





Sustainability in Higher Education Workshop

21 November 2024





Host Welcome



Prof. Hamid Al-Naimiy Chancellor, University of Sharjah







CAA Welcome



Dr. Sameera AlmullaDirector of CAA, Ministry of Higher
Education and Scientific Research.







Keynote Speaker 1: Sustainability Excellence in Higher Education, AUS



Julia Carlow
Associate Head of
Sustainability, AUS | AASHE
Advisory Council Member.

Biography:

Julia Carlow is the Associate Head of Sustainability at American University of Sharjah, where she leads the integration of sustainability into the academic, administrative and operational framework of the institution. With over six years of experience in Higher Education Sustainability, Julia is dedicated to promoting sustainability into all aspects of campus life and culture.

AUS | الجامعة الأميركية في الشارقة American University of Sharjah

Sustainability Excellence in Higher Education

Julia Carlow

Associate Head of Sustainability at AUS

November 2024



AUS Overview

Founded in 1997 by His Highness Sheikh Dr. Sultan bin Mohammed Al Qasimi, AUS was established with a vision to combine Islamic heritage with modern academic excellence, addressing the needs of contemporary society in the UAF and the Gulf region

Undergraduate Programs

32 majors 46 minors

Graduate Programs

18 master's programs 5 PhD programs

Academic Units

- College of Architecture, Art and Design
- College of Arts and Sciences
- College of Engineering
- School of Business Administration





Global Rankings

- Top 125 universities under 50 years of age (THE Young University Rankings, 2024))
- Top 22% globally (QS World Rankings, 2025)

Regional Leadership

 Top 10 Arab universities for 10 consecutive years (QS Arab Region University Rankings, 2025)



AUS Sustainability Journey

In 2018, AUS was the first university in the MENA region to adopt the AASHE STARS Framework.

AASHE = The Association for the Advancement of Sustainability in Higher Education







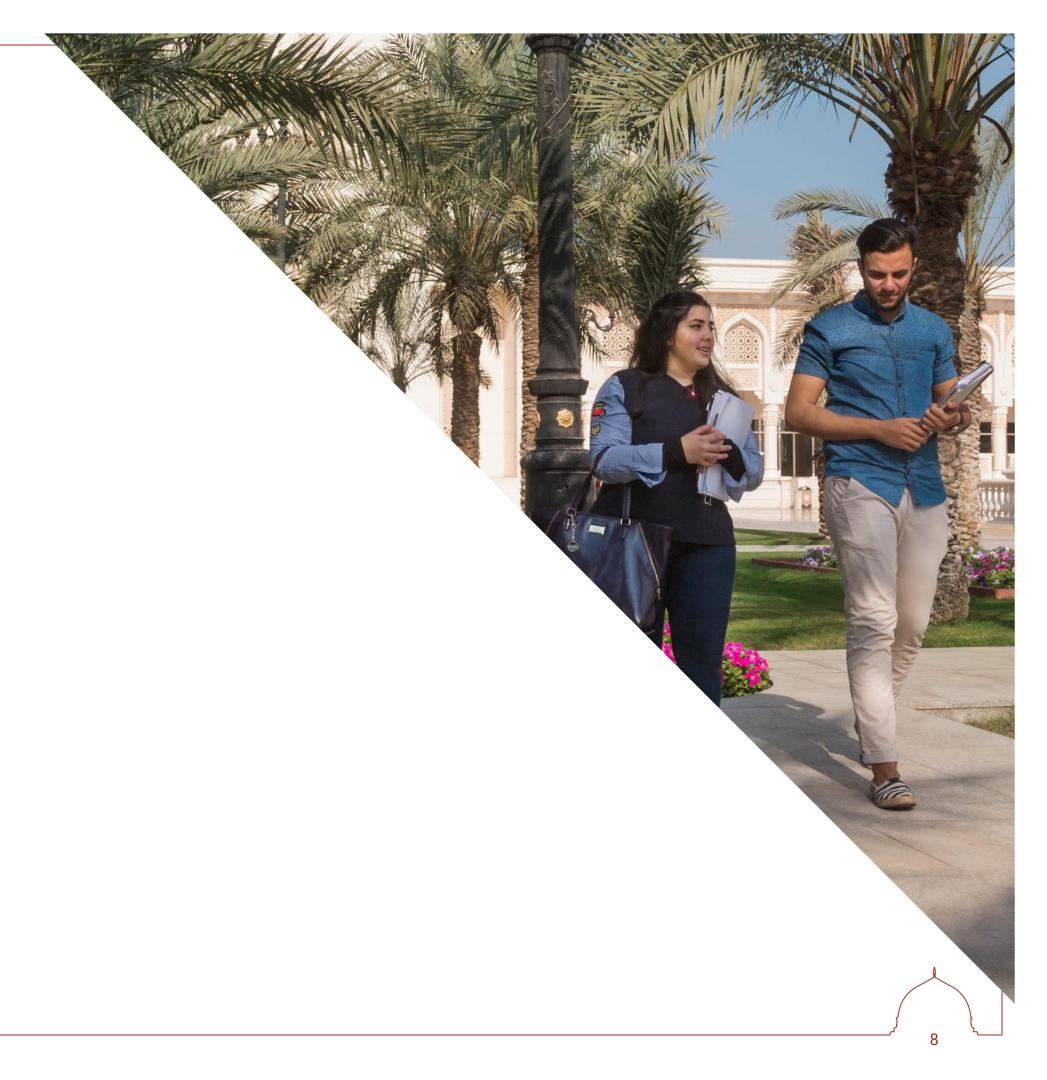


2024

The STARS Framework

STARS = The Sustainability Tracking, Assessment and Rating System

- Over 2,000 data points across 5 pillars:
 - Academics & Research
 - Engagement
 - Operations
 - Administration & Planning
 - Innovation & Leadership
- Holistic Understanding of Sustainability
- A Global Sustainability Standard





Governance

"Sustainability Vision"

- AUS Strategic Plan
- Dedicated Sustainability Office
- Health & Wellness
- Diversity & Inclusion



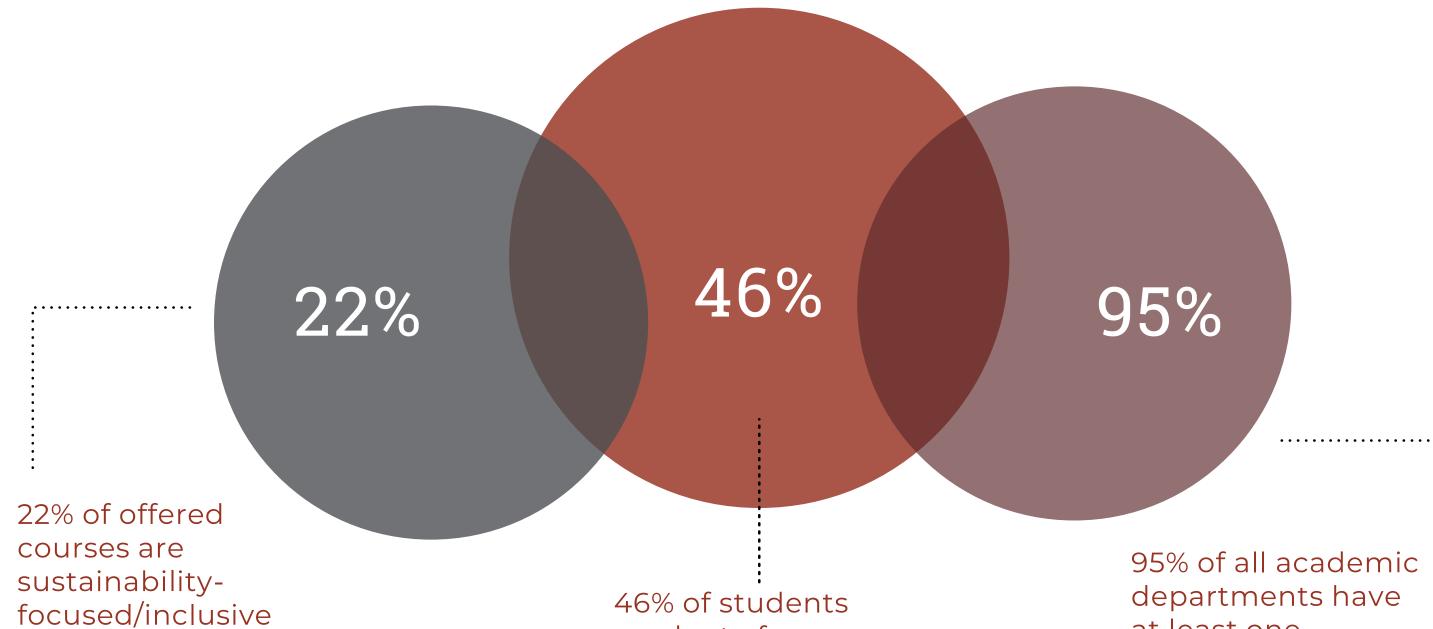
Curriculum

"Understanding Sustainability"

- Prepare students for the challenges of the 21st century
- Integrate sustainability across all academic departments
- Campus as a living laboratory



Sustainability Education at AUS



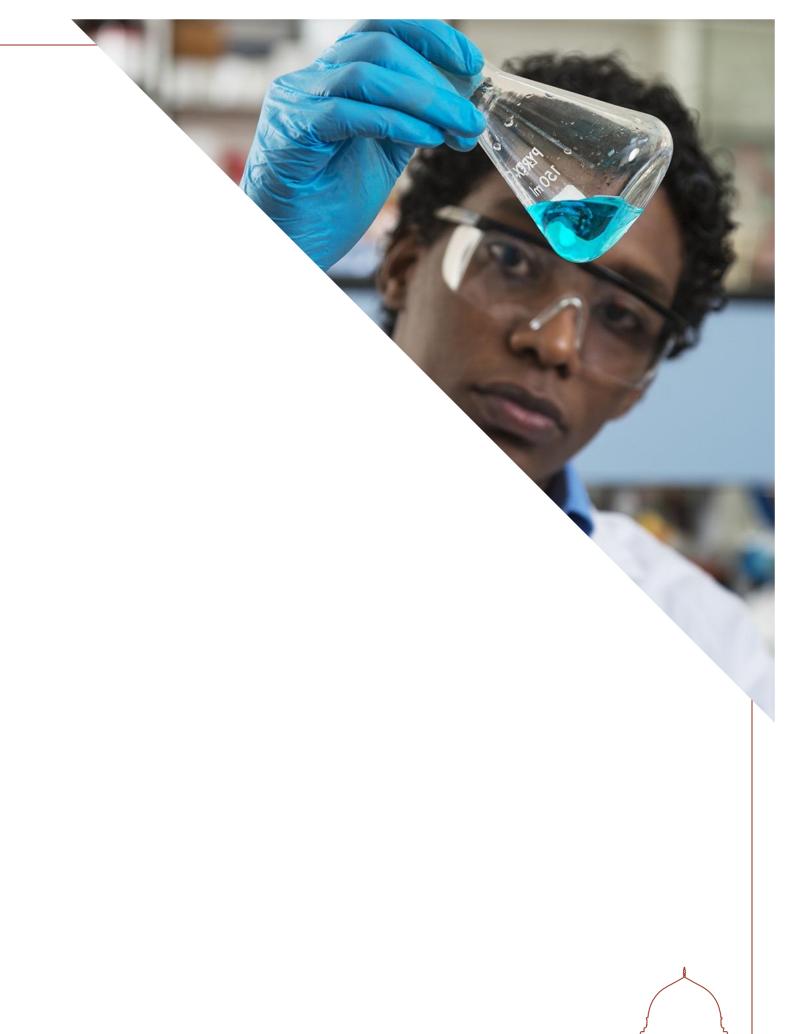
graduate from programs that require an understanding of the concept of sustainability

at least one sustainability course offering

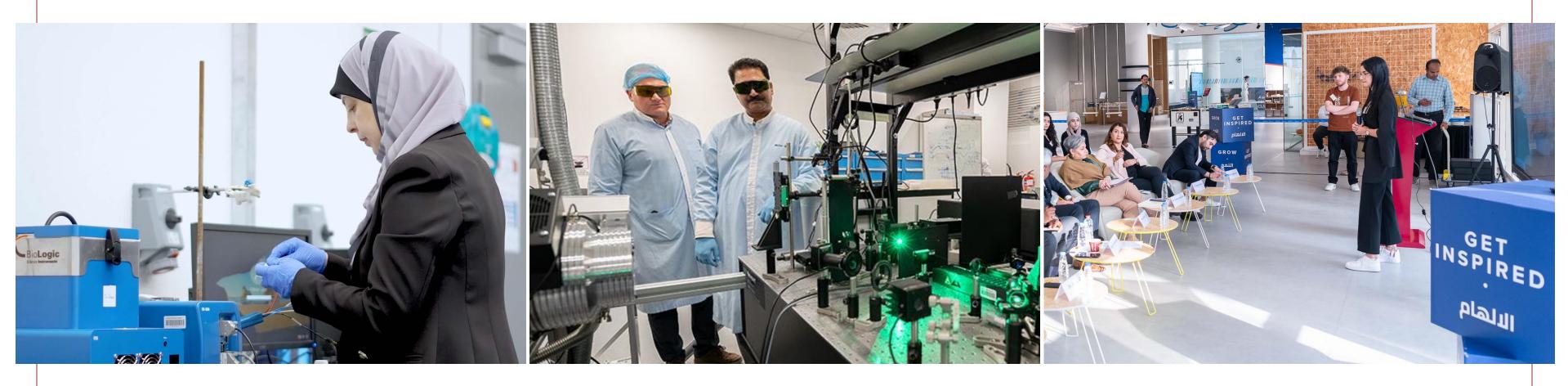
Research

"Sustainability Innovation"

- Find solutions for pressing sustainability issues
- Integrate sustainability across all disciplines
- Establish interdisciplinary sustainability research centers



Support for Sustainability Research at AUS



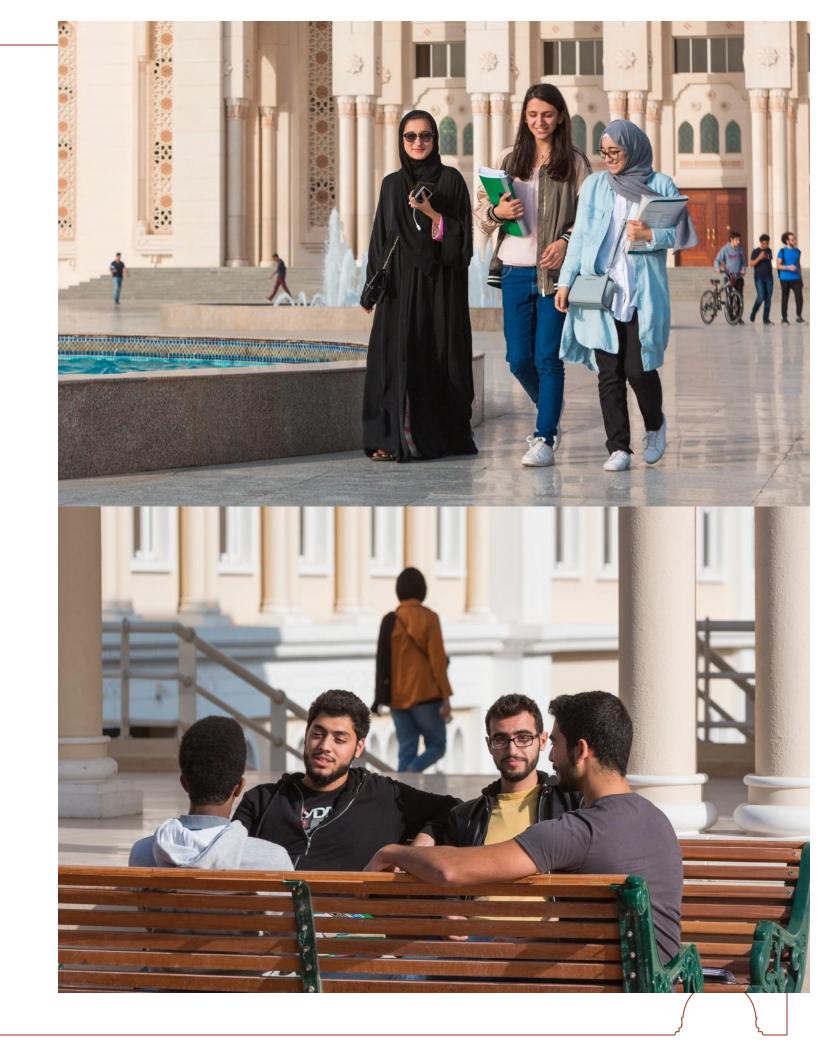
ENERGY, WATER AND SUSTAINABLE ENVIRONMENT RESEARCH CENTER

MATERIALS RESEARCH CENTER CENTER FOR ENTREPRENEURSHIP, INNOVATION AND SUSTAINABLE DEVELOPMENT

Student Experience

"Shaping a Sustainable Lifestyle"

- New Student Orientation
- Student Residential Life
- EcoRep Peer Leader Program
- Sustainable Campus Dining



Shaping Sustainable Behavior



Building Leadership Capacity



Networks & Partnerships

"Collaborating for Sustainability"

- UAE Alliance for Climate Action
- UAE Universities Climate Network
- Higher Education Climate Dialogues
 Conference
- AASHE Advisory Council





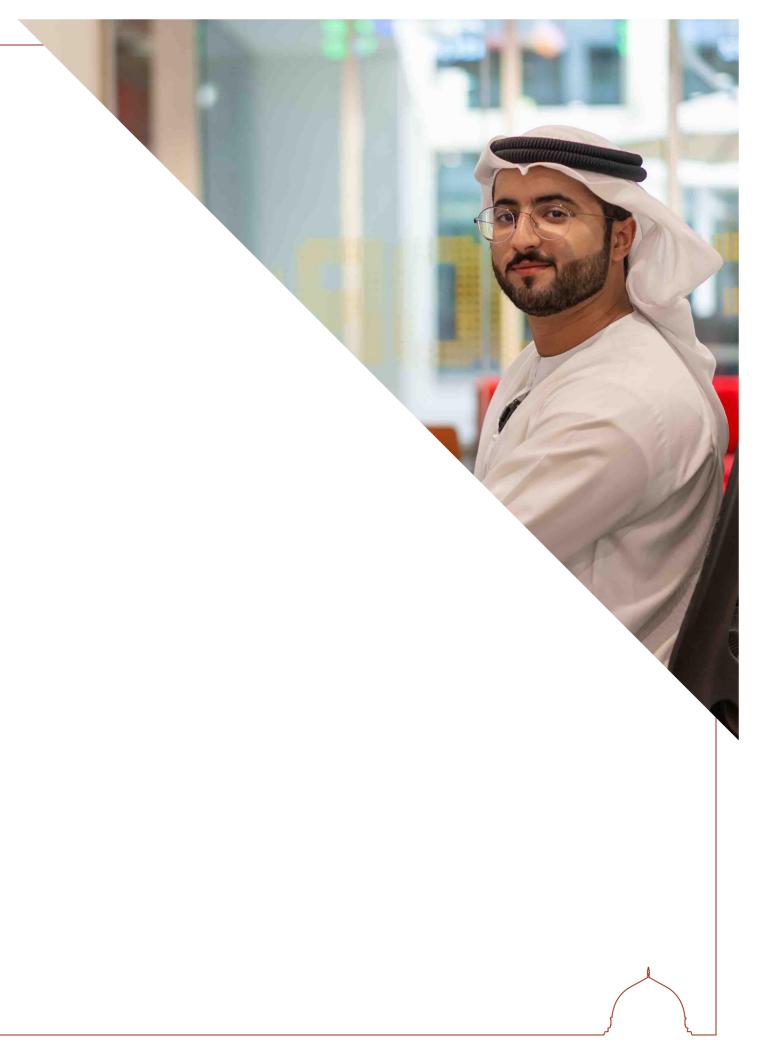




Campus Decarbonization

"Operational Excellence"

- AUS Climate Action Plan
- Annual GHG Emissions Tracking & Reporting
- Building Energy Efficiency
- Waste Minimization & Diversion



2 Pearl Estidama Rating for ESB









Opened in 2019, the Engineering and Sciences Building (ESB) meets stringent environmental and sustainability standards.

Upon opening, the ESB achieved 2 Pearl ESTIDAMA Certification, in accordance with the requirements of the Abu Dhabi Urban Planning Council and ESTIDAMA Sustainability.

Communications

"Talking about Sustainability"

- Website
- Social Media
- Newsletters & Press Releases
- Sustainability Report



Community Engagement through Social Media



562 posts 2.266 followers

316 following

AUS Sustainability

College & university

Official page of the Office of Sustainability at the American University of Sharjah @ausharjah American University of Sharjah, Sharjah

∂ docs.google.com/forms/d/e... and 3 more



Followed by nathalie.curabba, katsoskristina and 9 others

Following ∨

Message

Contact







Our Vision

Our Academics

Our Priorities

Our Resources







Thank you!







Keynote Speaker 2: University as a sustainable campus

Biography:

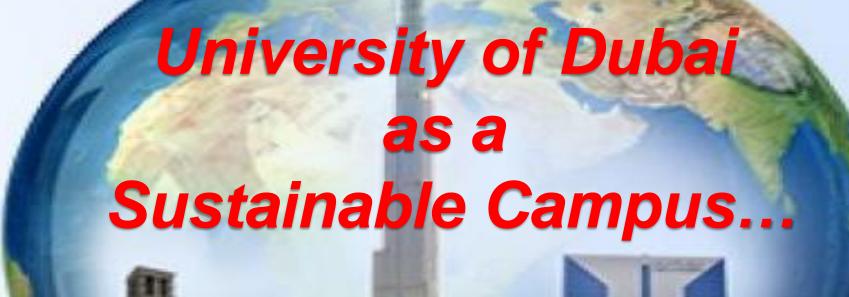
Dr. Eesa is the President of the University of Dubai and a distinguished expert in electrical engineering and communications. With a Ph.D. from the University of California, Irvine, he has over 40 years of experience in academia, research, and leadership, including roles as CEO of the ICT Fund and founding director of the IT Center at Al Ain Municipality. Dr. Eassa is an influential figure in innovation, serving as chairman of national initiatives like the Drones for Good and Robotics & Al for Good Awards. He has received numerous accolades, including the Emirates Excellence Award for Sciences and China's Medal of Honor.



Dr. Eesa Al BastakiPresident, University of
Dubai



CAA Sustainability in Higher Education Workshop, 21 November 2024, University of Sharjah...



21 November 2024



Dr. Eesa M. Bastaki President, University of Dubai



مبادرة من httiotive by the مبادرة من غــرفــــة دبــايــ DUBAI CHAMBER



2.Disruptive Innovation: "is an innovation that creates a new market and value network and eventually disrupts an existing market and value network, displacing established market leaders and alliances (Wikipedia)."









University of Dubai

21/11/2024

University of Dubai as a Sustainable Campus...

Dr. Eesa Al Bastaki

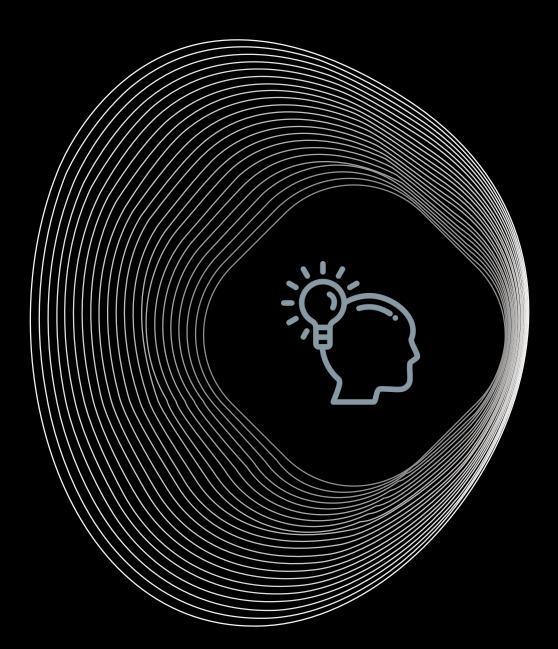
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The Human Capital & Leadership...

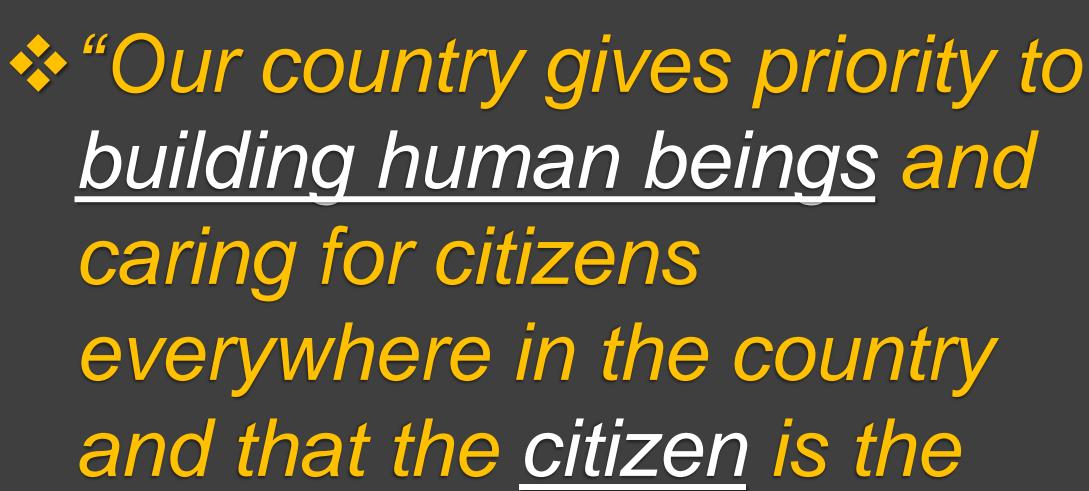




- Sustainability in Environment, Society & Economy...
- Sustainable Humanity...







Sheikh Zayed bin Sultan Al Nahyan (God Bless him)

real wealth on this land."











A true creative leader...

*"The Federation of the United Arab Emirates has relied, and will continue to rely, on the rich and diverse contributions of its true wealth, its people, to guarantee its prosperity."

Sheikh Khalifa bin Zayed Al Nahyan





A true creative leader...

- "If we actually invest correctly now, 50 years later we will be celebrating the export of the last barrel of oil."
- * "No place for those who lack science and knowledge"

Sheikh Mohammed bin Zayed Al Nahyan

UAE President









"There is no substitute for first place."

* "Impossible is not in our dictionary in the Emirates."

* "I want you young leaders to be lions and to lead lions, who take the initiative, propose, discuss and accomplish."

Sheikh Mohammed bin Rashid Al Maktoum
UAE Vice President, Prime Minister & Ruler of Dubai

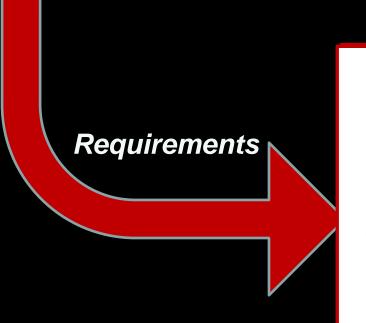




Post-Oil Strategic Vision...

"To achieve a long-term sustainable, prosperous & productive lifestyle after oil for UAE's next generations"





صُنع في الإمارات ويُباع عالمياً Made in UAE, Sold Globally





4th Industrial Revolution... (IR4.0)

The Foundation of IR4.0: STEM \rightarrow STEAM \rightarrow STREAM...



- Coopetition
- Disruptive Innovation



الـوصـــارات THE EMIRATES

الثورة الصناعية الرابعة

4th Industrial Revolution

Green Economy الاقتصاد الأخضر

التكنولوجيا النانوية Nano-Technology (NEMS)

الروبوتات

طباعة ثلاثية الأبعاد ملا علا علا

ireen Economy

الروبوتات Robotics

Systems

بلو کشین

BlockChain

Drivers

Quality of life Engineering Sciences

1st

Power generation

Mechanical automation

إنترنيت الأشياء/1Pv6

4th Industrial Revolution (IR 4.0)

2nd

1913

Industrialization

Electronic

Automation

البانات الضخمة

Big Data

5G

Cloud Computing

Artificial Intelligence

Internet of Things
 BlockChain

> Biotechnology

Big Data

The 4th Industrial Revolution - "Industry 4.0"

Internet of Things (IoT)/IPv6
Wi-Fi 6 (IEEE 802.11ax, 9.6Gbps,
1024 QAM, Channel of 160MHz BW)

الواقع الافتر اضي والمعزز /GPT AR/VR/GPT/Metaverse التكنولوجيا الحيوية Bio-Technology الحوسبة السحابية Cloud Computing

The UAE National Strategy for Innovation, Oct 2014

The objective of the National Innovation Strategy is to stimulate innovation in 7 sectors (THE WREST):



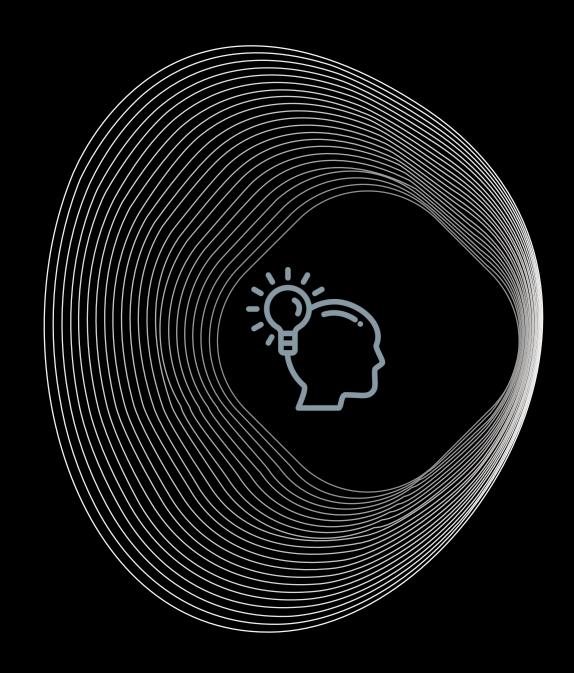








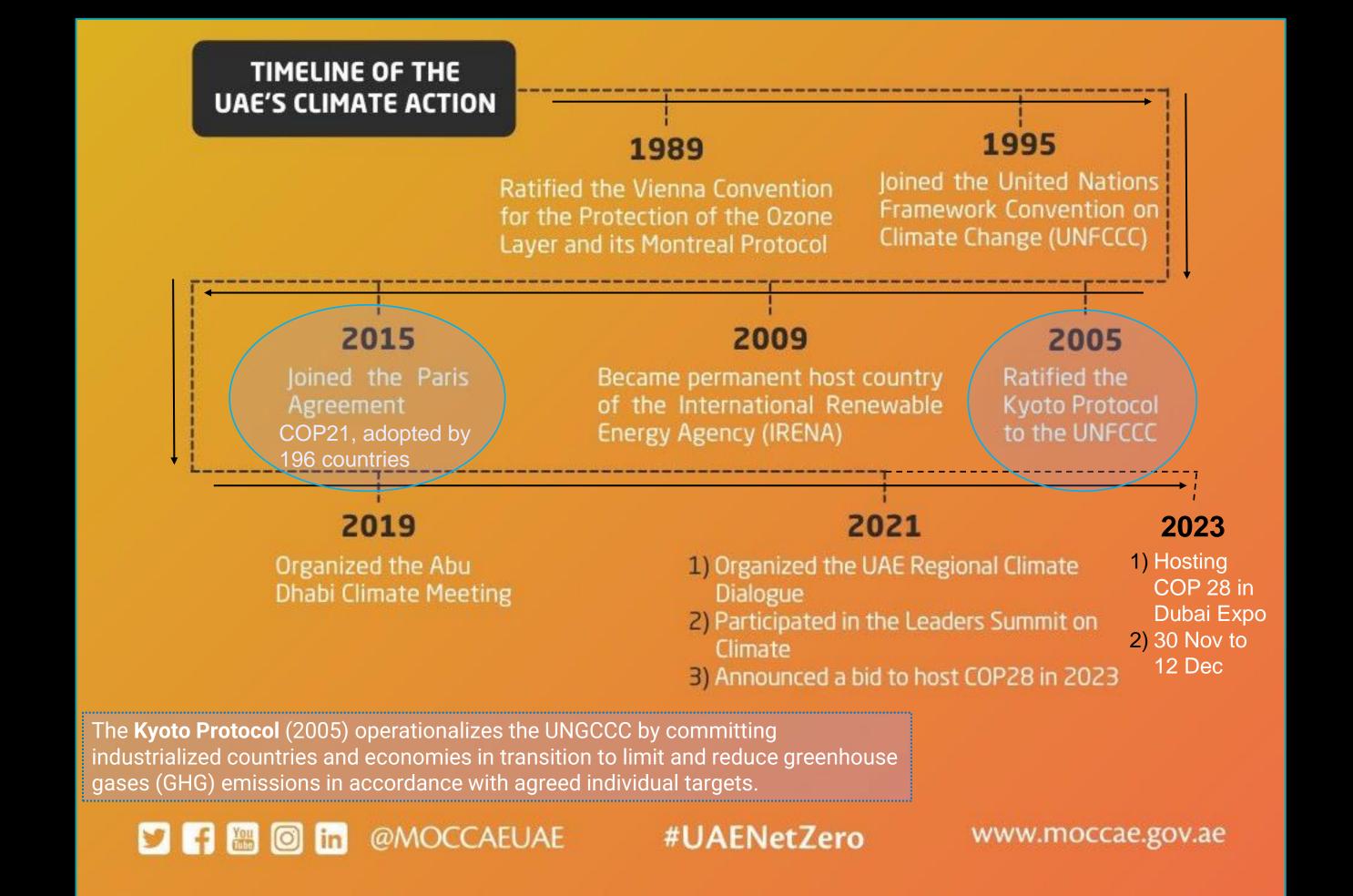
UAE's Climate Change Mitigated Action...



Timeline of the UAE's Climate Action

- Coopetition
- Disruptive Innovation







A Bridge to Greater Climate Ambition

- The <u>Paris Agreement</u> calls for stepping up climate ambition in order to keep the <u>increase in global average temperature to well below 2°C</u>, and to pursue efforts to <u>limit the temperature rise to 1.5°C</u>.
- The Agreement set up a clear mechanism to share Nationally
 Determined Contributions (NDCs) every five years to reflect their
 highest possible ambitions. The NDCs are the main climate change policy framework for parties to the (UNFCCC).
- The UAE updated NDC by raising its 2030 target with greater ambition 31% compared to business as usual (BAU) for the year 2030. The country has also announced its intention to achieve net-zero emissions by 2050.

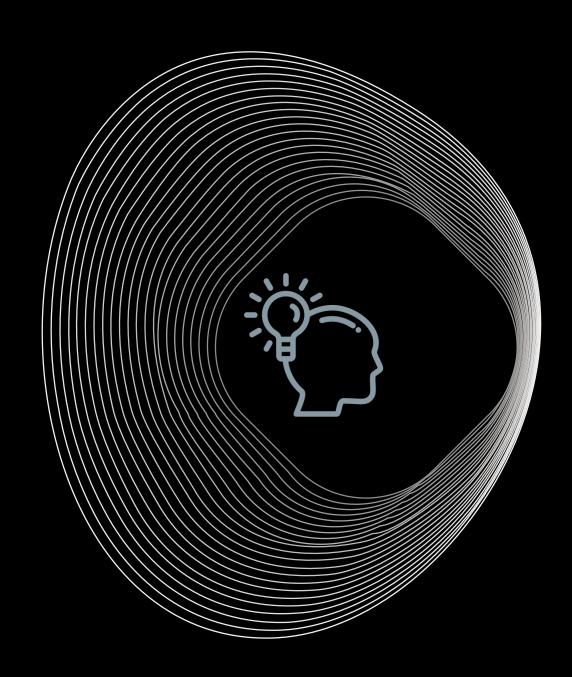








Dubai's Climate Change Mitigated Action...



Timeline of Mohammed bin Rashid Al Maktoum Solar Park (MBRSP)

The MBRSP Story

Phase 2

The 200MW 2nd Phase uses The 13MW 1st photovoltaic solar (PV) panels and became operational in March 2017.

Phase 3

The 800MW 3rd phase uses photovoltaic solar (PV) panels and became fully operational in November 2020.

Phase 4

The 950MW 4th phase combines 700MW from Concentrated Solar Power (CSP) and 250MW using photovoltaic solar (PV) panels. A total of 417MW of the 4th phase using PV and CSP is already operational

Phase 5

The 900MW 5th phase uses photovoltaic solar panels, A total of 600MW of the 4th phase is already operational

Phase 6

The 1800MW 6th phase uses photovoltaic solar panels (PV). It will become operational in stages.

Production capacity of <u>5,000MW by 2030</u> with a total investment AED 50 billion. Upon its completion, the Solar Park will reduce more than 6.5 million tons of carbon emissions annually. Clean energy will contribute 25% of the total energy generated.

The MBRSP supports the **Dubai Clean Energy Strategy 2050** and the Dubai Net Zero Emissions Strategy 2050 to provide 100% of its energy production capacity from clean energy sources by 2050.

Phase 1

phase uses photovoltaic solar (PV) panels and became operational in

October 2013.



University of Dubai...

A Sustainable Institution of Quality...

Being Smarter, Greener & Disruptive...



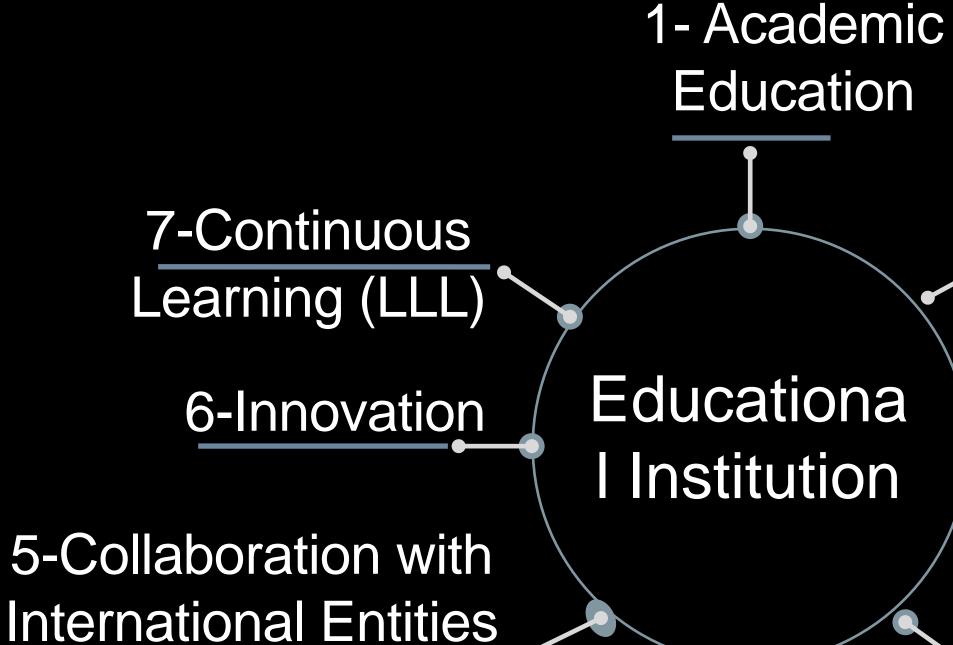




The Foundations and Objectives of Educational Institutions...

Output





2-Community
Service

3-Scientific Research (R&BD)

4-Partnership with

Government & Industry

(Triple Helix)

- 1. Academic Degree
- 2. Professional Certificate
- 3. Start-up
- 4. Lifelong Learning
- 5. Soft Skills

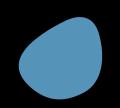
- Meet the market needs
- Meet the needs of society
- Meet the industry's needs
- Meet the economic sustainability needs
- Maintain principles



Drones Lab Entrepreneurship & Innovation Free Zone المنطقة الحرة لريادة الأعمال والابتكار

Huawei Lab & Academy







DEWA Lab





Scenario Lab

جامعة دبي University of Dubai



DESC Research Center





College of Engineering & IT كلية الهندسة وتقنية المعلومات

Center for Executive Development مركز التطوير التنفيذي

Center for Fut

Studies



جــخورمحليـة.تطلعاتعالـميـة. Local Roots. Global Reach.

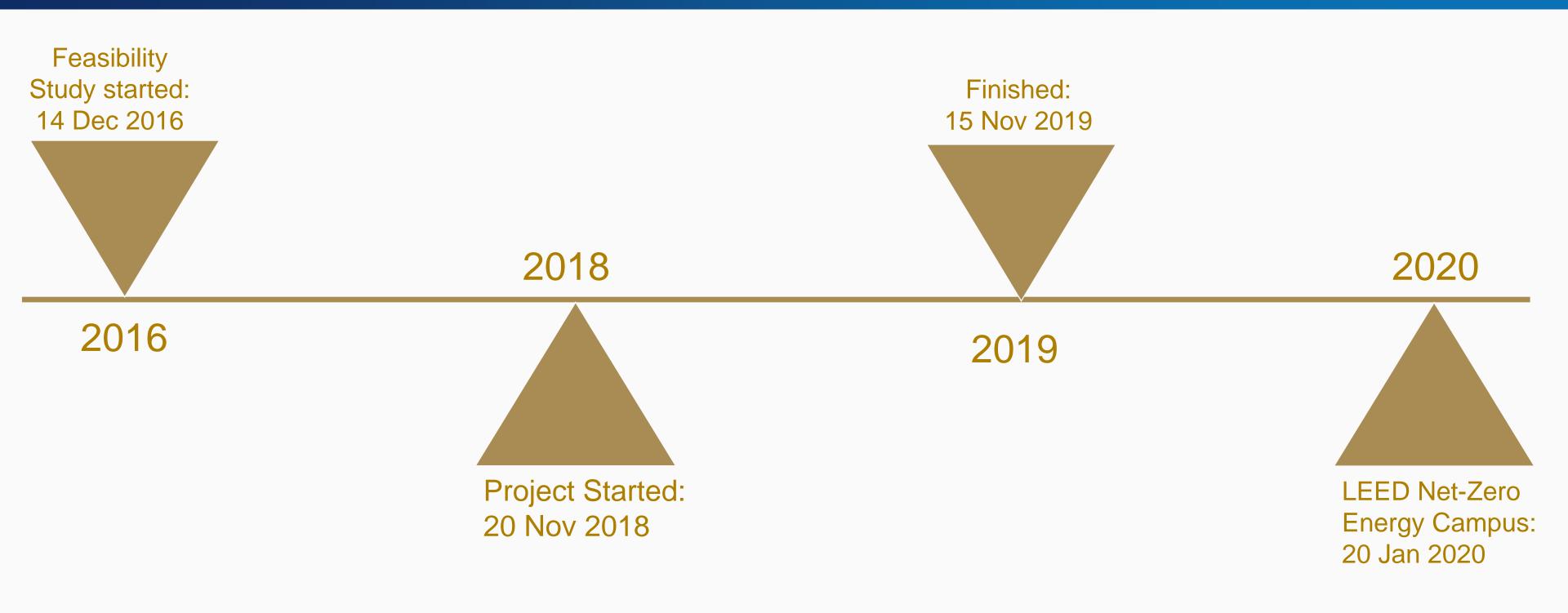














Capacity: Nearly 1.7 MW
(Ground mount solar plant)
+ parking top 0.3 MW
Total capacity: Nearly 2MW

The % of the University electricity offset by solar: 100%

Expected Internal Rate of Return (IRR): 23% per Year

Expected Payback: 5 years

Expected savings during 1st year of operation: AED 1,200,000

Total Project Cost: AED 6 million, ROI in 5 years (economically feasible)

System Design Life: 30 years

CO2 emissions abated: 2,040

tons

Using Robotic drycleaning system: 34000 Liters of water may be saved per month. 30% of water is produced from condensation. Used for cooling system and the fountain.

In 2024 and for 25 years later, energy cost in UD will be zero and carbon footprint will be zero.



LEEDZero

University of Dubai

DUBAI, UNITED ARAB EMIRATES

has fulfilled the requirements of LEED Zero Energy certification, as verified by Green Business Certification Inc.

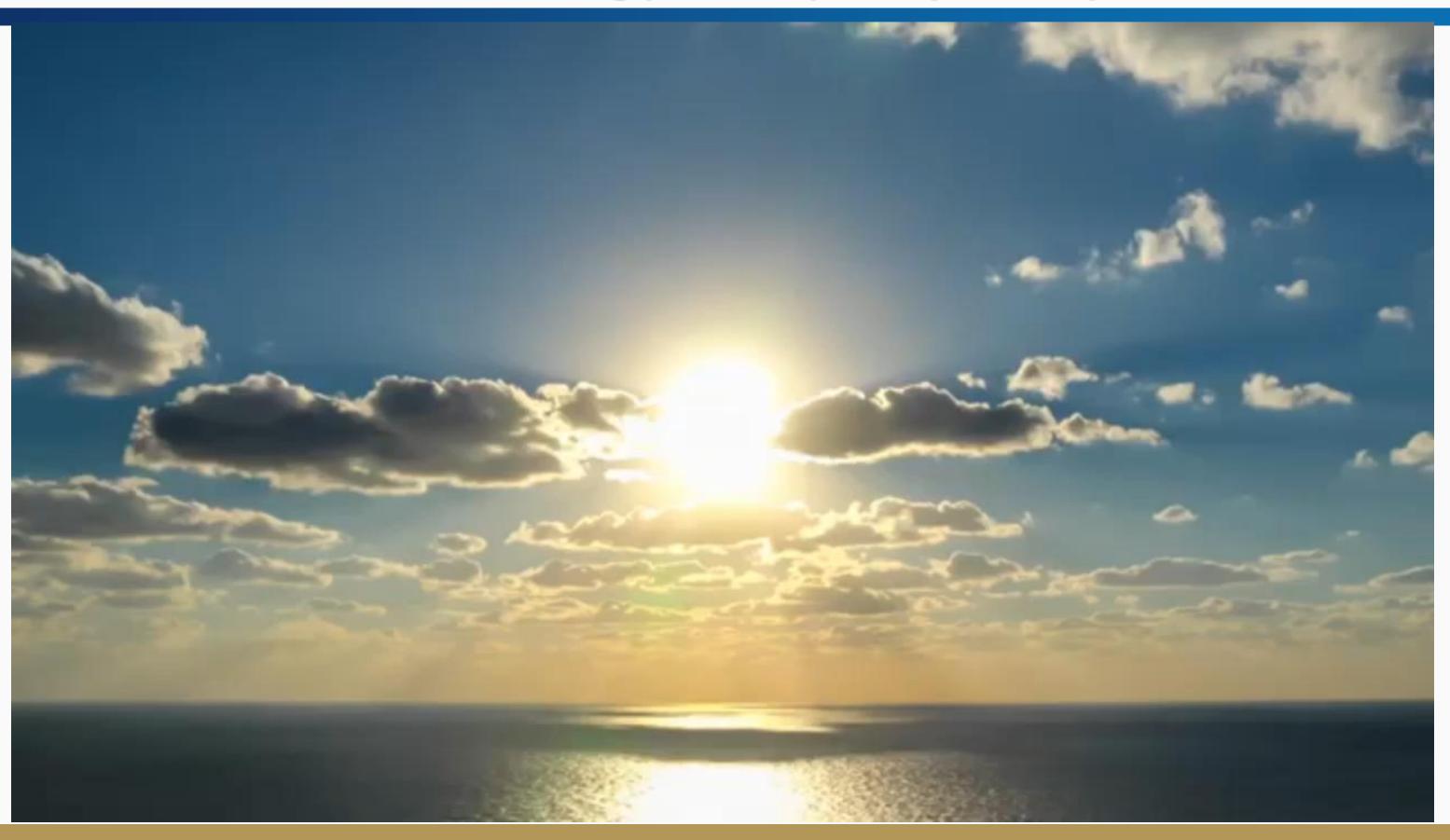
LEED Zero, developed by the U.S. Green Building Council, is a complement to LEED that verifies the achievement of net zero goals and signals market leadership.

LEED Zero Energy

JANUARY 2022

Peter Templeton, President & CEO
U.S. Green Building Council & Green Business Certification Inc.







I have Ambitions For Innovations...

"Fortune Favors the Bold" By Lester Thurow



- The Future is what our imagination Leads us to
- The Future is What We Create Now
- And the Imagination of the Future is Limitless





THANK YOU...

Dr. Eesa Al Bastaki

President, University of Dubai Chairman, Emirates Science Club Honorary Chair, IEEE UAE

eesa@ud.ac.ae

eesa@bastaki.ae



- Coopetition
- Disruptive Innovation







Youth & Sustainability in Higher Education in UAE

Biography:

Majed is a passionate advocate for sustainability and youth empowerment, serving as the UAE Nature Ambassador and President of the Green Youth Majlis, where he leads impactful environmental initiatives. He is the recipient of the prestigious Hamdan Bin Zayed Environmental Medal. He is also the Founder of ATHR Project, a project that empowers youth to embark on meaningful social giving journeys, inspiring action and fostering a sustainable future.



Majed Bin SaadPresident, UAE Green Youth Majlis.







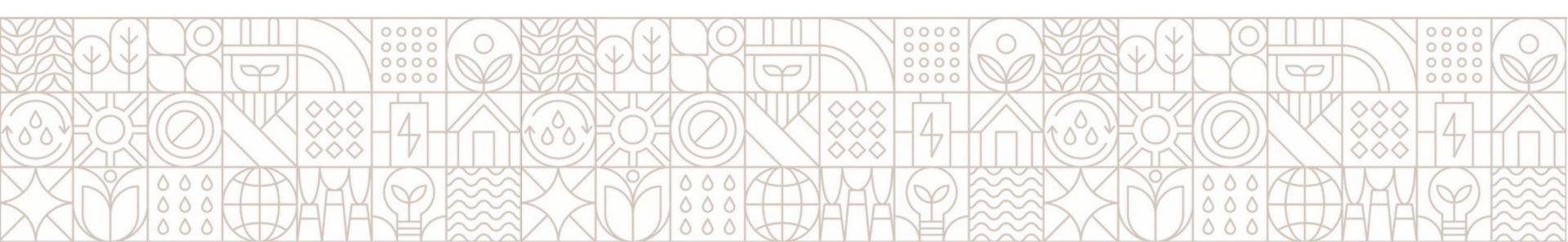
YOUTH & SUSTAINABILITY IN HIGHER EDUCATION

Majed Abdullah Bin Saad

Founder of ATHR Project, Emirates Ambassador For Nature

MAABS.1

21 / 11 / 2024









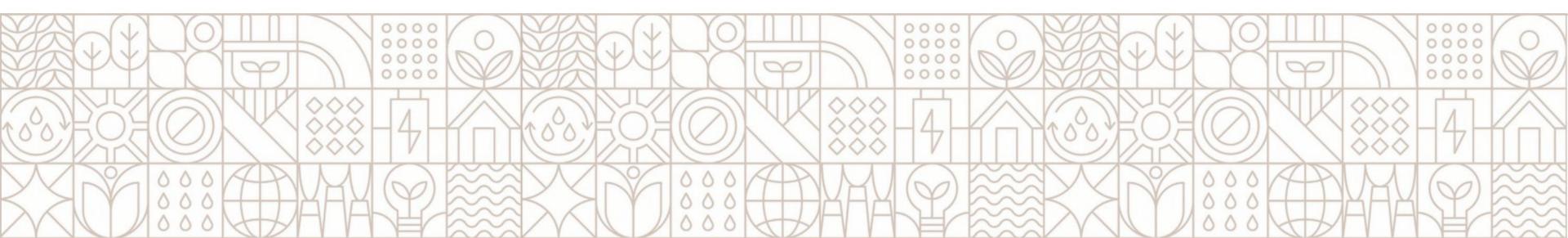
YOUTH & SUSTAINABILITY IN HIGHER EDUCATION

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Founder of ATHR Project, Emirates Ambassador For Nature

MAABS.1

21 / 11 / 2024









ATHR PROJECT SEEDS OF CHANGE

مــشــروع إجتماعي رائـــد يــمـــهــد الـطريــق أمـــام الأفــراد والــجـــهــات لـتحــقيــق الــتــمــيــز فـي الــعــطــاء مـن خـلال مـجـمـوعــة مـتنــوعــة مـن الـحـلـول الـمـبـتـكـرة Pioneering Social Project Paves The Way For individuals & Organizations To Achieve Excellence in Giving Through a Diverse Range of innovative Solutions

@ MAABS.1

ATHR_UAE



About Us









ماجد عبدالله بن سعد



Majed Abdullah Bin Saad

Pioneering Social Project Paves The Way For individuals & Organizations To Achieve Excellence in Giving Through a Diverse Range of innovative Solutions Majed Abdullah bin Saad is an inspiring leader who drives societal change voluntarily in the United Arab Emirates. Through his firm commitment to community service and youth empowerment, Majed is a role model across various entities. He inspires and leads by example, actively volunteers and launches impactful social projects.

www.najahplatform.ae/athr

www.instagram.com/maabs.1









1

Academics and Research

Framework Pillars 6

Implementation Plan

2

Community Engagement 5

Innovation and Leadership

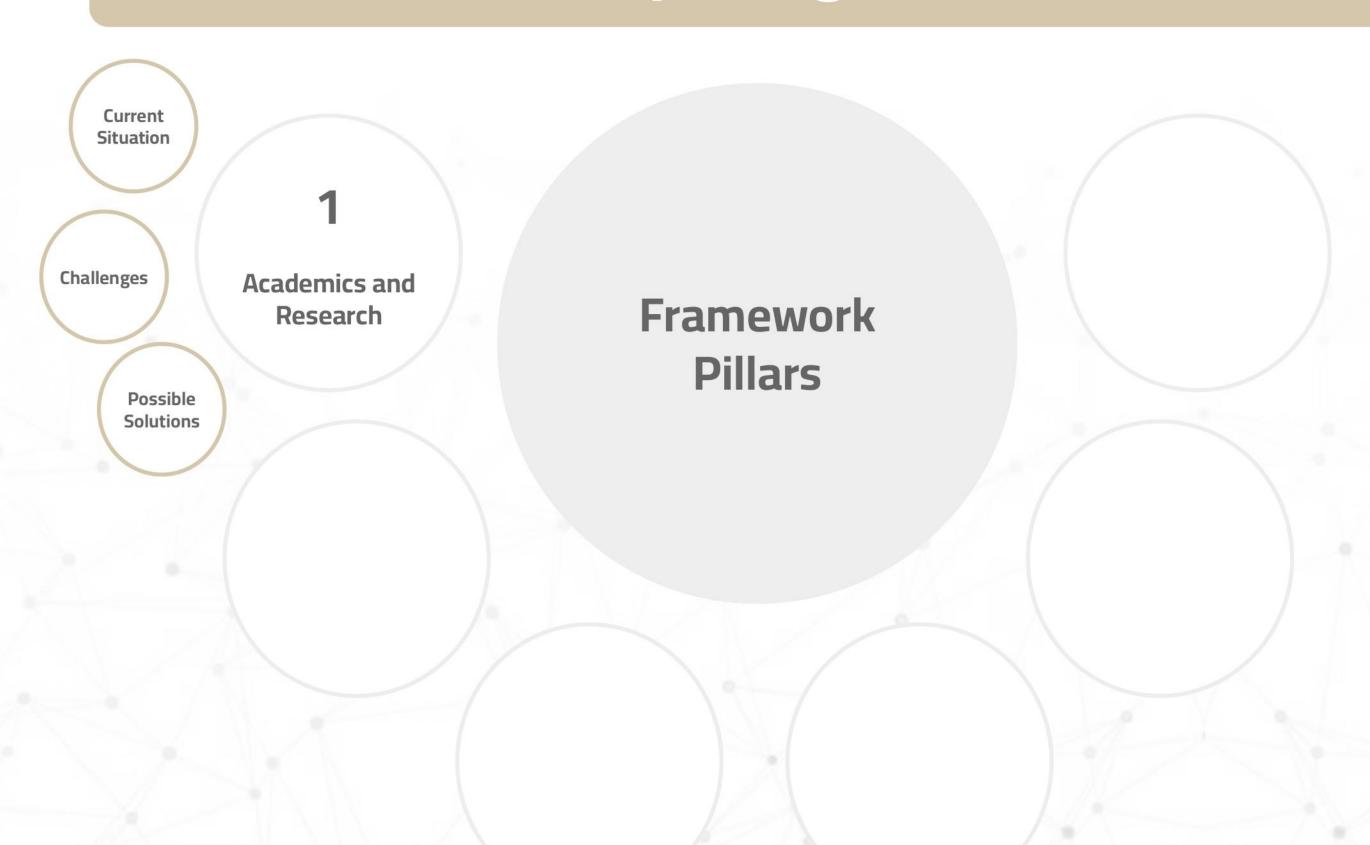
3

Operations and Sustainability 4

Planning and Administration











1 - Academics and Research

Current Situation

Universities offer a range of sustainability courses, including electives, and provide various project opportunities within the field.



Challenges

Many projects end after grades are assigned, with continued development relying heavily on the advisor's interest and workload. If sufficient students or researchers aren't involved, projects risk being shelved.



Possible Solutions

Establish a dedicated committee to monitor project outcomes, ensuring research continuity even if an advisor is unavailable. The committee could also decide on project continuation based on national needs and feasibility. For promising projects, offer support to transform them into startups, recognizing that academic advisors may focus more on publications than entrepreneurship.





2 - Community Engagement

Current Situation

Numerous engagement opportunities exist both on and off campus.



Challenges

Student participation often remains passive, with most students attending as observers.



Possible Solutions

Engage students by aligning events with their interests and providing leadership roles for those eager to manage social projects.

Empowering students in this way can help build ownership and community involvement.





3 - Operations and Sustainability

Current Situation

Student involvement in campus sustainability operations is minimal.



Challenges

Engagement is often limited to filling out feedback forms, offering little active involvement.



Possible Solutions

Establish a council or committee that includes both students and staff to collaborate on campus sustainability. Increase support for student sustainability clubs, integrating them into campus initiatives to strengthen the connection between student activities and university goals.





4 - Planning and Administration

Current Situation

Student roles are primarily limited to volunteering opportunities.



Challenges

Volunteering roles may not always help students develop professional skills.



Possible Solutions

Introduce official roles for students, allowing them to participate in sustainability projects in capacities such as freelancers. This offers hands-on experience, providing a professional environment for skill development alongside their studies.





5 - Innovation and Leadership

Current Situation

Various opportunities exist to support students in advancing their ideas and leadership, such as the Ministry of Education's "The Grad Fund" for student entrepreneurs.



Challenges

Many students are unaware of available opportunities, and the abundance of options can make it difficult to choose the most beneficial ones. Lack of mentorship in selecting opportunities aligned with their goals adds to the challenge.



Possible Solutions

Develop a dedicated platform, like the "Najah Platform," to guide students by providing information on opportunities and potential benefits. By keeping the content updated, students can remain informed and make decisions that support both their short- and long-term goals.





6 - Implementation Plan

Current Situation

Student involvement in implementation planning is minimal.



Challenges

Students are often unaware of implementation plans, preventing them from shaping their ideas to align with project stages.



Possible Solutions

Include students in implementation planning teams, allowing them to contribute diverse perspectives on growth and impact, which may also better align the project with both student and institutional needs.





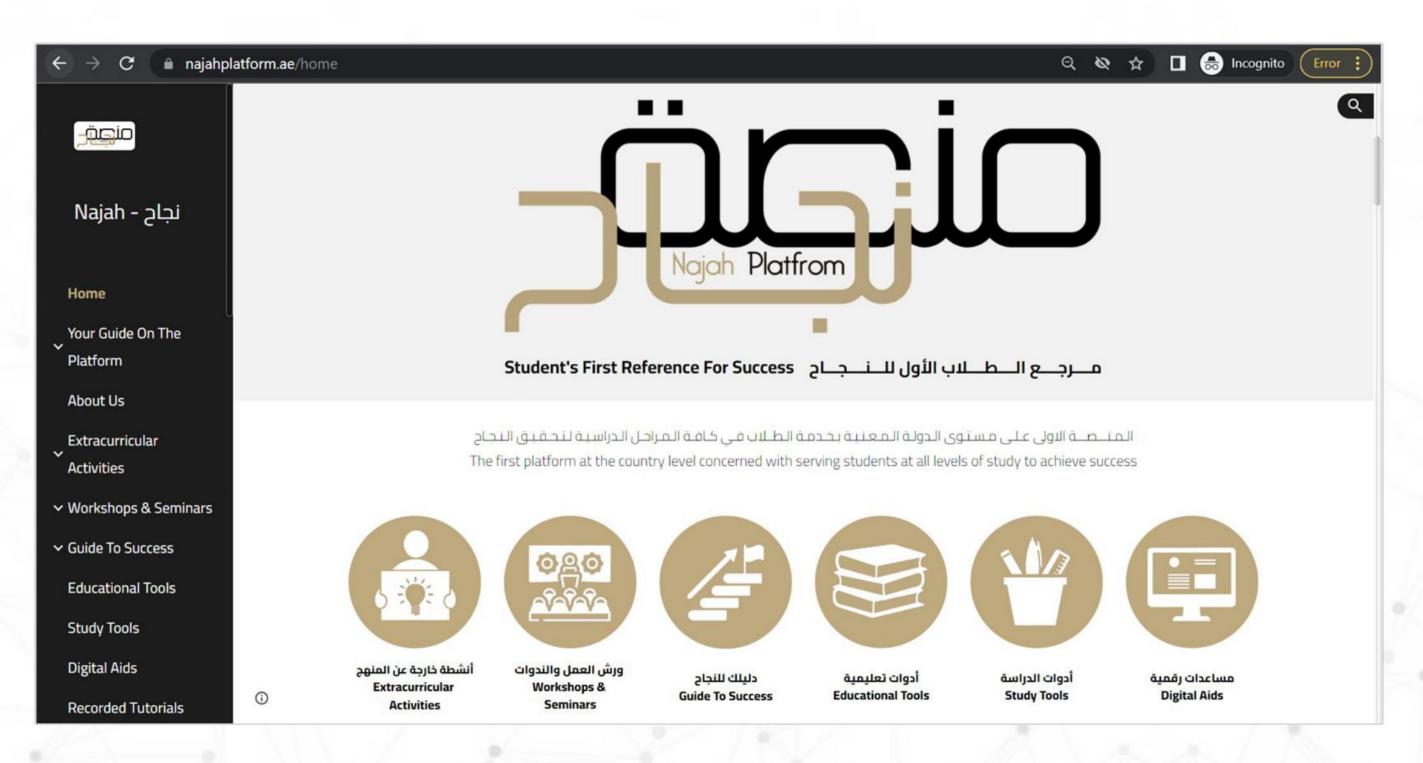
Projects By ATHR Related to Sustainability



NAJAH Platform



Platform Launched in 2022





MAHATAT Project





Empowering Individuals, Transforming Communities

Mahatat is a comprehensive initiative designed to empower individuals and foster community engagement.

By integrating a series of interconnected stations, we create engaging and interactive experiences that empower individuals to contribute meaningfully to their community.





MAHATAT Project



Our Journey Of Impact



Recycling Station



Craft Station



Art Station



Impact Station

Tarhum For Gaza Campaign 2023



Opportunity

Ramadan Campaign 2024



With Knowledge We Empower Campaign 2024



UAE Stand With Lebanon Campaign 2024





















Haj 2024







UAE Stand With Lebanon Campaign













شتلة تـم زراعتـهـا **Seedling Planted**

+1,000



فردحقق التميز **Individual Achieved Excellence**



منتج تم انتاجه **Products Produced**

+1,500

أفراد تــم اشراكهـم

Individuals Engaged

+500



موادتم إعادة تدويرها



Materials Recycled

+15,000 kg



فرصحة تم المساهمة فيها **Opportunity We Contributed In**

+50



جهةتم التعاون معها **Entity We Collaborated With**



أفرادتم تثقيفهم **Individuals Educated**

+2,000



قيمة المشاريع المجتمعية المستكملة Value of completed community projects

+12,000 AED



مشاريع مجتمعية تـم التكفل بها **Community Projects Sponsored**





ATHR PROJECT

SEEDS OF CHANGE

THANK YOU

Majed Abdullah Bin Saad

Emirates Ambassador for Nature, Youth Advisor For The Green Youth Majlis, Founder and President of the ATHR Volunteer Team, Honored with the Sheikh Hamdan Bin Zayed Environmental Medal, Honored with the Best Individual Supporting Volunteer Work Award.

00971543332290

Majed.a.Bin.Saad.1@gmail.com

مــاجــد عبدالله بــن ســعــد

سفير الامارات للطبيعة، مستشار الشباب في المجلس الأخضر للشباب، مؤسس ورئيس فريق أثر التطوعي، متوج بوسام الشيخ حمدان بن زايد البيئي، متوج بجائزة أفضل فرد داعم للعمل التطوعي على مستوى الدولة







Universities Climate Network



Dr. Rasha Bayoumi,
Co-Chair of UCN and Head of
Research, University of Birmingham
Dubai

Biography:

Rasha is the Associate Professor of Psychology and Head of Research at the University of Birmingham Dubai, has decades of experience, including a postdoctoral fellowship at Harvard and work with the WHO. As Co-Chair of the UAE Universities Climate Network, she provides strategic leadership to drive climate action and sustainability initiatives across the UAE's academic sector, fostering regional and international engagement.



Universities Climate Network
Dr Rasha Bayoumi,
Co-Chair of UCN and Head of Research, University of Birmingham Dubai
CAA Sustainability in Higher Education Workshop
21st November 2024

The Universities Climate Network (UCN)

The Universities Climate Network (UCN), led by University of Birmingham Dubai, Khalifa University, and Ajman University, brings together 35 UAE-based universities and higher education institutions to engage youth and academia in climate action.



Prof. Samuel Mao

Senior Director of Masdar Institute, Khalifa
University
UCN Co-Chair



Dr. Rasha Bayoumi

Head of Research,

University of Birmingham Dubai

UCN Co-Chair



Ms. Maya Haddad

Sustainability / EHS Manager,

Ajman University

UCN Head of Operations



The UCN Pillars

The UCN focuses on four key pillars: Student Youth Engagement, Communal Activations, Research & Innovation, and Campus Carbon Neutrality to foster a collaborative approach toward sustainability and climate solutions.



Research & Innovation

UCN Pillar leads:



Prof. Samuel Mao



Dr. Nada Sayarh



Student Youth Engagement

UCN Pillar leads:



Mr. Stephen Sidney Gil



Dr. Bhakti More



Communal Activations

UCN Pillar leads:



Prof. Sherine Farouk



Ms. Jawaher Al Shehhi



Campus Carbon Neutrality

UCN Pillar leads:



Ms. Julia Carlow



Ms. Maya Haddad



Youth Engagement Pillar

Objectives & Goals

- Understand the current knowledge and perceptions of students, faculty, and employers to design a comprehensive "Green Skilling for All" program that aligns with their needs
- Implement various educational initiatives, such as workshops, seminars, and curriculum integration, and establish accessible resources to foster a sustainable mindset and skillset
- **Foster** students involvement in projects by providing funding, mentorship, and opportunities, empowering them to advocate for sustainable practices and policies within their universities and communities



Youth Engagement Pillar

Objectives & Goals

- Partner with external organizations to provide learning experiences for students through internships, volunteering, and competitions to solve real-world challenges for climate action
- Foster collaboration and knowledge sharing through local networks and online platforms to address Climate Change
- Partner with external organizations and host events to promote initiatives addressing Climate change and solutions on a global scale



Green Skills: Challenges & Opportunities



UCN Launches Nationwide Climate Survey in UAE





The UCN Nationwide Climate Survey UAE

The UCN Youth Engagement Pillar conducted a brief survey to assess perceptions of climate change awareness among students, faculty, staff from Higher Education, and employers in the UAE.

The aim of the survey was to understand:

- Awareness on Climate Change
- Initiatives and opportunities in Higher Education focusing on climate change
- Integration of climate change in the curriculum, teaching and research
- Identify short-term needs, and industry requirements

Outcome of survey:

- To enhance awareness and activities on 'Climate Change'
- Insights will help enhance climate change initiatives, fostering a workforce equipped with essential climate action competencies.
- The goal is to address and bridge gaps in climate change education to better prepare students as future leaders











UAE Pavilion Blue Zone, Baku Stadium





















COP29 Baku Azerbaijan

The UCN Youth Workshop at COP29

- Carbon Literacy Workshop: Student Led-Workshop on 'Understanding and Reducing Your Carbon Footprint'
- COP29 UAE Pavilion, Blue Zone, Baku Stadium, Baku, Azerbaijan
- **Objective:** To educate participants on their carbon footprints in various aspects of life and encourage actionable changes. Each student facilitator will share their knowledge, insights and actions that have stemmed from improved carbon literacy knowledge on key areas such as energy, food, waste reduction and transportation.
- Description: 9 students from 6 universities in the UCN facilitated this Carbon Literacy workshop. Participants engaged in an interactive game to increase their carbon literacy knowledge. Facilitators shared how their improved carbon literacy knowledge has impacted their actions in the UAE.





Questions







Sustainability in Higher Education Draft Guidance Manual



Prof. Mufeed Batarseh
Policy Development and Quality
Expert in Vocational Education and
Commissioner at CAA, MoHESR

Biography:

Mufeed Batarseh is an environmental chemistry expert with over 20 years of experience in higher education, research, and leadership. He has held key roles at institutions like Mutah University, Abu Dhabi Polytechnic, and the Prince Faisal Center for Dead Sea Research, contributing to sustainability and environmental science. Currently serving as a commissioner at the UAE's Commission for Academic Accreditation (CAA), he specializes in policy development, quality assurance, and fostering international research collaborations.

UNITED ARAB EMIRATES MINISTRY OF HIGHER EDUCATION & SCIENTIFIC RESEARCH





GreenEd Framework

Sustainability in Higher Education Workshop

UoS, 21 Nov 2024







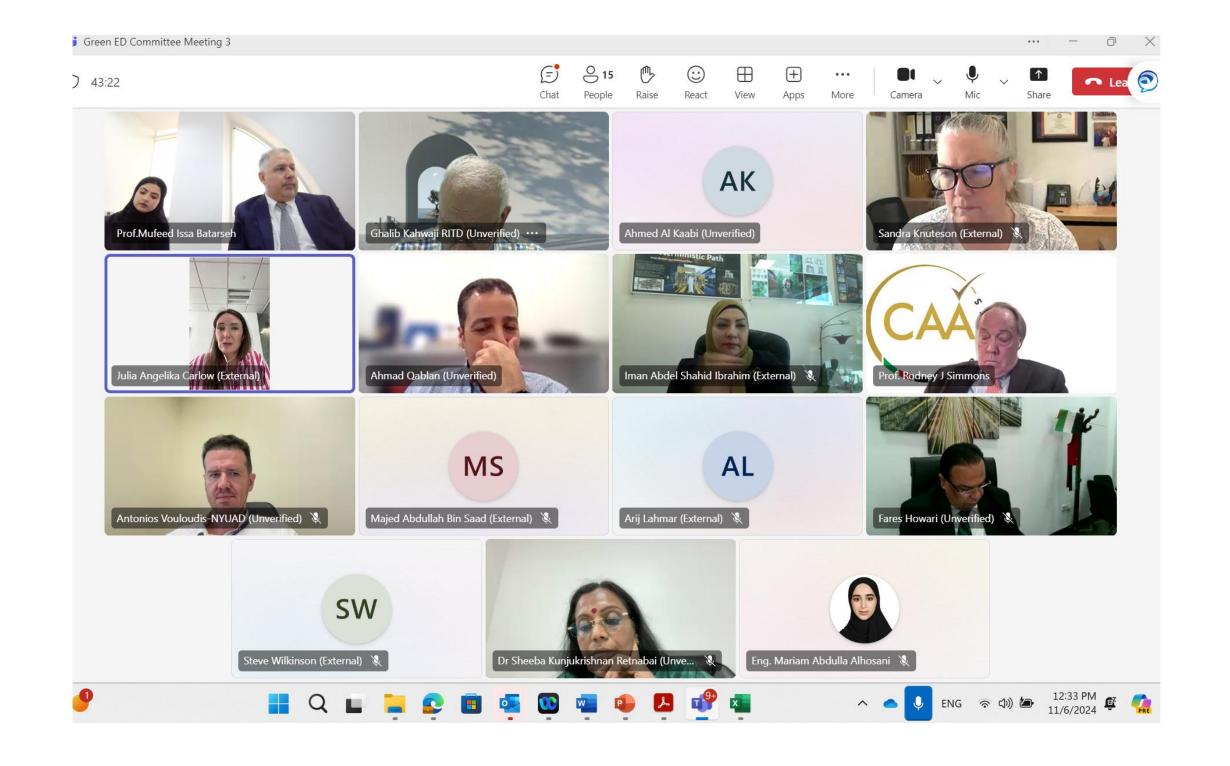
UAE Leadership vision

 "2023-2024 Year of Sustainability" under the theme "Today for Tomorrow,"

His Highness Sheikh Mohamed bin Zayed

Green Education (GreenEd) Taskforce Committee

- CAA & NQC experts
- Representatives from HEIs



GreenEd Framework Content

Rationale

Strategic Objectives

Alignment of GreenEd with major UAE and Global initiatives

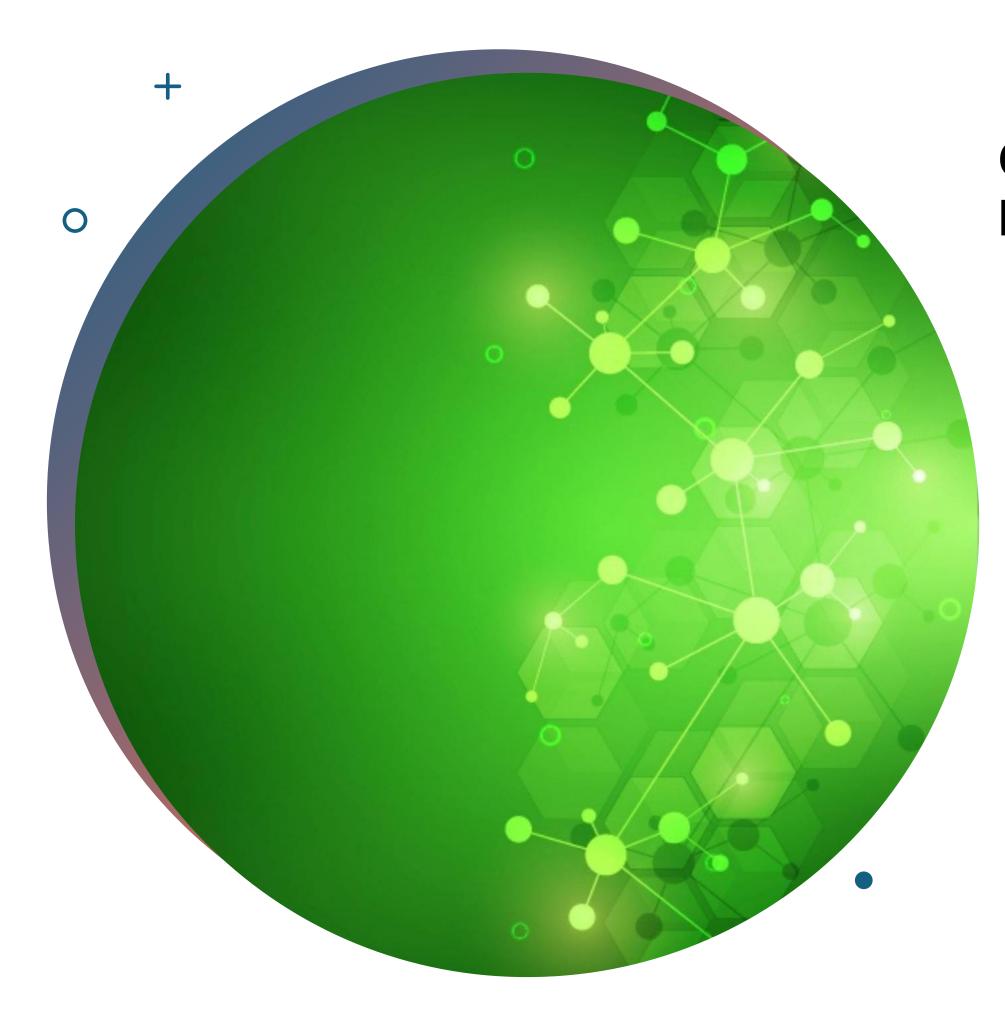
Pillars of GreenEd Framework

Green Education Practices

Governance Model of Sustainability at Institutional Level

Implementation/Action Plan (TBO Today)

HEI rating on Sustainability Performance (TBO Today)



GreenEd Framework for HE Rationale:

- Green Education initiative by the MoHESR aligns with the UAE Strategies for sustainability (Vision 2021, Green Agenda 2030, NZE 2050, Centennial 2071).
- Leadership's vision for extending the "Year of Sustainability 2023 & 2024" to accelerate sustainability practices across all sectors.
- Guide the Higher Education to enhance the sustainability performance.
- Reinforce the UAE's National Determined Contribution (UAE-NDC) towards the Net Zero Emissions 2050 goal by greening the systems (COP).

Strategic Objectives & Alignment



Align with National Sustainability Goals: Ensure HE sector meets the UAE's 2030, 2050, and 2071 sustainability targets.



Establish a Consistent Sustainability Framework: Support institutions and stakeholders in enhancing sustainability practices.



Sustainability & Climate Change Resilience: Develop and implement strategies, policies, curricula, and initiatives with measurable KPIs.



Equip Future Leaders with Sustainability Competencies: Prepare students with the necessary knowledge, skills, and mindset for success in a sustainable economy.



Enhance Global Recognition: Strengthen sustainability practices to boost the visibility and global recognition of UAE higher education institutions

Sustainability Framework Pillars

Academics & Research

- Curriculum: Incorporates sustainability and climate change, embedding green skills in HE and TVET to promote a sustainable environment, society, and economy.
- Research: Focuses on applied research on sustainability solutions and climate change adaptation and mitigation measures.

Community Engagement

- Campus Engagement: Promotes sustainable practices and climate awareness among higher education and TVET stakeholders.
- Public Engagement: Fosters sustainability and climate resilience in the community and industrial partners.

Operations & Sustainability

- Buildings & Grounds: Prioritizes sustainable and climate-resilient designs.
- Energy & Climate: Focuses on renewable energy and reducing carbon footprints.
- Food & Dining: Emphasizes sustainable sourcing and waste reduction.
- Procurement & Waste: Aims for sustainable procurement and zerowaste goals.
- **Transportation**: Promotes sustainable transportation and reduces emissions.

Planning & Administration:

- Coordination & Planning: Integrates sustainability and climate action into strategies, goals, and action plans.
- **Investment**: Prioritizes sustainable and climate-resilient investments.
- **Social Objectivity**: Focuses on social sustainability and climate justice.
- Wellbeing & Work: Supports health, wellness, and climate resilience.
- Monitoring & Reporting: Create a system to monitor and report on sustainability.

Innovation & Leadership:

- Leadership commitment: Drives sustainability and climate adaptation initiatives.
- Sustainable Innovation: Embed environmental, social, and economic considerations in innovation process to leverage technology and science for sustainable solutions and foster a culture of innovation such as incentives and awarding system.

Reference: Benchmarked to international sustainability ranking systems, such as (UNEP, STARS, QS-Ranking, THE)



Practices on Sustainability Incorporation in HE

Integrating Sustainability Practices across ESG Dimensions:

1. Environmental:

Environmental Education & Research

Reduce institutional carbon footprint, energy efficiency and green mobility

Use renewable energy and sustainable campus design

Implement waste minimization and management strategies

2. Social:

Ensure equal access to services and high-quality education

Foster community engagement and institutional inclusion

Provide opportunities for students, faculty, and staff to engage with the community

employability outcomes

3. Governance

Commit to ESG strategies and initiatives

Measurable KPIs

Involve stakeholders in decision-making and policy development

Ensure accountability and transparency in decision-making

Curriculum Integration (programs, micro-credentials, training and courses)

Applied Research and Innovation

Sustainable
Development Goals
(SDGs)

Creating a proficient workforce for sustainable energy

Collaboration and partnerships with Industry

Improving sustainability hands-on skills

Green campus

Awareness campaigns

Stakeholder engagement and Communication

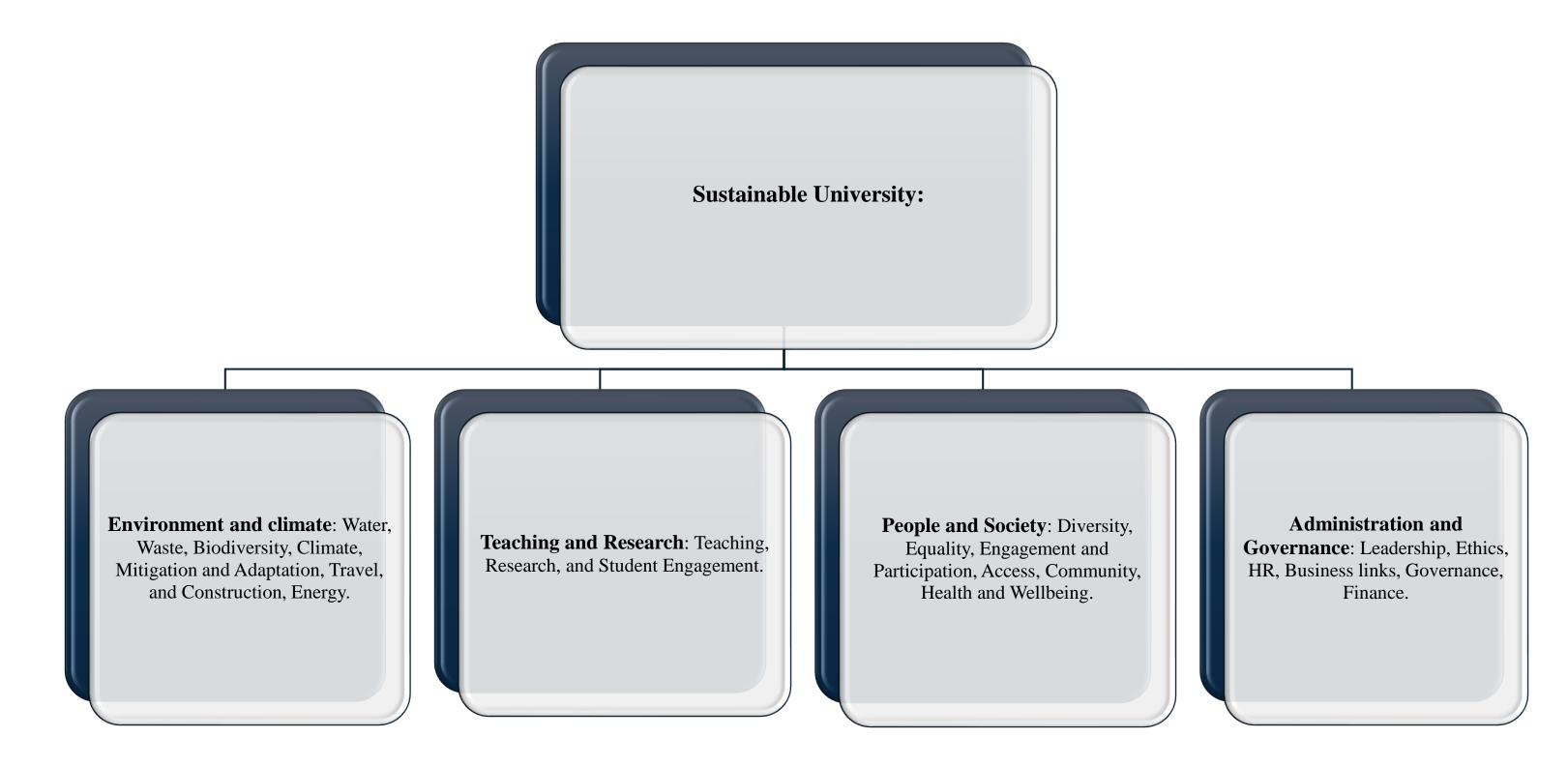
NZE-Recognition, incentives and awarding

Reporting on Sustainability

Integrating Artificial Intelligence (AI)

Core GreenEd Practices

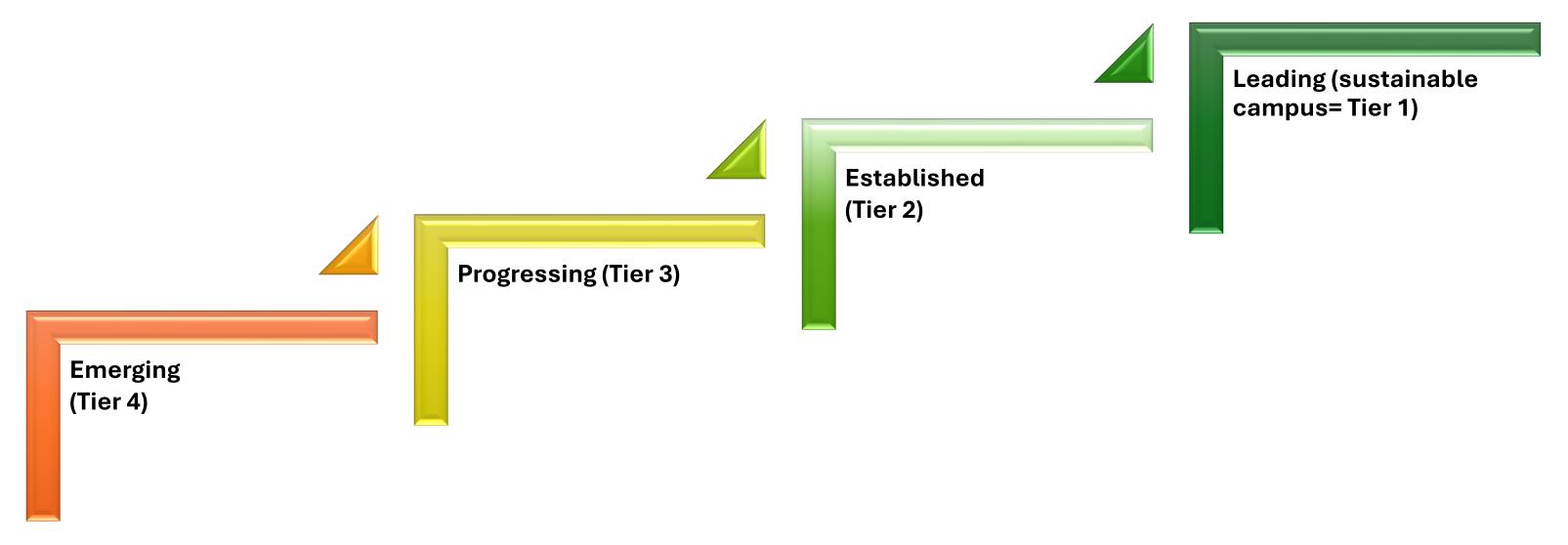
UNEP-Sustainability Framework: 4 main areas



https://www.unep.org/resources/toolkits-manuals-and-guides/uneps-sustainable-university-framework

UNEP-Sustainability Framework Scale 4-1

The UNEP Framework identifies the institutions level of sustainability performance in four levels. These levels, or steps, increase in sustainability ambition starting at: Emerging, Progressing, Established and end with an institution's performance being recognized as Leading (sustainable campus). The institutions might design their initiatives and plans be placed on the ranking scale (Tier 4-1). The beginners would be placed on **Tier 4**, while the institutions that have established a well-defined sustainability system with continual improvement process are placed on **Tier 1** which is the sustainable campus.



https://www.unep.org/resources/toolkits-manuals-and-guides/uneps-sustainable-university-framework

Sustainability and Universities Ranking

QS World Universities Ranking: The QS sustainability 2024 (2nd edition) ranking has three categories namely: Environmental Impact (45%), Social Impact (45%) and Governance (10%).

STARS Rating (Sustainability Tracking, Assessment & Rating System): STARS was established by Association for the Advancement of Sustainability in Higher Education (AASHE). It is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. There are 5 levels on scale NA-100% (Reporter, Bronze, Silver, Gold and Platinum). An institution's score is based on the percentage of points it earns by pursuing relevant credits across Academics (AC), Engagement (EN), Operations (OP), and Planning & Administration (PA).

Times Higher Education (THE): Impact Rankings assess universities globally based on their contributions to the 17SDGs. The rankings evaluate universities across multiple SDGs, recognizing their efforts in areas such as environmental sustainability, social inclusion, economic growth, and partnerships.

Proposed Framework: HE and TVET Institutions are encouraged to obtain national or international sustainability rating that recognizes their achievements in sustainability.

QS World Universities Ranking:





Social Impact (45%), 5 KPIs



Code	Performance Lens	Lens Weight
ES	Environmental Sustainability	15%
EE	Environmental Education	17%
ER	Environmental Research	13%

2024 QS Sustainability Rankings

2024	QS	Categories					
		Social Impact		Environmental Impact		Governance	
Rank	Country / Territory	Score	Rank	Score	Rank	Score	Rank
▼.	T,	•	•	•	•	~	₩.
=264	United Arab Emirates	75	=334	67	=198	57.9	=734
=394	United Arab Emirates	67.8	=481	54.8	=400	70.6	=510
=576	United Arab Emirates	62.8	=603	49.4	=529	42.4	911
=637	United Arab Emirates	61.4	=648	48	=571	28.9	1001+
821-840	United Arab Emirates	51.4	=908	32.9	1001+	84	=220
941-960	United Arab Emirates	54.7	=823	34.2	1001+	22.5	1001+
151-1200	United Arab Emirates	55.1	=812	21.6	1001+	19	1001+
151-1200	United Arab Emirates	36.6	1001+	29.9	1001+	66.7	=595
1201+	United Arab Emirates	47.5	1001+	23.2	1001+	35.8	999

Goal: ESD for 2030 aims to build a more sustainable world through strengthening ESD and contributing to the achievement of the 17 SDGs.

Objective: To fully integrate ESD and the 17 SDGs into policies, learning environments, capacity-building of educators, the empowerment and mobilization of young people, and local level action.

Education for Sustainable Development (ESD) aims to raise knowledge, awareness and action:

1 NO POVERTY Ňŧŧŧ 88 PEACE, JUSTICE AND STRONG romote life-skills Mobilize partners for sustainable and resources for elihoods and to GOOD HEALTH societal address the transformations for unequal causes and peace and inclusio distribution of as the basis of sustainability Secure EDUCATIO odiversity conservation psychological and physical resilience and well-being 14 LFE BLOW WATER 4 QUALITY EDUCATION sustainability challenges Protect the oceans and and their complex earning contents and interlinkages, extore marine resources their contribution to the disruptive ideas and through ocean literacy survival and prosperity of and action humanity Fight climate change by Social and emotional romote gender equality in 13 CLIMATE Behavioural learning particular with regard to learning dimension: dimension: Take practical awareness-raising and Build core values and attitudes specific gendered for sustainability, cultivate sustainability challenges S transformations in the empathy and compassion for personal, societal and other people and the planet, political spheres Accelerate adequate and equitable access DEVELOPMENT of production and to water as a global 6 CLEAN WATER AND SANITATION Tackle inequalitie Foster alternative values and economic ransition to gree particular models of circularity sufficiency, fairness and solidarity justice industries 10 REDUCED NEQUALITIES 8 DECENT MORK AND ECONOMIC GROWTH **⟨=**⟩ Source: UN-Education for Sustainable Development: A Roadmap

The UAE's National Framework for Sustainable Development

• The **National Framework for Sustainable Development** aims to enhance the quality of life in the country, promote diversification and economic prosperity, preserve the UAE's ecosystems, sustain its ecological resources and services, and support the achievement of the Sustainable Development Goals 2030.

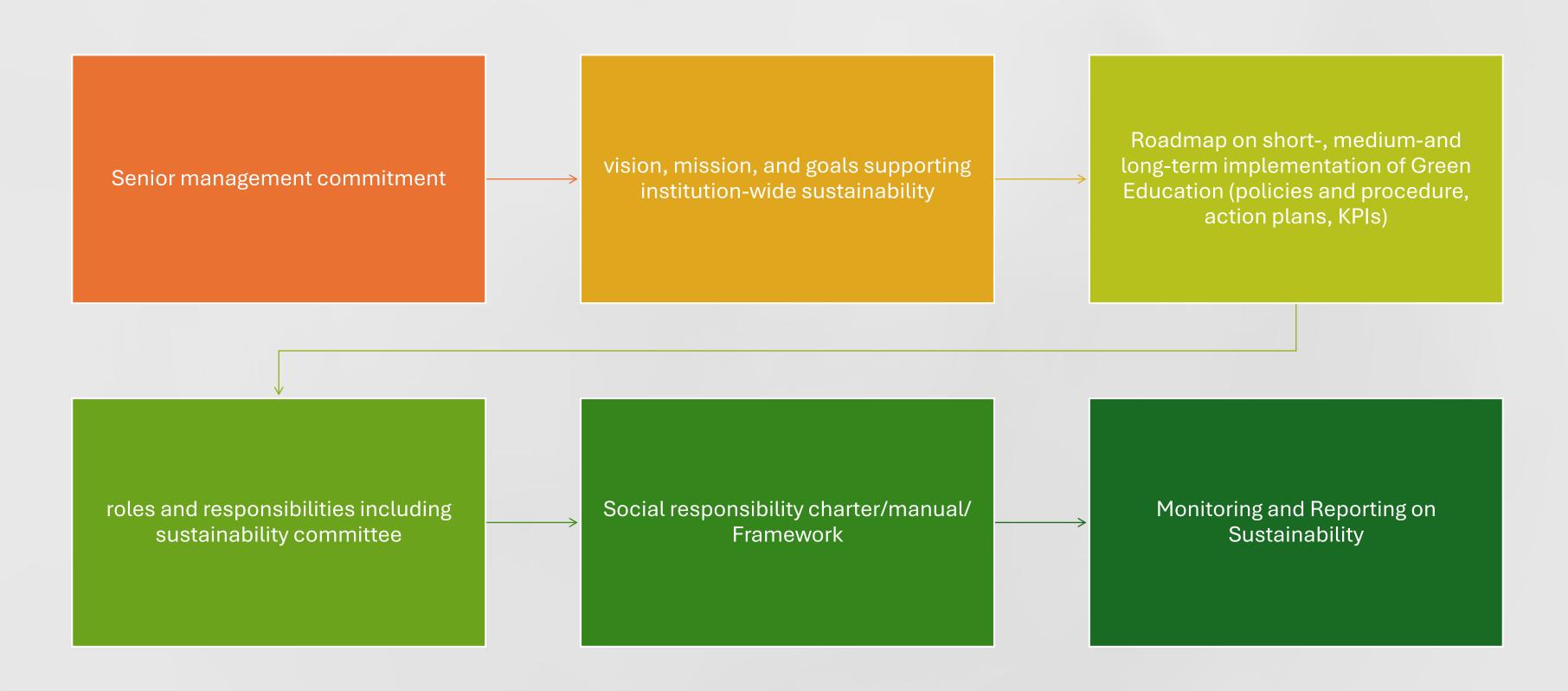
UAE National Framework for Sustainable Development:

Framework aims (EPPSS)

Enhance	Promote	Preserve	Sustain	Support
enhance the quality of life in the country	promote diversification and economic prosperity	preserve the UAE's ecosystems	sustain its ecological resources and services	support the achievement of the Sustainable Development Goals 2030.

[•] Source: https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/environment-and-energy/the-national-framework-for-sustainable-development

Governance: Roles and Responsibilities at the institutional level



Minimum requirements to meet Tier 4 (Emerging) sustainability performance, institutions should aspire to be higher than Tier 4.

Minimum Requirements Tier 4

Establish a sustainability committee which includes members from academics, facilities, students and senior management with recorded minutes

Appoint a head of sustainability for the University who leads the development of sustainability within policies.

Carry out **a baseline sustainability** review of practice at the institution and develop draft policies guiding the development of sustainability practices. This can be a single policy, but the best practice is to incorporate sustainability across institutional policies. These should be reviewed by the sustainability committee.

Develop a draft sustainability action plan with measurable KPIs outlining the institutional goals relating to sustainability.

Establish regular events for staff and students relating to sustainability topics raising awareness and engagement.

Green Sustainability Careers

ESG Implementation need reporting on non-financial corporate performance

CSE Certified Sustainability (ESG) Practitioner Program Carbon Reduction and Net Zero Expert Sustainability Reporting Expert SASB-TCFD-GRI Expert Green Market Expert CSRD - Corporate Sustainability Reporting Directive European Union's approach for corporate sustainability

Source: Center for Sustainability & Excellence 2024

What incentives can HEIs gain from GreenEd Framework implementation?



1. Enhanced Reputation and Prestige:

Being recognized as leaders in sustainability can enhance the institution's reputation and attract students, faculty, and partnerships.



2. Financial Savings:

Implementing sustainable practices can lead to significant cost savings through energy efficiency, waste reduction, and resource management.



3. Access to Funding and Grants:

HEIs may become eligible for government grants, subsidies, and funding opportunities aimed at promoting sustainability initiatives.



4. Improved Student and Staff Engagement:

A commitment to sustainability can increase engagement and satisfaction among students and staff, fostering a positive campus environment.

... What incentives can HEIs gain from GreenEd Framework implementation?



5. Compliance with Regulations:

Aligning with national and international sustainability standards can ensure compliance with current and future regulations, avoiding potential penalties.



6. Competitive Advantage:

Sustainability initiatives can provide a competitive edge in attracting environmentally conscious students and faculty, as well as partnerships with organizations prioritizing sustainability.



7. Contribution to National Goals:

By contributing to the UAE's Net Zero 2050 goals, HEIs can play a crucial role in national efforts toward climate neutrality, enhancing their social responsibility profile.



8. Innovation and Research Opportunities:

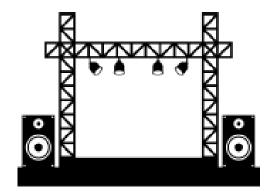
Engaging in sustainability projects can open up new avenues for research, innovation, and collaboration with industry and government.

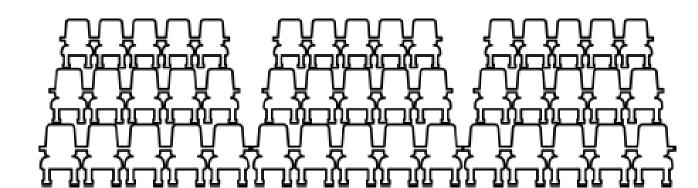
Today's Workshop



Morning Session

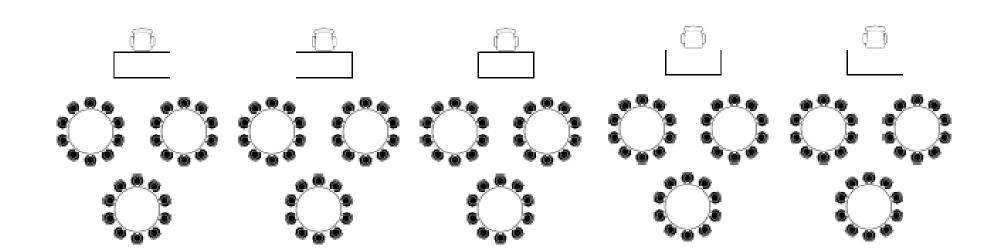
3 Presentations and Discussion





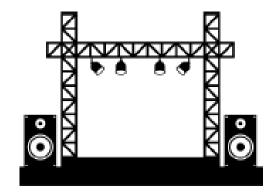
MidDay

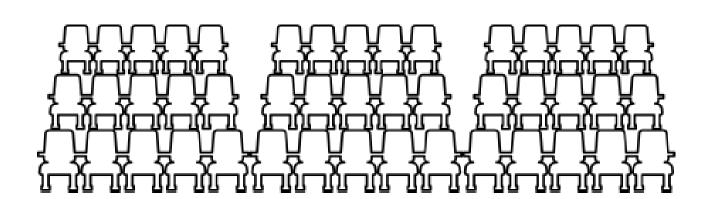
Breakout Rooms and group work



Afternoon Session

Panel Discussions and Wrapup





Group Presentations & Panel Discussion

Group 1:
Academics and
Research

Group 2: Community Engagement Group 3:
Operations and
Sustainability

Group 4:
Planning and
Administration

Group 5: Innovation and Leadership Group 6:
Implementation
Plan

Quick Survey on the GreenEd Framework for Sustainability

Please rate the following statements on a scale of 1 to 5, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

Thank you for your participation

GreenEd Framework Survey



Conclusion

- ☐ No single sustainability framework can fit all HEIs, however GreenEd would:
- ✓ Enhance contributions to sustainable development and align with national goals.
- ✓ Improve reputation through international rankings.
- ✓ Boost employment through better match educational outcomes with market needs.
- ✓ Integrate AI to enhance personalized learning, optimize resources, and support research and innovation.
- ✓ Allow flexibility for HEIs to design their own sustainability approach and highlighting institutional diversity.

Photo: Al generated





Thank you

GreenEd TEAM

CAA & NQC	Higher Education and TVET		
	Institution	Representative	
Prof. Amjad Qandil	American University of Sharjah	Omar Alnuaimi & Dr. Sandra Knuteson	
Prof. Rodney J Simmons	University of Wollongong in Dubai	Stephen Wilkinson	
Fatema Alhammadi Khadija Ahmad	United Arab Emirates University	Prof. Ahmad M. Qablan & Dr Ahmed Alkaabi	
Dr. Abdelrahman Alawlaqi	Ajman University	Prof. Fares Mohd Howari	
Eng. Mariam Alhosani	Gulf Medical University	Dr. Sheeba Kunju Krishnan Retna Bai	
Dr. Dhayaneethie Perumal	University of Sharjah	Dr. Iman Abdelshahid Ibrahim	
Prof. Mufeed Batarseh (Chair)	KHALIFA UNIVERSITY	Dr Fawzi Banat	
	Rochester Institute of Technology- Dubai	Prof. Ghalib Kahwaji	
	New York University Abu Dhabi	Antonios Vouloudis	
	University of Dubai	Dr. Arij LAHMAR	







11:00-11:30: Coffee and Networking







Group Sessions on Sustainability in Higher Education

Online Timer







Groups Presentations & Panel Discussion







13:40-14:00: Q&A and Wrapping up session







Feedback Survey



Commission for Academic Accreditation for Higher Education







Thank you.