

الارتقاء بالمعرفة  
ADVANCING KNOWLEDGE



## Environmental, Social, and Governance ESG Report 2022



# 1. Introduction



The COVID-19 pandemic showed us how working together as a global community, no matter our differences, can positively impact our health and survival. Unfortunately, the recent pandemic is not the only threat to our planet. Over the last few decades, we have increasingly faced threats to our sustainability due to climate change and its multiple impacts. With climate change, poverty, and inequality being intrinsically linked – the poorest among us suffer the most from shifting weather patterns, droughts, and flooding – now more than ever, these major interconnected global challenges require our attention.

In 2015, the United Nations (UN) developed a global blueprint called the Sustainable Development Goals (SDGs) to tackle pressing global issues as part of their 2030 Agenda. These are 17 interlinked global goals designed to promote peace and prosperity through responsible and inclusive economic growth for all, addressing global challenges such as poverty, inequality, climate change, environmental degradation, and peace and justice.

In line with this, governments, businesses, communities, and individuals are all increasingly making sustainable development a priority – and a coordinated effort is required to achieve the goals. Businesses with high stakes in the economy and a capacity for innovation are an indispensable partner and have a critical role to play in achieving the 17 SDGs with their ambitious targets. These UN SDGs will also help businesses enhance operational efficiency, increase supply chain resilience, and satisfy the demands of customers, investors, and employees for more transparency.

The provision of high-quality education is a major objective of the UN SDGs. At NEMA Holding, as a leading higher education provider in the MENA region, we have incorporated the UN SDGs into our Corporate Social Responsibility (CSR) pillars, or Environmental, Social and Governance (ESG) dimensions as we call them, and we are committed to playing our part.

Although this is NEMA Holding's first dedicated Environmental, Social, and Governance (ESG) Report, our commitment to the ESG agenda has been a core priority since our inception. In this first issue, we will introduce our ESG philosophy and revisit some key achievements in recent years. This report will serve as a baseline for our future environmental and social endeavours to support the realization of the 17 UN SDGs. Through this shared vision, we are committed to building a more inclusive and sustainable future for our stakeholders in the UAE and the MENA region.



## 2. Message from the CEO



As a leading education and learning provider, we understand that our role is not only to make a contribution ourselves, but also to inspire the leaders of tomorrow to make a positive societal and environmental impact in local, regional, and global communities.

**Dr. Ali Saeed Bin Harmal Aldhaferi**  
Chairman and CEO of NEMA Holding



Guided by its founding principle of sustainable development, the UAE played a decisive role in setting up the United Nations (UN) 2030 Agenda and its Sustainable Development Goals (SDGs). Sheikh Zayed, the UAE's founding father, emphasized the need for responsible use of natural resources and inclusive development for future generations. As a result, the UAE's championship of quality education, universal healthcare, sustainable energy, and climate action is rooted in its proud history and core values. The UAE plans to attain long-term social prosperity through sustainable development and its Vision 2071, which focuses on improved governance and increased non-oil sources of revenue. It is building a knowledge-based economy by promoting quality education and encouraging entrepreneurship and innovation and is committed to improving the quality of life and promoting inclusivity to attain long-lasting peace.

The UAE's National Committee on SDGs is aligning the work of all ministries to achieve the SDGs by integrating them into existing frameworks, like Vision 2071. It continues to evolve by reconceptualizing sustainable development and focusing on emerging trends, such as food security and artificial intelligence. Examples of global initiatives under this framework include the World Government Summit, EXPO 2020, and the UAE's foreign assistance programs.

The education industry, in particular, has a crucial role in helping achieve the UN SDGs. As a leading higher education provider in the UAE and MENA region, we at NEMA Holding have been committed to fostering sustainable development since our inception. We are in the business of education and learning, so bear the responsibility of preparing our future leaders to tackle global challenges and ensure the planet is hospitable for future generations. Our aim is to guide our students to become responsible adults who will contribute positively to their communities and the planet. We make sure our programs are relevant to the needs of the 21st century and equip our students with the necessary skill set to find meaningful employment and enable them to tackle all challenges. Our belief that research and education have a huge role to play in the sustainable development of our communities and our planet is unwavering.

As we stand at the dawn of the Fourth Industrial Revolution (4IR), which has allowed unprecedented levels of automation to produce more technologically advanced products, we recognize that this opportunity comes with its own challenges. We need to ensure that the increase in the availability of highly sophisticated goods and services and the accompanying economic growth is achieved through sustainable means – that it is equitable, does not result in increased pollution, and utilizes natural resources sustainably for future generations. In order to nurture a tech-savvy and climate-conscious workforce that can adapt quickly to the unprecedented changes in the market, we have incorporated sustainability-related issues into our education programs so that our students – our future leaders – know the problems we need to solve.

This report is the continuation of our Corporate Social Responsibility (CSR) journey. It highlights some of our recent key achievements organized across our three pillars: people, community, and planet. It affirms our commitment to sustainable economic development and providing equal opportunities for all through the initiatives undertaken across our three ESG dimensions.



"We cherish our environment because it is an integral part of our country, our history, and our heritage. On land and in the sea, our forefathers lived and survived in this environment. They were able to do so only because they recognized the need to conserve it, to take from it only what they needed to live, and to preserve it for succeeding generations."

**Sheikh Zayed Bin Sultan Al Nahyan**  
Founder and 1st President of the UAE



### 3. About NEMA Holding

NEMA Holding is a leading higher education management company in the UAE with a diverse portfolio of higher education, training & development, and real estate management entities.

Our mission is to be the leading private education platform in the UAE, spanning higher education and vocational and corporate training sectors. We are driven by our core values – commitment, integrity and trust, growth and resilience, and empowerment – to fulfil our obligations to all our stakeholders.

#### Our Portfolio

##### Abu Dhabi University (ADU)

Abu Dhabi University is the largest private university in the UAE. It comprises five colleges and offers over 50 undergraduate and postgraduate programs across campuses in Abu Dhabi, Al Ain, Dubai, and Al Dhafra Region. ADU was ranked within the top 301–350 universities globally in the 2023 edition of the Times Higher Education (THE) World Rankings. The QS World Rankings 2023 place ADU in the top 651–700.



##### Khawarizmi International College (KIC)

Khawarizmi International College is the oldest accredited private institution in the UAE and offers affordable career-focused education. Founded in 1985, it provides 12 programs in business administration, health management, IT, and mass communications in Abu Dhabi and Al Ain.



##### Liwa College of Technology (LCT)

Liwa College of Technology is distinguished by its location in the heart of Abu Dhabi and is considered one of the oldest educational institutions in the emirate. The College provides 17 bachelor and diploma programs in business administration, media, engineering, and health sciences.



##### Knowledge Group (KG)

Knowledge Group provides full training and professional services across the MENA region through customized, client-centric solutions to corporate and government sectors. It also delivers strategy, special projects, and human resources consultancy services.



##### Khawarizmi Training Solutions (KTS)

Khawarizmi Training Solutions provides professional training courses in IT, business, and English. It partners with global and local training and testing organizations, including Microsoft, CISCO, Oracle, Adobe, the Project Management Institute (PMI), National Qualifications Authority (NQA), and Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET).



##### Fortune Properties (FP)

Fortune Properties manages NEMA Holding's real estate asset portfolio. It is also involved in property development and provides project and facilities management services to educational institutions. The group's asset portfolio includes ADU campuses in Abu Dhabi, Al Ain, Dubai, and KIC's campus in Al Bahia.








Higher Education Portfolio:  
Key Facts and Figures

 جامعة أبوظبي Abu Dhabi University	 Liwa College of Technology (Formerly Emirates College of Technology)	 كلية الخوارزمي الدولية KHAWARIZMI INTERNATIONAL COLLEGE
6,600+ Current Students	1,800+ Current Students	1,500+ Current Students
22,000+ Alumni	7,700+ Alumni	11,000+ Alumni
30 UG & 20 PG Programs	18 UG Programs	12 UG Programs
Colleges/Departments		
Business Engineering and IT Health Sciences Arts and Sciences Media	Business Engineering Health Sciences Media	Business IT Health Sciences Media

Accreditations		
 WASC Senior College and University Commission ACCREDITED	 EFMD EQUIS ACCREDITED	
 ABET Engineering Accreditation Commission	 ABET Computing Accreditation Commission	
 AACSB ACCREDITED	 APHEA Accredited Bachelor	
 UNITED ARAB EMIRATES MINISTRY OF EDUCATION ACBSP ACCREDITED		 UNITED ARAB EMIRATES MINISTRY OF EDUCATION

Campuses		
		

Training and Development Portfolio:  
Key Facts and Figures

<div> مجموعة المعارف Knowledge Group Agile Knowledge.</div>	<div>الخوارزمي Khawarizmi لخدمات التدريب Training Solutions</div> 
<div>150K+ Trained Employees</div> 	<div>100K+ Trained Employees</div>
<div>5M+ Training Hours Delivered</div> 	<div>400K+ Training Hours Delivered</div>
<div>250+ Staff and Faculty</div> 	<div>100+ Staff and Faculty</div>
<div>600+ Local and International Clients</div> 	<div>2K+ Local and International Clients</div>





## Our Corporate Strategy



Our world is constantly changing owing to the rapid advancements in technology brought on by the Fourth Industrial Revolution, which has disrupted the way we live and work. Against this backdrop and as the leading higher education platform in the MENA region, our purpose is to ensure that every learner can equally achieve their potential and make a positive contribution to society.

Our name embodies our mission to help learners and students achieve their dreams:

### Nurture

We prepare our students to thrive in local and international environments by providing them with market-relevant and internationally recognized offerings in a nurturing environment.

### Educate

We equip our learners with the requisite skill set to develop into socially responsible leaders and innovators capable of addressing global challenges in a sustainable manner.

### Motivate

We inspire learners and students to pursue lifelong learning by engaging meaningfully with the communities in which we operate.

### Advance

We're committed to advancing knowledge for all of NEMA's learners through our technology-centered offerings. By leveraging disruptive technologies and expanding into new markets, we are making our offerings more accessible.

## Corporate Governance

We are committed to maintaining a corporate governance framework that complies with all the applicable corporate governance requirements for Limited Liability Companies in the UAE and adheres to best-in-class international practices.

Our corporate governance policy details the company's corporate governance structure, stakeholder management principles, the delegation of authority, and the roles and responsibilities of the corporate governance function.



## Code of Conduct

All NEMA Holding employees must comply with our Code of Conduct, which outlines the standards of conduct expected from all our stakeholders to ensure that our business is conducted ethically in accordance with our core values.

We are committed to doing business ethically and legally, and our employees are expected to follow these standards. We have a zero-tolerance approach to fraud, bribery, and corruption.



## Board of Directors

Shareholders have appointed a Board of Directors, elected for a term of three years, to govern the business and protect its interests. The Board meets at least twice yearly to review the company's performance.

———Chairman

**H.E. Dr. Ali Saeed Bin Harmal Al Dhaheri**

———Vice Chairperson

**Ms. Elham Abdulghafoor Mohammed Rafi Alqasim**

———Member

**H.E. Khadaim Abdulla Aldarei**

———Member

**Dr. Mohamad Hamade**

———Member

**Mr. Yusuf Alami**

———Member

**Mr. Mohammed Qusai Al Ghussein**

———Member

**Mr. Abdallah Malek Osseiran**

———Board Secretary

**Ms. Kristina E. Turner**

## Executive and Audit Committees

The Board has established executive and audit committees. The role of the Executive Committee (EC) is to assist the Board of Directors in fulfilling their responsibilities, such as reviewing management reports about business performance, making recommendations, and representing the Board on certain matters. A key role of the Executive Committee is to assess, update, and make suggestions to the Board regarding the company's strategy. The Audit Committee oversees the company's internal controls, financial reporting, and audit processes.





# 4. Our Environmental, Social, and Governance (ESG) Philosophy

The greatest challenge of the 21st century is balancing the economic growth needed to meet the needs of an ever-growing population with preserving the Earth's ecosystem for future generations. An important part of this is changing the behavior and mindset of individuals. As an education management company, we have the power to inspire minds.

To implement and actualize our ESG vision, we reviewed the 17 UN Sustainable Development Goals (SDGs), and mapped them into our three ESG dimensions: *Empowering Our People*, *Investing in Our Communities*, and *Caring for Our Planet*. (See figure 4.1)



## Empowering Our People

Before we can change the world, we must live by our values and instill them in our employees. We manage our people with respect and nurture a commitment to helping us reach these goals. The UN SDGs most relevant to this are *health and wellness, gender equality, and the provision of a decent work environment*.



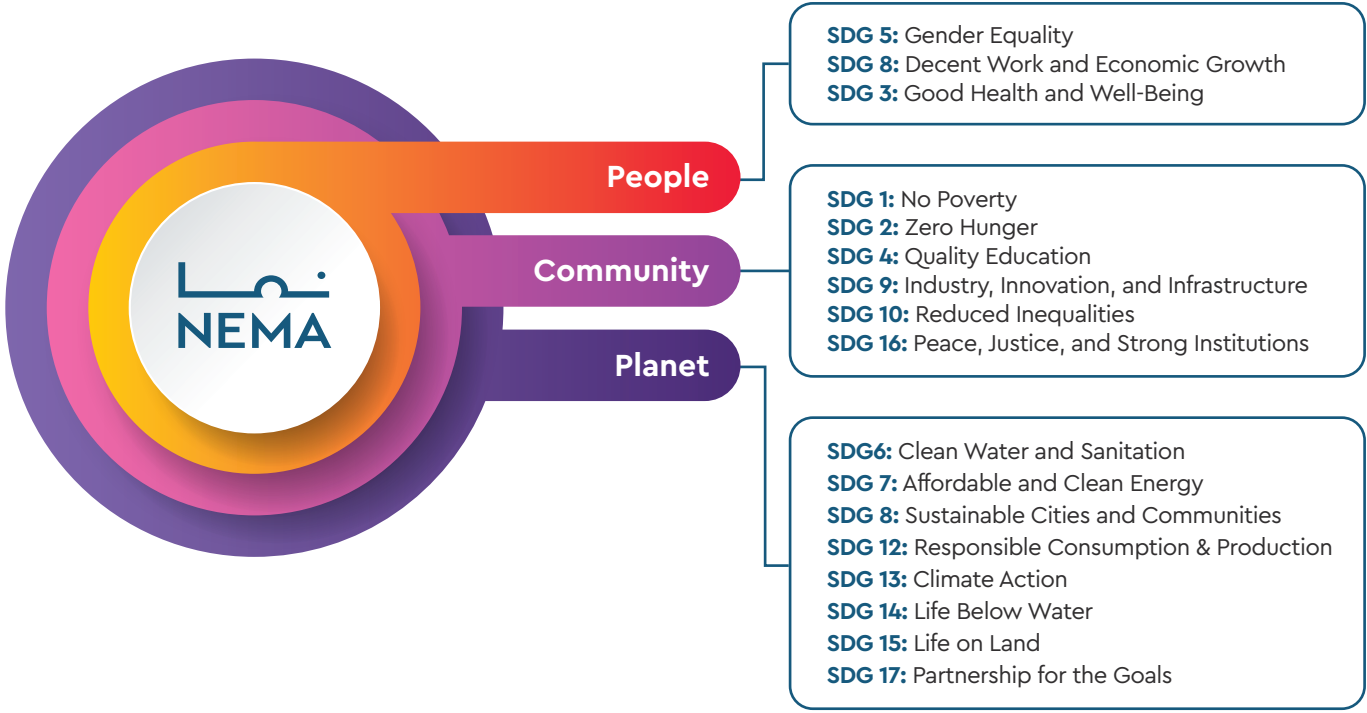
## Investing in Our Communities

As a company, we are only as successful as the communities in which we operate. The good work we do in communities will also help us recruit more people on our journey to promote inclusive and sustainable development. The UN SDGs relevant to this dimension are *combating income inequalities, providing quality education, and sustainable development*.



## Caring for Our Planet

Earth consists of many interconnected communities, and we hope our efforts within our communities will create a ripple effect that will help us positively impact the planet. The UN SDGs relevant to this dimension are *tackling global warming and climate change, sustainable development and consumption, sustainable management of water resources, and development of green energy infrastructure*.



**Figure 4.1:**  
The mapping of the UN SDGs to our dimensions



## 5. Dimension One Empowering Our People

Our people are our most valuable asset, so we have always placed a high value on investing in them and strive to impact their lives positively. We do this by providing a safe and nurturing work environment, professional development courses and support for those who wish to continue their education, a good work-life balance, flexible working options, and promoting healthy lifestyle choices through regular health awareness events. In addition, we conduct regular employee satisfaction surveys to ensure our employees feel valued, heard, and involved in decision-making.

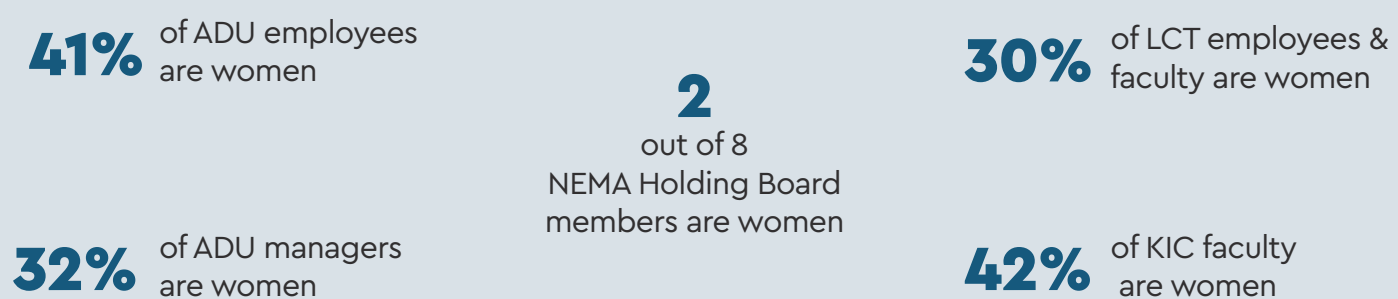
Together, we believe the initiatives across all or subsidiaries contribute significantly to our high staff satisfaction levels. See table 5.1

**NEMA Holding Subsidiary**  
Employee Satisfaction Rate (%)

Abu Dhabi University	<b>71%</b>	Khawarizmi International College	<b>79%</b>
Knowledge Group	<b>93%</b>	Khawarizmi Training Services	<b>82%</b>
Fortune Properties	<b>97%</b>	Liwa College of Technology	<b>75%</b>

**Table 5.1:**  
NEMA Holding Subsidiary

### Gender Equality and Female Empowerment



**Table 5.2:**  
Initiatives Key Facts

Healthy Living Initiative

**700+**  
participating employees & students

Educational Assistance Program

AED **2.6M**  
for employee higher education support

Learning & Development

**3K+**  
hours of training support

### Diversity and Inclusion



**48%**  
of ADU students are expatriates

**19%**  
of LCT students are expatriates

**53%**  
of KIC students are expatriates

**82%**  
average student satisfaction rate

**50+**  
nationalities are represented in NEMA Holding's workforce.

**#5**  
globally for international faculty (ADU)

**#1**  
in the UAE for international faculty (ADU)

**#34**  
globally for student diversity (ADU)

**Table 5.3:**  
Initiatives Key Facts



## Healthy Living

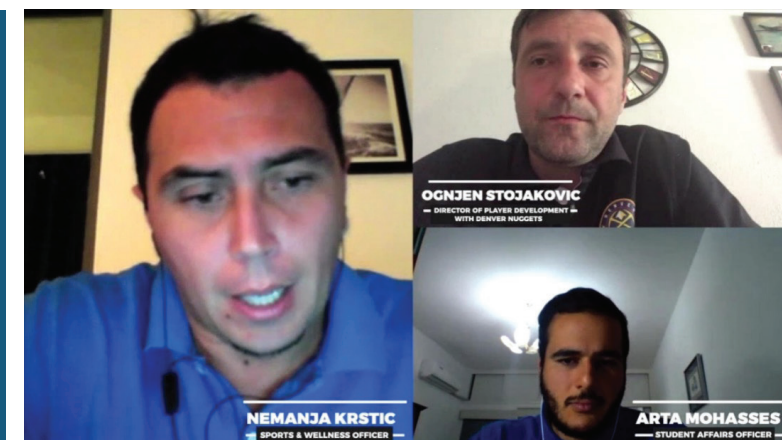


We pride ourselves on being a healthy and sustainable workplace and actively promote the well-being of our people.

The ADU and KG *Live Better* challenge encourages participants to exercise regularly and eat a balanced diet.

Fitness challenges, supported by the active participation of Dr Ali Bin Harmal, our Chairman and CEO, motivate our people to maintain a healthy lifestyle.

During COVID-19, ADU's Sports and Wellness Department hosted *Stallions Chat*, a series of webinars with well-known sports professionals, including Ognjen Stojaković, a world-renowned professional NBA basketball coach. The aim was to encourage students to stay active during lock-down.



Our preventive health program includes the following:



Health awareness workshops on breast cancer, diabetes, and the importance of vaccinations

Free blood sugar testing for diabetes



Health management workshops during Ramadan to support healthy fasting

PCR testing for COVID-19



In line with prevention being better than cure, our locations observe the following:

- No Smoking Day
- No Meat Day
- No Social Media Day



## Educational Assistance Program

With our core business rooted in higher education, we truly understand the value of lifelong learning. With this in mind, we empower our employees to pursue higher education through a generous educational assistance program to help them realize their full potential. Benefits include:

Scholarships of up to  
**75%**  
for employees who wish to pursue graduate studies at Abu Dhabi University (ADU)

Over the last three years, we have provided educational support worth  
**AED 2.6 million**  
to our employees

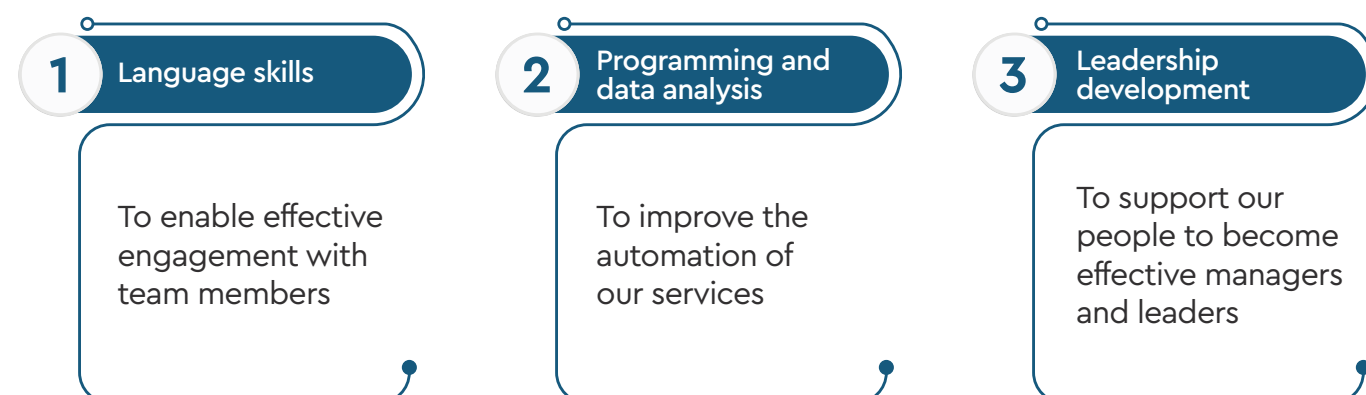
## Learning and Development

As the world continues to develop rapidly, we are committed to ensuring that the skills of our workforce are up-to-date across all our subsidiaries.

This approach provides numerous benefits, including:

- Enabling our employees to work smarter
- Boosting staff morale
- High levels of employee retention

The range of training and development opportunities we offer is detailed in table 5.4.



**Table 5.4:**  
Courses & Benefits

## LinkedIn Collaboration

Abu Dhabi University (ADU) partnered with LinkedIn to provide employees with access to a range of educational courses through the LinkedIn Learning platform with incredible results.

More than  
**90%**  
of ADU employees have used this facility

**3,000**  
hours of combined training have been completed

Courses undertaken include:



## Faculty Development Framework

ADU's Faculty Development Framework, operated in association with its Smart Learning Center, supports faculty in enhancing their careers by securing fellowships from professional organizations.







Abu Dhabi University received the highest rating possible across the categories of internationalization and inclusiveness in the Quacquarelli Symonds (QS) World University Rankings – a global leader in the analysis of higher education institutions around the world. ADU received full marks on internationalization for both faculty and student international diversity.

## Diversity and Inclusion

Diversity and inclusion are crucial to a company's success in achieving sustainable growth and prosperity. We at NEMA Holding pride ourselves on fostering an inclusive and equitable culture. As a company, we hold ourselves accountable for hiring, developing, and empowering the best talent regardless of gender, age, national origin, religion, or disability status.

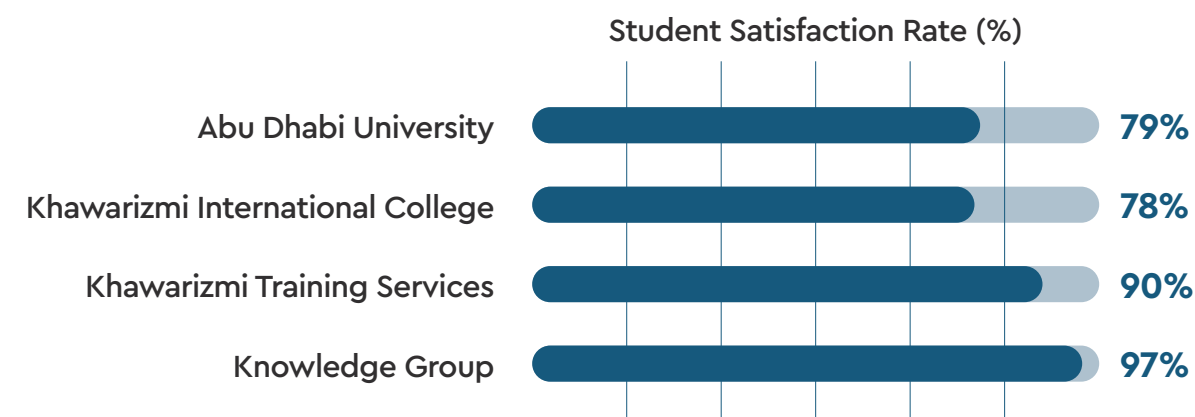
## Cultural Awareness

Mutual respect is fundamental to the way we operate at NEMA Holding. Through our anti-bullying workshops, we reinforce NEMA's Code of Conduct, promoting a culture of inclusion and equity. Every Ramadan, we hold Iftar dinners to foster a sense of community among our employees and students, regardless of beliefs.

## Students and Learners

We strongly believe in the value of inclusive decision-making at all levels to foster a sense of belonging. We believe our students are important stakeholders and respect and value their opinions solicited through:

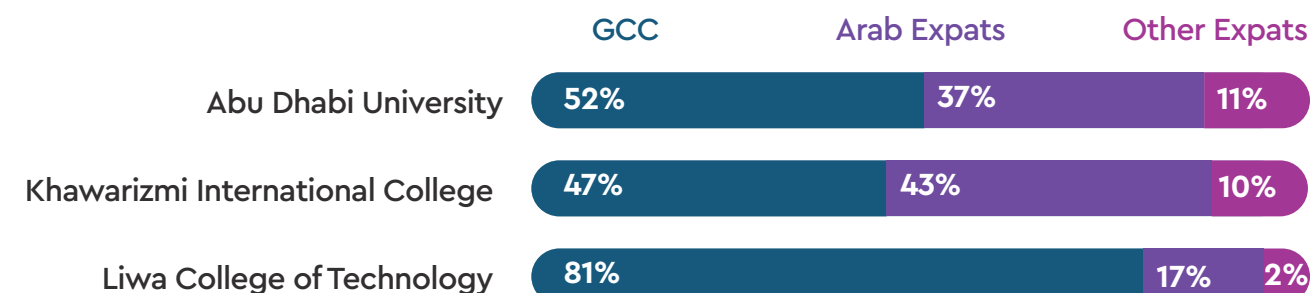
- Regular student satisfaction surveys (See table 5.5)
- The inclusion of the ADU Student Council in the University's governance



**Table 5.5:**  
NEMA Holding Subsidiary | Student Satisfaction



Our higher education institutions host a diverse student body from across the GCC, the wider MENA region, and beyond. See table 5.6



**Table 5.6:**  
NEMA Holding Subsidiary | Student Origin





## People of Determination

Our annual football tournaments bring together all members of our community, promoting teamwork and an engaging work environment. In this year's tournament hosted by Khawarizmi International College during Ramadan, eight teams comprised of students of determination, staff, and the general public participated.

Liwa College of Technology's awareness campaign, *People of Determination Reach The Top*, was launched to promote the accomplishments of people of determination. The campaign portrayed students and employees of determination as heroes who conquer adversity through perseverance and unique talents.

We extend our commitment to inclusion beyond our campuses into the communities we serve. For example, as part of our *Ambassadors of Happiness Campaign*, our employees visited the Zayed Center for People of Determination, Dubai Autism Center, and Al Ain Rehabilitation Center for the Disabled to engage residents and uplift their spirits.

We are immensely proud to have Ms. Elham Al Qasim, CEO of Digital14, on our Board of Directors. Since joining in June 2021, she has overseen major changes at NEMA Holding, including the acquisition of Liwa College of Technology. A role model for women everywhere, Ms. Al Qasim made history in 2010 when she became the first Arab woman to reach the North Pole unsupported and unassisted. She was also selected to be included in the list of the world's most promising leaders under 40 by the World Economic Forum (WEF).

Research has now proven that gender diversity in the boardroom leads to better decision making and better commercial outcomes. This is no longer an anecdotal discussion, and we all have an important role to play to continue to outpace history in our quest for advancing our society and nation economically and socially.

## Gender Equality and Female Empowerment

We firmly believe that discrimination based on gender is a barrier to sustainable development. Therefore, the creation of pathways for women to succeed at NEMA Holding is a critical component of the values we hold dear. We support equal pay for equal work and hire and promote based on talent, regardless of gender.

ADU plays a vital role in nurturing the next generation of female leaders:

- In partnership with *UN Women*, ADU organized a panel discussion at EXPO 2020, highlighting the role of young women in building progressive societies
- ADU hosted the *Women in Engineering Forum* to celebrate the achievement of our female engineering and computing research students

Our commitment to achieving gender balance includes implementing gender balance in leadership positions. We are proud to have created a meritocratic environment where talent is encouraged based on merit.

- Women make up **41%** of ADU's employees – **32%** of its managers, and **25%** of its head of departments
- A **third** of employees and faculty at LCT, and a quarter of its deans, are women
- Women constitute **37%** of KIC's overall workforce and **42%** of its faculty

**Ms. Elham Al Qasim**  
Vice Chairperson of NEMA Holding's  
Board of Directors





## 6. Dimension Two

### Investing in Our Communities

As a company with deep roots in the communities we serve, we strive to support the social and economic well-being of those communities through a series of initiatives. (See table 6.1)

Zakat and Charitable Donations

# AED 10.3M

in Zakat funding (in the last three years) to support the education needs of about 670 deserving students

Scholarships and Financial Aid

# AED 77.6M

in scholarships and financial aid (in the last three years) to support the educational needs of more than 4,100 qualified and deserving students

Upskilling for the Knowledge Economy

# 23K+

participants in seminars and workshops

# 1,500+

participants in our Saving Lives initiative

# 1,100+

participants in our Promoting Peace & Security initiative

**Table 6.1:**  
Initiatives Key Facts

### Zakat and Charitable Donations

At NEMA Holding, we believe that pursuing higher education should be a fundamental human right for all and that increased access to higher education is essential to breaking the cycle of generational poverty. As part of this effort, ADU collects Zakat donations during Ramadan to support the educational needs of deserving students.

Clothing donations are an easy way to help people. We partnered with Emirates Red Crescent and collected second-hand clothing in good condition to donate to those in need. The donated items allowed low-income families to prioritize their limited resources on other essentials.

As part of our Ramadan outreach program, we prepared and distributed Iftar meal boxes to help drivers break their fast. In addition, Knowledge Group hosted a special Iftar dinner for orphans from the local community, along with fun games and activities.



### Scholarships and Financial Aid

A crucial element of our community outreach strategy is supporting talented students on their journey to becoming leaders. Our generous scholarship program helps students with high-academic potential but limited financial resources.

### Upskilling for the Knowledge Economy

As part of our commitment to investing in the intellectual capital of our society to grow the knowledge economy, our entities offer a range of course and workshop options.

### Khawarizmi International College

KIC's community outreach program delivered:

Free online and face-to-face courses –

- IT
- Business
- Communication skills
- Lecture series in Arabic on sociological issues

Workshops for working professionals on –

- The art of effective business management
- Innovation and entrepreneurship
- International accounting standards for auditors
- Fundamentals of respiratory healthcare for nurses in collaboration with SEHA

### Knowledge Group

KG's community outreach program delivered more than 36 online and face-to-face seminars, including its Knowledge Day series, attended by over 1,100 professionals in the areas of:

- Sustainability
- Innovation
- Strategic planning
- Leadership development
- Practical tips & positive reinforcement to schoolteachers and assistants using the Kagan Coaching Model
- Career selection for high school students through the development of the Masary program, in partnership with ADEK and Mubadala



## Abu Dhabi University

ADU's community outreach program focused on the intellectual development of over 22,000 teachers, working professionals, and high school seniors in subjects such as:

- Data Science
- Sustainability
- Entrepreneurship
- Leadership
- Financial stability
- Creativity and innovation
- Communications skills
- Well-being

Special summer and winter camps were held for high school students to provide:

- Standardized test preparation
- University and program selection guidance
- General career guidance
- Time management skills
- Entrepreneurial skills
- Innovation skills

Special lectures and workshops were organized on the role of businesses in tackling climate change for corporate professionals. Topics included:

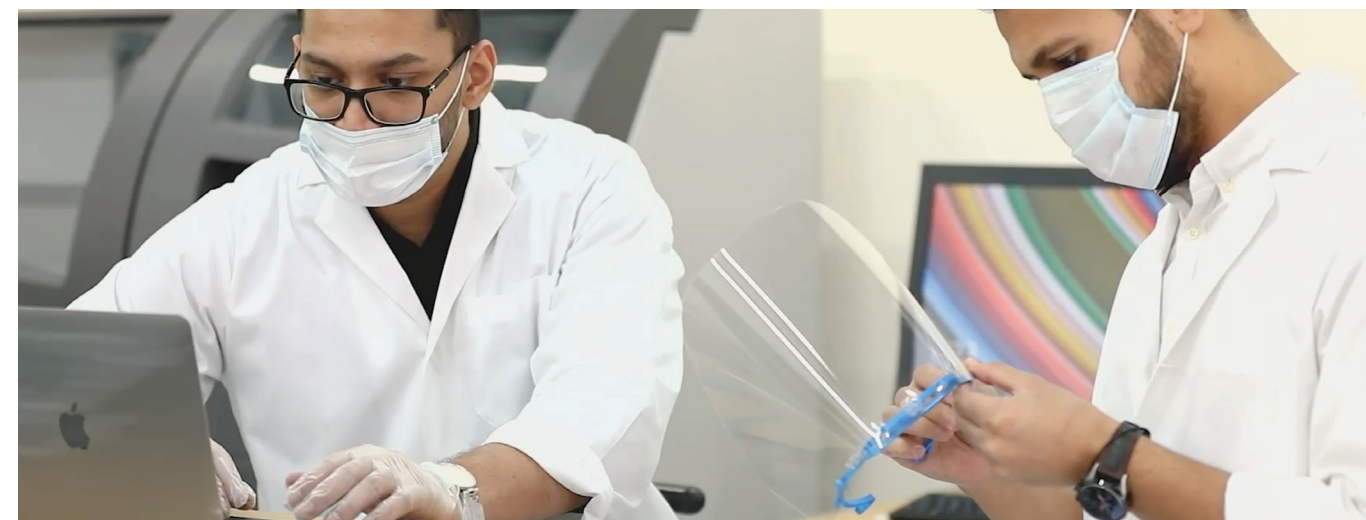
- ESG disclosure
- Accounting for climate change
- Considering environmental factors in the business planning process



ADU is well known in the UAE for its annual world-class *Undergraduate Research Competition*, which brings together students from all over the UAE. One of the core themes of the competition is environmental engineering. This helps promote research in the field of sustainability and raises awareness about this critical issue.

## Saving Lives

We created our *Saving Lives* campaign to preserve the precious gift of life. This campaign aims to improve access to emergency medical care through our blood donation drives and first aid training and reduce road traffic incidents through public awareness campaigns.



### COVID-19

At the outbreak of the COVID-19 pandemic, ADU rallied its resources to help frontline workers in their fight against the pandemic. One of the challenges the healthcare sector faced at the onset of the outbreak was a shortage of medical-grade masks. The University worked closely with hospitals in Abu Dhabi to produce clips required for face masks using its state-of-the-art 3D printers. Additionally, experts at the University designed and produced a face shield with improved ergonomics to help flatten the COVID-19 curve.

### Blood Donor Program

Many lives across the UAE have been saved through the successful blood donation campaigns run by ADU, KIC, and KG in partnership with Abu Dhabi Blood Bank. Blood donation also contributes to generating social ties and building community unity.

### First Aid Training

Knowledge Group offers complimentary first aid training for the ADU and KG community to boost and develop their skills in handling emergency medical situations.

### Promoting Peace and Security

Achieving long-term peace in society is essential to sustainable development. Therefore, in our role as responsible community members, we are committed to upholding the law and promoting peace in our society. Students and employees from KIC collaborated with Abu Dhabi Police on the *We Are All Police* initiative, in which participants were trained to act as community police officers.

KIC also partnered with Dubai police through the *Live Tips* initiative to reduce crime rates and establish sustainable community peace. Through this initiative, KIC raised awareness among staff and students on various security-related issues ranging from digital currency to the safe use of social media.

### Road Safety Campaign

As part of its Ramadan outreach campaign, KIC volunteers distributed Iftar meals to commuters at traffic signals to reduce traffic accidents caused by commuters rushing home for Iftar. ADU also launched a *Road Safety Awareness* campaign to promote safe driving practices and stress the importance of child safety.

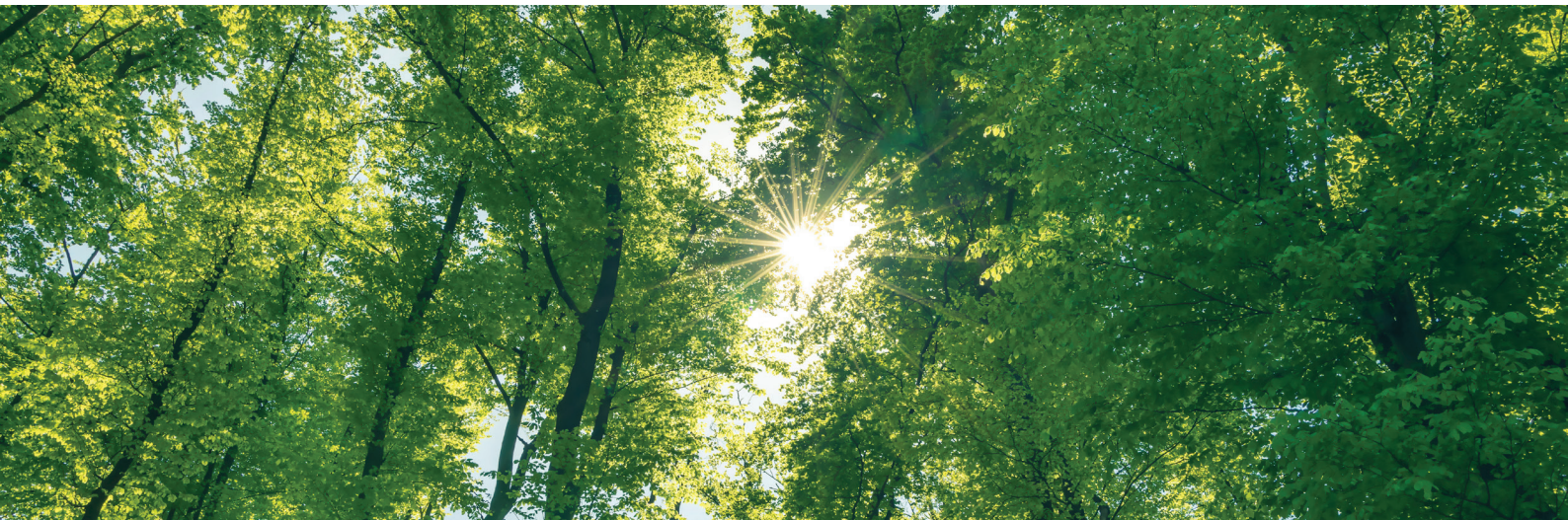


# 7. Dimension Three

## Caring for Our Planet

We must take care of our planet and responsibly utilize the natural resources available. This means reducing our carbon footprint to combat global warming caused by climate change, using finite natural resources such as water responsibly, and recycling our waste for a more sustainable future.

With this in mind, we have implemented a number of energy and water-saving initiatives to reduce our carbon footprint. In addition, we include sustainability as a key component in our education programs, empowering our students to act as agents of change. Table 7.1 summarizes the key initiative undertaken under this ESG dimension.



### Energy Savings and Carbon Footprint

Enough to power

**550**

homes annually



### Waste Management

ADU recycled

**13.6**

tons of waste annually



### Water Savings

Enough to fulfil domestic water needs of

**720**

people annually



### Sustainability and Entrepreneurship in Education

Students across our higher education institutes are exposed to sustainability-related issues

Table 7.1:  
Initiatives Key Facts

## Energy Savings and Carbon Footprint

As part of our energy-saving initiative, we have implemented the following:

- The replacement of classroom and parking lot lighting on the main ADU campus with energy-efficient LED lighting
- Installation of motion sensor lights to optimize lighting efficiency in unoccupied spaces
- Adding meters and automated valves to the ADU air conditioning system to help reduce leakages and improve efficiency
- Launch of a Sustainable Practices awareness campaign by ADU and KG, in collaboration with Abu Dhabi Distribution Company (ADDC), to promote energy savings, including:

The selection and proper use of **computers, water heaters, and refrigerators**

The importance of timely preventative maintenance of electrical appliances

Our energy savings initiatives helped us reduce our yearly power consumption at ADU's main campus by 1,700MWh, which is enough energy to power about 550 homes for one year.

ADU and KG played an active role in promoting awareness about the importance of preserving green spaces, marking World Environment Day by planting Ghaf trees, the national tree of the UAE, on ADU's Abu Dhabi and Al Ain campuses.

KG's commitment to sustainability was recognized when it won the Small Business Award at the Arabia CSR Awards, the Arab region's most prestigious CSR and sustainability accolade, two years in a row.

KTS has also been active in promoting awareness about climate-related issues, including the conservation of green spaces and promotion of the UN Sustainable Development Goals (SDGs) through its Earth Hour and afforestation workshops.







## Water Savings

We are dedicated to eliminating water waste on campus as part of our commitment to the responsible use of our finite resources. Therefore, to reduce our water consumption, we undertook the following:

- Installation of strainers in all ADU lavatories. Strainers help regulate water pressure by removing debris from the system, preventing leaks.
- A water-saving awareness campaign to encourage ADU students and faculty to use water responsibly
- The replacement of approximately 8000 square meters of grass with artificial grass at the main ADU campus to reduce the water required for irrigation

All these water-saving initiatives helped us reduce the annual domestic water consumption at ADU's main campus by 13,165 cubic meters, enough to fulfil the domestic water needs of more than 720 people annually.



## Waste Management

The reduction in the waste we generate is as crucial as recycling. As part of our efforts to reduce paper waste, KIC's Learning Resource Center has undertaken the following:

- Converted some printed textbooks to e-books
- Launched a *Print Less* campaign, eliminating printing requests by 61%
- Eliminated the use of disposable cups throughout its campus by encouraging people to bring reusable mugs

ADU has adopted a two-pronged approach towards waste management. To reduce waste, it has undertaken the following:

- Launched an awareness campaign centered around Waste Management Tips to help reduce waste in the first place
- Adopted a recycling-based waste management system, establishing several waste collection stations on campus to segregate waste for effective recycling. ADU recycled almost 13.6 tons of waste in 2019



## Sustainability and Entrepreneurship in Education

Educating tomorrow's leaders about sustainability is critical to achieving sustainable development. As part of this initiative, ADU and KIC have organized clubs, exhibitions, and competitions to raise awareness among students.

### Abu Dhabi University

ADU revamped and relaunched its Innovation Center in 2022. The Center has an active incubation program supporting start-ups with a sustainability focus as part of its Sustainable Venture Lab initiative in cooperation with the Abu Dhabi Department of Economic Development (ADDED). Open to students, academics, entrepreneurs, and innovators, the Venture Lab serves as an incubator and networking hub and includes business modelling laboratories and a Bloomberg room. The Sustainable Development Venture Lab's mission is to foster the growth of start-ups, spin-offs, innovators, and interested organizations.

The University has launched several initiatives to spread awareness about sustainability-related issues among students, including:

- The creation of the *Student Sustainable Society* by the College of Business
- A monthly e-magazine on environmental sustainability produced by the College of Health Sciences
- The creation of a *Green Club* to raise awareness about environmental issues through events focusing on conservation and sustainable living
- Organization of a conference on ESG by the College of Business in collaboration with the Corporate Governance Institute
- The signing of a Memorandum of Understanding (MOU) with Beeah for collaboration on courses and training programs on climate change and waste management
- Participation in Climate Change Research Network's (CCRN) panel on *Science Driven Policy in Climate Action* at the 2022 UN Climate Change Conference (COP 27) in Egypt

Awareness of sustainability-related issues is a key objective in many of the academic programs offered at ADU. ADU's College of Engineering, College of Arts and Sciences, and College of Health Sciences offer courses on sustainability-related topics.

ADU also collaborates with businesses to spread awareness about environmental issues among the public.



## Khawarizmi International College

The *Business Club for Sustainability Initiative (BCSI)* at KIC trains students and potential future leaders on the triple-bottom-line approach to business for a more sustainable future for local businesses. The Club also organizes exhibitions showcasing members' creative work on topics ranging from responsible water consumption to the advantages of using sustainable principles in banking. KIC's Environment Society actively raises awareness and conducts workshops on environmental issues.

The *Sustainability Action Project (SAP)* nurtures KIC students as change agents through the Sustainable Campus Initiative (SCI) of the Environment Agency Abu Dhabi (EAD). The SCI provides a roadmap for students to tackle an uncertain future's economic, social, and cultural issues.

KIC's *Meet the Entrepreneurs Day* facilitated workshops and dialogue between students, successful entrepreneurs, industry experts, environmentalists, and academics on a triple-bottom-line approach to business success.

KIC also organized a *Green Recovery Challenge*, which allowed students under the mentorship of environmental economists to showcase their research on commitments exhibited by governments and businesses across the globe to achieve net-zero emissions goals.



## Liwa College of Technology

LCT launched an awareness campaign titled *Environment is the Source of Our Happiness* to emphasize the significant role the environment has had in the development of our society and its role in securing our future. Together with Khalifa Fund, LCT also launched an awareness initiative to promote entrepreneurship among its students.





# 8. Research and Development

As the premier provider of higher education in the UAE and the wider MENA region, we firmly believe that research and development are crucial to achieving the ambitious targets set by the UN Sustainable Development Goals (SDGs). The world faces several changes ranging from climate change and pollution to stimulating sustainable economic growth to meet the needs of an ever-growing population. The solutions to these challenges require developing new and improved products, processes, and services, which rely heavily on research and development knowledge.

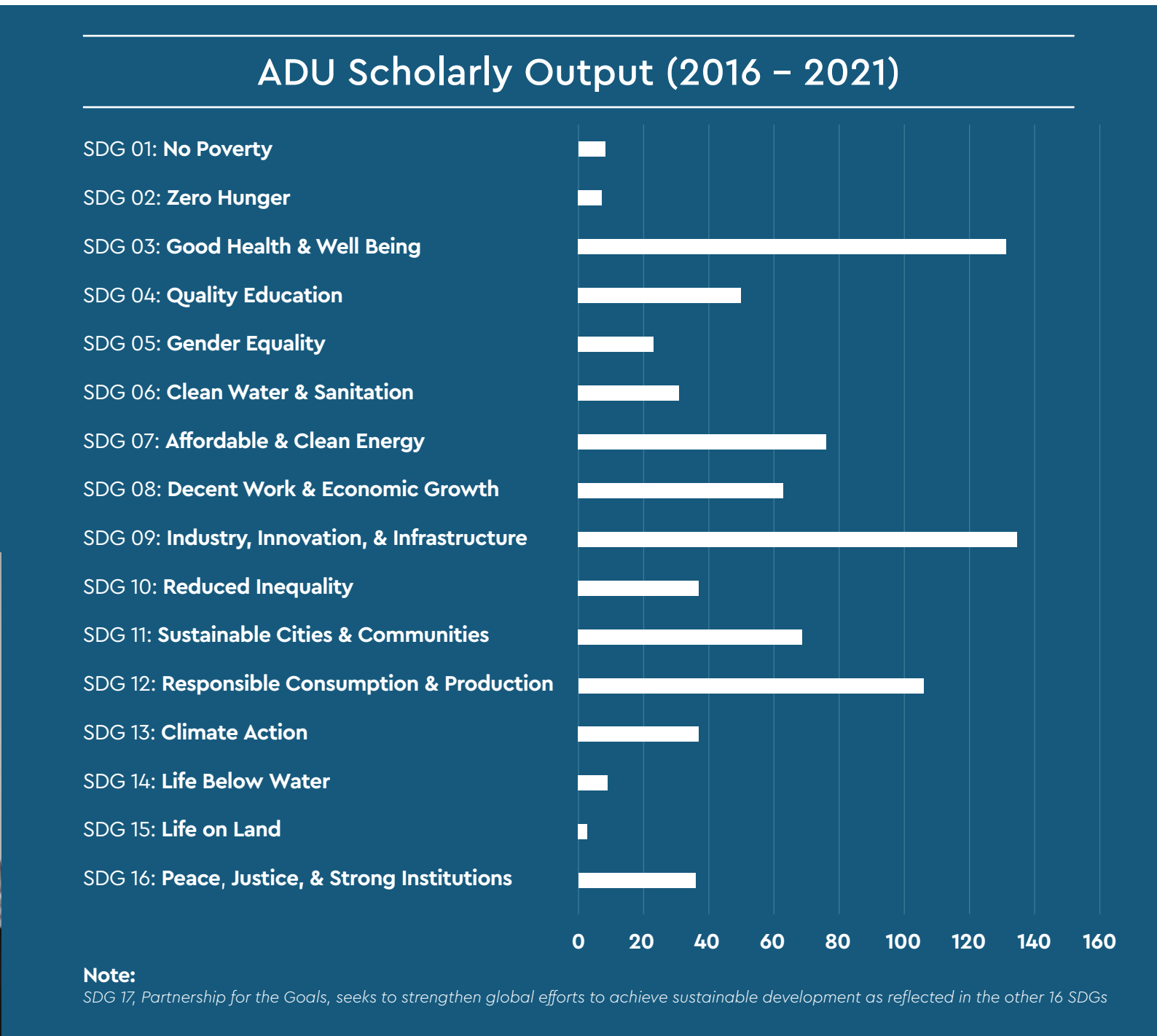
We have, therefore, made it our mission to enable a culture of innovation to flourish across our higher education institutions through the UN SDGs framework. These advancements will help generate sustainable economic growth in harmony with our planet's ecosystem, stimulate job creation, and lead to prosperity for the communities in which we operate. In addition, the generated knowledge will also help our students and faculty participate in the UAE's knowledge economy.



## Office of Research & Sponsored Programs (ORSP)

We established the Office of Research & Sponsored Programs (ORSP) at Abu Dhabi University (ADU) to focus on world-class research. The ORSP is also tasked with developing international collaborations to find innovative solutions to the challenges across our three ESG dimensions. This premier research arm of ADU has enabled our faculty and students to conduct outstanding research in sustainability, technology, infrastructure, and industrial development.

The figure on the right provides a breakdown of the research publications produced by ADU across each of the SDGs, highlighting our commitment to the UN's 2030 Sustainable Development Agenda.



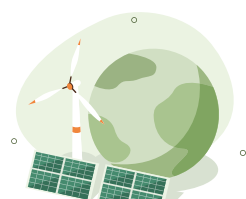
ADU's research efforts are organized across three themes which correlate well with our ESG dimensions of people, communities and planet:



Improving  
Quality Of Life

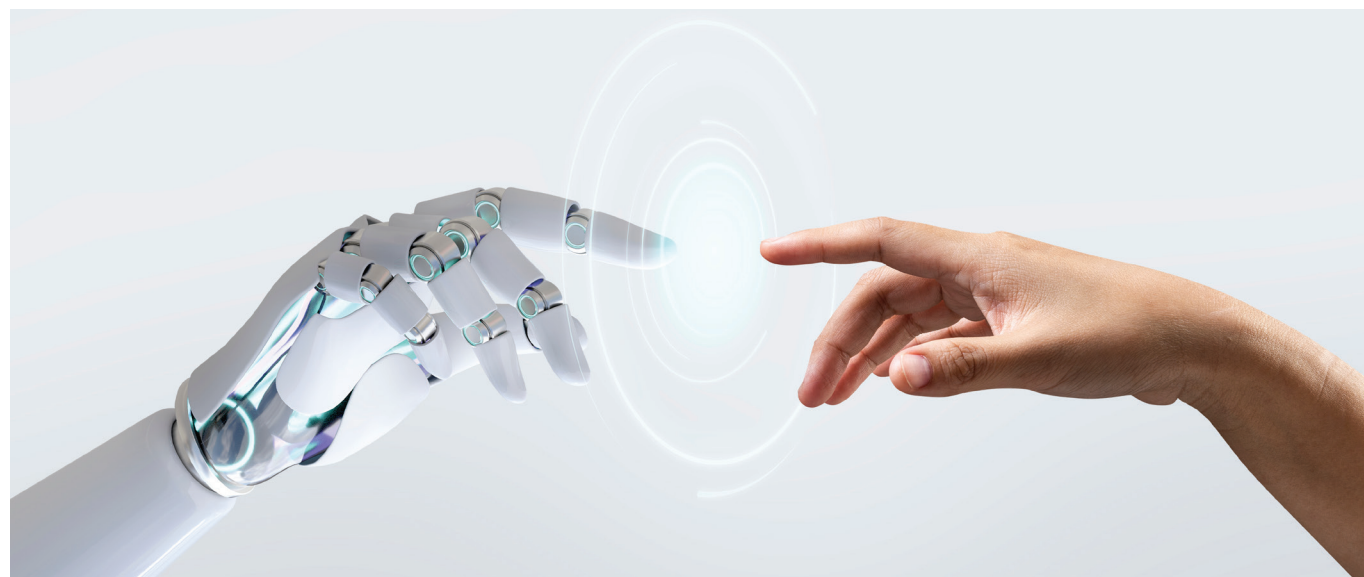


Sustainable  
Industrial Development



Climate Action &  
Environmental Sustainability





## Improving Quality of Life (QOL)

Advances in technology are increasingly helping drive improvements in healthcare through improved detection, tracking, and treatment of diseases. This helps improve the quality of medical care available to the general public and increases life expectancy. Our highly skilled faculty and students play an invaluable role in solving healthcare challenges using novel technologies and innovative approaches.

### Advances in Diagnostic Techniques

The traditional diagnosis of autism is an exhaustive and subjective process, with results varying between specialists. Researchers from Abu Dhabi University used advanced neuroimaging and machine learning techniques to analyze brain scans to identify autism in children. In addition to being fast, this method has the highest accuracy of all current techniques.

Researchers from ADU's College of Engineering received an ASPIRE grant from the Advanced Technology Research Council (ATRC) to investigate the use of advanced imaging tools for improving lung cancer diagnosis. The team at ADU used Artificial Intelligence (AI) and computer-aided diagnosis (CAD) systems to overcome diagnostic problems and provide more reliable detection and diagnosis methods.

### Assistive Technologies and Applications

Students from ADU have developed innovative solutions to real-world issues, including the following:

- D1Cart is an invention that assists people of determination with shopping. D1Cart has a robotic arm to help people of determination reach items easily and is also supported by an automated scanning system to avoid cashier lines.
- A quarantine tracking mobile application to help combat the spread of COVID-19. The application utilizes Artificial Intelligence (AI) and geolocation features to monitor quarantined individuals to ensure compliance with health guidelines.
- A real-time fatigue detection system using Artificial Intelligence (AI) detects drowsiness in drivers working long hours and provides alerts to prevent accidents. The innovative low-cost solution is more accurate than conventional computer vision-based systems.



## Climate Action and Environmental Sustainability

Researchers at ADU are successfully finding solutions to climate and environmental issues through research and development activities. Some highlights include the following:

- A study on the relationship between carbon disclosure, carbon performance, and financial performance showed that an increase in disclosure about climate change activities negatively affected financial performance in the short term but had a positive effect in the long term.
- Researchers have developed an approach to identify oil spills that will help to maintain a safe and clean environment and protect aquatic life. The system uses specialized sensors that can be mounted on aircraft or satellites to obtain images of sea and land surfaces to identify oil spills. By using this innovative technique, oil spills can be precisely identified and similar phenomena excluded, allowing resources to be directed toward cleaning up pollution.
- ADU faculty received a US patent for a modified photovoltaic-wind hybrid energy system developed in ADU's state-of-the-art laboratories that works on improving solar energy harvesting. As an off-grid charging station, this system can produce power day and night and charge drones and off-grid devices. This system maintains the efficiency of solar cells by preventing them from overheating.
- Researchers from ADU's College of Engineering won an ASPIRE grant from the Advanced Technology Research Council (ATRC) for their work on using a novel material – graphene – to improve water filtration for sustainable water management.
- Another team received the ASPIRE grant to develop a technique using Artificial Intelligence (AI) to predict lithium-ion battery failures in the hot and humid conditions of the UAE. This will help improve the reliability of lithium-ion batteries and help develop affordable and clean energy solutions.
- Students developed a proposal for Vertical Farming in the UAE that will encourage good health for the UAE community and meet food security objectives.
- ADU is also working with Ittihad Paper Mill to develop better solutions to utilize paper waste and promote the use of renewable materials.



# Sustainable Industrial Development

Sustainable industrialization and resilient infrastructure are critical to generating economic growth and creating meaningful employment opportunities for young people.



Optimizing the entire supply chain is necessary to maximize resource productivity, including product design, raw material extraction, manufacturing, and distribution. The COVID-19 pandemic highlighted the effects of disruption in supply chains. Research in the field of green supply chains has an instrumental role to play in developing more resilient and sustainable supply chains.

A study by ADU's College of Business explored how supply networks can be greened upstream and downstream. The study presented a framework and measured the extent of greenness in service industries in the UAE, aiming to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.



A major collaborative ADU research project addressed using readily available sustainable natural materials like date seeds to produce high-performance concrete mix. Researchers investigated different date seed additives as a partial replacement for the filler material in concrete. This project demonstrated how sustainable natural materials could be used to produce high-quality concrete.

In addition, researchers won an ASPIRE grant from the Advanced Technology Research Council (ATRC) for their work on 3D printing concrete mixtures to improve sustainability. This method promotes waste reduction during the concrete mixing process and allows for social distancing in the UAE construction industry.



A US patent was granted to an ADU researcher who invented a novel green process that uses natural additives to enhance oil recovery from oilfield wells. These natural extracts, extracted from plants in the UAE, proved to be very effective in challenging oilfield conditions. This invention is a breakthrough in the field of enhanced oil recovery and will contribute to protecting the UAE's environment.





الارتقاء بالمعرفة  
ADVANCING KNOWLEDGE