input type="radio"/> More than 3 Projects	<a href="#">Select Evidence</a> <small>*document in .doc/.docx/.pdf format, size 2MB.</small> <a href="#">Evidence template</a> and input your list in profile area
6.16 (ED.11)	Number of sustainability-related startups (new) <a href="#">?</a> <input type="radio"/> None <input checked="" type="radio"/> 1 - 5 startups <input type="radio"/> 5- 10 startups <input type="radio"/> 10 - 15 startups <input type="radio"/> > 15 startups	<a href="#">Select New Evidence</a> <small>*document in .doc/.docx/.pdf format, size 2MB.</small> <a href="#">Evidence template</a> and input your list in profile area

Terms and Conditions

By submitting these data (texts, photos, documents and updated link of your green website), you agree to give UI GreenMetric permission to process and disseminate the results for ranking purposes only.

In addition, in case you are unable to submit data, UI GreenMetric has a right to use the latest available data submitted for the ranking process. The data will be considered valid for 3 years unless you revise the data in the online questionnaire

[SAVE AND BACK](#)[PRINT DRAFT ANSWER](#)[SAVE AS DRAFT](#)[SUBMIT](#)

Click “Print Draft Answer” to print your answers to ask approval from your authority before you submit

Click “Save as Draft” to continue filling the data

Click “Submit” to submit your questionnaire

# UI GreenMetric Questionnaire Online Questionnaire – Submit

The screenshot shows the UI GreenMetric online questionnaire submission interface. A green header bar contains the 'UI GreenMetric' logo and a hamburger menu icon. On the left, a sidebar lists navigation options: 'Questionnaire' (highlighted with a green checkmark), 'Profile', 'Change Password', 'Social & Economic Impact of Green Campus', 'Startup on Green Economy', 'Accessible Green Spaces', 'Community Services', 'Authentication', and 'Log Out'. The main content area displays a list of questionnaire items, including '6.10 University-run sustainability website (ED.6)', '6.11 Sustainable website address (URL) if a', and '6.12 Sustainable'. A modal dialog box is centered on the screen, asking 'Are you sure?' and stating 'After submitted, you can not edit the questionnaire anymore'. It features two buttons: 'YES, PLEASE SUBMIT' and 'NO, TAKE ME BACK'. Below the modal, a green callout bubble points to the 'YES' button with the text 'Click “Yes” if you are sure to submit'. The background shows a 'Terms and Conditions' section and a footer with '2020 © UI GreenMetric'. At the bottom right of the form, there are buttons for 'PRINT DRAFT ANSWER', 'SAVE AS DRAFT', and 'SUBMIT'.

UI GreenMetric

Navigation

- Questionnaire
- Profile
- Change Password
- Social & Economic Impact of Green Campus
- Startup on Green Economy
- Accessible Green Spaces
- Community Services
- Authentication
- Log Out

6.10 University-run sustainability website (ED.6)

6.11 Sustainable website address (URL) if a

6.12 Sustainable (ED.7)

Are you sure?

After submitted, you can not edit the questionnaire anymore

YES, PLEASE SUBMIT NO, TAKE ME BACK

Click “Yes” if you are sure to submit

Terms and Conditions

By submitting these data (te and disseminate the results In addition, in case you are u data will be considered valid

2020 © UI GreenMetric

PRINT DRAFT ANSWER SAVE AS DRAFT SUBMIT

# TIMELINE 2022



## UI GreenMetric World University Rankings 2022

*“Collective Actions for Transforming Sustainable Universities in the Post-Pandemic Time”*



If you have not received the invitation, please register online at [greenmetric.ui.ac.id/registration-page](https://greenmetric.ui.ac.id/registration-page)



# Useful Links

## Methodology:

- UI GreenMetric World University Rankings: <https://greenmetric.ui.ac.id/about/methodology>
- UI GreenMetric guideline: <https://greenmetric.ui.ac.id/publications/guidelines>
- UI GreenMetric questionnaire: <https://greenmetric.ui.ac.id/publications/questionnaire>
- UI GreenMetric template evidence: <https://greenmetric.ui.ac.id/publications/evidence-template>

## Results:

- UI GreenMetric World University Rankings: <https://greenmetric.ui.ac.id/rankings/overall-rankings-2021>
- UI GreenMetric University Rankings by Region: <https://greenmetric.ui.ac.id/rankings/ranking-by-region-2021>
- UI GreenMetric University Rankings by Country: <https://greenmetric.ui.ac.id/rankings/ranking-by-country-2021>
- UI GreenMetric University Rankings by Category: <https://greenmetric.ui.ac.id/rankings/ranking-by-category-2021>

## Network:

- UI GreenMetric World University Rankings Network: <https://greenmetric.ui.ac.id/network/organization>



# Thanks!



**Do you have any questions?**

Miss. Sabrina H. Ramadianti  
greenmetric@ui.ac.id

+62-21 29120936

<https://greenmetric.ui.ac.id>

UI GreenMetric



UI GreenMetric



ui.greenmetric

