

Unlocking the Potential of ESG Innovation in the UAE and Across the World

A White Paper by the Dubai Sustainable
Finance Working Group

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Introduction

Dubai Sustainable Finance Working Group

Launched in July 2019, the Dubai Sustainable Finance Working Group (DSFWG) was established to facilitate the Emirate's transition to the most sustainable financial hub in the Middle East, Africa and South Asia (MEASA) region. The Working Group focuses its efforts on four strategic pillars: Responsible Business Operations, Responsible Investing, Growing Sustainable Finance, and Gender Diversity and Inclusion.

Today, the Working Group is comprised of more than 30 active member institutions from across the public and private sectors with seven sub-working groups. The DSFWG has established itself as a key translator and change agent between high-level groups, in the United Arab Emirates (UAE) and globally, that focus on policy and national goals, and private and public sector entities committed to catalysing and actioning change for a sustainable future.

This report has been led by the "ESG Innovation" Sub-Working Group, spearheaded by Dubai International Financial Centre (DIFC) Authority, DIFC Innovation Hub and Zurich, with contributions from the Dubai Department of Economy and Tourism, DP World and Prototypes for Humanity. It provides a deep dive into the role of innovation in driving the adoption of Environmental, Social and Governance (ESG) practices by government and industry to achieve the targets and ambitions set by the United Nations Sustainable Development Goals (UN SDGs) and the related agreements and plans.



Purpose of the White Paper

The Sub-Working Group has identified the following problems statements for the white paper:

1. There is a gap, globally, in achieving the targets outlined as part of the United Nations Sustainable Development Goals, which can be reduced through greater innovation.
2. There is a lack of data on the state of ESG innovation, both globally and in the region, and the role it needs to play in achieving global and country-level sustainability goals and ambitions.

The purpose of this white paper is to create a fact base on the state of ESG innovation, in the UAE, regionally and across the globe. It provides actionable recommendations that will serve as a roadmap for how the UAE can foster an impact-driven ESG innovation ecosystem and become a global hub. The white paper takes a view of the ESG innovation landscape through focusing on Venture Capital-backed start-ups and growth companies, where financing data has been publicly available. It also looks at the characteristics of the leading global ESG Innovation hubs to derive implications for the UAE to create a nurturing ESG innovation environment that unlocks the full potential from here for the world.

At the Crossroads of ESG and Innovation

Understanding Environmental, Social and Governance Frameworks

An Environmental, Social, and Governance (ESG) framework allows a company to evaluate its performance based on parameters that look beyond its bottom line, instead of integrating environmental and social factors into its strategy and action plans. These can serve as both a guide and a tool to measure an organisation’s conscientiousness, its impact on the environment and its relationship with internal and external stakeholders. Simply put, the ESG framework assesses the impact of sustainable and ethical practices of a company.

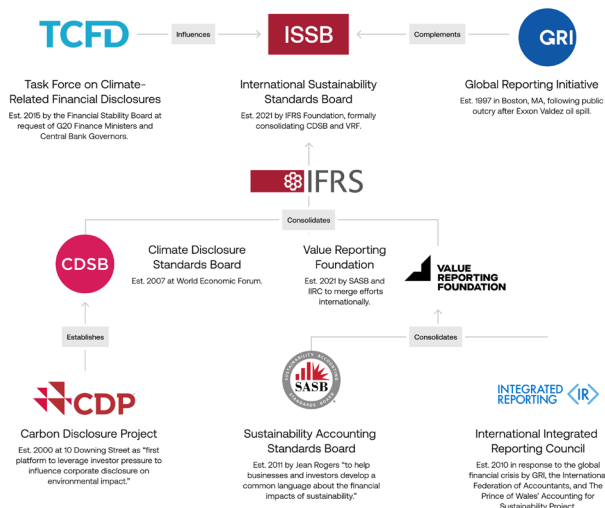


The criteria under each pillar of the ESG framework often captures non-financial or intangible data which normally may not be captured under current Financial Reporting based standards, such as International Financial Reporting Standards (IFRS) or the US Generally Accepted Accounting Principles (US GAAP).

Just as there is a growing awareness amongst consumers to consider their carbon footprint, fair production, and biodegradable qualities of products while making their purchasing decisions, investors are also becoming more conscious of backing companies that align with their social and environmental values, rather than just economic gain – now more commonly known as the triple bottom line.

However, the lack of standardised global ESG reporting has presented a challenge for investors who are unable to compare the ESG performance of their portfolio companies. With each industry taking into consideration different metrics, global organisations have had to establish their own set of reporting standards such as Global Reporting Initiative standards (GRI), Sustainability Accounting Standards Board (SASB), and Climate Disclosure Standards Board (CDSB).

Figure 1: Context on the recent ISSB consolidation efforts



Source: Auditboard

At the Crossroads of ESG and Innovation

Recent efforts in driving consolidation and standardisation are an essential step towards funnelling investments into the most impactful initiatives that can accelerate the achievement of global sustainable goals (See Figure 1). Below is an overview of the three core pillars that form an ESG framework, and some of the considerations that apply to each:

Environmental

These are factors relating to an organisation's affinity and attitude to the environmental health of the planet. This may include asking whether an organisation is a responsible custodian of the planet's natural resources, whether raw materials being used in production have been ethically sourced, or how the level of carbon emissions resulting from production is being reduced or mitigated.

Social

This pillar looks at an organisation's relationship with its primary stakeholders, including employees, customers, supply chain, or wider community. Companies may demonstrate these values by ensuring fair pay, benefits and supportive HR policies for employees, catering to and engaging conscientious customers, advocating to work with suppliers who share their values, or pledging to support causes and initiatives that benefit the community.

Governance

This is perhaps one of the lesser understood and appreciated, but equally important, ESG pillars. Proper governance ensures ESG is not mere words for favourable publicity and greenwashing purposes but is an integral part of an organisation's DNA. An organisation exercising good corporate governance may look at ensuring diversity and equal representation at a board level, implement a comprehensive Code of Conduct, enforce anti-bribery and anti-corruption measures, and regularly measure external and internal audits.



Defining Innovation and Innovation Ecosystems

"Innovation is the ability to see change as an opportunity – not a threat."

Steve Jobs

Innovation presents a great deal of value for individuals and customers by offering a new product or experience that aims to solve specific issues and challenges in a divergent and creative manner. Be it incremental, sustainable, or rapid and disruptive, innovation is the means of addressing urgent and developmental challenges by doing things differently. Where companies in the past would focus on Research & Development to enhance their products, 21st-century entrepreneurs and businesses are more invested in the concept of transforming what they sell and how they sell. Concepts are now more purpose-driven, with innovative ideas tackling challenges faced by individuals.

Nurturing an Innovation Ecosystem

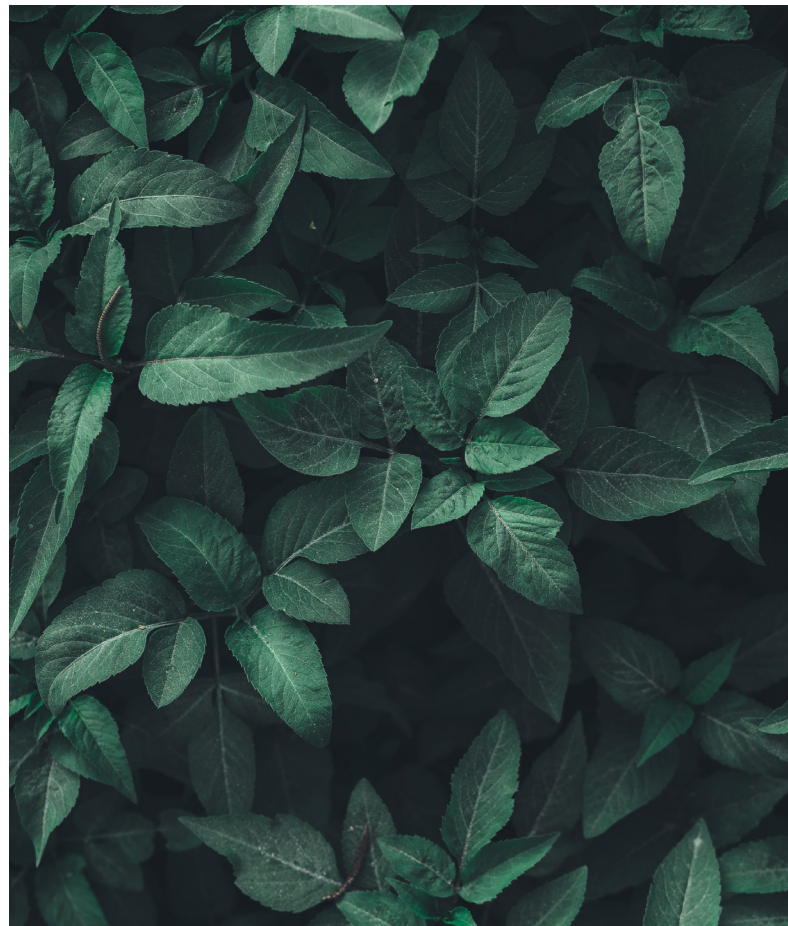
You cannot grow a tree if you plant the seed on asphalt. The same philosophy applies when building something new where, previously, nothing existed ("From Zero to One") – it needs a specific environment and constant care to grow. This is also true for innovation, which does not appear out of thin air, but requires a particular ecosystem to foster its development.

An innovation ecosystem includes universities, government, corporations, start-up accelerators, venture capitalists, private investors, foundations, entrepreneurs, mentors, and the media¹. Just as the human body consists of different organs interdependent on each other in order to function, the innovation ecosystem relies on each of these so-called ingredients to work in harmony and to allow it to thrive.

Innovation ecosystems can operate on multiple levels (e.g., municipal, regional, national) and within multiple sectors (e.g., financial services, agriculture, health, education)². It is the nucleus where policymakers introduce legal and regulatory measures that allow for the development of new technologies, and where academic institutions educate and arm the youth with the tools they need to secure a bright and innovative future.

An advanced innovation ecosystem triggers the emergence of new talent, which guarantees a country's prosperity from various perspectives. It creates space for economic diversification by establishing new and creative sectors. It serves as a chain or series of dominoes, where the first initiative has a knock-on effect on others. As new talent emerges, a country will attract more global and home-grown start-ups, stimulating new job opportunities for individuals in its society. As community members and investors see this interest grow, they are more inclined to invest further into new venture funds and other foundations, creating a cycle of growth and prosperity.

Leading innovation ecosystems are further enabled by government policies, which more holistically create an environment that allows companies to create, test and prove their concepts. In this context, the availability of innovation sandbox, for example, is important to encourage the testing of new concepts in a controlled environment.



¹MassChallenge Innovation Blog: What Is an Innovation Ecosystem and How Are They Essential for Startups?

²International Development Innovation Alliance: Innovation Ecosystems

Defining Innovation and Innovation Ecosystems

Driving Innovation in Companies

It is said that the newer something is, the greater the uncertainty that surrounds it – this is certainly true of innovative concepts. Nevertheless, in order to survive in the current competitive and changing environment, some level of risk is required to generate fresh ideas, which guarantees their survival. However, certain ‘innovation drivers’ could be the key to a faster, more effective path to achieving a company’s goals.

A Clear Direction and Strategy

Strategy is what matters in driving innovation. It’s important for the team to collectively set and agree to specific work plans and deadlines for the project. While it is possible that a group’s strategy may evolve depending on the outcomes of trials at various steps – and it is important to allow for agility to adjust and pivot if needed – without a clear plan, different players may end up working in silos and causing roadblocks in the overall success of the project.

A Realistic Appetite for Failure

While we are hard-wired to avoid failure in most aspects of our lives or business, any company looking to innovate must be aware of all possible outcomes. The reality is that 90% of start-ups fail³, but the 10% that succeed, have the power to change the world. Without failed attempts along the way, we would not have the likes of Google, Apple or Microsoft in existence. Considering this, failure should not be something to be avoided or punished, but instead the freedom to fail should be a safe space to express great ideas. Failure should not, however, be the result of negligence and as Doug Sundheim, Author of Taking Smart Risks, states: failures should not be excuses but rather “thoughtful and well-planned projects that for some reason didn’t work.”

Suspension of Judgment and Critique

The project leader should not be hasty in generalising a team members’ performance. If a team member is judged for every single effort or opinion, they may stop expressing their ideas for fear of being penalised at every step of the journey. It is essential that a supportive environment is created to allow all employees to feel comfortable enough in speaking up and sharing their perspectives.

Development of Innovation-Friendly Policies

The success of a particular company reflects how effective its policies are. Company policies can either restrict or open space for employees or group members to think out of the box and dedicate time to coming up with new ideas. For example, Google is known for encouraging employees to allocate 20% of their time to working on any project they desire⁴, allowing them to tap into what they are most passionate about and fuelling new ideas.

Team Engagement and Empowerment

Innovation – or at least the act of bringing an innovative concept to life – cannot be accomplished by an individual alone. It is the various moving parts within a team, bringing a variety of skill sets and expertise, that are responsible for the execution and development. As every individual brings their own perspective, a combination of different ideas can empower the team and make sure they are working towards one common goal.

A Culture of Open Communication

Constant and consistent communication between team members is also critical in driving innovation. Regular communication sets the tone for an exchange of ideas, creates room for collaboration and allows project progress to be tracked. It also ensures everyone involved is on the same page, which means problems that may arise can be tackled sooner rather than later, potentially saving both time and money.

³Forbes: 90% of Startups Fail, Here’s What You Need to Know About The 10%

⁴ Forbes: How To Drive Innovation in Five Steps

The Role of ESG Innovation in Achieving UN Sustainable Development Goals

Government - Commitments, Laws and Regulations

In 2015, all United Nations Member States adopted the 2030 Agenda for Sustainable Development, which provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At the core of the 2030 agenda are the 17 Sustainable Development Goals (SDGs) that came into force at this historic UN Sustainable Development Summit in September 2015. The SDGs summarised and consolidated goals that had been worked on for many years before.

For example, SDG 13: Climate Action addresses the challenge of the climate crisis that has been apparent for over 20 years, highlighting the need for multilateral cooperation in tackling this global issue. To drive cooperation and collaboration across nations, the UN Framework Convention on Climate Change (UNFCCC) was established in 1992 to foster climate negotiations and to increase the sharing of knowledge and information on this topic.

Under the UNFCCC, the Conference of Parties (COP) was launched in 1995 as a high-level UN Climate Change Conference, held annually in a different host city every year, to convene its 198 member parties and to progress on climate talks.

At COP21, which took place in Paris the same year, the participating parties entered into a legally binding international treaty on climate change that would limit global warming to 1.5 degrees Celsius, compared to pre-industrial levels.

The Paris Agreement holds all member parties accountable in taking climate action by pushing them to update and renew their Nationally Determined Contributions (NDCs) in line with the UN SDGs.

While goals are set on government level, moving them into action and translating them into various levels of national and local policies, laws and regulations requires new, innovative and economically viable solutions to accelerate adoption and in consequence progress towards the SDGs.

Figure 2: Timeline of key milestones towards SDGs

Timeline	1992	2000	2002	2012	2013	2015	2015	Now
Forums	Earth Summit	Millennium Summit	World Summit on Sustainable Development	UN Conference on Sustainable Development (Rio+20)	UN General Assembly	UN Sustainable Development Summit	UN Framework Convention on Climate Change – COP21	UN High-Level Political Forum on Sustainable Development
Location	Brazil	United States	South Africa	Brazil	United States	United States	France	-
Deliverables	Agenda 21	8 Millennium Development Goals (MDGs)	The Johannesburg Declaration on Sustainable Development and the Plan of Implementation	Outcome document "The Future We Want"	30-member Open Working Group	2030 Agenda for Sustainable Development	Paris Agreement	-
Objectives	Partnership for sustainable development to improve human lives and protect the environment	To reduce extreme poverty by 2015	To commit to Poverty eradication, the environment, and multilateral partnerships	To launch a process to develop a set of SDGs to build upon the MDGs and to establish the UN High-level Political Forum on Sustainable Development	To develop a proposal on the SDGs	To end poverty in all its forms	To hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels"	To serve as the central UN platform for the follow-up and review of the SDGs

Source: Dubai Sustainable Finance Working Group, United Nations

The Role of ESG Innovation in Achieving UN Sustainable Development Goals

Business – Adoption of ESG Principles (Voluntary and Mandatory)

The pace of businesses adopting ESG is dependent on two main drivers: customer demand (current or anticipated), which is voluntary, and compliance requirements, which are imposed by government regulators and are mandatory.

Influenced by these two drivers, businesses are beginning to integrate ESG into their operations, products, and services. This has opened the door to new market opportunities that are being created behind both drivers.

On one hand, in the current market there is a lack of products and services on both unlocking the voluntary adoption and scaling the mandatory compliance and reporting. While the market demand and compliance requirements continue to grow, there is a challenge to match financing needs and timelines with the expectations of investors. This mismatch has resulted in addition to the financing gap in an ESG innovation gap.

Solving the ESG Innovation gap, plays a critical role to start the flywheel that helps accelerate voluntary adoption by bringing down costs of sustainable solutions, making them commercially viable, and enabling global scalability. It also plays a role in empowering companies to comply with mandatory requirements cost-effectively and quickly to focus their efforts and resources on driving impact.

Consumers - Awareness and Behavioural Shifts

When considering the impact of climate change, it is individuals – and predominantly those in developing nations – that are most vulnerable and therefore highly affected. However, individuals also hold the power to be effective agents of change and promoters of adaptation and mitigation, through their behavioural, lifestyle and purchasing habits. For example, simple acts such as reducing consumption of single-use plastic or contributing to the circular economy by upcycling old clothing and furniture, can be hugely beneficial to the planet when adopted en masse.

On a grassroots level, as Environmental, Social & Governance issues become more prevalent, society is beginning to raise its voice through social media. Furthermore, young, passionate digital activists, such as Greta Thunberg, have increased public awareness and prompted international participation in these various social and environmental initiatives.

These social and environmental initiatives have resulted in increased demand for sustainable products and services, creating a positive shift in the advancement of the private sector. They have also spurred significant policy advancements such as carbon tax, improved corporate reporting on social and environmental practices, and gender equality being mandated on boards. People are creating tangible impact with changing consumer choices surrounding ESG acting as a powerful catalyst for innovation in this space.



The Status of the UN SDGs

With the world approaching the halfway mark towards the 2030 Agenda for Sustainable Development, according to UN, current trends show that almost all states will fail to achieve nearly all Sustainable Development Goals and targets.

Figure 3: Overview of current progress on SDGs

UNSDGs	Status	SDG Target	SDG Sub-Goals
1 No Poverty		End poverty in all its forms everywhere	Eradicate extreme poverty for all people everywhere Achieve substantial social protection coverage
2 Zero Hunger		End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Ensure access by all people to safe, nutritious and sufficient food all year round By 2030, achieve a 50 per cent reduction from 2012 in the number of stunted children under 5 years Increase the coverage of births attended by skilled health personnel
3 Good Health & Wellbeing		Ensure healthy lives and promote well-being for all at all ages	End the epidemic of malaria
4 Quality Education		Ensure inclusive and equitable quality education and promote lifelong opportunities for all	Ensure all girls and boys complete primary education
5 Gender Equality		Achieve gender equality and empower all women and girls	Eliminate child marriage Ensure women's full participation and equal opportunities in national parliaments
6 Clean Water & Sanitation		Ensure availability and sustainable management of water and sanitation for all	Achieve universal access to safely managed drinking water services
7 Affordable & Clean Energy		Ensure access to affordable, reliable, sustainable and modern energy for all	Achieve universal access to electricity Double the global rate of improvement in energy efficiency
8 Decent Work & Economic Growth		Promote sustained, inclusive and sustainable economic growth and decent work for all	Sustain per capita economic growth Achieve full employment
9 Industry, Innovation & Infrastructure		Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Significantly raise industry's share of GDP Increase access to mobile networks
10 Reduced Inequalities		Reduce inequality within and among countries	Reduce inequality within countries
11 Sustainable Cities & Communities		Make cities and human settlements inclusive, safe, resilient and sustainable	Reduce the proportion of urban population living in slums
12 Responsible Consumption & Production		Ensure sustainable consumption and production patterns	Rationalize inefficient fossil-fuel subsidies per unit of GDP Reduce the domestic material consumption per unit of GDP
13 Climate Action		Take urgent action to combat climate change and its impacts	Reduce global greenhouse gas emissions
14 Life Below Water		Conserve and sustainably use the oceans, and marine resources for sustainable development	Increase the coverage of protected areas in relation to marine Key Biodiversity Areas Increase the proportion of fish stocks within biologically sustainable levels
15 Life on Land		Protect, restore and promote sustainable use of terrestrial ecosystems	Ensure the conservation, restoration and sustainable use of terrestrial ecosystems By 2020, protect and prevent the extinction of threatened species Significantly reduce homicide rates
16 Peace, Justice & Strong Institutions		Promote peaceful and inclusive societies for sustainable development	Reduce the proportion of unsentenced detainees
17 Partnership for the Goals		Strengthen implementation and revitalize the Global Partnership for Sustainable Development	Enhance access to technology by increasing internet use Increase proportion of countries with a national statistical plan that is fully funded

Target met/almost met
 Close to Target
 Moderate distance to target
 Far from target
 Very far from target
 Insufficient data
 Close to target
 Far from target

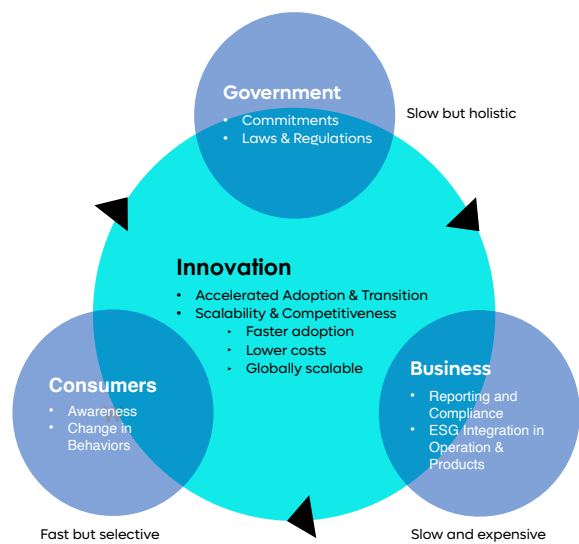
Source: Dubai Sustainable Finance Working Group & United Nations

There is a few reasons contributing to the limited progress towards achieving these goals. One is the time it takes from pledging commitments on government level to translating them into effective policies, laws, and regulations. Another is the inadequate level of investment in achieving the goals, with an annual gap of more than \$4 trillion according to the UN. These have hindered the adoption of ESG principles and practices by businesses into their operations and products, holistically and at the required pace.

While there is no doubt that the required capital can be availed and regulations will be implemented over time, unlocking ESG innovation ecosystems today is a critical enabler to accelerate adoption and transition paths and make them scalable and economically viable for business.

The Flywheel of ESG Innovation

Figure 4: The flywheel of ESG innovation



Source: Dubai Sustainable Finance Working Group

Achieving the SDGs requires collaboration among Government, Businesses and Consumers. Each one has a unique role and influence on each other.

ESG Innovation plays a critical role in starting a flywheel that can accelerate the efforts and financing required to get the ecosystem back on track in achieving the SDGs.



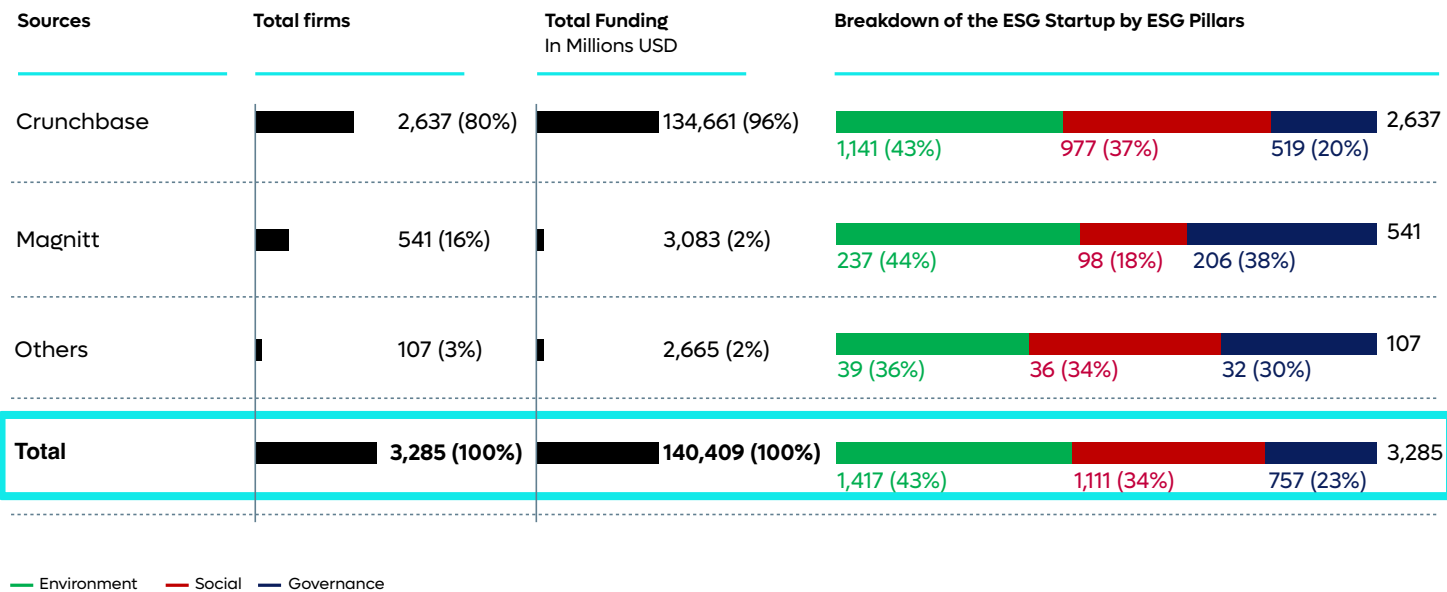
The State of the Global and Regional ESG Innovation Landscape

Methodology and Classification Framework

Forming the foundation of this study, over 3,285 start-ups have been identified from key industry sources. The analysis has been conducted in September 2022, reflecting data collated until end of August 2022. The start-ups and growth companies have been mapped in line with the 17 SDGs and the ESG pillars based on the classification framework detailed below.

An in-depth analysis has been conducted looking at among other things the number of companies, funding raised and geographies. Further qualitative deep dives have been conducted for companies that stood out in the analysis.

Figure 5: Top industry sources were used to extract a list of 3,285 ESG innovation startups



Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

ESG Classification Framework

To understand the current state of the ESG Innovation landscape, the below classification framework has been developed to identify and categorise the start-ups under ESG segments that correlate with the 17 UN SDGs.

These metrics are ‘integrated and indivisible’ and balance the three dimensions of sustainable development that we have already defined: the environment, social and governance⁵.



Figure 6: Mapping of SDGs to ESG components for the analyses



Source: UN Department of Economic and Social Affairs, Sustainable Development

⁵UN Department of Social and Economic Affairs: Transforming Our World – The 2030 Agenda for Sustainable Development

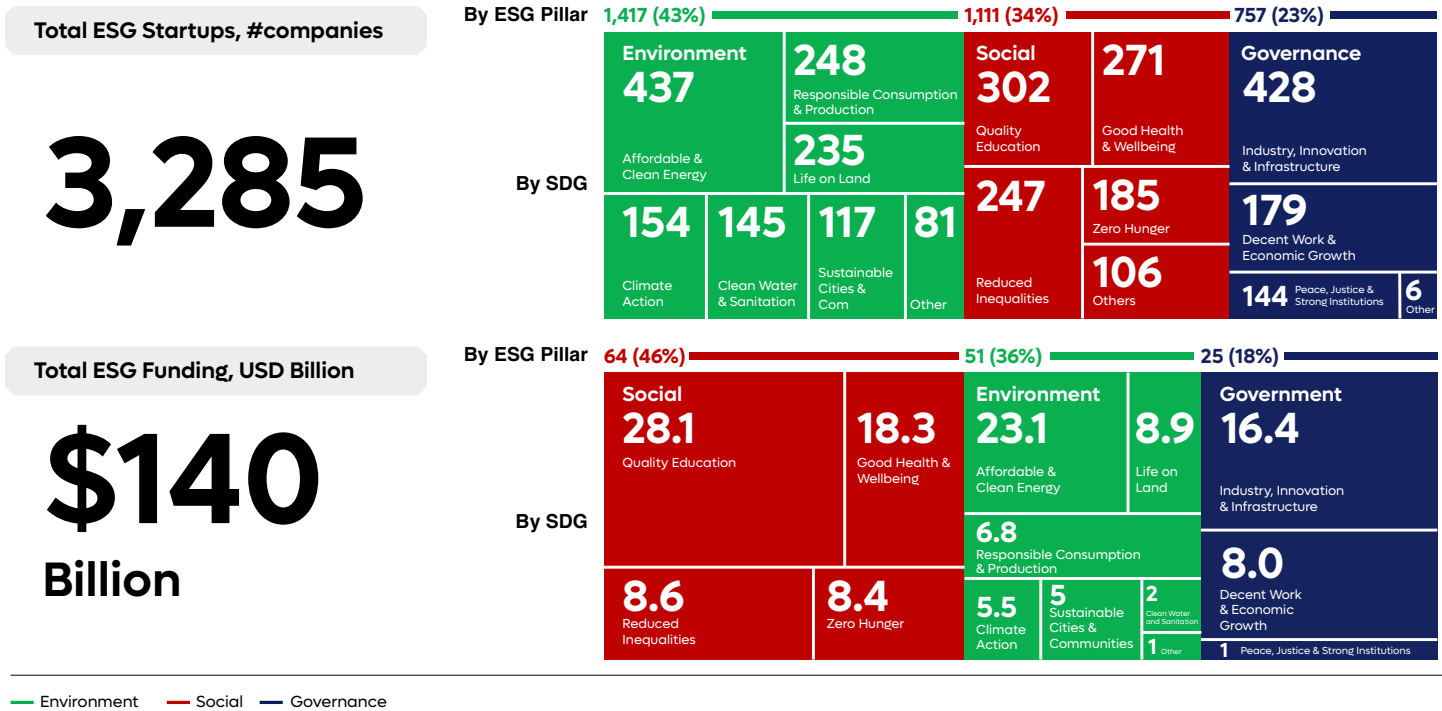
The State of the Global and Regional ESG Innovation Landscape

The Global State of ESG Innovation

The 3,285 ESG-related start-ups mapped out in this study have raised over \$140 billion in funding.



Figure 7: The global perspective of ESG related start-ups and funding



Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

GLOBAL

MENA

UAE

The Global State of ESG Innovation

On the global level, the Environmental and Social pillars have the highest number of start-ups and funding. Social start-ups and growth companies received the highest amount of funding (\$64 billion, 46% of the total amount), driven by ventures in the areas of Quality Education (SDG 4) and Good Health & Wellbeing (SDG 3). Environmental related companies accounted for the largest in number (1,417, 43% of total) driven by ventures in the areas of Affordable and Clean Energy (SDG 7) and Responsible Consumption and Production (SDG 12).

Comparatively, Life Below Water (SDG 14), No Poverty (SDG 1) and Gender Equality (SDG 5) were responsible for the lowest number of start-ups and funding.



Figure 8: The global perspective - deep-dive of ESG start-ups by SDGs

UN SDGs	Funding in millions USD	Startups # of Companies	Top 3 Startups	Top 3 Countries	SDG Targets	Status
Quality Education	28,070 (20%)	302 (9%)	Yuanfudao, zuoyebang, articulate	China, US, India	Ensure inclusive and equitable quality education and promote lifelong opportunities for all	
Affordable & Clean Energy	25,144 (18%)	438 (13%)	T3 Travel, Commonwealth Fusion, TAE Technologies	US, China, Germany	Ensure access to affordable, reliable, sustainable and modern energy for all	
Good Health & Wellbeing	18,329 (13%)	271 (8%)	Devoted Health, Miaoshou Doctor, Kry	US, China, UK	Ensure healthy lives and promote well-being for all at all ages	
Industry, Innovation & Infrastructure	16,451 (12%)	428 (13%)	The Boring Company, Carbon, Commure	US, China, France	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
Life on Land	8,895 (6%)	235 (7%)	Farmers Business Network, Pivot Bio, Infarm	US, India, China	Protect, restore and promote sustainable use of terrestrial ecosystems	
Reduced Inequalities	8,596 (6%)	247 (8%)	Bluevine, Medlinker, Aye Finance	US, India, UK	Reduce inequality within and among countries	
Zero Hunger	8,411 (6%)	185 (6%)	Indigo, Plenty, Noom	US, China, UAE	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	
Decent Work & Economic Growth	7,994 (6%)	179 (5%)	Next Insurance, OfBusiness, Xendit	US, India, Indonesia	Promote sustained, inclusive and sustainable economic growth and decent work for all	
Responsible Consumption & Production	6,764 (5%)	248 (8%)	Apeel, Getaround, Stanza Living	US, China, India	Ensure sustainable consumption and production patterns	
Sustainable Cities & Communities	4,569 (3%)	117 (4%)	TIER, Icon 3D Printed Housing, Halio	US, Germany, UK	Make cities and human settlements inclusive, safe, resilient and sustainable	
Climate Action	3,504 (2%)	153 (5%)	Solugen, Electric Hydrogen, Carbon Clean Solution	US, UK, Canada	Take urgent action to combat climate change and its impacts	
Clean Water & Sanitation	1,499 (1%)	145 (4%)	Source, Cirkul, Waterdrop	US, China, Austria	Ensure availability and sustainable management of water and sanitation for all	
Life Below Water	895 (1%)	81 (2%)	Saildrone, Yihao Foodstuff, GoExpedi	US, China, UK	Conserve and sustainably use the oceans, and marine resources for sustainable development	
Peace, Justice & Strong Institutions	807 (1%)	144 (4%)	Mark41, Aclima, UrbanFootprint	US, Turkey, Canada	Promote peaceful and inclusive societies for sustainable development	
No Poverty	402 (0%)	68 (2%)	Omaze, iDonate, Trust Stamp	US, UK, Egypt	End poverty in all its forms everywhere	
Gender Equality	77 (0%)	38 (1%)	Binti, Hapara, Omooma	US, YAE, Pakistan	Achieve gender equality and empower all women and girls	
Partnership for the Goals	0 (0%)	6 (0%)	N/A	N/A	Strengthen implementation and revitalize the Global Partnership for Sustainable Development	

SDG achieved Challenges remain Significant challenges remain Major Challenges remain Information unavailable Environment Social Governance

Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

The Global State of ESG Innovation

The top ten most-funded start-ups attracted 14.2% of total funding, globally, while the top 100 start-ups received 45.5% of total funding.

Most of the funding went towards solutions dedicated to improving access to education that hailed from China, the United States and India.



Figure 9: The global perspective - top 10 funded start-ups based on our analysis

Company	Country	ESG Pillar	UN SDG	Funding Raised
Yuanfudao	China	Social	Quality Education	\$4,052,000,000
Zuoyebang	China	Social	Quality Education	\$2,935,000,000
T3 Mobile Travel Services	China	Environment	Affordable & Clean Energy	\$2,650,329,985
Commonwealth Fusion	United States	Environment	Affordable & Clean Energy	\$1,999,000,000
Devoted Health	United States	Social	Good Health & Wellbeing	\$1,969,000,000
Articulate	United States	Social	Quality Education	\$1,500,000,000
Indigo	United States	Social	Zero Hunger	\$1,169,000,000
TAE Technologies	United States	Environment	Affordable & Clean Energy	\$1,166,934,000
Eruditus Executive Education	India	Social	Quality Education	\$1,163,985,963
Emeritus	Singapore	Social	Quality Education	\$1,040,000,000

Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

GLOBAL

MENA

UAE

The United States, China, Canada, Singapore, and Indonesia are the top five ESG innovation countries, with a proportionally higher representation of venture capital being channelled from these markets into ESG activities than their existing overall venture capital performance.

Given its growing focus on sustainability, the United Arab Emirates has also demonstrated a relatively strong performance, accounting for 0.6% of the global ESG venture capital, which is the same its venture capital performance in overall sectors in the global landscape.



Figure 10: Top ESG innovation hubs

Countries	Funding In Millions USD	Startups # of Companies	ESG VC/World ESG VC	Overall VC/ World VC*	Top 3 Funded ESG Startups	Top 3 Funded SDGs
United States	72,695	1,262 (38%)	51.7%	45.4%	Commonwealth Fusion, Devoted Health, Articulate	Affordable & Clean Energy / Good Health & Wellbeing / Industry, Innovation & Infrastructure
China	22,407	202 (6%)	15.9%	13.1%	Yuanfudao, Zuoyebang, T3 Mobile Travel	Quality Education / Affordable & Clean Energy / Good Health & Wellbeing
India	9,497	153 (5%)	6.8%	8.7%	Eruditus Executive Education, OfBusiness, Unacademy	Quality Education / Decent Work & Economic Growth / Reduced Inequalities
United Kingdom	5,395	211 (6%)	3.8%	7.6%	Iwoca, Multiverse, Onto	Reduced Inequalities / Affordable & Clean Energy / Good Health & Wellbeing
Germany	4,409	87 (3%)	3.1%	3.4%	Enpal, TIER Mobility, Infarm	Affordable & Clean Energy / Sustainable Cities & Communities / Life on Land
Canada	4,067	116 (4%)	2.9%	1.0%	ApplyBoard, PAPER, General Fusion	Quality Education / Affordable & Clean Energy / Reduced Inequalities
Singapore	3,055	49 (1%)	2.2%	1.7%	Emeritus, Spark Education Group, RWDC Industries	Quality Education / Industry, Innovation & Infrastructure / Affordable & Clean Energy
Indonesia	1,703	24 (1%)	1.2%	0.3%	Xendit, Modalku, Sayurbox	Decent Work & Economic Growth / Zero Hunger / Reduced Inequalities
France	1,605	64 (2%)	1.1%	1.6%	Ledger, Descartes, Underwriting, Sweep	Industry, Innovation & Infrastructure / Climate Action / Sustainable Cities & Communities
Israel	1,484	88 (3%)	1.1%	0.7%	Beewise, H2Pro, Simply	Life on Land / Good Health & Wellbeing / Zero Hunger
Sweden	1,298	20 (1%)	0.9%	2.1%	Kry, H2 Green Steel, Svea Solar	Good Health & Wellbeing / Sustainable Cities & Communities / Affordable & Clean Energy
Brazil	1,223	40 (1%)	0.9%	0.8%	Olist, Solfacil, Descomplica	Decent Work & Economic Growth / Quality Education / Affordable & Clean Energy
South Korea	887	21 (1%)	0.6%	3.3%	Riid, Greenlabs, Tridge	Life on Land / Quality Education / Decent Work & Economic Growth
Austria	804	9 (0%)	0.6%	N/A	GoStudent, Waterdrop, neoom ag	Quality Education / Clean Water & Sanitation / Affordable & Clean Energy
UAE	789	99 (3%)	0.6%	0.6%	Pure Harvest Smart Farms, Yellow Door Energy, ChannelVAS	Zero Hunger / Industry, Innovation & Infrastructure / Affordable & Clean Energy

Lower representation in global ESG VC than the overall VC

Higher representation in global ESG VC than the overall VC

Same representation in global ESG VC as the overall VC

*The country representation in the total funding of the top 1,000 funded startups in 2022. Source: Crunchbase.

Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

Based on the analysis, the current leading ESG Innovation Hubs in the world are the USA, China, Canada and Singapore. Quality Education (SDG 3) and Affordable & Clean Energy (SDG 7) are a key focus across all of them. While the USA and Singapore also have a strong focus on Industry, Innovation & Infrastructure (SDG 9), China has a large focus on Good Health & Wellbeing (SDG 3) and Canada on Reduced Inequalities (SDG 10).



Figure 11: Deep-dive of top 4 ESG innovation hubs

	United States	China	Canada	Singapore
Top 3 UNSDGs	Affordable & Clean Energy \$14 Billion	Quality Education \$10 Billion	Quality Education \$1.2 Billion	Quality Education \$1.9 Billion
	Good Health & Wellbeing \$12 Billion	Affordable & Clean Energy \$4.2 Billion	Affordable & Clean Energy \$0.8 Billion	Industry, Innovation & Infrastructure \$0.3 Billion
	Industry, Innovation & Infrastructure \$10 Billion	Good Health & Wellbeing \$2.4 Billion	Reduced Inequalities \$0.5 Billion	Affordable & Clean Energy \$0.2 Billion
Top 2 Startups	Commonwealth Fusion Systems	Yuanfudao	ApplyBoard	Emeritus
	ESG Pillar: Environment UN SDG: Affordable & Clean Energy Funding: \$2 Billion Description: Commonwealth Fusion is an MIT spinoff research company that focuses on bringing fusion energy technology to market.	ESG Pillar: Social UN SDG: Quality Education Funding: \$4 Billion Description: Yuanfudao is the largest online live course platform servicing primary and secondary school students in China. With a paying userbase of over 1 million.	ESG Pillar: Social UN SDG: Quality Education Funding: \$483 Million Description: ApplyBoard is an online platform that empowers students around the world to access the best education by connecting students, recruitment partners and institutions.	ESG Pillar: Social UN SDG: Quality Education Funding: \$1 Billion Description: Emeritus is an EdTech startup that provides high-quality online learning experience so people can learn in-demand skills to take their career to the next level.
	Devoted Health	Zuoyebang	Paper	Spark
	ESG Pillar: Social UN SDG: Good Health & Wellbeing Funding: \$2 Billion Description: Devoted Health is a healthcare company serving seniors and giving them a health care plan with personal guides and world-class technology.	ESG Pillar: Social UN SDG: Quality Education Funding: \$3 Billion Description: The platform uses artificial intelligence to enable students to upload their homework questions and search for answers for study-related problems.	ESG Pillar: Social UN SDG: Quality Education Funding: \$390 Million Description: Paper partners with school districts to deliver 1:1 tutoring that is equitable, scalable, and cost-effective.	ESG Pillar: Social UN SDG: Quality Education Funding: \$593 Million Description: Spark Education Group is a fast-growing global online education company specializing in interactive live-instruction with small-group classes for children.

Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

The State of ESG Innovation in MENA

The Middle East and North Africa (MENA) region contributed to 11% of global ESG start-ups, however, only 2% global ESG venture capital funding was allocated to this region.

Of the 359 ESG start-ups identified in the region, only 25% fell under the Social pillar. Despite this, Social start-ups from the region attracted the largest amount of funding – approximately 43% of regional ESG venture capital – primarily within the FoodTech, CleanEnergyTech, AgTech and HealthTech sectors.



Figure 12: The regional perspective of ESG related start-ups and funding

	United States	China	Canada	Singapore
Top 3 UNSDGs	Affordable & Clean Energy \$14 Billion	Quality Education \$10 Billion	Quality Education \$1.2 Billion	Quality Education \$1.9 Billion
	Good Health & Wellbeing \$12 Billion	Affordable & Clean Energy \$4.2 Billion	Affordable & Clean Energy \$0.8 Billion	Industry, Innovation & Infrastructure \$0.3 Billion
	Industry, Innovation & Infrastructure \$10 Billion	Good Health & Wellbeing \$2.4 Billion	Reduced Inequalities \$0.5 Billion	Affordable & Clean Energy \$0.2 Billion
Top 2 Startups	Commonwealth Fusion Systems ESG Pillar: Environment UN SDG: Affordable & Clean Energy Funding: \$2 Billion Description: Commonwealth Fusion is an MIT spinoff research company that focuses on bringing fusion energy technology to market.	Yuanfudao ESG Pillar: Social UN SDG: Quality Education Funding: \$4 Billion Description: Yuanfudao is the largest online live course platform servicing primary and secondary school students in China. With a paying userbase of over 1 million.	ApplyBoard ESG Pillar: Social UN SDG: Quality Education Funding: \$483 Million Description: ApplyBoard is an online platform that empowers students around the world to access the best education by connecting students, recruitment partners and institutions.	Emeritus ESG Pillar: Social UN SDG: Quality Education Funding: \$1 Billion Description: Emeritus is an EdTech startup that provides high-quality online learning experience so people can learn in-demand skills to take their career to the next level.
	Devoted Health ESG Pillar: Social UN SDG: Good Health & Wellbeing Funding: \$2 Billion Description: Devoted Health is a healthcare company serving seniors and giving them a health care plan with personal guides and world-class technology.	Zuoyebang ESG Pillar: Social UN SDG: Quality Education Funding: \$3 Billion Description: The platform uses artificial intelligence to enable students to upload their homework questions and search for answers for study-related problems.	Paper ESG Pillar: Social UN SDG: Quality Education Funding: \$390 Million Description: Paper partners with school districts to deliver 1:1 tutoring that is equitable, scalable, and cost-effective.	Spark ESG Pillar: Social UN SDG: Quality Education Funding: \$593 Million Description: Spark Education Group is a fast-growing global online education company specializing in interactive live-instruction with small-group classes for children.

Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

GLOBAL

MENA

































UAE

The top 10 most-funded ESG start-ups across MENA made up 37.7% of total regional funding, while the top 100 attracted 91% of capital. As the most developed economies in the region, the UAE, Saudi Arabia and Israel are the largest players in the ESG Venture Capital landscape across MENA.

The region is highly vulnerable to climate change and, in the long term, is expected to experience difficulties in sustaining its energy, water, and agriculture sectors and meeting the population's demands. In addition, the GCC is in a transition diversifying from an energy-centric economy towards a knowledge economy.



Figure 13: The regional perspective - deep-dive of ESG start-ups by SDGs

UN SDGs	Funding In Millions USD	Startups # of Companies	Top 3 Startups	Top 3 Countries	UNSDG Rank Global
Zero Hunger	571 (21%) 	30 (8%) 	Pure Harvest Smart Farms, FieldIn, SeeTree	UAE, Israel, Saudi Arabia	7
Industry, Innovation & Infrastructure	473 (18%) 	57 (16%) 	ChannelVAS, Lyve Global, Lean Technologies	UAE, Israel, Saudi Arabia	4
Affordable & Clean Energy	334 (12%) 	45 (13%) 	H2Pro, Yellow Door Energy, KarmSolar	Israel, UAE, Egypt	2
Life on Land	331 (12%) 	30 (8%) 	Beewise, Blue White Robotics, Equinom	Israel, Saudi Arabia, UAE	5
Good Health & Wellbeing	247 (9%) 	25 (7%) 	BreezoMeter, Circles, CardiacSense	Israel, UAE, Saudi Arabia	3
Quality Education	242 (9%) 	12 (3%) 	Simply, Abwaab, Jolt	Israel, Saudi Arabia, UAE	1
Responsible Consumption & Production	167 (6%) 	57 (16%) 	GoTo Global, Pylon, Si-Ware Systems	Israel, Egypt, UAE	9
Sustainable Cities & Communities	96 (4%) 	8 (2%) 	Juganu, viisights, Arugga AI Farming	Israel, UAE, Egypt	10
Reduced Inequalities	63 (2%) 	7 (2%) 	Hubpay, iAngels, Vee	Israel, UAE	6
Decent Work & Economic Growth	51 (2%) 	26 (7%) 	Promo.com, Solomoto, Lamaa	Israel, Saudi Arabia, Kuwait	8
Climate Action	33 (1%) 	8 (2%) 	The Green Way, Solutum, SGTech	Israel, Jordan, UAE	11
No Poverty	32 (1%) 	11 (3%) 	Dopay, C Wallet, Kashat	Egypt, Qatar, UAE	15
Clean Water & Sanitation	21 (1%) 	10 (3%) 	BPT, Aquarius Spectrum, Moya App	Israel, Saudi Arabia, UAE	12
Peace, Justice & Strong Institutions	17 (1%) 	22 (6%) 	Cyabra, Dera, spiderSilk	Israel, UAE, Saudi Arabia	14
Life Below Water	6 (0%) 	4 (1%) 	AquiNovo, Cydome, AquaHD	Israel, UAE	13
Gender Equality	4 (0%) 	6 (2%) 	Omooma, Nabta Health, MammyApp	UAE, Egypt	16
Partnership for the Goals	0 (0%)	1 (0%)	N/A	UAE	17

Source: Dubai Sustainable Finance Working, United Nations

The State of the Global and Regional ESG Innovation Landscape

GLOBAL

MENA

UAE

The region's venture capital is reflecting this and is currently mainly focused on Zero Hunger (SDG 2), Industry, Innovation & Infrastructure (SDG 9), and Affordable & Clean Energy (SDG 7). Of these, Industry, Innovation & Infrastructure (SDG 9) fostered the highest number of start-ups, mainly established in the UAE, Israel, and Saudi Arabia. This has also amplified the efforts of these nations in building mega industrial and innovation projects.



Figure 14: The regional perspective - top 10 funded start-ups based on our analysis

Company	Country	ESG Pillar	UN SDG	Funding Raised
Pure Harvest Smart Farms	UAE	Social	Zero Hunger	\$333,350,000
Beewise	Israel	Environment	Life on Land	\$118,714,134
H2Pro	Israel	Environment	Affordable & Clean Energy	\$107,200,000
Yellow Door Energy	UAE	Environment	Affordable & Clean Energy	\$96,200,000
Simply (formerly JoyTunes)	Israel	Social	Quality Education	\$92,000,000
Juganu	Israel	Environment	Sustainable Cities & Communities	\$59,000,000
ChannelVAS	UAE	Governance	Industry, Innovation & Infrastructure	\$55,000,000
Blue White Robotics	Israel	Environment	Life on Land	\$48,500,000
FieldIn	Israel	Social	Zero Hunger	\$47,000,000
Lyve Global	UAE	Governance	Industry, Innovation & Infrastructure	\$45,900,000

Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

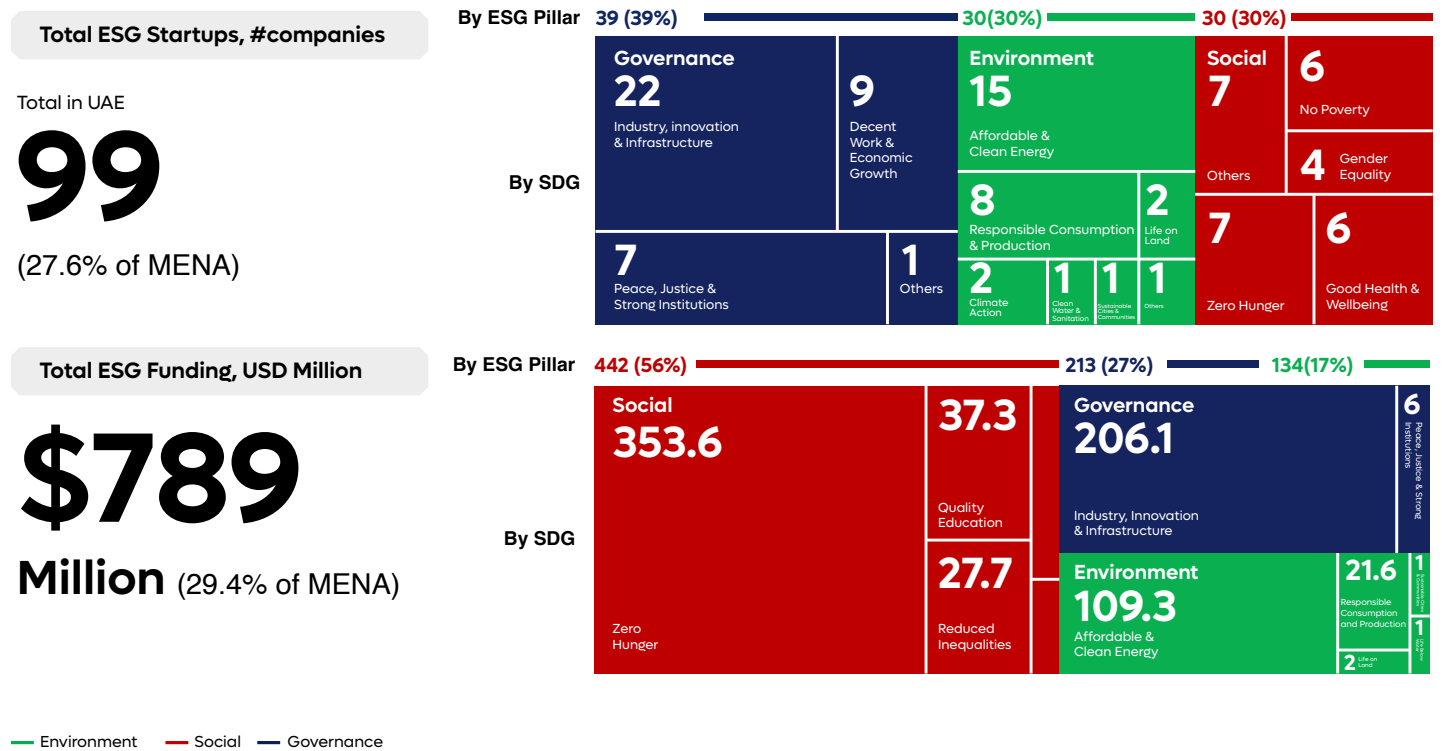
The State of ESG Innovation in the UAE

99 of the identified ESG innovation start-ups were based in the UAE, comprising 28% of the MENA landscape and attracting 29% of the region’s ESG venture capital investment.

Compared to global data, which showed a lack of focus on Governance, the highest number of UAE start-ups were categorised under this pillar, accounting for 39% of the total. However, more than half of total ESG investment into the UAE, 56% specifically, was still channelled into Social start-ups.



Figure 15: The UAE perspective of ESG related start-ups and funding



Source: Dubai Sustainable Finance Working Group

The State of the Global and Regional ESG Innovation Landscape

GLOBAL

MENA

UAE

Data showed that the top ten most funded start-ups in UAE attracted 83% of total funding, while the top 50 received 100% of the publicly disclosed funding.

Within the UAE, six SDGs still fall short of meeting targets, including Climate Action (SDG 13) and Clean Water & Sanitation (SDG 6), both of which are critical areas of interest for the nation. The significantly low investment from venture capitalists in this space is due to a heavy reliance on government funding to facilitate these developments, with the private sector less inclined to participate.



Figure 16: The UAE perspective - deep-dive of ESG start-ups by SDGs

UN SDGs	Funding In Millions USD	Startups # of Companies	Top 3 Startups	UAE Status*	UAE Rank	MENA Rank	Global Rank
Zero Hunger	354	7 (7%)	Pure Harvest Smart Farms, Excellent Fish, KRUSH Brands		1	1	7
Industry, Innovation & Infrastructure	206	22 (22%)	ChannelVAS, Lyve Global, NymCard		2	2	4
Affordable & Clean Energy	109	15 (15%)	Yellow Door Energy, Secure Supplies, Pawame		3	3	2
Quality Education	37	3 (3%)	Almentor, Lamsa		4	6	1
Reduced Inequalities	28	4 (4%)	Hubpay, Funding Souq, GrowValley		5	9	6
Responsible Consumption & Production	22	8 (8%)	The Giving Movement, Mawaad Environmental Services, Ecoisme		6	7	9
Good Health & Wellbeing	17	6 (6%)	Okadoc, Health at Hand, Alliance Care Technologies		7	5	3
Peace, Justice & Strong Institutions	6	7 (7%)	Derq, spiderSilk, Safe Driving Network		8	14	14
Gender Equality	4	4 (4%)	Omooma, Nabta Health		9	16	16
No Poverty	2	6 (6%)	Nefsy, Zywa, Edfundo		10	12	15
Life on Land	2	2 (2%)	Cerviero, KRISPR		11	4	5
Decent Work & Economic Growth	1	9 (9%)	Hotdesk, letswork		12	10	8
Sustainable Cities & Communities	1	1 (1%)	BCD Healthcare		13	8	10
Life Below Water	1	1 (1%)	SkyStream		14	15	13
Climate Action	0	2 (2%)	N/A		15	11	11
Clean Water & Sanitation	0	1 (1%)	N/A		16	13	12
Partnership for the Goals	0	1 (1%)	N/A		17	17	17

SDG achieved Challenges remain Significant challenges remain Major Challenges remain

Environment Social Governance

Source: Dubai Sustainable Finance Working Group, United Nations, Cambridge Sustainable Development Report

The State of the Global and Regional ESG Innovation Landscape

Industry, Innovation & Infrastructure (SDG 9), however, was close to reaching UAE targets, with the highest number of ESG start-ups under this category. As the regional leader in SDG 9, the UAE has showcased its efforts in diversifying its economy away from oil and transitioning towards emerging, innovation-led sectors.

The nation is primed to be the pioneer of ESG growth in the MENA region To achieve its ambitious goals and reinforce its position as a leading ESG innovation hub, the UAE’s public and private sectors must come together to create an environment that allows sustainable innovation and entrepreneurs to thrive



Figure 17: The UAE perspective - top 10 funded start-ups based on our analysis

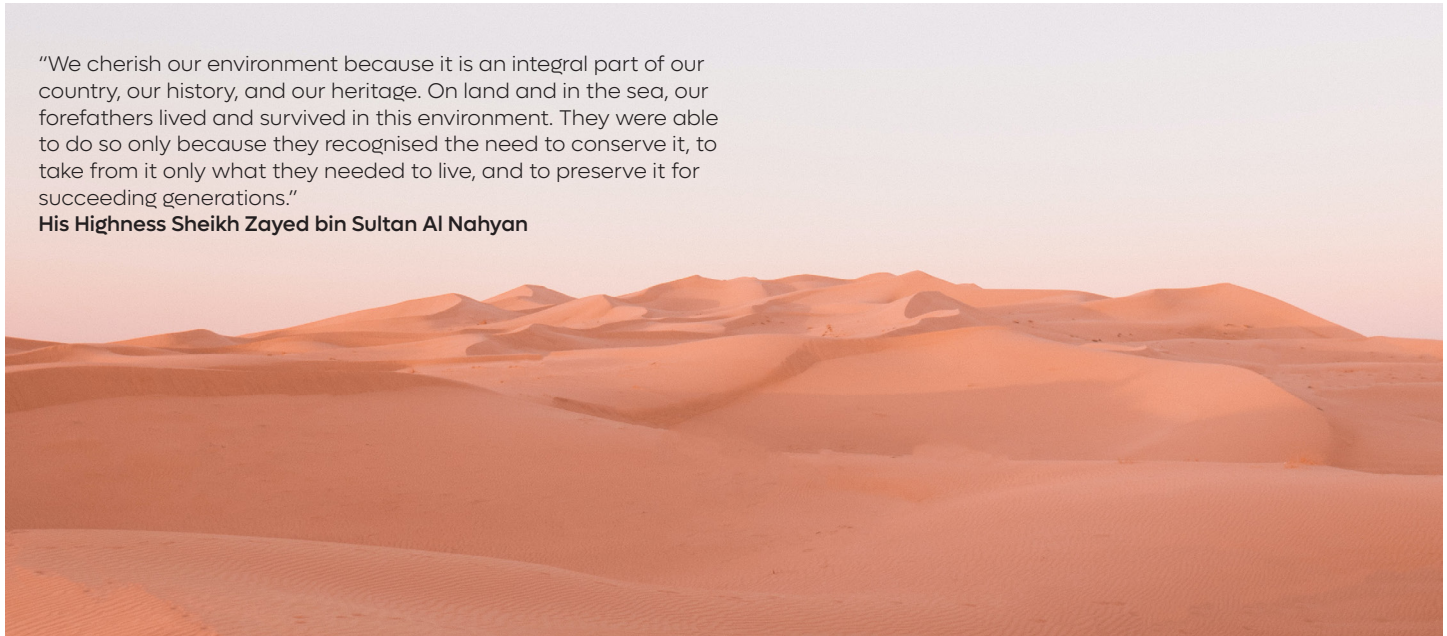
Company	ESG Pillar	UN SDG	Funding Raised
Pure Harvest Smart Farms	Social	Zero Hunger	\$333,350,000
Yellow Door Energy	Environment	Affordable & Clean Energy	\$96,200,000
ChannelIVAS	Governance	Industry, Innovation & Infrastructure	\$55,000,000
Lyve Global	Governance	Industry, Innovation & Infrastructure	\$45,900,000
NymCard	Governance	Industry, Innovation & Infrastructure	\$36,200,000
AHOY	Governance	Industry, Innovation & Infrastructure	\$25,450,000
Hubpay	Social	Reduced Inequalities	\$22,020,000
Excellent Fish	Social	Zero Hunger	\$15,600,000
The Giving Movement	Environment	Responsible Consumption & Production	\$15,000,000
Almentor	Social	Quality Education	\$14,500,000

Source: Dubai Sustainable Finance Working Group

The UAE as an ESG Innovation Hub

“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 recognised the need to conserve it, to take from it only what they needed to live, and to preserve it for succeeding generations.”

His Highness Sheikh Zayed bin Sultan Al Nahyan



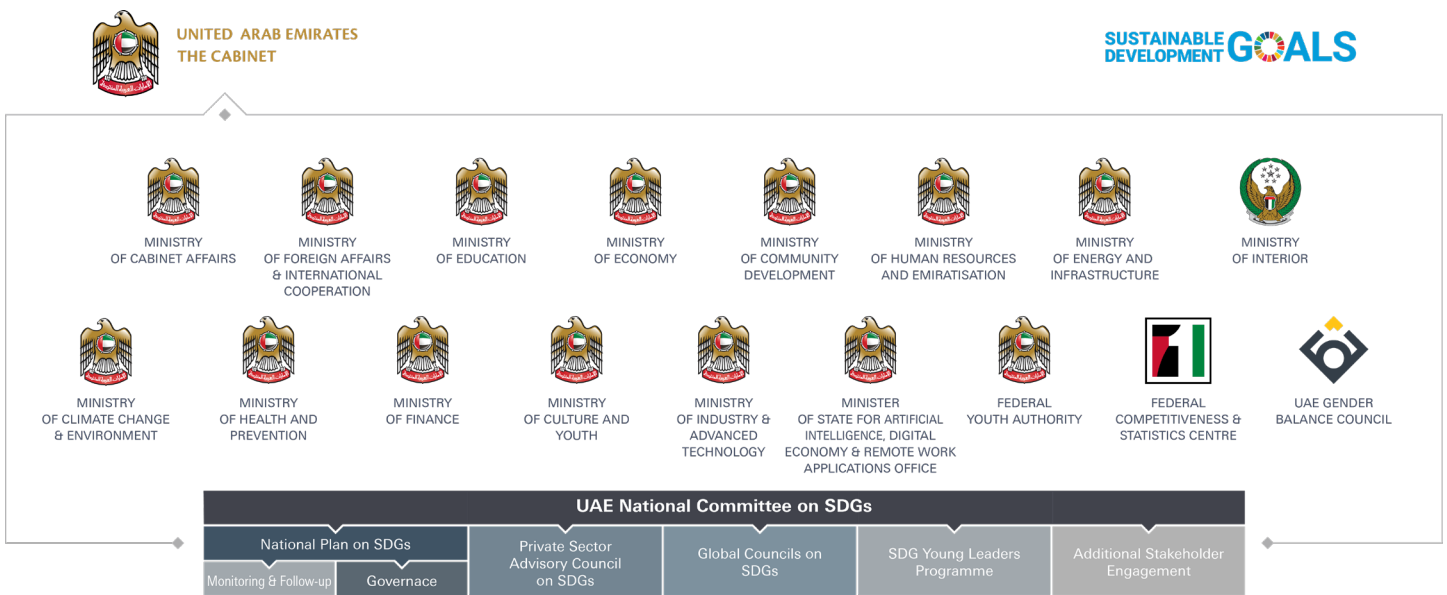
The UAE and the Next 50 Years

The UAE has played an important role in the formulation of the SDGs in the UN General Assembly, having been a part of the Open Working Group in 2013 and 2014, and the ratification of the 17 SDGs in 2015.

In January 2017, the UAE Cabinet decreed to put SDGs at the heart of national development plans, as well as its strategies and operations, at both

federal and local levels. Following this, the country has reaffirmed its commitment by establishing a National Committee on SDGs that is comprised of 15 federal-level ministries, authorities, and councils, which are responsible for setting in motion a cohesive implementation plan to meet the UN’s targets.

Figure 18: Members of UAE national committee on SDGs



Source: UAE and the 2030 Agenda for Sustainable Development, Voluntary National Review 2022

The UAE as an ESG Innovation Hub

Following the celebration of its Golden Jubilee in December 2021, the UAE is already looking ahead to the next 50 years, with the implementation of the UAE Centennial Plan 2071. Guided by ten key principles, the country is set to enter a new era of economic, political, and social growth. While these have not explicitly been formulated to incorporate the SDGs directly, they will work in tandem to prepare the UAE in achieving the country's sustainability goals.

The First Principle

The key national focus remains the strengthening of the union, its institutions, legislature, capabilities and finances. The development of the urban and rural economies throughout the nation is the fastest and most effective way to consolidate the union of the Emirates.

The Second Principle

The country is looking to build the best and most dynamic economy in the world. The economic development of the UAE is the supreme national interest, and all state institutions, in all fields and across different federal and local levels, are working closely to form the best global economic environment, while maintaining the achievements of the past 50 years.

The Third Principle

The Emirates' foreign policy is a tool that aims to serve our higher national goals, the most important of which is the UAE's economic interests. The goal is to serve the economy, and the goal of the economy is to provide a better life for the people of the Union.

The Fourth Principle

The main future driver for growth is human capital. Developing the educational system, recruiting talent, retaining specialists, and continuously building skills will be key to ensuring the Emirates remains the most competitive national economy.

The Fifth Principle

Good neighbourliness is the basis of stability. The geographical, social, and cultural position of the country in its region is the first line of defence for its security, safety, and its future development. Developing stable and positive political, economic, and social relations with its neighbours is one of the most important priorities of the country's foreign policy.

The Sixth Principle

Consolidating the reputation of the Emirates globally is a national mission for all institutions. The Emirates is one destination for business, tourism, industry, investment, and cultural excellence. Our national institutions must unify their efforts, benefiting mutually from their shared capabilities, and work to build global enterprises under the umbrella of the Emirates.

The Seventh Principle

The digital, technical, and scientific excellence of the Emirates will define its development and economic frontiers. The consolidation of its position as a global hub for talent, companies and investments in these sectors will make it a future global leader.

The Eighth Principle

The core value system in the Emirates shall remain based on openness and tolerance, the preservation of rights, the rule of justice and the law. Preservation of human dignity, respect for cultural diversity, strengthening of human fraternity, remains at its core, together with enduring respect for national identity.

The Ninth Principle

The Emirates' foreign humanitarian aid is an essential part of its vision and moral duty towards less fortunate peoples. It is not tied to religion, race, colour or culture. Political disagreement with any country does not justify failing to provide relief to that country in cases of disasters, emergencies, and crises.

The Tenth Principle

Calling for peace, harmony, negotiations, and dialogue to resolve all disputes is the basis of the UAE's foreign policy. Working with regional and global partners to establish regional and global peace and stability is a fundamental driver of the nation's foreign policy.

The UAE as an ESG Innovation Hub

"Sustainability has been a fundamental principle in the UAE since its unification. The nation continues to serve as an exceptional model for environmental conservation and resource management."

His Highness Sheikh Mohammed bin Zayed Al Nahyan



2023: The UAE's Year of Sustainability

In January 2023, HH Sheikh Mohammed bin Rashid Al Maktoum, Prime Minister of the UAE and Ruler of Dubai, outlined the key priorities for the nation, which included:

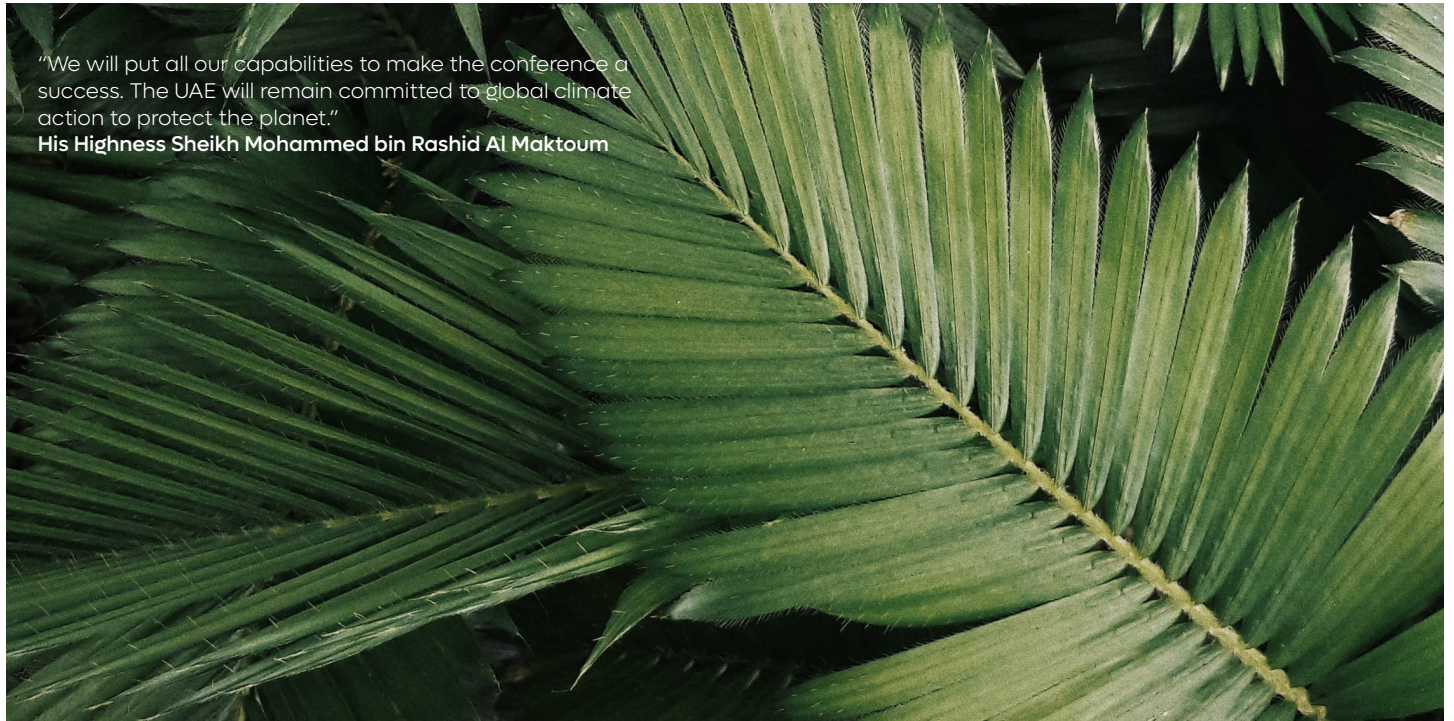
1. National identity and its consolidation
2. The environment and enhancing its sustainability
3. The educational system and the development of its vision, indicators, and outputs
4. The localisation process and its acceleration
5. International economic partnerships and their expansion

Sustainability, with a focus on climate action, was a core consideration in the development of the framework and strategies that drive the UAE's development.

Soon after, His Highness Sheikh Mohammed bin Zayed Al Nahyan, President of the UAE, declared 2023 would be the 'Year of Sustainability'. Over the course of the year, initiatives of various sorts will be launched that draw upon the country's values of sustainability and the legacy of its founder, the late Sheikh Zayed bin Sultan Al Nahyan.

The 'Year of Sustainability' also focuses on environmental sustainability by inspiring collective action through a nationwide commitment towards sustainable practices. Furthermore, it bolsters the country's commitments in addressing current challenges and promoting sustainable practices at an individual and community level, such as its Net Zero by 2050 Strategic Initiative.

The UAE as an ESG Innovation Hub



"We will put all our capabilities to make the conference a success. The UAE will remain committed to global climate action to protect the planet."
His Highness Sheikh Mohammed bin Rashid Al Maktoum

The Path to COP28

The Emirates have long stood as an advocate for sustainability. In addition to its role as a permanent host country for the International Renewable Energy Agency (IRENA), the UAE emerged as the first nation in the region to sign and ratify the Paris Agreement in 2016, committing to an economy-wide reduction in carbon emissions, as part of its Nationally Determined Contribution.

The UAE reinforced its commitment to sustainability as one of the key parties at COP26, held in Glasgow, Scotland in 2021. It bolstered its role by announcing several major climate partnerships aligned with the UAE's strategy to drive economic growth through climate action.

Just ahead of COP26, the UAE announced the Net Zero by 2050 Strategic Initiative, making it the first Arab and OPEC country to commit to a net zero future, advocating for climate action as a means for strengthening economic sectors, and creating new business and job opportunities.

These efforts have led to the UAE being selected as the host of COP28 at the Dubai Expo City in November/December 2023.

The conference will be pivotal as the country reinforces its role in fostering climate diplomacy and pushes forward with its ambitious clean energy strategy.

Path to the Leading ESG Hub

Dubai and DIFC as a Catalyst for Change

In the UAE, Dubai has demonstrated a track record of being a vibrant and dynamic city with innovation at its core. The city shows great promise in identifying opportunities and continuing to invest in its ESG journey to achieve its sustainability commitments.

The Emirate is well-placed to shape the introduction, and drive the implementation, of environmentally friendly regulations, policies and laws that align with these values, starting with sectors, such as financial services, manufacturing, hospitality, tourism, transport, infrastructure, and retail, that have already proven to be ESG-enabled. This will also encourage the development of new, innovative business models that tackle ESG-related challenges, such as supply chain management and ethical sourcing, labour, and production, through the integration of human rights, digital and data privacy ethics, and gender parity⁶.

Dubai's growing SME segment will play a key role in this shift, bringing an agility that allows for the quick adoption of innovative ESG practices. With its enabling business environment and supportive infrastructure, a number of small businesses in the ESG sector are looking to Dubai as their regional headquarters, bringing with them a deeper knowledge, understanding and experience in the field of sustainability that could be transferred to local players and nurture home-grown talent.

DIFC, the leading global financial centre in the Middle East, Africa and South Asia (MEASA), has been an example of unprecedented innovation since it was established in 2004, as it is the first Financial Free Zone established in the region with its own legal and regulatory framework modelled on global standards and best practices. It has since continued to be a catalyst for change, with the introduction of an English Common Law framework, world-class judiciary system through the DIFC Courts, the Hawkamah Corporate Governance Institute, and the DIFC Academy. This has enabled Dubai to attract leading global financial institutions. This is to not only grow its economy, with the DIFC contributing to over 40% of the Emirate's financial and insurance sector today,

but to also accelerate its journey towards being a sustainable finance hub, with Nasdaq Dubai having issued over \$18 billion in Sustainable and Green bonds and sukuk.

The Centre also continued to set an example for Social change, with the number of women directly employed by DIFC and its community in 2021 contributing to more than 35% of their workforce, double the UAE average. Initiatives that have played a significant role in achieving this include the DIFC Fintech Hive AccelerateHer Programme, a female-focused career mentorship accelerator that aims to equip young aspiring executives with the necessary tools and experience to broaden their knowledge and reach in the industry.

In addition to attracting talent from around the world, Dubai also can leverage its existing resources by engaging its young population and emerging entrepreneurial community to utilise technology in new ways to solve environmental challenges.

Furthermore, the city's forward-thinking leadership and agile government allows for proactive policy developments that can encourage innovation from the top down, encouraging cohesive advancement in areas that can significantly benefit the nation and the region. ClimateTech solutions that address challenges faced in the Middle East, such as food security and the conservation of biodiversity, also have the power to bring long-term social and economic benefits.

Blueprint to Becoming a Global ESG Innovation Hub

The roadmap to attracting more ESG-oriented companies to Dubai and the wider UAE can be approached using three key building blocks.

Figure 19: Key building blocks for unlocking ESG innovation



Source: Dubai Sustainable Finance Working Group

⁶Al Tamimi & Co.: ESG Developments in the MENA and GCC Region – Look Back 2021 / Look Ahead 2022

Path to the Leading ESG Hub

Collaboration Across Government and Private Sector Initiatives

Enhancing collaboration across government entities is vital in ensuring alignment and synergies towards executing a shared vision for the nation. Simply driving partnerships is no longer sufficient. An open dialogue between public sector agencies is needed to improve consistency in data disclosure and flow. Once the communication has been established, cohesive ESG innovation initiatives can be designed and executed to meet the core objectives of all participating stakeholders.

While the UAE has already proven to have the ingredients for success in becoming a leading ESG innovation hub, its global counterparts can provide an effective blueprint for initiatives that can accelerate the nation's green growth.

SPOTLIGHT ON MONETARY AUTHORITY OF SINGAPORE

Singapore continues to maintain its position as one of the most successful global players in the ESG innovation space, in part, due to initiatives such as Project Greenprint, launched by the Monetary Authority of Singapore (MAS) in 2020⁷.

Project Greenprint addresses one of the most substantial gaps in sustainable finance – access to credible, consistent, and granular sustainability data. Using technology across four Greenprint platforms – Greenprint Marketplace, common ESG Disclosure Platform, Data Orchestrators, and ESG Registries – the initiative has successfully created efficient and trusted data flows to enable green finance. This has allowed for direct capital to be channelled into projects to maximise their scalability, monitor their sustainability commitments effectively, and quantify the risks and real-world impact of their portfolios.

In addition to closing the data gap, MAS has established an ESG Impact Hub to facilitate collaboration between ESG fintech start-ups, financial institutions and real economy stakeholders. The Hub anchors key industry-driven sustainability initiatives, including Google Project Point Zero and KPMG ESG Business Foundry as dedicated accelerator programmes operating in the ESG innovation space. By the end of September 2022, the accelerator had attracted participation and support from more than 15 fintech startups and organisations, including Climate Impact X, Eachmile Technologies, and Circulate Capital. This Hub serves as a launchpad for public-private partnerships in Singapore's ESG ecosystem.

From data to programs, the Singaporean government drives collaboration in the ESG innovation by addressing real challenges in data gaps and implementing industry-driven sustainability initiatives, to foster green innovation in the financial services sector.

Figure 20: Project Greenprint by Monetary Authority of Singapore

Project Greenprint

Project Greenprint is a collection of initiatives that aims to harness technology and data to enable a more transparent, trusted and efficient ESG ecosystem to enable green and sustainable finance.

Our Objectives



Source: Monetary Authority of Singapore

⁷Monetary Authority of Singapore: Green FinTech

Path to the Leading ESG Hub

Integration of Sustainable Innovation in Businesses

As the drivers of industry, private sector businesses will play a fundamental role in facilitating the shift towards a green economy. Beyond the implementation of corporate strategies and policies that support the growth of sustainable innovation, it is essential that businesses across all sectors activate initiatives that encourage entrepreneurship, develop new ideas and solutions, and foster talent.

SPOTLIGHT ON ZURICH INSURANCE GROUP

As a leading global player in the insurance sector, Zurich Insurance Group is committed to being one of the most responsible and impactful businesses in the world by providing innovative services and solutions that go beyond traditional insurance⁸.

The company support its customers through sharing risk insights that encourage prevention and build resilience, as well as a growing portfolio of innovative solutions that enhance customers' sustainability. To do this, they are empowering a network of forward-thinking innovative leaders across Zurich to develop and scale the sustainable solutions needed to build a better way.

One example of how this is done is the Zurich Innovation Championship (ZIC), a global start-up tournament through which Zurich seeks ground-breaking ideas to bring compelling products or services to its customers and employees. In November 2021 Zurich launched the 3rd edition of the ZIC, inviting start-ups from around the world to enter the contest for a chance to grow and collaborate on solutions to some of the insurance industry's biggest challenges.

The competition received 2,762 entries, out of which 12 global winning start-ups, were selected for the accelerator phase to work on the future of insurance. Those who made it through to this phase received project funding from Zurich of up to USD 100,000, exposure to a potential global market and an existing customer base, plus mentoring and engagement from senior executives.

Figure 21: Description and use cases of Zurich Innovation Championship



Source: Zurich

⁸Zurich: Zurich Talks – Future Innovation
⁹Zurich: Zurich Innovation Championship 2023

Path to the Leading ESG Hub

Empowering Innovative Thinking Amongst the Youth

The youth of the nation are today, one of the most highly invested segments of society to conserving the planet. They are acutely aware that the actions they take will shape their future and the future of generations to come. A nurturing and enabling environment can provide some of the brightest young minds the platform to share and grow their ideas.

SPOTLIGHT ON PROTOTYPES FOR HUMANITY

Prototypes for Humanity is the most diverse assembly of innovations that have the power to change the world, with programmes and activities to raise awareness of global problems, celebrate solutions, and catalyse action for positive social and environmental impact.

In 2022, Prototypes for Humanity partnered with DIFC, Dubai Culture and ARM Holding to showcase 100 IP-backed, best-in-class impact innovation projects developed by university students from across the world¹⁰.

The projects shortlisted for the event were chosen from applications from over 450 universities across over 100 countries, ranging from leading globally renowned institutions like Stanford University, Massachusetts Institute of Technology (MIT), University of Oxford, University of Cambridge, ETH Zurich, Tsinghua University, and National University of Singapore to rising universities in the Global South. The submissions included a record number of universities from 25 African nations, and large emerging economies such as India, Brazil, Indonesia, Mexico, and Turkey.

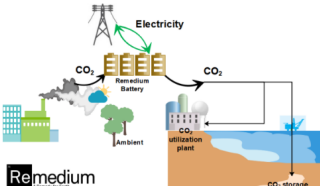
Figure 22: Featured ideas from Prototypes for Humanity



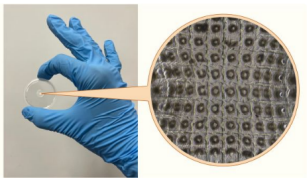
Aerostat
Smart helium-filled balloon for early forest fire detection



AkoFresh
Solar powered cold storage solution reducing post-harvest loss



Carbon Capture Battery
Solution to generate energy whilst capturing carbon



FormaCytte
Implant for type 1 diabetes management

Source: Prototypes for Humanity



¹⁰Prototypes for Humanity: Academic Awards

The Final Word

We are innovating at speed, from the region to the globe. From international mandates to local governmental reforms, targets have been set to address the most pressing issues across environment, social, and governance

At a grassroots level, an increasing number of citizens are adapting their behaviours and mindset to focus on sustainability, as they vividly experience a wide variety of challenges, such as climate change, economic crises, and political conflicts, making the need to build resilient cities and communities a priority. Influenced by multiple forces, businesses must now innovate to meet the growing demand for ESG solutions.

However, with the world approaching the halfway mark towards the 2030 Agenda for Sustainable Development, current trends show that almost all States will miss nearly all Sustainable Development Goals and targets. While there is no doubt that the required capital can be availed and regulations will be passed over time, unlocking ESG innovation ecosystems today is a critical enabler to accelerate adoption and transition paths and make them scalable and economically viable for business.

As unlocking ESG Innovation is growing in importance to achieve the SDGs, the perspective and gaps of venture investments is becoming more important as well. We identified disproportionate distribution in capital being channelled into different facets of ESG, which have stagnated progress in achieving certain SDGs. A similar disparity has occurred across geographical markets, with the majority of global capital being directed into leading ESG innovation hubs, such as the US and China, while many developing nations that are more vulnerable are neglected.

Similar gaps exist within the Middle East & North Africa region. Out of more than 3,000 ESG start-ups identified, 11% are based in MENA and yet, only represent 2% of global ESG venture investment, with major economies such as the UAE, Saudi Arabia and Israel taking the lion's share of regional capital inflows. Addressing these gaps will put the flywheel of ESG innovation into motion enabling voluntary adoption by businesses that is critical to accelerate the pace of transition.

In addition, the blueprint for the UAE to evolve to a top 5 global ESG Innovation hubs should be clearer now with a data-driven baseline and 3 key building blocks. Private-Public sector collaboration is needed from the top down, but requires government financing, science-based frameworks and industry-driven initiatives to be successful. Businesses are essential catalysts in the transition towards a green economy, as they adopt sustainable corporate strategies and operations and enable ESG Innovation. Finally, empowering the youth, amongst other segments of civil society, to develop innovative ESG ideas and ventures will be a powerful and inclusive launchpad in accelerating the path to a more sustainable future.



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Disclaimer

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