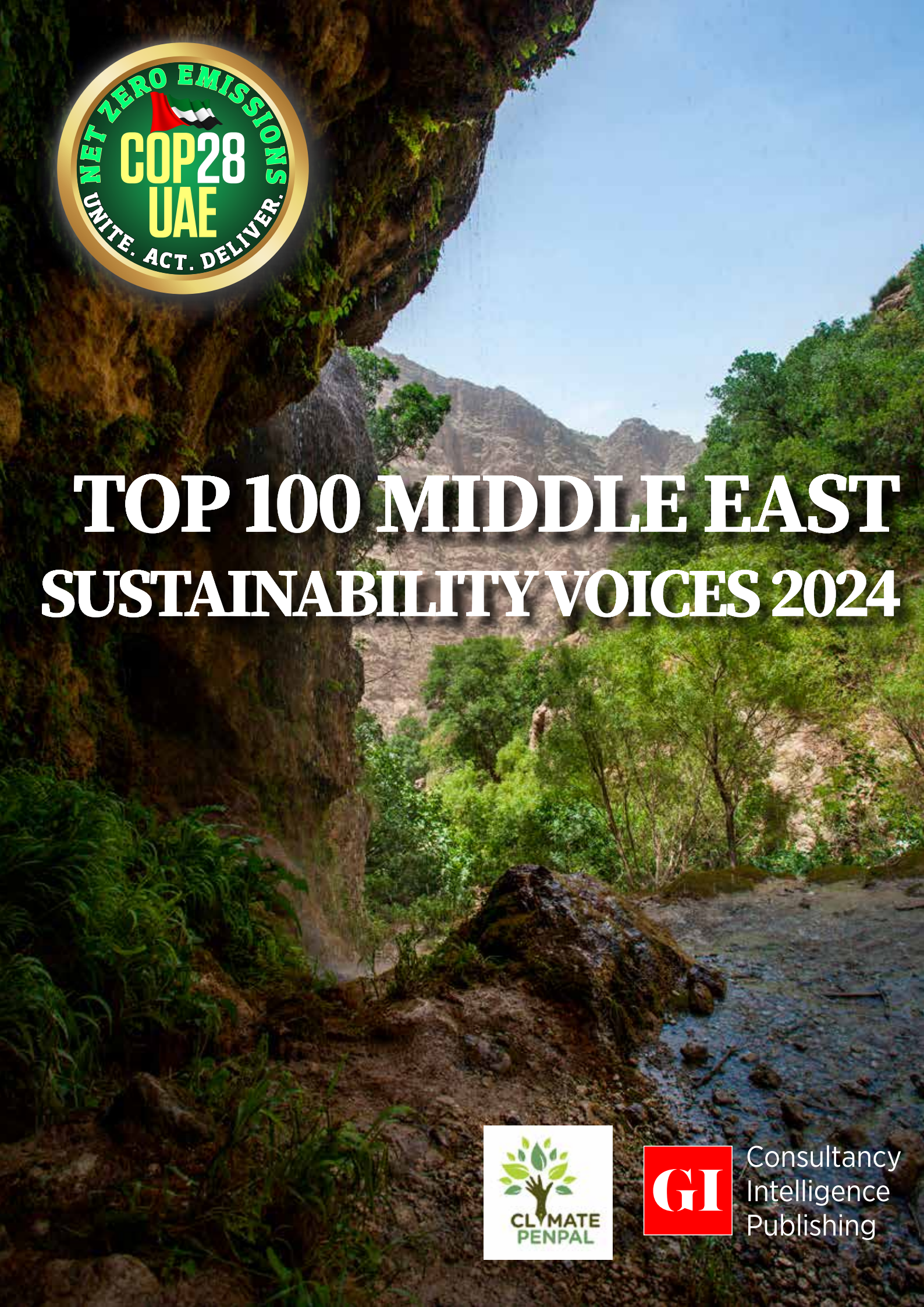

TOP 100 MIDDLE EAST SUSTAINABILITY VOICES 2024

CLIMATE PENPAL

GI Consultancy Intelligence Publishing

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Intelligence
Publishing

EXECUTIVE SUMMARY

COP28 stands at a pivotal crossroad for the private sector, assuming a critical role in advancing the fight against climate change on an international scale. Its outcomes hold the key to steering the trajectory of stakeholder contributions to environmental challenges, ultimately influencing the destiny of our planet. The post-COP28 landscape is of paramount importance; policies, commitments, and strategies forged during the conference must swiftly transition into actionable initiatives. Effective implementation becomes the linchpin, transforming lofty aspirations into practical steps toward a sustainable future. The success of COP28 hinges on industry's commitment to convert rhetoric into reality, particularly in light of the global stocktake metrics delineated in the Paris Climate Agreement. These metrics serve as a crucial yardstick for gauging progress, reinforcing the dedication of nations, businesses, and civil society to translate words into transformative actions. The dialogue and communication fostered at COP28 must echo beyond the conference halls, resonating in the tangible, industry-driven initiatives that are indispensable for safeguarding our planet for the well-being of future generations.

Gulf Intelligence has proactively created platforms that serve as dynamic spaces for sustainability leaders to exchange knowledge, ideas, and strategies, accelerating the pace of climate action. The insights presented in this report are a culmination of commentary harvested from podcasts over the course of 2023.

At COP21 in 2015, the world agreed to limit global warming to 1.5°C compared to pre-industrial levels by 2050. To remain on target, science tells us that emissions must be halved by 2030. We only have another seven years to meet that goal. COP28 UAE is a prime opportunity to rethink, reboot, and refocus the climate agenda.

Working with the UNFCCC Executive Secretary alongside the UN Climate Change High-Level Champion and the UAE Youth Climate Champion, I will strive to build consensus amongst parties to drive climate action. Together, we will prioritize efforts to accelerate emissions reductions through a pragmatic energy transition, reform land use, and transform food systems. We will work to mobilize solutions for vulnerable countries, operationalize loss and damage, and deliver the most inclusive Conference possible

H.E. Dr. Sultan Ahmed Al Jaber,
President-Designate for COP28 UAE

Source: COP28 Presidency, https://www.cop28.com/en/about-cop28

Source: The content within this report was harvested from the Mashreq Sustainability Dialogues Podcast Series 2023, The Middle East & Africa Forum for Sustainability Leaders Podcast Series 2023, The Gulf Intelligence Energy Markets Forum 2023, Hanan Sakr an active participant across both platforms https://tinyurl.com/yh8em9s2 and Ibrahim Al-Zu'bi's interview with ICE https://tinyurl.com/4hznen9p. All of the platforms sourced, have already been published publicly, and were produced by Gulf Intelligence. Any future use of this material must cite this report in full.

***THE SUSTAINABILITY LEADERS FEATURED IN THIS REPORT HAVE NOT BEEN RANKED IN ANY SPECIFIC ORDER. THE REPORT CAPTURES COMMENTARY ON THE NEXT STEPS NEEDED TO CREATE A SUSTAINABLE FUTURE FOR ALL.**

KNOWLEDGE PARTNER: CLIMATE PENPAL

"At Climate Penpal, our mission is to create a global platform that connects students from diverse corners of the world, fostering dialogue on the profound effects of climate change in their respective countries. Through shared experiences, insights, and a commitment to action, we empower youth to collaboratively address the challenges posed by climate change in their local communities. Our unique 50% Carbon Pledge is at the heart of our initiative. Students participating in Climate Penpal commit to cutting their personal carbon footprint in half. It's a collective effort where Climate Penpals work together, supporting and inspiring each other to achieve meaningful reductions. This collective commitment not only contributes to the global fight against climate change but also instills a sense of responsibility and solidarity among students. In our pursuit of a sustainable future, Climate Penpal is also actively working with schools worldwide to develop innovative certification programs. These programs aim to empower students with the knowledge and skills needed to lead in sustainability. By integrating these certifications into educational curricula, we envision a future where youth not only understand the critical issues surrounding climate change but also actively contribute to sustainable solutions."

Maha Hana Evers
Founder of Climate Penpal and a Member of IE University Student Government

MISSION STATEMENT

CLIMATE PENPAL is an initiative to get students from across the world to educate each other on how Climate Change is impacting their respective countries.

PURPOSE

CLIMATE PENPAL is a tool to help young people claim ownership of their small piece of the problem and provide their slice of the solution.

ACTION STATEMENT

-50% CARBON PLEDGE

www.climatepenpal.org

COP28 SPECIAL REPORT

H.E. Dr. Nawal Al-Hosany

Permanent Representative of the UAE,
International Renewable Energy Agency

One of the core pillars of the UAE COP Presidency will be fixing finance.

There are commitments that have been made for years and decades, that have not been fulfilled; we want developed countries to honour those. The UAE has demonstrated what financing and creating real solutions for climate mitigation can do. We are an oil and gas leader country, but we also want to maintain our leadership in the whole energy sector. As an example, we knew very early on that renewables would be part of the energy mix. Today, Masdar is one of the biggest renewable energy companies in the world, investing in the UAE and abroad. That investment in leading edge technology did not only create solutions and opportunities, but also led to the acceleration of adoption of renewables around the world. Today, we have renewable energy such as solar, cheaper than traditional energy sources. Technology will only advance if you make the right investment in research and development and in large scale solutions and projects, and by creating the financing mechanisms that make those solutions viable.

Do countries participating in COP accept that not 'one size fits all'?

We have always said that it needs to be a just transition. What works as a solution for renewables in the UAE, does not necessarily work for other countries. Geothermal energy works in Iceland but does not work for countries that don't have the same environmental conditions to pioneer those solutions. We must create a road map for different countries in different ways and we need to understand what those differences are.

Is there coordination within the energy sector on a cleaner energy pathway?

The sector has always been about competition, but when we started talking about decarbonization, it became a collaboration. We now see CEOs personally committing to decarbonization. The sector understands that it needs to collaborate on a sustainable future. GCC governments now see clean energy solutions as opportunities to create new jobs and grow their economies. We want to cut emissions, but not growth. Policy frameworks should also enable an investment environment for private companies. The private sector also can't succeed without the support of international financial institutions. And lastly, the sector should engage with society. Most companies are investing heavily in spreading awareness and educating the public on the work they are doing as part of the Energy Transition. We have a very well-informed global customer and well-informed youth nowadays, who are very selective on the sectors that they are going to engage.

Raji Hattar

ESG and Sustainability Advisor
Former Chief Sustainability Officer at Aramex

Our sustainability plan is built around the fact that we work in a high-carbon footprint industry

One of our challenges is that we work in one of the most polluted industries on earth – we contribute a significant percentage of the world's pollution and maybe 20-25% of the carbon emissions worldwide. To be able to mitigate that, we first looked at where in our operations emissions come from and then began targeting that. In our plan, we have scope 1 and scope 2 which target our own emissions, while scope 3 aims at mitigating emissions from our subcontractors and partners such as airlines and shipping lines since we don't own planes or ships. Our first two scopes began looking at our fleet in 2008, experimenting with integrating hybrid vehicles into our fleet. Through trial and error, we ultimately implemented electric vehicles (EV's) into our commercial operations beginning in 2015. We started in Jordan and are now testing in Saudi Arabia and the UAE, where we hope to have a good number of EV's in operation by COP28 later this year.

Every employee is a sustainability officer

Our sustainability structure is quite simple. The official sustainability team is only 3 people, which means we're not a huge team even though we're involved with over 200 projects worldwide. Our approach is that, while the official sustainability team is small, every employee, all the way up to the CEO and the board, is involved with our work, and by extension everyone is part of the greater sustainability team. In that way, every employee is a sustainability officer. That's the defining feature of the culture of sustainability within our organization. The idea is that if you have a formalized, centralized sustainability team, then employees will think sustainability is only within the scope of our work and not theirs, becoming unattached. A tangible example of our approach is that our facilities management team already knows to consider renewable energy instead of a sustainability team having to mandate that to them.

Ibrahim Al-Zu'bi

Group Chief Sustainability & ESG Officer
ADNOC

We are accelerating our path towards net zero by 2045 through the integration of robust sustainability practices across our operations. Our performance is a result of the talented people who work for ADNOC, their commitment, ingenuity, and drive to progress the impact areas where we can make the biggest difference. We look forward to sharing our continued progress as we advance our net zero journey.

The decision to raise the Net Zero target to 2045 was not only because of our commitment to sustainability and climate change, as that commitment has been there for a long time, but it was also part of a strategic decision for future proofing the company and for future proofing the country as well.

To help achieve the accelerated roadmap, we have made an initial commitment to invest around $15 billion in several aspects of decarbonization. Firstly, we are looking at electrifying our operations. The second thing was our investment in acquiring an equity stake in the Abu Dhabi Future Energy Company, Masdar, where we will seek to increase our renewables portfolio from producing around twenty gigabytes now to more than 100 gigabytes by 2030. The third area for decarbonization investment is in green hydrogen, where our target is to produce around 1 million tons of green hydrogen by 2030.

Paul Bou Chebl

Vice President of Strategy & Sustainability for Africa, Middle East & Central Asia, Alstom

Mobility is an enabler for economic development

Decarbonizing the mobility sector will take a combination of the right investments, the right innovation, and the right access that we can ultimately provide. We see mobility as an enabler for economic growth and we aim to find a balance between sustainability and development. We also want to ensure we don't burden communities in developing economies with sustainability goals and prevent them from reaching their economic potential. Partnering with Mashreq and other reputable banks will help bring the financing to allow developing countries to invest and achieve their goals.

Creating the right partnerships for the private sector to play a role

We are still young nations in the region and our development was geared towards individual transport in the past. Nevertheless, we are seeing lots of projects coming to life. For instance, the Riyadh metro, one of the largest metros in the world, is starting to evolve. Moreover, there is a lot of movement in the UAE with Etihad Rail. What I would add to that is, how do we create partnerships that are sustainable for the private sector? They need to make financial sense, and these mega-infrastructure projects are typically not the most profitable. We need to explore what kind of partnerships and funding mechanisms we can unlock to accelerate these projects.

Looking beyond financial metrics to unlock further funding

When it comes to the metrics, I think we always focus on the financial ones. We should look at the acceleration of development that these projects are going to drive, especially when we have other competing industries that are also asking for funding. Once we start looking at the broader picture and the real impact of these projects, we will start seeing lots of funding getting unlocked. Moreover, banks are now focusing a lot on sustainable and green financing, for which rail has recently been included as one of the eligible sectors. We think this will also help accelerate access to funding.

COP28 SPECIAL REPORT

Samar Al-Hameedi

Vice President of Corporate Sustainability,
ADNOC

ADNOC Accelerates its Net Zero Ambition to 2045

These new targets mark a new chapter in our transformational journey to a lower carbon future and builds on an established legacy as a responsible global energy provider. We've brought our net zero ambition forward to 2045 and set a goal to achieve zero methane emissions by 2030. This is all in recognition of the clear and urgent need to reduce carbon emissions across the industry. We've placed sustainability at the heart of our long-term strategy, with targeted investments in growing our low carbon solutions. This includes Investing in renewables, building a global hydrogen value chain, and deploying innovative climate technologies. In addition, we are advancing nature-based solutions and progressing our efforts of planting mangroves in the UAE. This is in support of our committed target of planting 10mn mangroves by 2030. Our investments in decarbonization go back decades. We've invested billions of dollars in decarbonization and sustainability projects since the company's inception. We've made an initial allocation of $15bn to expedite the implementation of our decarbonization initiatives, which is also in service of achieving our long term 2045 ambition.

Achieving Zero Methane Emissions by 2030

Methane abatement is critical to mitigating the adverse effects of climate change, given its higher contribution towards global warming when compared to CO2. We've already made great strides towards eliminating flaring of natural gas across our operations. This comes from a zero routine flaring policy that we've established back in the 2000s. That was a major milestone on our pathway to eliminate flaring and reduce methane emissions. It's a fact that's already recognized by the World Bank's Global Gas Flaring Tracker report, which annually lists the UAE as having one of the lowest flaring volumes and intensities amongst oil and gas producing countries. We are proud to report that our 2022 methane emissions for our operated oil and gas assets is already 6% lower than it was in 2021. Furthermore, we've committed to a methane intensity target to not exceed 0.15% by 2025, which is already the lowest in the Middle East. Achieving zero methane emissions by 2030 will require collaboration and partnerships. We intend to leverage that through our membership in The Oil and Gas Methane Partnership 2.0. You can't manage what you can't measure. This partnership offers ADNOC and its members an understanding of our methane emissions sources, which enables us to enhance our methane monitoring and our intervention strategies through deployment of advanced technology.

Saugata Saha

President
S&P Global Commodity Insights

There's a lot more work to be done to get us on track to meet the Paris Climate Agreement goals. The S&P Global Commodity Insights base-case centers around global warming getting to about 2.4°C by the year 2100. Our optimistic best-case scenario talks about a significant amount of carbon reduction and that would get us to about 1.7°C global warming by 2100. And our pessimistic worst-case scenario sees about 3.0°C global warming over the period, which assumes that there will not be a lot of abatement or reduction in the usage of carbon-based fuels.

One of the themes we'll hear a lot about at COP28 over the coming weeks will be around financing decarbonization, or the lack there of, and how we go from vision to strategy to execution on climate action. Our research shows that over the next several years, globally, we will need about $1.7 trillion of financing annually and if you look at what's lined up currently, it gets us to only about $700 billion per year, so that's more than a 50% gap between what's required and what's available. Another theme at COP 28 will be 'stocktaking' - looking at what was planned and promised, and where we are now and how we bridge the difference. We will also hear a lot of conversations around 'phasing out' versus 'phasing down' hydrocarbons.

We also expect there to be robust conversations at COP28 between the so-called Global North and the Global South, and how can we have a thoughtful Energy Transition while continuing to bring a billion people out of poverty across the world and increase their standard of living.

Badar Munir Chaudhry

Head of Energy Sector
Mashreq

Significant investments in sustainable mobility can be expected

In the lead up to COP28, there are a number of industry verticals which will always attract a lot of eyes in terms of what developments are happening with respect to the energy transition. Mobility is one of those sectors. It promises to be one of the leading industries that can successfully adopt sustainable energy. Like any sector, the most important consideration at this stage in the transition is to not disproportionately burden marginalized communities. It is important to create equalities for all economies across the region. As one of the oldest privately owned banks in the UAE, we foresee that there will be significant investments in sustainable mobility for the region. Mashreq has already committed to sustainable financing of approximately $30bn by 2030. We believe that a fair size of this commitment will go towards sustainable mobility.

Policymaking and implementation will be critical

From our point of view, the most important consideration for sustainable mobility is going to be policy making and incentivized implementation. For example, in the US, if you buy the most popular EV in that market, there is a rebate offered upfront to every purchase. That is what drives customer behavior, as a sort of a social pressure. Financial institutions will be more geared up to support initiatives, so the entire cycle starts to drive that way.

Ayub Osman

Head of Sustainability and Corporate Responsibility,
Middle East and Africa, Ericsson

The sustainability practice is continuously evolving

Ericsson has been actively engaged in sustainability matters for several decades. The position of Head of Sustainability was established nearly two decades ago, following our commitments to sustainability, which can be traced back to the early 1990s when the company began integrating environmental considerations into its operations and published its first environmental report in 1993. When we set up that role globally within our group function, it was then established in the different markets where we operate, including the Middle East and Africa. A key aspect is that the practice of sustainability is continuously evolving due to regulatory requirements and the goals set in different sustainability strategies, which can affect the stage at which different companies are in their sustainability journeys.

Investing in sustainability pays off in the long run

In many cases, sustainability is perceived as additional costs rather than benefits. Nevertheless, we need to think about its long-term benefits. For instance, investing in renewable energies in your organization can involve a significant capital outlay, such as solar panels, but it ends up paying off in the long run. These benefits can come in different forms, from brand reputation to increased sales. Additionally, we are seeing a growing number of mobile network operators that are considering sustainability as a criterion in their procurement evaluations when choosing suppliers.

Which aspects should organizations consider when designing their sustainability strategies?

The first and most important aspect is to obtain leadership buy-in. If your sustainability strategy does not start from the top, it probably will not succeed. Secondly, sustainability should not be treated as a function on the side. It must become an integral part of your business to align it with your business objectives. Thirdly, make sure you are integrating sustainability into the products and services you offer. Finally, leverage collaborations with different stakeholders. For instance, at Ericsson, we have partnered with various Middle East operators, such as stc and Zain Group, to collaborate in driving our sustainability efforts towards achieving net-zero emissions.

COP28 SPECIAL REPORT

Hatem Al Mosa

Chief Executive Officer
Sharjah National Oil Corporation

SNOC Publishes Greenhouse Gas Emissions Report for 2021 & 2022

Sharjah National Oil Corporation, SNOC, is proud to announce the publication of its Greenhouse Gas (GHG) Emissions Performance Reports for the years 2021 & 2022, highlighting the organization's dedication to environmental sustainability and transparency.
Key highlights from the GHG Performance Reports include:
1. Emissions Performance & Reduction Initiatives, detailing GHG performance and categorizing
the sources of carbon emissions, as well as the various initiatives undertaken by SNOC to
minimize such emissions.
2. SNOC Renewable Energy Usage, mainly solar power.
3. Carbon Intensity Metrics, measuring SNOC emissions, per-business type, and highlighting
efficiency improvements in its operations.

In January 2023 SNOC announced its ambitious committed target of Net Zero by 2032, covering Carbon Emissions, on Scopes 1 & 2, from all operations under its control. Through this publication of GHG Performance Report, SNOC has taken a tangible action and a firm step on the path to achieving Net Zero target by 2032. SNOC has been one of the first organizations to sign up for the UAE Climate-Responsible Companies Pledge initiated by UAE Ministry of Climate Change & Environment (MOCCAE) in February 2023, in which transparent reporting is a main commitment under the Pledge.

SNOC's GHG performance reports provide a comprehensive overview of the company's emissions data, reflecting energy consumption and environmental impact for the years 2021 & 2022. Despite its rich operational history of emissions reduction achievements since the year 1998, SNOC has selected 2021 as the base year for its GHG performance monitoring and reporting. The reports, which have been meticulously compiled in accordance with internationally recognized sustainability reporting standards, Greenhouse Gas Protocol and ISO 14064-1, are further supported by Independent Quality Assurance Statements issued by DNV Business Assurance Group AS, who conducted an independent audit and verification of the methodology and reported figures.

Hanan Sakr

Member B20 Taskforce - Finance & Infrastructure
B20

Hosting COP28: the UAE aims to be a leader in developing clean energy

Since COP26, the UAE has made significant announcements to develop clean energy, including plans to produce 25% of the global hydrogen supply. Through Masdar and joint ventures with international companies, the UAE has taken clean energy production very seriously. The country also invests globally, with over $16 billion in clean energy investments in 70 countries. The UAE and other petrostate nations will lead the conversation of phasing down fossil fuels during this year's COP28. Oil and gas companies particularly can be leading this transition – in terms of research and development and access to capital. As we get closer to COP28, we hope to see more deals consolidating. The PACE energy agreement signed between the UAE and the USA during Abu Dhabi Sustainability Week (ADSW) indicates what is heading our way. 2023 will be a race between the petrostate nations to develop their renewables portfolio.

The GCC, particularly the UAE and Saudi Arabia, will change the negative narrative that petrostates are the only cause of pollution and emissions at COP28. They need to better showcase the efforts that they have been doing in recent years in terms of their renewable investments and plans to develop hydrogen, for example. It will be the COP for all and action where many will showcase their expertise and new energy technologies.

There is an economic imperative to develop clean energy technologies

When we mention climate change, we always talk about negative consequences. We fail to mention the huge business cases for clean energy technologies and investments. When investing in renewables, we consider four elements: cost, energy security, environment, and loss of jobs. Firstly, renewable energy is the cheapest power source in 90% of the world. The cost of clean energy technologies has fallen by around 60 to 90% over the last 10 years. Regarding energy security, 90% of people live in countries with abundant access to renewable energy. Thirdly, the ecological footprint of renewables is 100 times lower than that of fossil fuels. Finally, the oil and gas industry tends to think that the transition will implicate the loss of jobs and skills. However, the IEA has calculated that there are more jobs in clean energy than in fossil fuels – an energy transition would mean a net gain of 22 million jobs.

Roland Kaeppner

Executive Director
ENOWA (NEOM)

Enowa is Neom's energy and water partner, realizing its disruptive ambitions

Enowa, as Neom's energy and water company, was created as a Neom subsidiary. We've been part of its story from day one. We work together towards the compelling vision and ambition for Neom to become the world's first economy to be 100% powered by renewable energy. We're going to be the engine room for Neom and realize that disruptive ambition. We'll also provide Neom with water, which will be sourced from the sea, and we'll use renewable energy to do it. The remaining salt concentrate won't be dumped back into the sea but rather used as an ingredient to make other products at scale. We call preventing salt reentry into the sea 'zero liquid discharge'. On the energy side, we're making hydrogen to be used for applications in Neom around mobility, for making green steel, other green fuels, and generally to make Neom a carbon-free environment.

The clean hydrogen economy is moving from infancy to maturity

The idea to make green hydrogen the key driver for what I call the second wave of energy transition is no longer a trend. It has become a fact. If you look around the world, many economies and governments have understood that a fair amount of climate change contributors can't decarbonize through electricity. What we hope to see in 2023 is a clean hydrogen economy growing out of its infancy and starting to become a real economy. It will still depend on subsidies to get started but with a clear projection to become a market-driven economy.

Organizations have a broad toolbox for sustainability at their disposal

For organizations looking to internalize sustainability for the first time, the advice is to walk the talk. The toolbox to internalize sustainability in any organization or entity is pretty broad, so it's more about impact. An entity should consider what its motivations are, what its economic capabilities are, and determine how much of an appetite it actually has to become a first mover and to be disruptive. I get the impression that many haven't yet understood the major fact around green hydrogen – that its purpose is to stop climate change and reverse it. And that won't come for free. The profits that have been created throughout the last decades on the back of the planet's health will now have to be used to finance the energy transition.

Hawazen Nassief

Head of Sustainability & Stewardship,
Public Investment Fund (PIF)

Sustainability is pushed from the top and will be harder for some sectors

One of the positive elements about what's happening in Saudi's push towards sustainability is that the support for sustainable practices comes from the very top. The government is encouraging or requiring many businesses to comply with sustainable practices while committing to net-zero by 2060, which also drives a lot of changes at for corporates to develop their own transition strategies. One of the challenges is that the transition will require a lot of investment for the high-emitting sectors. Some of the technology that will be needed to facilitate the transition isn't currently available at scale or available at all. Despite these challenges, major businesses like Aramco and Acwa Power already have net-zero commitments in place and are working towards either reducing emissions or offsetting them until a better alternative is available at scale.

The position of Chief Sustainability Officer is becoming more prominent

For incorporating sustainable practices, there is no one-size-fits-all approach. Every company decides what's best for them within the context of their business. Nevertheless, what I see more and more of is that a lot of companies are creating sustainability committees or ESG committees on the board to oversee its performance by board members who set company-wide key performance indicators. Companies are also increasingly hiring chief sustainability officers, although they might not always go by that name. We also see companies still referring to that type of position as CSR – corporate social responsibility – and combining sustainability and CSR into one position. What's promising is that these kinds of new positions are a global phenomenon and that overnight we have sustainability becoming more prominent at the board level.

Oil windfalls are used to invest in greener technologies

As one of the biggest oil producers in the world, Saudi Arabia concentrates on research centers to produce technologies that will help the oil and gas industry around the world produce energy in more sustainably ways. Saudi Arabia is investing a lot in developing technologies that are important to that industry but also collaborating across industries and borders to fund technology companies around the world that will produce climate tech relevant for the world of tomorrow.

COP28 SPECIAL REPORT

May Yassin

Head of External Communications and Sustainable Business
Vodafone Egypt

We must re-think how we are marketing technologies currently available

Many of the technologies currently available can be used to advance sustainability. For instance, internet of things (IoT) solutions can help reduce energy consumption. Nevertheless, they are rarely marketed based on the benefits they can have in different communities and the environment. That is where the focus should be. Moreover, companies should seek commercial benefits in a manner that is not harmful to the planet. Having courage is an important part of this. Companies may have to give up some of their profits in the short term in exchange of a more positive impact in the long term.

Sustainability needs to be embedded across different parts of organizations

We must embrace a change in corporate culture to advance sustainability. Many companies see environmental, social and governance (ESG) aspects from the reporting lenses, looking for ways to incorporate them into the scorecards by the end of the year. Nonetheless, sustainability should be embedded in day-to-day operations, making sure that commercial success does not come at the expense of the planet. For the past two years, we have been defining clear KPIs related to this purpose for every role at Vodafone Egypt. Moreover, we are actively exploring ways to support SMEs and startups to have their own sustainability journeys as well, for which we have partnered with Microsoft to explore possible pathways.

Education and continuous learning could do more to help advance sustainability

Sustainability should be incorporated into academic curriculums. It has only been a few years since we started seeing developments at university curriculums in that aspect. On top of that, there is reluctance regarding digital technologies among organizations, as many believe these solutions will eventually replace the human element. Nevertheless, digital tools can be a great support for different types of businesses and for helping to upskill and re-skill employees. Continuous learning in digital areas is a fundamental step to overcome this notion.

Yasser Alobaidan

Chairman
Jawraa

Identifying ESG opportunities from national visions

As part of our R&D program, we looked at the opportunities that have a direct economic impact to Saudi Arabia from an ESG perspective. It helps a lot having a national vision and large initiatives in Saudi Arabia, where we can link those initiatives and find out what we can do in alignment with them. Then, we researched the market and the issues that are present. We found out that there are lots of issues concerning carbon exchange, which does not have a direct climate impact on the country. In Saudi, most of that money goes into research that is paid to Europe or the US. Also, we looked at the planting of trees in Saudi and how this can improve the market situations and their impact on improving the carbon offsetting. After two years of research, we developed a marketplace that can support this initiative. In the best four months, we contributed to planting 150,000 trees, which are equivalent to about 750 metric tons of CO_2 a year that we have offset. This is a direct indication that we can do a sustainable ESG that has a direct impact on the climate and support two major initiatives in Saudi Arabia.

Mindset of leadership is key to build an innovative ecosystem

We don't wear the hat of a consumer and follow what is available. We rather try to innovate and produce the right product that can have a direct impact on sustainability and climate. Based on that, we can see what are the right tools that can support us with our solutions. Use the available tools, try to create your own product, and then try to see who can support you in building it. Additionally, a key for creating an innovative ecosystem is mindset. Leaders have to believe in innovation and building a digital economy.

Sherif Tawfik

Chief Partnership Officer - AI & Cloud for Sovereignty - Middle East, Africa, Central Eastern Europe, and Central Asia, Microsoft

2023: the "Year of Sustainability" and COP28 as the "Energy COP"

The UAE announced the year 2023 as the "Year of Sustainability," and many experts have described COP28 as the Energy COP as it will take place in a region that is home to 50% of the largest oil and gas producers in the world. The industry is responsible for roughly 70% of the world's greenhouse gas emissions. By 2050, the UAE is expected to be 4° Celsius warmer than it is today – twice the global average rate of warming. As a result, we see a strong political will and leadership from countries like the UAE and Saudi Arabia, who are taking serious steps to transition to more sustainable forms of energy. We expect to see more announcements coming out of COP28 related to green policies, regulations, initiatives, and investment commitments. A culture of innovation is essential to create a more sustainable future. Innovative thinking and new technologies will allow us to develop new and efficient ways of producing cleaner energy. These innovative technologies include carbon capture, green hydrogen, and sustainable aviation fuel.

The role of the oil and gas industry in the energy transition will be pivotal yet evolving

Collective action is needed from different stakeholders – governments, regulators, policymakers, consumers, and tech and solutions providers. The oil and gas companies will need to navigate the challenges of rapidly changing markets as fossil fuel demand decreases and investments in renewables increase. They will need to adapt, remain competitive, and innovate in the new energy landscape. Companies like Microsoft, which have already made significant commitments to sustainability, are utilizing resources to help accelerate the decarbonization journey, transition to renewable energy, and develop a low-carbon economy. For example, we recently released our Microsoft Cloud for sustainability for emissions data and intelligence technology.

Vijay Bains

Chief Sustainability Officer and Group Head of Environmental, Social, and Governance, Emirates NBD

Sustainability has been around for years in some form or another

Sometimes sustainability and ESG initiatives are viewed as the realm of the young. But sustainability has been around in some form or another for many years. What's different now is that it's increasingly present in the board room, in the C-suite, and at the chairman level. It's now at the very core of how banks operate. The sustainability writing on the wall is there for many industries and we are there for them as a bank to provide sustainable finance opportunities and transition financing solutions. Banks are by nature conservative and what we seek to do is educate bankers and broader stakeholders not only on acronyms such as ESG but also on how to upskill the market broadly for a deeper incorporation of sustainability objectives.

The boardroom should take ownership of sustainability initiatives

It's important for the corporate boardroom to take ownership of sustainability initiatives and for the senior level to become involved, which acts as a halo effect for everyone else within the organization. It can also help to build in key performance indicators and metrics around sustainability so that stakeholders realize that sustainability is here and it's here to stay. Sometimes terms like sustainability and corporate social responsibility (CSR) are casually used interchangeably when in reality they refer to separate disciplines. CSR has morphed into ESG but the regulations surrounding ESG tend to revolve around climate risk modeling.

We have models to account for climate risk and environmental risk

At the organizational level, we want people who can practically deliver on sustainability programs. If someone is in risk, we want that to be also understood within the context of climate risk, sustainability risk, or environmental risk. We've already built environmental risk models for natural hazards that we haven't yet worked on enough to publicize. For example, with the earthquakes in Syria and Turkey, we had that kind of event already baked into our models. Part of the initiative isn't just creating the models in the first place, but ensuring a structure through which they can be put to good use through knowledge sharing.

COP28 SPECIAL REPORT

Riyad Abou Jaoudeh

Chief Corporate Development Officer
HALA

There's room for growth in the MENA climate solutions startup pipeline

One of the current challenges in the region is that we don't have a lot of climate tech startups specifically. We, as a fund, are not focused exclusively on climate tech. We're sector agnostic. However, we're intrigued by the movements in the sector and we believe in the opportunities for solving climate related challenges. We just haven't seen a strong regional pipeline in the sector just yet. We've seen several companies, related to Masdar in Abu Dhabi and several other in Saudi Arabia, tackling certain aspects of climate change in general. But I think investors are a little cautious in investing in such opportunities. What we'd love to see is more of those opportunities emerging from the MENA region.

ESG policies have been internalized into core business operations

ESG has become a big topic and our limited partners are demanding that the fund as well as the underlying investments follow certain guidelines, certain procedures. So the concept of ESG has become an important topic. It's more than a buzzword. At our firm, we have created an internal policy to assign an ESG officer. We are mandating all new investments go through an ESG checklist and questionnaire. We are also adapting these initiatives to the region and to our startups, our investments, our portfolio companies. Occasionally the ESG guidelines face some resistance, but in general their importance is recognized, especially with the governance part.

Constraints to climate financing are coming from the supply side

The limited activity in the MENA region right now for climate financing comes from constraints on the supply side. And the supply side in turn is often fed by R&D initiatives, universities, and corporate entities. Generally speaking, R&D spending in the MENA region, as well as university spending, is much lower than in Europe and the USA. So if we extrapolate this to climate solutions, this creates limited opportunities in the pipeline. If we look at investments in the MENA region from a venture capital point of view, there's much less in high-tech, R&D, and hardware compared to other regions like the US, India, and China. There's a lot of encouragement from certain government programs, university programs, and corporate programs for R&D outside the region that aren't yet available here. This may be the underlying reason as to why there ultimately are limited opportunities in the pipeline.

Dr. Abdullah Alkhudhiri

Vice President for Sustainability & Environment
King Abdulaziz City for Science and Technology (KACST)

H.R.H Prince Mohammed bin Salman bin Abdulaziz, Crown Prince and Prime Minister of Saudi Arabia, announced the national aspirations and priorities for research, development and innovation for the next two decades. These are based on four main pillars which are: health and wellness, sustainable environment, energy and industry, and future economy. The Kingdom will become a pioneer in innovation throughout the world and also the region. The annual spending on the sector of research and development will reach 2.5% of GDP by 2040. In order to achieve this ambitious target, effort will be made to attract the best national and international talent. The Kingdom seeks to become the global model for preserving the environment and providing basic needs in terms of clean water, food, energy, and technology in a sustainable manner. Carbon Capture, Utilization, and Storage (CCUS), low cost electricity production, and hydrogen production will be focused on in-depth over the next ten years. All national and international stakeholders must work together to achieve these goals.

Riham El Gizy

Chief Executive Officer,
Voluntary Carbon Markets

A voluntary carbon market is a visionary approach from Saudi Arabia

The Kingdom is at a pivotal moment for the country. It is changing and it is transforming. Sustainability sits at the heart of this transformation. The voluntary carbon market is one of the tools that would enable Saudi Arabia, the region, and the global south, to reduce greenhouse gas emissions. In September 2021, His Royal Highness Prince Mohammed bin Salman bin Abdulaziz, announced that Saudi Arabia had the intent to set up a voluntary carbon market. Ever since then, the Public Investment Fund (PIF) and Tadawul (Saudi Exchange) worked together on setting up that market. We have taken a great leap forward. We have anchored 15 partners who participated with us last year in the biggest auction in the history of the market, which shows that Saudi Arabia is serious about this. Most of the companies were local companies that are keen to reduce their carbon footprint.

Voluntary carbon markets may have struggled in the past, but are gaining momentum

There are mainly two challenges for voluntary carbon markets as to why they haven't made more progress in the past. The first one is the integrity and quality of the carbon credits. The second one is price discovery. A price discovery will enable scaling supply, which is very important. I suspect that most of the companies currently buy from the voluntary carbon market over the counter, which does not allow for price discovery. The reason why we are setting up an exchange in Saudi Arabia, is to allow for that price discovery. Once you know the price, then the funds start funneling into project developers. For the integrity and the quality of carbon credits, a lot of people will come and say that it's greenwashing. However, the whole idea and the beauty of the voluntary carbon market is that it is financing projects that are uneconomic without these funds. For example, why would you have a forestry project that is uneconomic? What is the financial incentive for project developers? How can they cover their costs? This is what it is all about. It is to accelerate climate action.

Fawwaz Alshammari

SVP, Country Head of Digital Industries
Siemens Saudi Arabia

Sustainability initiatives are for everyone, regardless of market or geography

We have Saudi Arabia pursuing sustainable initiatives and we have Siemens pursuing sustainable initiatives. My work at the nexus of those otherwise parallel ambitions involves combining both trajectories so that we incorporate best practices at Siemens from other markets into the Saudi market. Working towards sustainability is an endeavor that everyone can be involved with, regardless of market or geography. And in Saudi we see a big push from the government towards sustainability with clearly defined key performance indicators to move us in the right direction. Those KPIs are complemented by the private sector and by Siemens by embedding best practices we've established in other regions and bringing them to Saudi. We work with local government agencies to create use cases for emerging technologies. We partner with academic institutions so that the talent pool that we recruit from already possesses relevant skills for confronting climate change upon graduation.

It's better to build on existing initiatives rather than trying to reinvent the wheel

Collaboration is a key point in sustainability conversations and can manifest in partnerships with government, academia, or the private sector. As a big company, we also partner with small or medium enterprises since sometimes they might have better reach in their more niche markets or to capitalize on existing initiatives rather than trying to reinvent the wheel. Sometimes we see insights from our partnerships with academia that allow us to build upon what's already working in other parts of the world and introduce it locally to provide solutions to our regional needs. Of course, as a big company, we also have our own in-house research and development teams that often share their own insights with our counterparts at other organizations seeking to confront the same global sustainability challenges as us.

A few next steps can be taken to advance the push towards sustainability

For next steps, I think we need several things. Since there's already a push from the government side, it will also be important to have evolving KPIs that remain relevant to market developments. From a societal point of view, it's important to increase awareness into the kinds of sustainability issues we face regionally. And from the university perspective, which is of particular importance since Saudi is such a young nation, we'll need to focus on cultivating the skillset needed to confront climate change.

COP28 SPECIAL REPORT

Noor Balfaqeeh

Head of Corporate Affairs & Communications
Unilever GCC

Effective sustainability communication strategies appeal to different stakeholders

Communicating sustainability issues, such as climate change or circular economy, requires of a comprehensive communication strategy that involves both internal and external stakeholders, such as employees, customers suppliers, policymakers, and partners. A major challenge to this is adapting Unilever's global message on sustainability issues to a local and regional scale. In the GCC, we have been talking about sustainability with customers and policymakers since 2010. We started by carrying out brand activation campaigns with some of our products, while trying to choose relevant causes to which local consumers would relate. Furthermore, we built strong relationships with policymakers and regulators and led various trade association and industry groups to help authorities on various sustainability issues. For instance, we recently launched a new industry group to help Saudi authorities design a waste management regulation that embeds the concept of extended producer responsibility (EPR).

Bringing down Unilever's global sustainability commitments to the region

Unilever is committed to keeping plastics within the loop and phasing out plastic waste. We aim to have 100% of our plastic packaging recycled, reusable, or compostable by 2025. To bring this goal down to the regions and countries, we follow an approach we usually refer to as 'freedom within a framework'. Bringing Unilever's messaging and commitments on sustainability down to our region requires efforts in different fronts. This is especially true in a region like the GCC, where there is still much room for improvement for waste management infrastructure. We've had to communicate actively with our suppliers to identify where we could have a greater impact to achieve this goal. One of the key stakeholders we are currently engaging with is the UAE's Ministry of Industry. We are exploring ways to source recycled plastics and reduce our carbon footprint by using clean energies in our manufacturing processes. Additionally, we have an active advocacy and lobbying branch where we aim to build unity and a common message on sustainability among industry players to address authorities.

Fernando Morillo

Senior Executive Vice President and Group Head of Retail Banking
Mashreq

Engaging and involving younger generations on climate action is crucial

We are all experiencing the effects of climate change and are increasingly aware of the fact that we need to take action to ensure that sustainability becomes an integral part of our lives. However, a significant portion of this task will not be in our hands. It will actually be in the hands of the next generations. To begin addressing climate change, it will be necessary to allocate between 30%-40% of the world's GDP. This represents an immense amount of capital, effort, and work that needs to be invested. Engaging and involving younger generations, making them more aware, and encouraging them to become active participants in sustainability and climate action is crucial.

A power that needs to be put into action

Youth are the consumers of the future, and all companies know that. As banks, we can provide them with the right information on what society consumes and what is at stake with regards to the extent of damage from our behavior. We can help them put their power into action and force the supply side to completely change the way we all are doing things.

Florence Bulte

Chief Sustainability Officer
Chalhoub Group

Sustainability is every employee's responsibility

As a luxury and retail family business group that has been operating in the Gulf for the past 65 years, sustainability lies at the core of our values. A pivotal moment occurred in 2014 when we became a member of the United Nations Global Compact, which made annual sustainability reporting mandatory for us. This led to the creation of the Chief Sustainability Officer role. Following the establishment of this role, we developed a sustainability strategy in 2015 that enabled us to take stock of the group's operations and conduct a materiality assessment, helping us identify specific areas of focus. Throughout these years, we have maintained a small sustainability team, as we believe that sustainability is not solely the responsibility of the CSO but of the entire organization.

Effectively communicating sustainability across departments

The starting point is reporting to the CEO. This aspect is crucial because the message needs to originate from the top. We cannot report to other business units as doing so could result in a loss of execution freedom. Another key point is to ensure the alignment of the sustainability strategy with the business strategy of the group. From an organizational perspective, having a sustainability committee in place is critical. For our organization, this takes the form of a cross-functional committee chaired by our President and including representatives from different departments such as logistics, facility management, and finance. This committee is more hands-on than advisory, which is essential in having a representative from each business unit to implement the broader sustainability strategy in every segment. Moreover, engaging with both external and internal stakeholders can help shape progressively your sustainability strategy by identifying the main priorities and areas of focus.

Shargiil Bashir

Executive Vice President & Chief Sustainability Officer
First Abu Dhabi Bank

The focus on ESG has expanded among all stakeholders

ESG is not a new topic for First Abu Dhabi Bank. Our first sustainability report was created back in 2010. Since then, we have taken numerous steps to advance ESG. For instance, in 2017, we became the first bank in the MENA region to issue a green bond. Additionally, in 2019, we developed the first sustainable financing framework for banks in the region. As part of our maturing process, we have been working towards ensuring a holistic ESG strategy and identifying opportunities. Our research has shown that clients are willing to pay more for sustainable products. Similarly, key stakeholders such as shareholders and regulators have started placing a greater emphasis on sustainability aspects. As the largest bank in the country, it is crucial for us to support this journey.

ESG strategies must start from the top

It is critical for the boards of directors to make ESG a key aspect. We need to foster a culture that integrates sustainability and make sure that all members of the organization understand it. Without this clarity, it becomes challenging to obtain buy-in and execute the vision. Therefore, raising awareness about sustainability across the organization has been one of our top priorities, and we have implemented mandatory ESG training for all employees to help them become familiar with ESG.

Understanding clients to support them in their decarbonization journeys

When we committed to achieving net zero by 2050, we began focusing on the sectors in which we provide finance that have the highest greenhouse gas emissions. We started engaging with each of our clients individually to gain a better understanding of their progress in their decarbonization journey. As a result, we have observed varying levels of maturity among different clients, identified their next steps, and learned about their established plans and goals. To gather more detailed information on these aspects and explore ways to support them as their strategic financial partners, we have developed a questionnaire for all our clients.

COP28 SPECIAL REPORT

Kevin Chalhoub

CEO and Founder
EV LAB

Expectations for COP28

To make it simple, we need to act now. There's a 40-year lag between cause and effect when it comes to climate change. We won't have the same opportunity that we had with COVID-19 to be reactive about things. We need to be proactive, and this is the opportunity we have at COP28. We need to be proactive about our messaging and we need to bring this to the same scale as we did with COVID-19. If we're talking about global challenges, pandemics are one and climate change is one. We really need to be able to communicate on a daily basis. What are the emissions of every country?' How are we reducing them? We need to be able to see that information and we need to be able to create that accountability for every country. I'm really excited to see the positive outcomes that come out of COP28.

Acceleration of impact investing

Impact investing is becoming a really important topic. Anyone that's looking for investment opportunities is increasingly looking to also make a positive impact. There are increasing amounts of venture capital that are looking at clean tech as a funding opportunity. That's exciting for startups out there. There are also a lot more classical types of funding for renewable energy projects. One of the biggest discussions for COP28 is going to be around what is good for us and how we can finance these things.

Skill sets needed for sustainability positions

When we're looking at people from our perspective, we really look at both skill sets and culture. For culture, we want people that are selfless, egoless, purpose driven, and who are looking to make an impact. That's very important to us. For skill sets, all are welcomed in the world of sustainability. There's a lot of work to do, whether it's finance, marketing, sales, or engineering. All of it is accessible. If you want to make a positive impact, sustainability is a good field that is definitely growing.

Justine Roure

Deputy Vice President, Strategy and Policy
Oil & Gas Climate Initiative (OGCI)

Collaboration in the oil and gas industry is critical to accelerating the transition

At OGCI, we have 12 member companies, including oil companies (IOCs) and national oil companies (NOCs). Apart from the natural competition between energy leaders, we have seen the value of sharing knowledge between our members and others. This leads to greater and cleaner competition – bringing out the industry's best. This year it will be key for the industry to demonstrate the progress that has been made to achieve the transition and what solutions we can bring to the table.

Access to data and knowledge is critical for NOCs to lower methane intensity

In 2018, OGCI member companies set a target to reduce methane intensity and are now aiming for well below 0.20%. All our members comply with a common target and standard. Collectively, our member companies reduced their emissions by 40%. In 2021, we launched a satellite monitoring campaign in Iraq to help tackle methane emissions in oil fields. When detected, the methane emissions were significant, with an average emission rate of almost 1,500 kg CH4 per hour for some specific assets. Through data and engagement with local companies, we saw plumes of methane disappear. The project was so successful that we expanded to Kazakhstan, Algeria, and Egypt. At OGCI, we have a role in running data campaigns with the Aiming for Zero Methane Emissions Initiative. We identify the location of big plumes and share knowledge on tracking methane emissions. For COP28, we will be focused on how the industry can reduce methane emissions as much as possible.

The Gulf region has the potential to lead on CCUS hubs

At OGCI, we launched a global search on carbon capture, utilization, and storage (CCUS) hubs. We took a deep dive into specific regions and storage capacities. We analyzed super emitters that can be interested in CCUS to gain insights on potential customers. The Gulf area is one of the most promising to develop CCUS. Since we launched our CCUS KickStarter initiative in 2019, member companies have announced over 25 CCUS hubs. For example, the Aramco hub in Jubail plans to capture 9 million tons of CO2 by 2027. So, these will not be built in a minute, but CCUS activities are ongoing worldwide. We need a strong message from governments regarding policy incentives and mechanisms to take these projects to the next level.

Dr. Fahad A Al-Sherehy

Vice President Corporate Sustainability
SABIC

Pressure is mounting for industry to adapt

There is pressure on the industry to act fast. Almost all of the countries around the globe have announced their commitments to addressing climate change. This has increased pressure from a regulation and compliance point of view. Customers are also now starting to ask about the product that they are buying and its carbon footprint. Even the financial institutes overseeing the availability of funds to support growth are now very careful when assessing projects. In addition, it's about technology, innovation, and disruption that potentially could happen and change the landscape of our industry. As a company, if you are not proactive enough, you will be behind and maybe out of the game entirely.

Next steps need for establishing voluntary carbon markets

First and foremost, regulations, standards and definitions are very important. If you can't measure it then you can't calculate it. People also have different assumptions and ways of reporting. Secondly, this is a game of collaboration across the value chain. Nobody can do it alone. Collaboration between different regions, different countries, and companies is very crucial. The last point is about time and transition. It will not help going forward if we rush things before having the right infrastructure and availability. We have to be realistic with time and setting targets, otherwise we will only see negative impact.

Dr. Aqil Jamal

Chief Technologist Carbon Management
Saudi Aramco

Rethinking how we tackle energy challenges

The world is rethinking how we produce and reuse energy in our daily lives. Saudi Arabia's push towards expanding renewable energies and hydrogen production requires a different approach to training our youth and collaborating. For example, can we produce hydrogen in any other way than using fossil fuels or electrolysis? Are there synergies between hydrocarbon-based and renewable energy-based hydrogen? How can we improve energy storage from renewables in a cost-effective way for times when weather conditions are not favorable for power generation? These are some issues that future generations of engineers and scientists will need to consider.

Planning for future skills needed

Electricity in the region is expected to become very cheap in the future, generated mainly from renewable sources with zero carbon footprint. We must think about ways to use this electricity effectively to produce fungible energy, such as hydrogen, which could be exported. We will need chemical engineers to design reactors that can use this electricity. Currently, we use fossil fuels to convert methane to hydrogen, but in the future, the process will be fueled by renewables. The chemical and electrical engineering curriculums should be updated to explore how to use these cheap, renewable energy sources to design next-generation process technologies. Additionally, artificial intelligence (AI) and machine learning (ML) can be used to develop materials to remove carbon from the air. The vast amounts of information available on this matter could expedite innovation. Finally, expertise in energy storage will be critical in finding ways to reduce costs.

COP28 SPECIAL REPORT

Manali Desai

Chief Sustainability Officer, Africa, Middle East and South Asia (AMESA), PepsiCo

Understanding each market is vital for an effective sustainability strategy

Strategy can only stay on paper and in people's computers if it's not executed the right way. It only makes sense when we have to operationalize the strategy and tailor it to our region. That's where my role and my team's role comes in. When it comes to our region of Africa and the Middle East, public policy and governments are in very different phases of evolution around sustainability policies. So then it becomes my team's role to understand market-by-market differences across all our pillars. In PepsiCo Positive (Pep+), we have five different pillars: agriculture, value chain, climate, plastics, and product. Each market is at a different level of maturity. That's where our team comes in as subject matter experts. These goals seem extremely high and ambitious, but then we break it down and look at what the glide path is year-over-year by market. We define strategies that are fit for purpose for that particular market, and then operationalize teams within those markets to actually go create impact.

Building a corporate sustainability strategy

Start with the end in mind. Always have a broad understanding of where you want the company's vision on sustainability to be and how those goals are interlinked with the business. Next, ensure that sustainability gets the right sponsorship from the top of the organization, and have peer-to-peer dialogues with all the functional leaders across the business units. Another important point is to have a cross-functional sustainability team, as you cannot drive sustainability forward in silos. In our team, we just have a direct group of five senior experts, and then we have a collaborative cross-functional team with members from different departments that take on a sustainability role.

Top three skill sets for Chief Sustainability Officers

Most of all, you have to be a strategic business leader. That's number one. Second is you need to bring in a lot of passion. Passion without substance does not go anywhere. It's important to have passion for topics, while at the same time understanding how you can drive change through technical expertise. Third is this whole transformational experience. Many of our businesses today need to step change from where they are in terms of sustainability. If you have transformational experience from the past that often helps in bringing that thinking along on what needs to step change. It could be your capabilities, ways of operating, and embedding new ways of working while bringing along the entire organization. Those are the major skill sets. It's a little bit of technical, a lot of transformation, but always strategic thinking.

Faisal Durrani

Partner - Head of Research, MENA
Knight Frank Middle East

Global building certifications are an opportunity

We have done some analysis around the volume of green-rated buildings in the Gulf. The UAE has about 870 green-rated buildings, which means the UAE ranks 14th globally in terms of the concentration of green buildings. A lot of those buildings are rated using local green building standards. Whilst there is nothing wrong with that, international institutional investors who are hungry for green assets want ratings that they can understand. For example, this could be LEED, BREEAM or WiredScore. Unfortunately, we don't have many of those types of assets. Therein lies the opportunity. The fact that we do not have very many internationally badged green rated assets presents an opportunity to build those assets and attract international businesses who are hunting for that space. They will pay premiums to be in green-rated buildings.

Businesses could pay a premium for green buildings

In the future, when green financing is your only option for development, your carbon footprint will be heavily scrutinized. Demolishing and rebuilding might not always be the most financially viable route, so you will have to think about refurbishing your property. Now, refurbishing itself may not be viable physically and it might be cost prohibitive, especially if you are thinking about bringing it up to a LEED certification standard. On the other side of the equation, we know that businesses are willing to pay premiums to be in green-rated buildings. When we look at more mature markets where ESG is slightly further advanced, like the UK, we find there is a rental premium being paid by businesses that ranges from 5%-15%. They are aware of that premium. If you are occupying a building that's sustainable, it heavily promotes that company's ESG credentials. We carried out a survey of businesses around Saudi Arabia and the UAE. 75% of businesses believe that their ESG targets and their net zero commitments will impact their real estate choices in the next three years.

Hassan Ebrahim

SVP of Corporate Development and Sustainability
Yellow Door Energy

There are no exemptions when it comes to sustainability

We always had this impression that we were a green and sustainable company. We thought this was obvious and we were somehow not required to report on our sustainability activities. It was implied in the business that we did as a provider of solar power and other sustainable energy solutions. As I've started to learn more about the sustainability space, I've come to realize that there actually are no exemptions. There are a lot of areas of improvement for companies that are in the solar energy business as well. ESG represents a spectrum of activities, and along that spectrum, there are numerous areas of improvement. The mission for me and for my department is to reflect on our business, the impact that our business is having on the broader community, to measure it, and to improve year-on-year.

Developing a sustainability mindset

My background is very much rooted in finance. I have been a corporate finance consultant and professional for my whole career. My training and my job history has been in that space. I'm now undergoing a transition from that corporate finance mindset to more of a sustainability mindset. That journey for me has been very interesting. One of the guiding principles that I focus on is that sustainability as a mindset, and sustainability initiatives, are value accretive in the long run to the overall value of a business. That's really what I'm focusing on in my role. It is to try and understand how we can implement measures that have a wider ESG impact, but also add value to our platform.

Alaa Abusiam

Chief Executive Officer, Middle East and South Asia
Egis

2023 will be a big year for Middle Eastern cities, with COP28 happening in the UAE

COP events bring sustainability and the reduction of carbon emissions to the forefront of conversations in the region. As much as we are making progress, actual emissions and trends demonstrate a lot of room for improvement. 2023 will be a year under the spotlight where we are all challenged to look at specific problems for our cities. We have existing cities that need to be reinvented or reshaped to some extent. And then, we have the challenge of developing massive new cities without consuming more natural resources that are becoming more and more scarce.

A holistic approach to tackling sustainability issues within our cities

We have seen much progress happening at different layers regarding sustainable urbanism. The first layer involves the physical infrastructure and the engineers designing and implementing green infrastructure solutions. We then have the end user or citizens who need city services. A lot of innovation has happened at this level. But we have the massive digital layer in between where companies like Microsoft intervene. These stakeholders have historically worked in separate spaces, but we now see a more holistic approach.

We are still in the early stages of developing the governance of smart cities

Cities are still acting to a great extent in silos to implement the solutions that come through. A lot of work needs to be done when it comes to data governance, for example. The governance is currently heavily centralized, so involving the private sector and various stakeholders will require much more interaction and collaboration. We already saw the creation of the G20 Global Smart Cities Alliances. Still, we will need more interactions between cities to implement that governance. With COP28 taking place in the UAE, cities could use this platform as an opportunity to get together and come up with creative governance models on the sidelines of the main events.

COP28 SPECIAL REPORT

Zain Qureshi

Managing Director, Head of Real Estate Finance & Advisory
Mashreq

ESG practices are critical for resilience

ESG is becoming increasingly weighed into real estate development and investment. It is estimated that 40% of all global carbon emissions come from construction and operation of buildings. Sustainable practices can help reduce carbon emissions, energy consumption, and improve water generation, which contributes to a cleaner and healthier planet. Climate change poses risk to real estate assets too, such as flooding, extreme weather events, and rising energy costs. Sustainable practices can help mitigate these risks by making properties more resilient. I feel that there's an urgent need for businesses to adopt long-term sustainable strategies, and more so in the water-stressed, extreme climate of the GCC.

Green bonds and green financing

One thing that I am curious about are the incentives that governments are going to put into place in the GCC. Maybe credits, maybe grants, maybe tax breaks once tax regimes comes into place. Secondly, green bonds and green financing are becoming more common now. People are excited about it. You see more investors entering that particular pool because they want to go ahead and support these initiatives. But I think it needs to become more mainstream. That will really help overall development, especially in the region itself.

Dr. Steve Griffiths

Senior Vice President, Research and Development
Khalifa University

The current state of hydrogen in the Middle East

For me hydrogen is very interesting. Just a few years ago, it was sort of a novelty. People talked about it. They thought it was a potential energy vector that can have impact. But was it economical? Will it be viable in the long term in just a few short years? We now have a pretty good consensus that the roughly 100mn tonnes today that's being used in refining and chemicals is going to scale to larger volumes. It is still to be determined on what those are and there's a lot of debate on it. Most importantly, the region has now come to realize the potential value of hydrogen. We want this to be part of a broader sustainability vision.

Next steps for hydrogen

What excites me are the next steps, which is creating a strategy that starts to define where you want to play in hydrogen. It doesn't stop there though. We are actually going to get to roadmaps that say within five years we need to get to a certain level of capability in generating and using hydrogen. These roadmaps will also layout how we're going to have policies, regulations, standards, and support. You want to go from a vision, to a strategy, to roadmaps, and then to frameworks which are very oriented toward tactical implementation. We start from today where there's a realization that we've got this challenge to scale a potentially impactful vector into something useful. Then we spend two years really putting in place our thinking about how we're going to do it. Then up to the end of the decade, we need to get to meaningful scale.

Nadia Boumeziout

Head of Sustainability & Information Governance
Zurich Insurance

Setting clear targets is critical to make sustainability engaging across the organization

As a multinational company, our sustainability strategy is set at a group level, and it's then cascaded down. By setting clear targets and goals, you can actually discuss the 'why' and clearly explain what we are trying to achieve. In our case, we have a framework that goes across three pillars, which are customer, planet, and people. Within those pillars, we make clear what we are trying to achieve, and then we make it relatable to every role. For example, someone who sits in finance needs to understand that they are not only looking at financial statements, but also non-financial reporting and disclosure. In marketing and communications, they need to be aware of how to communicate those new messages and ensure that we are not falling into greenwashing. One thing that works well to make sustainability relatable to everyone is having 'champions' in each department, so they can ask the right questions and translate targets to their colleagues. That also helps to embed sustainability into the entire organization.

A practical approach to education on sustainability can yield better results

We do have clear metrics to track progress in employee education programs. One thing you find is the more engaging the program is, the more takeaways people get from it. We participate in many industry working groups where you can learn from other industries and best practices that can be applied. Oftentimes, these are much more practical than any academic course could give you. I think academia is great at providing a foundational understanding, but topics such as climate change can get very technical and complicated to understand. There are different types of workshops where you can make it much more engaging and foster learning.

Adam Sieminski

Senior Advisor to the Board
King Abdullah Petroleum Studies and Research Center (KAPSARC)

Exploring policy options to bring CCS to scale

We need to look at mechanisms for putting a value on carbon dioxide and other greenhouse gases. Most of the countries in the Middle East don't like the idea of a global tax because they are not sure about achieving a global agreement on that, even though it is certainly something that would be worth doing. Mechanisms that would enable deployment are going to be very important government support. For instance, what the US did in the Inflation Reduction Act (IRA) to encourage development of new technologies for carbon and greenhouse gas management, as it is an important concept that has been pushed forward. Carbon hubs are taking shape in the region, which are going to be critical to bring CCS at scale, as well as natured-based solutions such as mangrove restoration. In R&D, research centers like the King Abdullah University for Science and Technology (KAUST) in Saudi Arabia has been experimenting with how to cure concrete with CO2 and finding ways to turn CO2 into a valuable product rather than making it a cost center, which is going to be the key to deployment at scale.

Reducing the cost curves of carbon management technologies

The cost curves of many new technologies that will be critical in dealing with carbon management will need to be brought down to attract more investments. We succeeded in cutting the costs of solar and wind power through an initial stage of government support and incentives, which then led to innovation. R&D and pilot projects such as the ones carried out by Aramco and ADNOC are going to be critical in this aspect. Moreover, we need to make sure that all the technologies that help with carbon management are compatible with ESG investment criteria to attract larger volumes of finance to scale up technologies. In this aspect, KAPSARC collaborated with the Global CCS Institute to make a case that the use of CCS is ESG-compatible.

COP28 SPECIAL REPORT

Dr. Mohammad Abu Zahra

Head of MENA Region
Global CCS Institute

Shifting from individual CCS projects to hubs and clusters models

Today, there are 35 operational CCS projects globally, and we have recently exceeded 50 million tons of CO2 being sequestered every year. However, all these projects have taken shape independently of each other. We need to evolve CCS projects into integrated business models, which can be done through the hubs and clusters model. These can enable having multiple emission sources lined up together and using the same unified infrastructure, which can help reduce costs while providing a common site for injection and storage. Additionally, we can benefit from the economies of scale for carbon capture projects, while simplifying the regulatory process for governments who would not need to deal with individual projects scattered across different locations. This is the direction that CCS projects are moving globally.

Combining conventional technologies with R&D and piloting of second and third phase technologies

Carbon capture technologies are very similar to those used, for instance, in natural gas sweetening. These conventional technologies are provided by multiple suppliers in the market, and they need to be improved in terms of energy efficiency, cost, and better integration in a process that can be improved with second-generation solvents. On the pilot scale and R&D side, we have what we call the second and third-generation technologies, which are mostly focused on solid sorbent membrane technologies and hybrid technologies like suspension systems. We need to deploy more conventional technologies to benefit from economies of scale while investing in R&D and the piloting of second and third-phase technologies. These must go hand in hand with educational programs. We need to train more engineers with a typical background in petroleum and chemical engineering, while adding CCS elements into their curriculum and fostering soft skills in terms of business models, policymaking, and regulatory processes.

Diana Sibanda

Group Head of Sustainability
Coca-Cola Beverages Africa

Adapting a global strategy to the region

As we are a part of the Coca-Cola ecosystem, the sustainability strategy is set at a global level. It's then rolled out at a regional level. We develop strategies that are appropriate for our operating context to meet the global targets that have been set. This is crucial for us as an African bottler, as we have our own unique sustainability opportunities and challenges. An example of this is tackling climate change, which is a big driver globally for Coca-Cola. We are aiming to reduce our carbon emissions by 25% through 2030 using a 2015 baseline. This is quite cumbersome for a continent like Africa, where we are quite reliant on fossil fuels. We need to customize the strategy to meet that goal in 2030. First, we need to create strong partnerships with our regulatory framework and influence for us to meet those goals. Second, there is a need for education across our supply chain. We have to educate our suppliers and farmers on climate change, sustainable practices in agriculture, and engage with them on how we can facilitate their carbon emissions reduction.

Living up to the expectations of consumers

Gen Z shoppers prefer to buy sustainable brands and they are willing to spend about 10% more on average. They are the most likely to purchase based on their personal preferences, their environmental principles, and values. As we develop our strategies, we are willing to take an extra step to hear those young voices and be transparent about where we are, and what we want to do. We want to gain their trust for us to deliver what they are expecting from us as a big brand. It is not just a marketing gimmick anymore. It is something that we use to foster a culture of sustainability and social responsibility throughout our organization. We are committed to doing business the right way, and part of that is ensuring that we encompass what our consumers and customers want from us.

Rohan Chopra

Regional Director, Sustainability – Europe, Middle East and Africa
Johnson Controls

Drilling down sustainability strategies to every region's specifics

The implementation of sustainability strategies for large multinational organizations is a huge task, for which there is a need to follow a very structured approach across different regions. It's necessary to drill down and put in place an organized structure to implement decarbonization and sustainability strategies across different regions. We have a global Chief Sustainability Officer that leads both the external and internal strategies of the organization, which later flows down in a very structured manner to the different regions. The strategies and end goals are consistent, but their deployment is tailored to each region, which depends largely on the regulatory requirements of each country.

Financial gains can expand the sustainability buy-in within organizations

There is more to sustainability than just one person or department driving it. It is a culture that everyone within the organization needs to embed and live through. I constantly work with general managers of different segments to make sure that sustainability forms part of business decisions. There have been challenges along the way, as sustainability was initially looked at from a cost perspective, and there is always a financial metric for every initiative we carry out. Nevertheless, these are becoming easier to conduct after the realization that sustainability can have good financial returns for an organization like ours.

Sustainability is more than a tick in the box

Organizations should not just look at ESG as a tick in the box to meet compliance requirements. There are large investors that are looking for sustainable companies. It requires a proper structure and has to be discussed at the highest leadership level, regularly reviewed, and monitored. Both sustainability and ESG are very wide topics. Companies need to focus on specific pillars to which they can dedicate resources.

Feras Jaramani

Executive Vice President, Head of Public Sector, Energy
Mashreq

Track records of ESG projects are becoming mainstream

Any financial institution, especially when tackling opportunities presented by ESG, will always want to see some track record of either performing the projects or involved in the technology aspects. Seven years ago, this was non-existent in this part of the world, both in terms of funds for SMEs and of a general track record of projects. Now, it has become more regular to find opportunities coming from entities with a track record of 5-10 years in the region. This is helping a lot in terms of risk assessment for funding. We have seen an increasing interest coming from clients and corporates asking about what we can do to help them set up an ESG framework and policy. We are talking about entities that go from SMEs to large organizations.

A boom of ESG experts in the financial industry

Over the past 6-10 years, a majority of banks decided to have dedicated ESG departments, whether on the advisory or the execution side. Many financial institutions were lacking candidates that could be shortlisted for those positions. Most of the positions were filled with people who needed to be trained on the job. We expect to see an increasing number of people who are heading this direction over the next 3-5 years. All this is contributing to training and qualifying people. What used to be a short skills supply 10 years ago has eased significantly over the years.

COP28 SPECIAL REPORT

Dimitra Theodoropulos

Director of Corporate Responsibility & Sustainability
Talabat

Prioritizing sustainable opportunities with conventional ones

Sustainable opportunities are very different to your conventional ones focused on the bottom line and increasing the number of users. The struggle has been working on engaging with internal stakeholders on recreating a process where sustainability opportunities are able to be prioritized and identified in a way where they're also compared to these conventional opportunities. It's very easy to go in as a sustainability lead saying, "this is what I did last month" and be very output and campaign driven. Right now, what we're trying to do is change the business internally for sustainability to be there and for it to be thriving. This is really key. I don't try to rock the boat and come up with big ideas. I try to go down to the foundational levels and say, "this is how you look at an opportunity, this is how we could be looking at it, and this is why." It's important to bring all these aspects of sustainability into the business where they fit and not have it as something completely separate or something that is there as nice PR.

The evolving role of sustainability leaders

Someone with a strategy, planning, and execution background would do really well in this role. Essentially, that's what sustainability is to me. It's not something that is separate but something that is a different approach to how you do business. It's a strategy that you implement and execute. I do think that whoever leads sustainability definitely needs to be ok with change and ambiguity. They need to be ok with doing many different things based on where the company is at in terms of maturity and how they can get better buy-in or showcase the topic in the way they want to represent it.

Corporate governance and embedding a sustainability mindset

You have to appeal to what's important to that individual team or market depending on how you're dividing up your topics. You can always start small with something like cost reduction. It's a key component of sustainability and nobody talks about it. It's not a fun one but you have to start somewhere. I don't understand why we shy away from talking more about cost reductions and sustainability especially within the business world. That's to say you're speaking the same language as the rest of the people. If you start adding all these complicated words such as mitigation and adaptation they may start to lose you.

Hazem Nabih

Regional Technology Officer, Middle East
Microsoft

Cities are trying to solve different problems, but technology will be needed everywhere

From cities in Africa like Cairo, which are in the early stages of solving sustainability challenges, to smart sustainable cities in the Gulf region, we have an extensive continuum of requirements in the region. The only constant factor across all cities is that technology is critical in catering to smart sustainable cities. Without technology, it will be very difficult to cater to and provide sustainable solutions for residents of a city. At Microsoft, we want to help every city create and craft its customized roadmap. It is not a one size fits all solution.

Importance of data: if you cannot measure and record it, you cannot report it

To accelerate the transition to smart sustainable cities, we have to identify core areas where we can achieve the fastest progress. Emissions, for example, are probably the biggest problem to tackle in cities for the environment. Yet, cities in the Middle East and Africa do not have robust mechanisms to assess, measure, record, and report emissions. At Microsoft, we encourage cities in the region to embrace an emissions accounting and reporting platform. The most significant source of emissions will differ from city to city. Measurement and data are at the core of everything. Cities can start embracing technologies that allow us to record and report emissions transparently. We will be able to identify the areas that need to be addressed for each city and achieve the correct type of acceleration.

Innovative technologies to reduce the environmental footprint of our daily activities

Increasing awareness of the importance of living sustainability is a catalyst for innovation. Residents and citizens in the region increasingly want to live in cities with a sustainable lifestyle. This is a catalyst to accelerate transformations in cities and leads to increased innovation. There is an opportunity to embrace innovative technologies in our daily lives, which could help reduce our environmental footprint. Taking music concerts or global events on the Metaverse, for example, could have a positive environmental footprint on cities. It could reduce traffic or the congestion of a city. Innovation will play a critical role in helping accelerate that transformation within cities.

Ezzeddine Jradi

Chief Transformation and Business Excellence Officer
Emicool

The first step toward sustainability for every organization

There are three questions you should ask in any organization: What? How? and Why? Sustainability has emerged as a defining factor in answering the 'why?' for stakeholders. The answer to 'why?' for most organizations has traditionally been the financial benefit to the shareholders. However, this is no longer the case. There are many new "whys?" For example, it could be energy transition, circular economy, protecting the climate, CO2 emissions, engagement, or inclusion and diversity. All of these new topics are unfamiliar. But, most importantly, they are relevant to the industry you're working in. The existing talent in your organization is already focused on the business objectives currently set based on the original 'why?' - which is basically the financial benefit for the shareholders. However, with the introduction of sustainability and the intricacies it entails, there should be an extension of knowledge to all employees. Addressing the knowledge gap and acknowledging the relevance they need to apply in their day-to-day operations is crucial. This is the first step every organization must take on their journey toward sustainability.

Personal development starts with you

I have a specific message that I would like to spread to the younger generation. Personal development is far more important right now given current circumstances and absorbing what is happening around us. Sustainability is one of them. It's not just the responsibility of a learning and development department or any HR department; it's your personal development. Once you equip yourself with this tool, I encourage people to collaborate, come out of their silos or boxes, and ask the question of relevance. Why is it important and how does it apply to me? Then we can create this movement that leads to brainstorming, design thinking, and generation of new ideas. This will open the doors for even educational institutions to bring in specific programs. But I would say personal development starts with you. You are responsible for it right now. Green talent is no longer undervalued as it used to be. It is a very important skill and tool for your career path for any generation.

Dr. Firas Al Abduwani

Director General - Renewable Energy and Hydrogen
Ministry of Energy and Minerals of Oman

The region's potential for creating a supply of green hydrogen

From the Middle East perspective, we have great potential for creating a supply of green hydrogen. We need to focus on industrialization and consumption in the region. In Oman, for example, we have around 1 million tonnes of hydrogen consumed; a large portion of that goes for the petrochems and refinery aspects. Looking ahead, we need to consider hard-to-abate sectors and map out how to attract these sectors into the region as we target economic growth and diversification of revenues. Steel and green iron are two prominent examples. We are geographically placed between the East and the West, so mobility is a key industry to consider. These multiple facets of the energy sector in the Middle East show that the region can act as an energy supplier and attract the industry to the region.

Diversifying the locations of the supply chain makes sense

During the auction process at Hydrogen Oman, we kept the end product open for the developers to come in and offer what they believe will work. This was a learning experience to see how things evolved with the bidders. We implemented a few ground rules, which included: sizing the plot; including ammonia as an energy vector or a likely output; making it clear that we are focused on both the local use of hydrogen and the export market; and finally, focusing forward-looking industries to attract the hard-to-abate sectors. These are significant challenges because we have multiple moving parts. We are asking developers to not only bet on hydrogen but also to bet on moving parts of the supply chain. All these decisions are linked to multiple externalities, such as the debate between energy security versus transition or the development of carbon credits and taxes that neither they nor we control.

Policies and greater collaboration will play a significant role in net zero roadmaps

Regarding policies, we have been late in the Middle East and Africa to announce our decarbonization targets and establish adequate policies. That is related to the industrialization history of our different nations. Today, our policies differ from countries that have an equilibrium of supply potential and demand requirements. For example, the United States has a huge market for hydrogen and the potential to galvanize the supply. In the Middle East, turning our bold ambitions into executable strategies is very important. Also, we need to collaborate as a region and develop a stronger economic bloc. We need to have more regional discussions on how to expand the hydrogen market to compete with other economic blocs, like the European Union.

COP28 SPECIAL REPORT

Francois Dao

Senior Vice President, Middle East and Africa
EDF Renewables

We have no doubt that net zero is possible by 2050

As a French utilities company, EDF Renewables saw 91% of its electricity be net zero in 2021. We aspire to be a world leader in carbon-free electricity and our value proposition is very simple – to build an energy future of net-zero with electricity and other innovative solutions. We have quite a strong presence in the Middle East and Africa with about 4.8 gigawatts of renewables energies, meaning solar, wind, and battery storage. We want this mix to increase and have no doubt that net zero carbon is possible by 2050 as committed by several countries like the UAE and Oman.

Something to consider is whether clean energy is meant for domestic use or export

Everything is changing. We talk a lot about green hydrogen but we should also talk about ammonia. We're undergoing a lot of what we call green field development to develop large wind and solar plants across North Africa and the Middle East, from Morocco to Oman. Within, green field development, it takes time – sometimes years – for any project to start. Hydrogen is changing, and many markets around the world are working towards this change, including Europe, the US, and China. We welcome these market entrants. What we fail to consider sometimes is whether energy production developed in these markets is for domestic use or for export. Whether generated energy is meant for domestic markets or for international trade will shape the trajectory of the sector.

Daxita Rajcoomar

Chief Sustainability Officer, Middle East and Africa
ENGIE

Building a sustainability strategy from the ground up

My first suggestion would be trying to map out the organization's strategy and long-term vision. It's also important to understand what needs to be documented and what needs to be reported. Then you will know who is reporting what, where they are reporting it, and how you can access it. You want to get to the status quo of where you are in a business. Once you have the status quo, then you understand if you have a vision as an organization or not. How can I then build on this data and support the vision of a board of shareholders or an executive committee? For example, if you know your status quo on your carbon footprint is so many million tons, then the next step is to establish where you want to get to. Building that kind of framework and then taking it up to the next level of leadership is vital for putting a sustainability strategy in place.

Key skillsets of a Chief Sustainability Officer

Having a strong health, safety, and environmental background will help you leap forward as you roll out sustainability strategies. However, you may not necessarily have the capabilities on other social indicators. This is where you would need to work with different stakeholders in the business and build that capacity. It all goes back to what's the priority for an organization and where the need to prioritize certain areas that push the sustainability agenda is. In terms of longevity though, one should really look at who could be cross-functional and who has a well-rounded vision for the entire organization.

Dr. Mohammed Mahmoud

Director of the Climate and Water Program
Middle East Institute

Climate change will stress water supply and demand

There is a need for urgency to achieve water security. Climate change will increase Saudi Arabia's already existing challenges in accessing water supply, whether having to rely on desalination or limited groundwater supply. Water scarcity and drought will become more severe and constrain available water further.

As temperatures increase there will be more demand for water, both in urban areas and to meet agricultural requirements. This underscores the importance of developing new technologies and for enhancing the adoption of existing green technologies, which will better equip Saudi Arabia and the region to meet the challenges of climate change and its impact on water supply.

A testing laboratory for water technologies

Saudi Arabia has a unique opportunity to become a testing environment for pilot projects that can potentially take water technologies to the next level. Many countries have restrictive regulatory and policy checks in place, which delay approvals and become barriers for experimental technology tests to take place. The willingness and flexibility of the Saudi government towards trying out new technologies makes it easier for such trials to take place in the Kingdom, while the country's water-scarce environment makes it an ideal location to test water-stress technologies.

The short-term pathway: leveraging existing technologies

For example, when we think of agricultural water use, which accounts for the largest water usage in the Kingdom, we can look at ways to improve drip irrigation technologies for more efficient use of water while reducing water loss in the system. In the urban environment, we have systems in place that can transform wastewater to non-potable water standards, and water treatment technology that can convert non-potable water to drinking water standards. Given the willingness and flexibility of the Saudi government, the Kingdom has a unique opportunity to become a leader in testing and enhancing existing water solutions.

Dr. Mohammed Al-Surf

Founder and President at Sustainability Professionals of Saudi Arabia (SPSA), Zero Carbon Advisor & Training Direct at Tilad Group

The need to connect multiple sectors

When we talk about innovation today, we can summarize it in one word: industry 5.0. The industry is moving at a very fast pace where different sectors need to connect, collaborate, and integrate with each other. For the food, water, and energy nexus, there are lots of areas where we need to focus on, especially if we are going to utilize industry 5.0 efficiently. Underneath that, we are going to find energy and water efficiency practices for mass food production and irrigation. At the same time, we need to take into consideration the circular economy, which we cannot neglect. Integrating all those aspects is the key to utilizing industry 5.0.

Doubling efforts to bridge academia and industry

The gap between academia and industry is narrowing down through collaborations from different entities. Many institutions are developing their R&D capabilities to attract experts and are organizing events to inform students of what the industry has to offer before they graduate. We may need to train educators to be able to connect with professionals and vice versa. However, universities are doing their best to develop that connection. There are different grants that help connect both industry and academia. Additionally, government entities like the Saudi Council of Engineers and the Saudi Contractors Authority are developing their own education and training programs to bridge that gap, either for undergraduates or for new graduates entering the market. There is a lot of movement happening, but there is still lots of ground to cover.

Connecting foreign experts with young local talent

Developing capabilities and talent is what drove me to establish the Sustainable Professionals Association of Saudi Arabia. The objective is to harness the expertise of expats coming to Saudi to deliver their expertise in the giga-projects and connect them with the young Saudi nationals to learn and develop their capabilities.

COP28 SPECIAL REPORT

Marwa Nahlawi

General Manager
Diamond Developers

Sustainability is more than just environmental

In the past, sustainability overall was largely defined as environmental sustainability. Today, many people are looking at the social and economic parts of it on a project level. This is where we found that sweet spot between social, environmental, and economic. This allowed us to build the Sustainable City in Dubai at the same cost that it would have been if we had gone down the conventional route. The economic and social pillar of sustainability play a role in attracting people and providing them with what they want. When you are asking people to invest in sustainable real estate, it means they have to pay a premium which may not be really attractive to them. However, when you are developing a city that is human-centric, it suddenly becomes a win-win situation for all. You are telling people, here is a place where you will enjoy a higher quality of life while having a positive impact on the environment. You are not going to pay anything extra for it, but you're actually going to save as an end user and as an investor.

Green retrofitting and refurbishing is complex

Retrofitting and refurbishing is very tricky. Sometimes it's just a matter of greening parts of the city and providing low-tech solutions that could have a high impact. When it comes to buildings, it's a numbers game of deciding what you can change in the structure of the building. That may be heavy on the pockets at the start, but it's going to yield long-term efficiencies and savings in the operation. That's something we can't run away from. It's a case-by-case analysis on whether it makes sense to demolish or completely take down part of a building.

Mohannad Salam

Regional Lead, Smart Cities - Middle East
AtkinsRéalis

Cities should avoid adopting technologies for the sake of it

The concept of smart city was created to tackle the challenges of cities. Technology is definitely the enabler of that. By saying that, we may avoid falling into the trap of adopting technology just for the sake of it. While this might be good at an individual household level, it might not result in a smart city. Every city has its own challenges it has to tackle. We cannot call a city smart if it does not tackle those challenges as a priority, before moving into luxuries. Moreover, the concept of smart is an evolving one. You should not implement what you believe is smart and then stop, because what is smart today may become outdated in a few years. Cities need to evolve and address the challenges of what is going to happen over the next few years.

Creating smart cities is a complex effort that requires multiple collaborations

For a city to become smart, it takes a complex effort that requires multiple collaborations, involving the government, private sector, academia and experts from different areas. Today, we have many ambitions to make cities smarter, but the part related with how to do it is lagging behind. The funding to carry out these plans is also lacking in many cases. Public-private collaborations could be effective to close that gap and avoid having one sole organization dealing with such a complex task.

We need to give clear, compelling explanations of why and how are we using data

In order to get data buy-in from people, we need to tell them compelling stories that can link to their daily challenges. We need a story behind why we are gathering data, what tools we are using to analyze it and what we are planning to do with it. We need to tell people that data is being used for a specific goal, but then it's deleted. Additionally, we should aim to avoid data hunger: the more we start using technology, the more data that we will gather. Unless that is controlled through data privacy regulations, that is what will make people fear data collection.

Marcelo Piva

Regional Sustainability Director, Middle East and Africa
Tetra Pak

The evolution of a growing sustainability practice

Tetra Pak's sustainability practice started by focusing on the environmental performance of our production sites and by ensuring we met environmental compliance. Throughout the years, the sustainability practice has evolved to cover a broader scope. Today, we go beyond recycling and circularity topics. We are now focusing on reducing carbon emissions, aiming for carbon neutrality, maximizing resources utilization, and accelerating biodiversity preservation. We understood that our stakeholders expected us to deliver in these areas. The sustainability practice has grown to having its own dedicated team.

Building a sustainability team from the ground up

It's critical to align sustainability goals with the organization's overall strategy and values. Once you reach alignment, you then need to identify key areas of impact for your business. This also must be done in line with government agendas and the regulatory landscape. Then you need to define the capabilities and skillsets needed to implement your strategy. On top of that, board members and top-level executives must make sustainability an integral part of the organization's culture. This is so it trickles down across all departments instead of it becoming the sole responsibility of just one specific department.

Identifying the skill sets needed for sustainability positions

When creating a new sustainability-related position, it's important to understand what goals the organization is trying to achieve and what your stakeholders are expecting you to deliver. For example, you might hire someone who has vast experience putting together recycling systems. However, they might not be so well equipped to deal with government stakeholders and perform an advocacy function. It's important to have a mix of operational knowledge, technological understanding, familiarity of regulations, and capacity to communicate ideas effectively. At the same time, people in these positions will also need to understand where they can add more impact to the role they are playing.

Hassaan Ghazali

Finance and Investment Lead
UAE's Independent Climate Change Accelerators (UICCA)

Green debt has diversified and while continue doing so

At the UAE Independent Climate Change Accelerators, we work in three specific domains – technology, policy, and finance. We bring all three areas together to see what the best options are for tackling climate change. With climate finance, it's very clear that the genie is out of the bottle. We have diversification within that space in the form of green bonds, social bonds, sustainability-linked bonds, etc. That kind of diversification is a good thing because it's a diversification from the issuer perspective and also from the investor perspective. I anticipate that there will be further diversification in the sector as it continues to explode all over the world; and green issuance might not be as linked to the global marketplace while the latter waits for interest rates to rise.

Once you have a model that works, showcase it

Once the structure for green finance is in place and working, it's important to showcase what works and show the positive impact it has. This holds true for both governance frameworks and regulatory frameworks. Once those are in place and functional for their intended purposes, this will move the needle from early majority to late majority of adopters. It will also help provide a model for future coordination between governments for collaborative action.

COP28 SPECIAL REPORT

Thomas Jacob

Senior Vice President, Head of Strategy
Mashreq

Accelerating the adoption of green finance is critical

Accelerating the adoption of green finance to support sustainability goals and inspire industry wide transformation is critical. Clean energy, water management, climate change, life on Earth, and life under the water are just some of the SDGs that need green finance. In the face of the pressing environmental challenges that we are seeing, the financial sector wields considerable influence and resources to accelerate the transition to a sustainable low-carbon economy. By prioritizing green finance, the financial industry can not only align with global sustainability targets, but it can also serve as a catalyst for broader transformation across sectors. This is not going to be easy sailing. There are a host of challenges to overcome on this journey. With the right enablers, infrastructure and policies in place, the region can become a leader in the adoption of green finance.

Zainab AlAmin

Vice President, Digital Transformation and Sustainability
Microsoft

Microsoft's Estidama Board will provide thought leadership solutions

Sustainability is now top of mind for everyone, and especially in this region, where we had COP27 in Egypt last year and will have COP28 in the UAE in November. There's a lot of focus on sustainability in the region and in Saudi Arabia specifically with Neom as the most sustainable urban complex and giga project. To help drive the discussion forward, Microsoft has announced its Estimada Board – 'estidama' is the Arabic word for sustainability. The Estidama Board is a collaboration between Microsoft, the King Abdulaziz City for Science and Technology, and the Research and Development Innovation Authority, to provide thought leadership solutions via its members, including Neom.

The energy transition should generate wealth and prosperity across the board

The level of investment at this stage is what's particularly striking, especially through partnerships that include, for example, water initiatves that push the limits of what's possible to jointly create the largest green hydrogen project in history, more than 200 times the size of any of its predecessors. The backdrop to these partnerships is the region's natural endowment with its desert location, abundant sunshine, and reliable winds. What will remain a top consideration through the energy transition is how to implement it in a way that generates wealth and prosperity across the board, particularly in light of these dynamics where some markets are more blessed than others with comparative advantages that facilitate the transition.

Ali Houjeij

Partner - Digital, Energy, Sustainability
BCG

Digital tools can play a key role in all areas of climate action

The Paris Agreement established four main pillars to keep global warming below 1.5°C: mitigation, adaptation, resilience towards loss and damage, and finance to fund the journey to 2050 and beyond. Digital tools can have a significant impact across all these areas. For instance, digital twins can help organizations simulate possible future scenarios, such as climate impacts on supply chains or perform a cost-benefit analysis of building a coastal wall. Moreover, many early warning and action systems are currently being fueled by artificial intelligence (AI) and the internet of things (IoT), which can alert populations about possible climate impacts, such as floods or heavy rains.

What are the ABCs to set up a successful digital strategy to advance sustainability?

Defining the company's purpose is the first step and anchor for any successful digital transformation program aimed at advancing sustainability. Secondly, leadership should have a sustainability vision that cascades throughout the organization and is embedded in the scorecards of all employees. Having the right teams and performance tracking methods is vital to implementing that vision and ensuring it translates into actions. Once we have these components in place, we can start searching for solutions to address specific problems and achieve the organization's vision. Then, we can examine the potential levers that can be used and perform a cost-benefit analysis, as many technologies may not present a valid business case.

Energy companies can collaborate to attract and cultivate talent

Oil and gas and renewable energy companies can collaborate to bridge the talent gap. They can appeal to young talent by highlighting the fact that they will be the providers of green energy in the future and will help the world transition into the green economy. Climate change and artificial intelligence (AI) are the defining problems of our generation and will continue to be so for the next 50 to 100 years. Embedding this within the day-to-day vision of energy companies in the region can help attract new talent.

Dr. Ahmed Alfadhel

Chief Technologist
Research Products Development Company (RPDC)

Technologies developed in the region need to improve their maturity

Selecting the right tech solutions to achieve the largest impact in sustainability is a significant and common challenge for organizations, which creates opportunities for the local innovation ecosystem to develop competitive solutions that could be adopted and eventually acquired by companies. The region boasts many research centers that are producing high-quality research and cutting-edge technologies. Nevertheless, these technologies are not mature enough and lack sufficient product-market fit, so they are not competitive enough compared to other existing solutions. This is a major challenge in the region's innovation ecosystem, and it is where we strive to provide our support.

Companies need to experiment with technologies to prove their effectiveness

Technologies at the adoption stage are what we refer to as the "Valley of Death" - a high-risk and high-instability phase with significant rewards at stake. Organizations may need to experiment with a wide array of technologies to ensure meeting sustainability goals in a cost-effective manner. Once a technology is proven and has been identified as effective, there is an extra layer of complexity in terms of acquiring it, obtaining licenses, and fulfilling other technical and legal requirements. It's a sensitive strategic decision that goes beyond technical issues.

Successful tech professionals start acquiring hands on experience early in their careers

There is no shortage of talent when it comes to equipping undergraduates with the right skill sets, as there are many universities in the region providing high-quality programs. Nevertheless, there is a clear gap in the skills demanded by specialized companies, especially in sustainability-related sectors. Successful technology professionals typically acquire hands-on experience early in their careers and accumulate expertise in specific areas over the years. While we can find such professionals in the region's oil & gas and medical sectors, manufacturing and technologically advanced industries are still lagging. However, progress is being made. In Saudi Arabia, we are seeing announcements under Vision 2030 to foster technology adoption and expand manufacturing, which could eventually provide opportunities for recent graduates to gain tech experience and build successful tech careers.

COP28 SPECIAL REPORT

Dr. Yousef Alshammari

Honorary Senior Research Fellow, Imperial College London, Former Research Fellow, OPEC; CEO and Head of Oil Research, CMarkits

The energy transition must balance security, cost and sustainability

We have seen over the past five years how the global temperature rise is about to reach 1.9°C under current commitments made by all the Paris Agreement signatories. That is clearly not enough to keep global warming below 1.5°C before the end of this decade. The International Energy Agency (IEA) estimates that we are on track to a 2.5°C global warming by 2030. Since the Covid-19 pandemic and the more recent invasion of Ukraine by Russia, we have seen a more ambitious acceleration towards achieving climate targets. Nevertheless, the current natural gas crisis has shifted the narrative again towards the energy security side. We are seeing gas and nuclear energy being re-classified and countries like Germany re-opening coal mines. We need an energy transition that balances security, cost, and sustainability.

Power generation and transport are the two main sectors that need to be decarbonized

Power generation is the main sector we should focus on decarbonizing, as it is where most emissions are generated. Carbon capture and sequestration will have to be the main technology to develop. Otherwise, we won't be able to achieve the 1.5°C target because renewable energies are not going to have a competitive cost compared to conventional sources within the next ten years if we don't consider subsidies or carbon prices. The other sector we need to look at is transport, which can be decarbonized through two ways. The first is by expanding electric mobility. The second is via direct combustion of fuels and direct carbon capture. We need to focus on decarbonizing these two sectors until renewables are available at a competitive cost, with solar and wind power generation the main priorities for stationary power generation in the region. Nuclear power will also have to play an important role, especially with the development of small modular reactors within the next seven to eight years.

Anwar Gasim

Research Fellow, Climate and Sustainability, KAPSARC

Saudi Arabia is leading the way

At COP27 His Royal Highness Prince Abdulaziz bin Salman Al Saud, the Minister of Energy, announced that the Saudi greenhouse gas credit and offsetting scheme would be launching this year. It is a domestic crediting scheme or program that is going to issue high quality, voluntary carbon credits that are compliant with Article 6 of the Paris Agreement. The scheme has been designed and tailored with methodologies for Saudi Arabia's national circumstances. It has also been designed to be inclusive. It is sector agnostic and all technologies are on the table. When you combine this with all of the developments and announcements made by the Public Investment Fund (PIF), it puts Saudi Arabia in a position to become a leader in voluntary carbon markets for the region.

Overcoming obstacles in voluntary carbon markets

Credibility is definitely a big obstacle. Recently, there have been a lot of criticisms of some of these voluntary carbon credits, particularly the ones associated with avoided deforestation. However, the market has been doing a lot. There's now a lot of best practices and codes of conduct out there to really improve environmental integrity. These have really made a big difference. Of course it's not perfect, but criticisms like pricing and making buyers worry about credibility would mean less demand. That's problematic because lowered demand puts downward pressure on prices and you lose that incentive to scale up projects in the region and around the world as well.

Melda Akin

Chief Executive Officer & Founder
SiriusLabs.ai by D14.AI | Forbes Top 10 Women in Tech MENA 2021

The four pillars to innovation and change

Innovation and change are supported by four key pillars. These include the environment, education, effective communication, and managing cultural differences. By focusing on these four areas, we can establish a foundation for cultivating talent in innovation and setting goals for progress. We should assess our current standing, determine where we want to be, and identify the resources and skills necessary to reach our objectives.

Increasing the share of women in tech jobs

Compared to the global average, the Middle East presents a high ratio of female students in science and engineering degrees. Nevertheless, the number of women in the tech industry dropped by 2% globally last year. We need to find ways to increase female representation in tech jobs. To address this issue, we launched Sirius Labs, a mentorship and training app. It is important to understand the needs of both companies and individuals in order to bridge the skills gap. Our goal is to build a program that connects these two parties and upskills people. On top of that, we must keep pace with all technological advancements. Technology is not static, the tools that we will use in the future to tackle climate change are changing fast. Programs like Saudi's Vision 2030 are rapidly introducing many changes. We need to provide people with the right skill sets and some guidance to benefit from the new opportunities that will emerge.

Martin Lambert

Senior Research Fellow and Head of Hydrogen Research
Oxford Institute for Energy Studies

Decarbonizing existing gray hydrogen can be a good starting point

According to the IEA, we currently use 90 million tons a year of hydrogen globally, which is purely gray hydrogen emitting lots of CO2. That is heating oil, refining petrochemicals and making ammonia fertilizer. It is a huge challenge already to make enough hydrogen to decarbonize all those sectors. We don't need lots of new technology to use hydrogen for that purpose. Hard-to-abate Industries like steel pose a great challenge in this regard. There are not many options to replace coal as an energy source for steel production, but using hydrogen would be an option.

Start local and build global hydrogen supply chains afterwards

Today, hydrogen is best used at a local scale due to the currently high transportation costs. For the Middle East and Africa to kickstart their hydrogen developments, they should aim for domestic developments instead of focusing only on exports. Decarbonizing refineries in the region would be a great start. Later, as hydrogen supply infrastructures are being built, export infrastructures can be developed on top of that.

Hydrogen can draw lessons from LNG and offshore wind to build its value chain

One of the key skills from fossil fuel companies is building and integrating global supply chains. That same basic business model would still apply to hydrogen and its derivatives. A colleague of mine at the Oxford Institute for Energy Studies drew parallels with LNG and offshore wind. In order to bring hydrogen at scale, we need to learn from the lessons from those two industries in terms of sharing risks along the value chain, establishing confidence in the revenue stream, whether it's funded by lenders or equity from large companies. We will need to find ways to build a robust supply chain for hydrogen. That's the actual challenge we have been struggling with, because the additional feature around low carbon hydrogen and ammonia is governments involved in that process. Nevertheless, we saw a similar experience during the early days of LNG.

COP28 SPECIAL REPORT

Khaled Sharbatly

Chief Executive Officer
Desert Technologies Investments

Sustainability cuts through sectors and is also about corporate resilience

Sustainability is the ability to meet your own needs now without compromising the needs of the future. Sustainability is a big word that we've been using a lot, but it can involve different approaches depending on the context. It primarily involves environmental stewardship and innovation, but can also include financial sustainability. For corporate considerations of sustainability, it's also important to consider to what extent a given company is resilient enough to survive through hard times. This is all the more pertinent since 2008 and with everything that's happened in the banking sector so far in 2023. With this in mind, corporate sustainability extends to environmental, social, and governance factors, which taken together are the building blocks of a wider ecosystem that enables environmental stewardship.

The gap between sustainability goals and reality is innovation

The gap between ambitious sustainability goals and reality is innovation. We've recently seen this gap taking form in Europe where they have had to scale back certain goals. What ends up happening is that we overachieve on certain targets and underachieve on others. We see the government pushing policy in certain directions and the private sector following the policy directives, while research and development initiatives look to innovate. However, the most important adopters of sustainability initiatives are the general public. There should also be a focus on changing social behavior. In Saudi Arabia, we see a very big movement to change public behavior towards energy efficiency. We see ads on the street telling you to turn off your lights, to turn off your air conditioner, etc. We often focus too much on innovation and policy while forgetting the importance of adapting public behavior to meet these ambitious sustainability targets.

Ana Hudson

Head of Sustainability
Saudi Entertainment Ventures (SEVEN)

The importance of cultivating a sustainability culture

Before thinking about formal education and universities, we must incorporate sustainability education into primary and secondary school curriculums. This is already taking place, but we need to reinforce it so children grow up seeing sustainability as a part of life rather than a separate discipline. Collaboration amongst professionals within companies is also critical to foster a deeper understanding of each other's work and how different specialties can work together to be innovative and creative. Furthermore, adopting a sustainability culture can enable companies to explore synergies and partnerships with other organizations.

Top skills for future sustainability professionals

Developing leadership skills among sustainability professionals is essential to align a company's mission and value with their climate and environmental goals. Effective communication of plans is critical to gain the buy-in from everyone in the organization, as sustainability cannot be achieved by a single person. Moreover, technical skills in the areas of sustainable design, renewable energies, waste management and carbon management will be vital. Additionally, data gathering and reporting will become fundamental to evaluate the effectiveness of sustainability plans and to identify areas for improvement.

Richard Munang

Head of Global Environment Monitoring Systems and Early Warning
UN Environment Programme (UNEP)

Can climate finance and capital markets in Africa develop independently from each other?

Climate finance and capital markets need each other. In the case of Africa, 80% of people are involved in the informal sector. That means many of them don't even have access to banking systems or capital markets. Moreover, even if we wanted to develop capital markets, would they be able to provide the right financial instruments for those most vulnerable communities to climate change? We must develop both, and we should start by reskilling the youth in these communities, so they can access finance and tap into the opportunities created.

Blended finance must take the center stage

If we want climate finance to make a meaningful impact on people's lives, blended finance needs to become the main topic of COP28. We need governments to provide seed funding to incentivize the private sector, as well as banks and microfinance institutions to lend to climate action innovators. Governments could also assess local structures that are accessible to the bulk of the population and de-risk them, such as Africa's cooperatives. That could enable the largest part of the population in the informal economy to start innovative businesses and solutions.

Government incentives should aim to make climate action an economic opportunity for populations

Countries like Cameroon and Kenya have recently put in place incentives such as tax removals to attract renewable energy investments.
The removal of taxes and tax rebates for investors of clean energy solutions need to take a step further. These shouldn't only target large investments, but also reach out to the local level, especially to the youth. Over 60% of Africa's population is under the age of 25, and they need incentives to perceive climate action as a business and investment opportunity. Moreover, regulations and reforms should go beyond taxes, such as starting to integrate climate finance and entrepreneurship into school curriculums and investing in training young populations and businesses to build the right skill sets.

Rayan Zahid

Chief Operating Officer
Microsoft Arabia

Paving the way for the next generations to advance sustainability

Youth is always at the heart of everything we do for the future. We cannot envision the future without paving the way for the younger generation. Over the past two years, we have witnessed numerous initiatives to advance sustainability under the Saudi Vision 2030. Nevertheless, there is still room for improvement in providing young talent with the necessary tools to address climate and environmental challenges. It is not just about training and educating them on the required skill sets, but also about promoting a change of mindset to approach sustainability from any perspective. This is what being a sustainability expert entails. Sustainability must be embedded in one's DNA.

COP28 SPECIAL REPORT

Haya Aseer

Youth Representative
Global Council on SDG13: Climate Change Action
Global Council on SDGs, UAE

It's critical to involve youth in climate action

Sustainability refers to the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. If this is the definition of sustainability we are considering, then it's crucial that we involve youth to ensure their representation. This is the second consecutive year that the MENA region is hosting a COP, and in this region, more than 60% of the population is comprised of people under the age of 35. If we do not involve them, we are neglecting over half of the population and missing out on numerous untapped opportunities.

The importance of access to capital for youth

One of the main challenges that youth face in their involvement in climate action is access to capital. For example, allocating a portion of R&D funds to young people conducting research and working on innovative solutions to combat the consequences of climate change would be a significant step. While focusing on upskilling youth and helping them acquire the skills for green jobs is crucial, we must not underestimate the importance of providing them with access to capital. To put this into perspective, only 0.06% of global environmental philanthropy is directed toward youth. In the Global South, that percentage is almost negligible. If we genuinely want to empower youth, then addressing the issue of funding is imperative.

Karim El Jisr

Executive Director - Sustainability Performance and Accreditation, Environment and Sustainability, Red Sea Global

First steps to creating a sustainability strategy

First, you need to think long term. Sustainability and short term don't really go hand in hand. Second, you want to identify through engagement and consultations what are the material topics to the organization, what are those critical topics that matter to the company and will impact sustainability or be impacted by climate change. In our case, we identified ten material topics, which can lead to subtopics. And then, we need to define the goals and the KPIs collaboratively. For us, this covers corporate, destination management and regenerative tourism development. This also needs to be updated, so we recognize the need for a three-year refresh, and take future projects into consideration. Agility is key, but we must think long term, medium term, and we have to define all the material topics and the KPIs.

Sustainability reporting is growing in importance

There is still a global tendency to overpromise and show only the good news. However, we really have to be transparent and not shy away from pain points. We should go to COP28 and share some of the challenges, find opportunities to learn from others and establish collaborations. Everybody is currently under pressure to report, but we should be comforted by the fact that, if we are transparent, we tend to gain much more than if we overpromise. Greenwashing becomes a risk for many corporates around the world, so we have to take all the measures to be fair and transparent. There are so many reporting tools available, whether it's ESG, carbon emissions or social welfare. This comes down to choosing the right tools for the organization, as not every tool is going to work for all organizations. We can also aspire to comply with standards. There are many globally recognized standards that can help us with benchmarks. Sustainability reporting is so critical for the organization, for our customers, for all our stakeholders, and it has to be a collaborative effort.

Mark Tester

Co-Founder & Chief Scientist, Red Sea Farm
Professor at King Abdullah University of Science and Technology

Facilitating innovation deployments is critical for sustainability

The food sector is one of the most impactful of human activities in terms of sustainability or its unsustainability. To try to reduce the environmental impact of the sector, we need to change policy, consumer behavior, and reduce waste. However, we also need to be having significant contributions from innovation. There are heaps of innovations that are in the pipeline and feeding in through a system which is very eager for innovation and desperately wanting to change. Many innovations in IT can make huge and rapid contributions. Interweaving with that are innovations in the broader space of biotechnology, which can embrace areas in between, like engineering, material science, and nanotechnology. The region is very aware of the need for innovation, but big strides still need to be made to provide fertile ground to help innovations be delivered. We need to ease some of the bureaucracies and make them more streamlined. Even the banking and financial system could make some regulatory, structural changes to become less centralized and facilitate startups and small businesses flourishing more.

Data can make strides in technology

Data is where technology can make a huge contribution. One of the first things we did in our own company, was setting up systems that would work in this very hot, dry weather. We developed our own systems called Cortex, which is all linked with cloud and IoT to present data and analyze it using AI and ML. Then, we have a nanoparticle that you can put into the roof of the greenhouse and absorbs the heat, which came out of KAUST research. Also, we have to be monitoring how much energy and water are the fans and evaporating pads using, and what the savings really are. Without diminishing the difficulty of that, a relatively small team of coders and electronics engineers, were able to make some pretty impressive progress pretty quickly in our company to develop this system.

Dr. Sultan Alshareef

Sustainability Director
New Murabba

Sustainability should be a stand alone function

Many initiatives have been launched since Saudi Vision 2030 was announced, such as the Saudi Green Initiative and the Circular Carbon Economy Initiative by the Ministry of Energy. The key question is how to implement all those visions at a corporate level. First of all, the company's strategy should include sustainability as a pillar of its components. We have seen many challenges with companies that did not match their business strategy with their sustainability strategy. This can set the foundation for employees to work towards their goals based on the company's sustainability targets and initiatives. Once you have this set at the highest level, then it can cascade to the operational level, where each function in the company will have their own sustainability targets. For this matter, sustainability should stand alone as a clear function in the governance and structure of the company. If it's a part of any other function, they may compromise each other. However, if you have it as a standalone function, it will have specific targets and specific mandates to follow. Then, this function can work with other departments to bring success together. It should be a separate function and, most preferably, report directly to the CEO or a C-level executive at least.

The importance of defining sustainability

One of the very essentials for sustainability in a company is to define what sustainability is, because its definition varies from one place to another, from a specific area to another region. Even though there are general statements about sustainability, when it comes to the end of the journey, the outcomes should be meeting with the global and national needs. Then, we can establish different material topics. For example, I provided consultation to a company to find the sustainability value of their project, which can go from decarbonization to enhancing forestation.

COP28 SPECIAL REPORT

Robin Mills

Chief Executive Officer
Qamar Energy

Establishing effective partnerships is critical

'If you want to go fast, go alone. If you want to go far, go together.' The challenge that we have here is that we have to go far and fast. So how do we do that? Effective parternerships play a critical role. We are entering a new and different energy business. New business models are much bigger and the energy industry is more integrated, with the old divisions between oil and gas, electricity and renewables breaking down. Areas like hydrogen for example, bring together skill sets from different industries, including renewables, the power industry, chemicals and oil and gas. Nobody has the skills to do all of this alone. Developing it through partnerships is a way to do that much quicker and more effectively.

Regulatory frameworks should focus on building confidence

There are some new emerging sectors that need regulation. It does not have to be very complicated and very prescriptive. It just needs to be there to give investors confidence. Carbon capture and storage (CCS) and hydrogen are two of those. To some extent they are already regulated under existing oil and gas authorities or under safety standards. It just has to be harmonized. There are good regulatory schemes elsewhere in the world that can be adopted or adapted, so foreign companies coming to the sector in the region know where they stand.

Bashar Al Natoor

Global Head of Islamic Finance
Fitch Ratings

Islamic finance is integral to the GCC's sustainable growth

Islamic finance is an integral part of the DNA of the GCC's financial sector. Around 30% of funding, and around 50% of ESG-related funding, is in sukuk. There is a crisscross between Islamic finance and sustainability. We can simplify sustainability and ESG with negative filtering and impact. On negative filtering, Islamic finance already satisfies a large portion of that as it's already embedded in its principles. The missing part is impact, and whether we have enough projects that can be put on the market to be financed, let alone having the right bankable projects. In many cases, the answer is no, as it's still developing. Islamic finance has been playing a role in financing sustainability. Five years ago, we had close to zero rated sukuk across the 57 OIC countries, where Islamic finance is active. Today, we rated around $150 billion of outstanding sukuk, and almost 13% of that is in ESG sukuk form. It has been significantly growing in the past period, and we expect that trend to continue.

Building awareness is followed by building confidence

Having the right awareness is crucial, whether it's on Islamic finance or on sustainability. Once you have built awareness among all the stakeholders, you must build confidence, for which you need a track record. These are essential when we talk about greenwashing, lack of transparency and disclosure. One driver for this is having strong investors. We have seen many Western investors saying they want certain criteria to be met before they put their money in the region. Another driver is having governments implement regulations and requirements for financial institutions.

Viridiana Bello Huitle

Founder & Sustainability Strategist
Conexion Circular

Optimizing mining operations to expand circularity

The mining industry can put its focus on optimizing its operations. There are three main potential areas of action in this regard. Firstly, prioritizing the renewable energy inputs and reducing energy consumption levels. Secondly, maximizing the useful life of materials and products. Thirdly, recycling and reusing them once they reach the end of their life cycle. On top of that, we need to shift from a product-based sustainability mindset to a more holistic approach that incorporates systems thinking and digital automation. We are encouraging and deploying incentives for the mining and metals industry to make a thorough analysis and track the amount of energy they consume at every stage of their value chain.

Government visions can help develop more useful frameworks for industries

Visions are needed to develop policies and frameworks that help the industry. In Ras Al Khaimah, we are currently pursuing our 2040 Energy Efficiency and Renewable Energy Strategy. Moreover, we recently launched an energy advisory initiative to help industry players design their own strategies to reduce their consumption. It's important to provide the industry with the right framework, so they can better understand the reasons to pursue these energy efficiency goals and have incentives to commit to them. Having the right regulations in place is a fundamental step to consolidate the frameworks.

We need to expand energy optimization technologies and close the loop of renewable energy metals

Implementing technologies are essential for the measurement and optimization of entire value chains. Digital solutions will be critical to reduce the power consumption that is needed for the extraction and production phases of metals. Moreover, we need to further develop green procurement for the metal supply of renewable sources.
As a consequence of the growth in renewable energy assets and infrastructure, the demand for metals is expected to ramp up over the next few years. Closing the loop for the supply of those metals will be critical to expand the circular economy in mining and metals.

Dr. Claude Kabemba

Executive Director
Southern Africa Resource Watch

A greater role of industry players is needed to mitigate the environmental impact of mining

Mining is an activity of large importance to the global economy, but it needs to be controlled to avoid negative impacts on biodiversity, the environment and climate. Government regulations should aim to decarbonize the industry and ensure the recycling of materials and resources such as water. The biggest issue is how to bring back nature as it was before mining. Mining corporations have sufficient resources to invest in that, but it will also require public policies, as well as internal corporate regulations.

Policies can target waste across the entire mining value chain

Policy and regulations targeting the industry can address how to process waste in mining across the entire value chain, from waste generation to capturing, transformation into resources and reuse. It's important for the policymaking process to involve different stakeholders, including communities, government and private sector. Otherwise, we may face a situation where we build the recycling infrastructure, but it ends up creating more environmental problems. Moreover, mining and manufacturing companies should provide a clear list of where is waste produced during mineral extraction processes and how they plan to recycle it. Corporate reporting and disclosure guidelines can be of use for companies at the time of providing this information.

Circular economy must ensure justice in terms of benefits and impact

The way circular economy is conceptualized today does not plan to disrupt the power relations on how minerals are extracted and their benefits are shared. We need to rethink the concept of circular economy in mining in a way that ensures justice in terms of benefits and impact. The demands of thousands of communities who suffer the consequences of mining without benefiting will not see circularity as a solution if their living conditions are not changed.

COP28 SPECIAL REPORT

Akshai Fofaria

Partner
Pinsent Masons LLP

Mining corporations may have to police other players on the destination of materials

Circularity on the below ground side of mining has been focused on the processes around mining in recent years, such as ensuring that tailings are recycled, the reuse of effluents, and reduction of water usage. Some environmental campaigners have argued that is just scattering around the surface and that the focus of the debate needs to shift to the purpose of mining. Mining corporations may find themselves in a position where they will have to police other players on the destination of materials. From a regulatory perspective, that's not necessarily a huge leap. Firstly, the Kimberley Process established regimes to track the source of diamonds. We should be able to reverse engineer that to facilitate the tracking of the minerals' destination. Secondly, the idea of identifying responsible actors is not new. Markets like South Africa have a broad base of economic empowerment that grades market participants. Finally, many countries are already used to regimes that govern how and from whom you can procure. It's not too complex to shift to a type of regulation which determines to whom you are entitled to sell.

Defining the right sustainability metrics is a challenge for mining regulations

Concepts like circularity and planet positivity have impacts at different layers, which make them more complicated to measure. There are no clear ways for measuring circularity and environmental impact of mining, unlike other impacts on the climate that are more easily measured; carbon emissions can be measured with CO2 tons. Those metrics are the building blocks for regulations. I think miners will have some degree of delegated responsibility to track and measure those issues across their value chain. That will create incentives to collaborate with regulators and NGOs to better define those metrics, so we can achieve similar results to the ones seen in relation to net zero and carbon usage.

Consumers can have a role to play in the demand for smaller scale mining operations

As products become more circular, the price of virgin materials may increase. There is a role for consumers in that aspect to recognize that a culture change in terms of usage of products is required. That will likely filter into the demand for large scale mines. We may find a future that involves much smaller scale mines, which are more easily capable of creating conditions for circularity.

Manal Hassan

Group Chief Sustainability Officer of Elsewedy Electric
and Vice Chairman, Elsewedy Electric Foundation

Don't Overwhelm Decision Makers

Chief Sustainability Officers need to walk into any meeting knowing that sustainability is cost-centered. It is not a part that brings short-term revenue, but it's rather a long-term investment. They have to avoid making decision makers feel that sustainability comes at the expense of profitability. For example, I walked into a meeting room, and I said we need to decarbonize our manufacturing products. If you look at our profitability, 55% of our revenue comes from manufacturing and we are a top exporter, so we need to focus on sustainability because it has become an important pillar. Then, I presented what we can do over the next three years, and I put a money figure next to it. They assigned an amount of money for the first year, and other budgets for the following years. Don't overwhelm decision makers, especially if you work in countries with lots of changes, for example in the regulatory landscape.

Karim Elgendy

Associate Director, Urban Sustainability Lead
Buro Happold

Cities are arenas of contestation with various global agendas

The environment and sustainability agenda is driven by tackling climate change, conserving, and protecting biodiversity. There is another agenda about digitization, which is strongly supported by digital evangelists worldwide for various goals. There is an agenda about resilience and maintaining city operations. And within cities, these agendas and others manifest into factors pushing and pulling cities in different directions. Sometimes they cooperate and find synergies between them. Sometimes you can find solutions that serve multiple agendas. And in some cases, these agendas contradict each other.

The challenges of retrofitting an existing city versus developing a new one are much bigger

For example, retrofitting a city to achieve the proper density of population, which is fundamental to achieving urban sustainability, takes decades. As a result, existing cities are much more difficult to deal with and adapt to the standards we aspire to achieve. The problem is that the existing cities will still be here by 2050. New cities are much easier to deal with as they give you a blank slate. I would still be on the fence about building new cities. Because abandoning centuries of investment into existing cities carries a lot of weight. Leaving that and building somewhere else has a significant environmental footprint. The examples of new cities we have seen in the region can only be justified if the demand requires them to build new ones.

Cities need better governance to achieve greater sustainability in 2023

Cities need more power and to increase their ability to reach out directly to the residents and citizens. Except for Dubai, we do not have cities with a lot of regional governance power. There needs to be more competence with delegated authorities from the national to city level. Cities represent 70% of global emissions, but in the climate negotiations, they are observers and have no say. Mayors and city councils need to play a bigger role. The only country where we have seen this implemented to a better level is Morocco, where the decentralization laws have played a role in giving some delegated powers to local authorities. But by and large, cities are not on the table where issues related to cities are being discussed. And unfortunately, that is something that needs to be rectified to unleash the power of cities. It would support all players, planners, designers, and technology providers to achieve broader goals.

Huda Shaka

Sustainable Development City Advisor, Founder at The Green Urbanist, Director at Gehl

Different waves of smart sustainable cities in the region

In the early 2000s, there was a big focus on green buildings, certification, and energy efficiency at the building level. The next wave was around masterplans and pilot projects beyond a single building; these include ambitious sustainability projects such as Masdar City in Abu Dhabi or Msheireb in Doha. We start talking about external livability and walkability at this level. The third wave focuses on the big push around net zero, the climate emergency, and the COP events which have been taking place in the region. Today, we are around wave three or four. We are talking city-wide or nationwide; we are now focused on more than just the master plan or building levels.

Technology has been a common thread for sustainable development over the years

20 years ago, we already had all the science and technology we needed to stop climate change. Tackling sustainability issues at the city or national level is about something other than bringing in cooler toys or using bigger words. It is about committing to doing more and then actually doing it. It is fantastic that we have more technology and data. Yet, in some cases, government and private entities do not know what to do with so much data. It is tough to understand the important pieces and what should be focused and analyzed. We are missing locally relevant research to work with the professional community and policymakers in the region. We need that three-way interaction to build trust and enhance our learning to progress. Without credible and strong research from the region, and for the region, it is difficult to obtain the correct intelligence.

Governance structures in the Gulf help with the pace of change

From getting quick planning approvals for projects to the implementation of green building regulations policies overnight, the governance structures in the region come with many opportunities. The UAE, for example, has gone faster than many other countries in setting minimum requirements or regulations. But that only gets you so far. As soon as there is a minimum or legal requirement, by definition, it is no longer ambitious. You do not want to start cutting companies, entities, or individuals off the market. It is no longer just about setting minimum regulations but also about developing enablers and incentives for stakeholders.

COP28 SPECIAL REPORT

Dr. Tidjani Niass

Senior Sustainability Strategist
Saudi Aramco

The hub concept is critical to scale up CCS

Carbon capture and storage (CCS) technologies can help reduce carbon emissions across the economy while preserving existing assets. The endowment of oil and gas in the Middle East has been a critical building block for economic growth and prosperity in the region. Countries like Saudi Arabia have large concentrations of high-emitting industries such as oil and gas, petrochemicals and cement, which could maximize synergies through CCS hubs with shared CO2 transport and storage infrastructure. This hub concept is being exploited in the Eastern Province of Saudi Arabia, where the first large-scale CCS hub is being built in Jubail. It will capture 9 million tons of CO2 annually and become operational by 2027.

Partnerships sit at the core of CCS hubs

Partnerships are critical to scaling up CCS. The hub concept relies heavily on collaborations, where even small emitters can join without investing in CO2 transport and sequestration infrastructure. While the oil and gas industry has the expertise and knowledge across the entire CCS value chain, this is not the case for other industries, such as cement and power generation. These industries will need to collaborate closely with the oil and gas sector to deploy CCS and decarbonize their assets.

CCS deserves much more attention to achieve net zero

CCS is the missing element in the decarbonization puzzle and deserves much more attention from governments and industry. The Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA) have made it clear that we will not achieve net-zero under any scenario without CCS technologies. Today, the global carbon capture capacity stands at around 40 million CO2 tons per year. Nevertheless, we need to reach the gigaton scale by 2030 to be on track to achieve net zero on time. The next ten years are going to be critical for this industry and the energy transition. The good news is that regions like the US are starting to put strong instruments in place to catalyze CCS, which could pose good learning opportunities for the industry.

Gloria Tsang

Program Associate
Student Energy Summit

Embedding sustainability into education

We need to stop looking at climate change at school as a one-off opportunity like Earth Days, and then we are back to economics, back to literature, back to history. Are there ways to incorporate sustainability into the curricula for each of these topics? That's the first step in getting youth not just engaged but aware of what's at stake and what the issues are. We should start with the training and education of not just the youth themselves, but the instructors. We need to look at our instructors and see if they really value sustainability and if they're aware of how to fully incorporate it into education.

Communicating sustainability as a young person

To be taken seriously in intergenerational spaces, you need to align yourself with an organization or with your higher education institution. They can provide you with resources and a sense of legitimacy. As passionate as a person can be, it is very hard to get people to take you seriously just by going onto social media to express views, even if the message you're communicating is very important. The first step is to make sure you are confident in your skills and that you know what you are talking about. It is also crucial to make sure you are in a network that is aligned with your views and that can provide the support you need to have your voice heard.

Aurelien Vincent

Partner
Strategy& Middle East

Empowering the private sector in climate finance

Expediting the adoption of climate finance can be viewed as a typical market with dimensions of both supply and demand for capital. On the supply side, there is a clear effort to increase the scale of climate finance, along with efforts to create more space for the private sector to thrive. This includes fostering innovation in the instruments we are using to make this happen. According to the Climate Policy Initiative, more than 50% of green financing funding comes from the public sector, highlighting a need for improvement in private sector participation. On the capital demand side, there is a clear need for standardization to mitigate the risk of greenwashing, which is a serious threat to green finance in general.

Incentivizing Private Sector in Sustainable Finance

Innovative sustainable financing instruments need to be financially viable to attract the private sector. We will not be able to attract the private sector without making them profitable. Two approaches include leveraging the private sector through incentives, such as tax cuts seen in the US Inflation Reduction Act, and implementing mandatory reporting, holding bad actors accountable, and setting targets for carbon emissions reduction or allocating a portion of bank balance sheets to renewable energies.

Anthony Berkley

Director of ACT & Head of Investments
FII Institute

Reporting and disclosing against the highest global standards is critical

The pace of change in finance in the region around sustainability has been breathtaking. We have seen a complete transformation during the last 2-5 years in this area. In the next phase of growth, trust and transparency will be foremost in the minds of many investors, especially those whom we aim to attract to the region. In this area, committing to and then being thorough in reporting and disclosing against the highest global standards is critical. There is a very clear global movement towards standardization of frameworks and reporting standards around sustainability, driven by the International Sustainability Standards Board. Currently, there is a race to determine the pace, direction, and global adoption of IFRS S1 and S2 by stock exchanges and other key market participants.

Transforming emerging markets with sustainable investments

We have called asset owners to increase their exposure in sustainability portfolios to emerging markets to 30% of assets under management, which is quite an ambitious goal. Sustainability investments in emerging markets have represented only a small portion of the global ESG flows, with the majority concentrated in Europe and North America. Asset owners and managers outside these developed markets currently account for less than 10% of these flows, indicating a huge gap and a huge opportunity. Our analysis reveals a $5.4 trillion opportunity to align emerging markets' sustainability assets with the overall exposure to emerging markets in these large trillion-dollar portfolios. It's a big opportunity when those flows can be encouraged and can begin to accelerate. Such acceleration would provide a lot of liquidity and capital for the strongest, most bankable projects in our region, as well as for the highest-performing corporations on the stock markets and in the debt they issue. That would have an incredible impact on driving sustainable development forward in the GCC and in emerging markets.

COP28 SPECIAL REPORT

Lydia Sanz Lozano

Masdar Future Sustainability Leader
IRENA Youth Representative

Using your voice to advocate for change

As a young individual, I have always been interested in topics related to taking care of our planet and being more environmentally conscious. However, it wasn't until I participated in a student delegate program with the International Renewable Energy Agency (IRENA) that I realized I could use my voice to advocate for greater change. Thanks to that opportunity, I have met people with whom I now network with and continue to talk to on a day-to-day basis. When we talk about, it's not just one young person speaking out, but rather about forming bonds to create change. It's about discussing the importance of moving things forward, pushing for renewable energy use, and advocating for greater climate action.

Taking knowledge beyond the classroom to empower youth voices

Sustainability is not restricted to certain degrees or careers that only some people can aspire to. It is something that covers all disciplines, from technology to social sciences. Universities need to encourage more young people to explore courses that can tie in their academic disciplines with areas of sustainability, allowing them to see what they can achieve in their own lives. One aspect that universities need to address is ensuring that they offer courses that equip students with the skills they need. However, the most important aspect is how to take that knowledge beyond the classroom and empower young voices.

Omar Saleh

Vice President, Enterprise Business
Microsoft Arabia

The role of voluntary carbon markets

The topic of voluntary carbon markets is exciting. It's one of Saudi Arabia's leading ambitions and it is a part of the Green Initiative. It shows the Kingdom's commitment to the circular carbon economy and to its net zero emissions target by 2060. As an Arab, I am very proud to see such an initiative coming from Saudi Arabia that is focused on the Middle East and North Africa region. Voluntary carbon markets will play a pivotal role in incentivizing and structuring the trading of carbon as well as sparking innovation around these efforts.

Collaboration and partnerships are essential

There is a lot of room for collaboration and partnerships. This is a big opportunity for uncovering new business models and new innovations. We need to start with the initial and fundamental steps of understanding what our impact on the carbon footprint is for whatever operations. How far can we report on this? How far can we reduce? The journey starts with awareness, partnership, collaboration, and being open. The voluntary carbon market is not just taking a national approach, but it is extended to the whole region. There is room for everyone to come on board. At Microsoft, we try to share our best practices and own learnings along the journey. There is room for all of us to learn and partner on this pathway forward.

Khaled Tarabieh

University Architect & Associate Professor
American University in Cairo

Sustainability and daily life issues must be put at the core of new city developments

The American University in Cairo has its campus in the city of New Cairo. Located in the Cairo metropolis, the city was inaugurated in 2016 to accommodate 6 million inhabitants. Today, it faces challenges such as floodings and dusting, which have paralyzed it on various occasions. Following population growth, the road infrastructure has become too small to handle the increased volumes of traffic, which lead to higher pollution levels and more traffic congestion. Moreover, a number of green coverings have been removed to widen the roads.

The city's original goal was to expand the urban area into the desert instead of into agricultural land. Building and infrastructure construction was prioritized, whereas the daily needs of the population, such as mobility, green coverings and air pollution were not put at the core of the project. These aspects started to be dealt with once the city evolved, which is causing difficulties to come up with solutions that adjust to its built environment and legacy infrastructure.

For the construction of Egypt's New Administrative Capital, lessons were drawn from the mistakes made during the construction of New Cairo and other new city projects, which have been incorporated from early development stages. This will help the New Administrative Capital and future city developments to build resilience and be better prepared to tackle future challenges, many of them related to climate change and the environment.

Public-private collaborations are essential to build resilient communities

Public-private partnerships are a lifeline goal for cities. Local governments need capacity building, technology and educational programs to manage large cities. With the private sector being profit-driven, sometimes it can be challenging to forge those collaborations. As an educational institution, we try to facilitate the linkage creation between public and private stakeholders to serve the broader community. A key element for collaboration is the need to count with more indicators and dashboards that guide decision making. This can ensure that efforts are made in the right areas and directions. Technology affordability can be a potential area for collaboration, as many of the technological solutions that can effectively tackle city-level challenges already exist.

Dr. Darion Barclay

Head of Department - Roads and Transport
Gauteng Provincial Government, Republic of South Africa

A new mobility strategy to decongest roads

Gauteng is the smallest South African province by land, but the largest by population. The growing population and the increasing number of vehicles have made traffic congestion one of our major challenges, which also cause increased pollution levels. In this context, smart mobility solutions have become a key element for the development of the province. As the economic hub of South Africa and a global city-region, we face mounting pressure to deliver smart infrastructure and systems.

The Gauteng Provincial Government recently launched its Smart Mobility Strategy for 2030. A key part of the new strategy is to reduce the number of vehicles on the roads and promote the use of railway, as well as to increase the number of digital mobility services. Previous strategies did not address the number of vehicles on the roads. Nonetheless, our studies suggest that not reducing the number of road vehicles could increase pollution levels and slow average travel speed to 15 kilometers per hour, in turn lengthening overall travel time. The main challenge will be to mobilize investments towards developing the railway network, which remains largely underinvested. Moreover, ensuring that all different stakeholders are involved will be a critical part of this strategy.

Effective change management underpins the adoption of smart city services

The government sector needs to adapt to the changes in the lives of its citizens to better understand their needs and identify the competitive advantages of cities and regions. Defining these can help governments effectively incorporate innovative solutions from the private sector. Effective change management within government bodies plays a key role in incorporating that innovation. For instance, when we implemented a few years ago a paperless strategy for government services, many departments lagged in digitizing their services due to a lack of proper change management. This can have a large impact on the public sector's capacity to incorporate innovative smart city solutions successfully.

COP28 SPECIAL REPORT

Abdullatif Albitawi

Director
Emirates Green Building Council

Challenges in communicating the issues around climate change

We face many challenges communicating the issues around climate change, especially when we speak with different people from different sectors and at varying levels of responsibility. The most crucial point is to recognize that how you communicate will differ from person to person. The message should be clear for all. The words we use in each message need to be at the target audience's level.

Going back to basics: defining words such as greenwashing, sustainability, or circularity

It's important to go back to the basics and make the messaging clear and direct for diverse people with various backgrounds and working in different sectors. Let's take the example of the word greenwashing. Do we all really understand what it means? Regarding greenwashing, some organizations may do it unintentionally because they lack proper knowledge and information. Some may do it intentionally because they find a way around what is required. It is the same with words such as sustainability, circularity, and climate change. Do we all have the same definitions? Are we all referring to the same information, or are we talking about different things? This is the main difficulty and challenge to tackle. We may face drawbacks or obstacles on the pathway to net zero and toward a sustainable future for the next generation.

Yvonne Chebib Brao

Chief Partnerships Officer
Microsoft

Climate change is the defining challenge of our time

Addressing climate change requires significant investments in climate solutions, green energy, and technologies. At Microsoft, sustainable finance is critical in enabling the transition to a low-carbon economy and a sustainable future. We can unlock the necessary capital to support deploying sustainable technologies through innovative financing mechanisms such as green bonds, impact investing, and carbon pricing. In addition, as a technology company, we recognize the role of data and analytics in driving sustainable finance solutions by leveraging advanced technologies like artificial intelligence (AI) to enable us to make better decisions at scale.

Sustainable finance is a critical enabler for the transition to a low-carbon economy

Microsoft has been actively involved in several climate finance initiatives in recent years, demonstrating our commitment to addressing climate change. Some of the key initiatives revolve around carbon fees and carbon pricing. For example, in 2012, we introduced our internal carbon fee, which charges business units within the company for the carbon emission that they generate. Another example of our commitment is the Climate Innovation Fund. In 2020, we invested $1 billion to accelerate the global development of carbon reduction and removal technologies. We also invested in renewable energy and carbon offsetting projects. In 2021, we invested in projects that removed 2.5 million tonnes of CO2 emissions. In addition, we agreed on a new power purchase of 5.8 gigawatts of renewable energy that will align with our commitment by 2025 to have our data centers all in renewable energies.

Private sector to increase investments in tackling climate change

At COP28, new policies could incentivize the private sector to invest in tackling climate change. We need to see more microfinance to take climate action in developing countries. There is a significant need there. Only around 14% of investment is coming from the private sector. This number needs to increase, and we must work collaboratively with governments, businesses, and individuals worldwide to combat climate change.

Dr. Metwalli El Noubi

Founder and Chairman
EnviroTaqa

We're moving towards energy transition amid a short-term energy security focus

We're all on board for an energy transition where we slowly transition from hydrocarbon energy to renewables. The targeted percentage of that transition hasn't yet been determined – whether it's 20%, 50%, or 100%, but we're headed in the direction of energy transition. The question right now is: how do we realistically achieve whatever percentage of energy transition we collectively target? Based on reports from the International Energy Agency showing energy sources and use up to 2019, we are still very far from achieving an optimal energy mix, which in turn raises the need for a more rapid energy transition. Good governance and technological innovation are both key for that transition. Additionally, right now, energy transition is a relatively smooth process compared to energy security, which is a lot more prone to short-term developments in geopolitics.

Some challenges have been overcome; others remain

Previously, the challenges we faced for scaling our ideas were identifying the price of our products and getting the appropriate investors on board. Now, those challenges have been overcome. We received support from the Prime Minister for our biogas initiatives and next on our agenda is a megawatt plant. While we're not looking to produce a biogas, but we are using biogas to produce electricity. This will be our first pilot plant and we're working collaboratively to build it out alongside experts from Switzerland and the United States.

Support from different stakeholders has been instrumental for project implementation

The government has been supportive by removing obstacles that we've faced as solutions providers that use technology coming from various sources, including myriad universities. They have helped to connect the dots. We've also received a lot of support from private investors and government banks. This support from different stakeholders is what has enabled us to build our first megawatt plant. In turn, what we're targeting with this megawatt plant is an ability to harness the incredible amounts of waste that Egypt produces daily with its 100 million population and try to use it as an energy source to advance the implementation of a truly circular economy.

Zoe Knight

Group Head of the HSBC Centre of Sustainable Finance
Head of Climate Change, Middle East, North Africa, and Turkey
HSBC Group

ESG Implementation

If you think back to the origins of ESG, driven by the UN Principles for Responsible Investment, it was very much an emphasis on looking at how companies managed their environmental, social and governance responsibilities. If you fast forward to today, it's much more about the outside in, how climate as a driver is really shaping end markets. It's shaping trade flows; it's shaping all sectors across the economy. One of the issues that the financial sector is really looking at very closely, is how those transition pathways play out in different markets and this taps into this emerging market point, because each economy is coming from a different starting point in terms of its competitive advantage in resources, its capacity, its financial firepower to be able to make changes, the willingness of the population to want to get involved on the changes that are going to be needed. We're really talking about a global economic thinking shift in the context of energy markets that are in turmoil at the moment. Investors have got a tricky job to navigate on the ESG agenda and building these coalitions and making sure that they are working in harmony with each other on this topic is important.

Developing ESG frameworks

One point to raise is that investors are really thinking about the just transition for emerging countries. What the UAE and Saudi can benefit from is innovation in financing structures and technology enablement and a high talent pool of finance professionals that can really fast forward the thinking. We know that innovation is happening at a rate of knots in all different kinds of sectors of the economy. And finance is no exception. This is about having a look at other markets, taking what works well in those markets and maybe leaving what doesn't work quite so well in other markets and coming up with the best of the best.

COP28 SPECIAL REPORT

Stephan Kuester

Managing Partner
Startup Genome

There's a scaling gap between clean tech and other tech ecosystems

We likely already have enough innovative concepts around the world that would allow us to address the climate problems we are facing. The question now becomes – do we have the scaling capability in clean tech ecosystems that would really allow us to make a dent in the climate crisis? That's a big question mark. That's the current focus in clean tech. But the situation is improving; last year in particular saw a lot of improvements in the scaling arena, in late stage financing. But scaling in that sector is still very small compared to what we've seen in other software sectors. We should be concerned in a situation where we are unable to jointly close the scaling gap. As long as that scaling gap is there, we'll continue not having the technology impact that we want to see.

Attracting new talent and addressing investor reluctance are two important considerations

There are two fundamental things we need to look at. First, we need to do a lot more in order to activate the entrepreneurial culture in the clean tech space. We need to show how becoming an entrepreneur in climate tech solutions but also in other tech areas is a solid career plan, to show that it's the "cool" thing to do. That's the cultural piece. The other part is that we see quite a reluctance from what normally works well in younger ventures like angel investors, and other well-structured early financing groups. What we hear from many high-net worth individuals is that they are more interested in the large series A and B rounds primarily in North America and Europe, and display a reluctance to move toward very young high-risk startups in climate tech.

Julia Carlow

Acting Head of Sustainability
American University of Sharjah

Provide a space where young people can innovate

Sustainability has many components, but climate action is one of the most urgent. In the field of education, we have long been asking ourselves how to empower youth and teach not only knowledge but also values. It doesn't matter what you studied. Everyone has a role to play, and that's what we aim to instill in our students. We view the campus as a living lab where we can experiment, innovate, and try new things. This is where youth empowerment comes into play. You need to educate and provide information and knowledge. You also need to create a space for young people to have the freedom to experiment and try new things.

Aligning skillsets between industry and academia

We all need to keep learning, even as adults, because information is changing at a rapid pace. We need to continue learning about climate change and possible solutions. Academia has always been a catalyst for innovation. We must continue fostering that spirit and collaborating with other institutions to support one another. The UAE recently launched the Universities Climate Network earlier this year. We have been in close collaboration with other institutions in the UAE to address climate change specifically, not only for COP but also for the long term. This effort has been significant in ensuring that we create synergies and work together to have a lasting impact.

Ivan Jakovljevic

Former Chief Development Officer, STV
Investor and Advisor to investment ecosystems

Global trends are affecting financing rounds and international capital flows

There's a lot of contagion from the public markets. When the public markets go down, the multipliers go down. It's almost a kind of domino effect. However, the further down we go on the rounds of financing, the less of an impact there is. Earlier stage rounds are affected, but are affected less than later rounds. We live in a very different world compared to six months ago, let alone a full year ago. And that plays into several global trends. Another developing trend is that appetite for risk has actually increased, which in some ways has benefited the world's emerging regions. All of the sudden you have investors in more mature markets who are willing to look for additional risk and additional benefits. And they're looking for those risks and benefits in emerging markets. We now have more managers and more capital coming from mature markets and into emerging markets.

There's increased investor sentiment for the Middle East region

It's not only financial capital that's going from mature markets to emerging markets, but also know-how and intellectual capital. An additional trend that has recently developed is that we're seeing governments pumping investments, and being more excited about investment opportunities, in earlier stage rounds, especially in the Arab Gulf. And that has impacted the additional capital going to the limited partners and channel partners. To illustrate that point, for the first half of this year, we have already seen more than $1.8 billion going into these venture capital spaces compared to around $700 million as late as 2019. And there's been growth in multipliers for other metrics in that space for the Middle East markets. The global trend is somewhat pushing market players into a more of a conservative way of looking at things. But some of the tailwinds that we're seeing in our region are due to the fact that the Middle East is in many ways only now just emerging. We want to build that out further onto the global stage.

If ESG KPI's can't be met by investing locally, financing will flow internationally instead

From a regional policymaking perspective, governments, sovereign wealth funds, and investment managers are more ready and more willing to tackle some of the issues around what policies encourage or discourage private investment into climate finance. There's this gap on the supply side regarding startups working towards climate solutions, but the operators are trying to tackle that space. I'm aware of at least two funds that are currently fundraising from local limited partners and sovereigns who are focused on ESG topics. But the investment thesis is not translating to local investments in the Middle East and Africa region. The investment thesis is instead channeling financing internationally. The desire for ESG funding is there, alongside the relevant KPIs. But if those ESG KPIs can't be met locally, then those investors will instead look elsewhere at other regions around the globe. So the policy element and the capital element are already in place; what's missing is for local startups to be empowered to tackle that space and close the supply gap we're currently experiencing.

Kassian Siorpaes

Senior Manager Digital & Technology Strategy
Accenture

Technologies to enable and drive sustainability initiatives

The technologies that are going to lead us to net zero exist today. Some of them are more mature, while some are not commercialized yet. A recent study shows that the maturity of this value will come from AI, blockchain cloud, and data that exists or that we will acquire through IoT. At Accenture, we look at sustainability in technologies in two ways: (1) 'sustainability by technology' to understand how technology can enable initiatives around net zero carbon intelligence or responsible supply chains and (2) how we can drive sustainability to reduce or improve our ESG footprint using sustainable software, sustainable infrastructure, or sustainable engineering capabilities.

The importance of integrating sustainability into digital strategies

There are two reasons why existing technologies are not being implemented effectively. Firstly, sustainability strategies are being elaborated without considering the technologies needed. In other words, the sustainability and technology strategies need to be the same or integrated with one another. According to a study we conducted on thousands of C-level executives, the second reason is that only 20% of them are aware of the linkage between technology and sustainability.

Focused and outcome-oriented strategies usually work better than those that start with vast and endless scopes of work. For example, the oil and gas industry, which traditionally has had a negative ESG footprint, is working to assess the real-time impact of its operations using digital twins. This allows them to monitor and assimilate effective decisions.

The business case for pursuing innovative green technologies will depend on the priorities of the stakeholders

As businesses, we must understand what the priority for our shareholders is? Second, what is the priority for our governments in terms of policies? And thirdly, what is the priority for our customers? As these priorities shift, companies also move their priorities accordingly regarding investments. Technologies become easier and cheaper to apply as investments and scale increase. For example, companies that invest in sustainable technology typically have a higher shareholder in their financials. Similarly, they can attract more talent by developing employee-friendly working environments.

COP28 SPECIAL REPORT

Mohammed Mahnashi

Digital Transformation & Data Management Advisor
Saudi Electronic University

Sustainability has become a must

At the government level, we are talking about resilience and developing sustainable models. For example, in Saudi Arabia, Crown Prince Mohammed bin Salman launched the Saudi Green Initiative to reflect the government's ambitions. We talk about the culture, the people, and the technology. But, more importantly, we talk about how to enable a green environment for all our people.

The Saudi Green initiative is very innovative as it aims to transform a desert country into fully green – 70% of the country will be green. A project of this scale can positively impact the entire country and beyond; sectors such as tourism will see immediate results. We are not only talking about Saudi Arabia, but the initiative will also transform 30% of the Arab countries into green countries. We need the right technologies to implement such a transformative initiative. For example, we need agricultural technologies to enhance farming or AI to achieve digitalization goals. This will open new opportunities with new cities being developed. IT solutions will be critical to implement the innovative mission of the Saudi Green Initiative.

Enabling the private sector to develop sustainable economies

We are starting to implement not just the country's digital transformation but also focus on enhancing the quality of life in Saudi Arabia. The government is not just driving this transformation but also preparing the ground for the private and non-profit sectors to implement the change. We are asking the private sector to drive the economy's change and develop sustainable business models. In addition, the government is monitoring and supporting the private sector to help achieve broader sustainability goals.

The youth of Saudi Arabia is ready to implement real change from the ground

Saudi Arabia is a young country, with over 70% of the population under 30. We need to talk to the youth and listen to their thoughts. This population is extremely well educated and will drive the innovative transformations of the country. When we started working on Vision 2030, it was unclear if this transformation could happen so quickly, but many things have been achieved since the announcement of the national plan with the actions of the youth.

Robert Spencer

Global Lead, ESG Advisory
AECOM

Deconstructing the idea of smart cities

Most people, when they think of something smart, they think about technology and they're right. There's some technology being deployed to make the city infrastructure and apparatus reactive, responsive, and predictive in terms of how the needs of the community are met effectively, of their wellbeing, of how quickly they can get across town to get to work, and how efficient and low carbon those transport systems are. And once they are at work or back at home, how efficient are their buildings? Therefore, a smart city is a net-zero city. Since the Paris Agreement, municipalities around the world have played a huge part in driving decarbonization in the net-zero agenda. That ambition is sometimes greater than you'll find at the country level in some cases.

A smart city is also a resilient city to climate change

We must keep in mind an inevitable level of climate change occurring, as we are already above one degree. And with that comes climate events that we need to be prepared for. Therefore, I think a smart city is also a resilient city. We need to consider different aspects that will enable populations to be able to not only survive, but thrive in natural hazard situations caused by climate change, such as keeping wildfires or floodings out. I think we need to work effectively with nature-based solutions as a low cost, low maintenance methodology to enhance the resilience of our cities, at the same time we are putting in the smart tech and net zero energy solutions to decarbonize our cities.

Smart cities must be clean and easy to navigate

I heard a saying that a smart city is not a place where the poor people have cars, but whether rich people use public transport. In our 20th century aspirational culture, getting a nice car is a sign that shows how well you are doing in life. However, in the net-zero smart city, you have more credibility if you're jumping on your bike or using public transport and you are having a low carbon lifestyle. And because the air is cleaner, it's nice to move around the city. We need to focus on the smart cities being attractive, clean, easy to navigate places to live.

Suha Saad Alsaif

Sustainability Director GCC
National Energy Services Reunited (NESR)

The issue is how to mitigate emissions impact while meeting current energy needs

All GCC countries, and Saudi Arabia in particular, are very committed to environmental issues and approach it with much openness. My point of view is that of a relatively small service company compared to major players further upstream on the service company value chain. From our side, we have created an area called ESG Impact Segment that works to address environmental issues through our technology. And while our approach is effective, I can only imagine the bigger impact it would have if it were applied at scale in much larger organizations like the Ministry of Energy or Aramco. But we're all headed in that direction because we're all committed to energy transition. We're not exiting from oil and oil continues to be a major source of energy. However, we have to be rational when it comes to emissions and consider the long-term impacts on the environment. The question is: how can we mitigate the carbon footprint on the environment that are created from our current energy needs?

The budgets are there for implementing a circular carbon economy

The concept of circular economy is one of my favorite concepts because it stems from the cradle-to-cradle idea where you see garbage as an eternal resource and design products that model human industry on nature's processes. In the energy sector, it's about harvesting waste and reincorporating it into the energy pipeline to make it reusable. We believe in it. We believe that a circular carbon economy is a huge dividend and we're looking at carbon capture, sequestration, and storage. The Ministry of Energy and Saudi Aramco have huge projects and investments in place to implement these ideas. While the whole project is at an early stage, the budgets are there and we're all moving towards that direction.

Dr. Julio Friedmann

Non-Resident Fellow, Center on Global Energy Policy at Columbia University SIPA and Chief Scientist, Carbon Direct

Getting Carbon Capture to the market: a matter of policy

The costs for carbon capture have dropped 50% in the past few years and they are poised to drop another 50%. Nonetheless, you need market aligning policies in order to get this to market. We have seen market aligning policies for every other kind of clean energy technology. On a cost basis, carbon capture for many applications is in fact the cheapest and cleanest way to proceed, especially in heavy industries such as steel and cement. Until those market aligning policies appear, it will be hard to get lift off.

Integrating carbon capture and storage infrastructure:

You need dedicated infrastructure in the form of pipelines, capture units in the form of conversion units and storage sites. This is something that Saudi Arabia and other countries in the gulf are taking the lead in. They are building the infrastructure that is needed to capture and store CO2, and increasingly building the infrastructure to re-use CO2. This is different than in the power sector, we already have electricity power lines, and you can just add electrons to the grid. Here you need this additional infrastructure. That will come in the form of export terminals for blue hydrogen, or chemical plants to upcycle carbon dioxide and hydrogen. Once these are built, they will de-risk investment for people who want to get into this market.

De-risking renewable energy:

When working at the loan program at the US Department of Energy, they made the first commercial loans to large scale solar projects, specifically industrial scale solar. As soon as those were built, the market de-risked those and we went from having five, that were secured by the government, to now having hundreds of these around the country and around the world. Going from zero to one is a hugely important step. That is a province of innovation and investment, as well as a question of policy.

COP28 SPECIAL REPORT

Eelco van der Enden

Chief Executive Officer
Global Reporting Initiative

Taking the first step towards ESG transparency reporting can be difficult

ESG just means doing good business. With ESG transparency, it takes an extra step to be open and transparent, and taking that step for the first time can be difficult. Many organizations I've dealt with that voluntarily report under our standards all went through what I call psychology of disclosure. For them, it means "If I publish this, what will be the market response? Will I get more questions that I can't answer?" The fact is that most organizations get positive responses for being transparent. British Petroleum and Anglo American, who published transparency reports under GRI standards, received praise from activist NGOs and their own internal employee work councils.

Greenwashing as on par with financial fraud

Greenwashing is one of the biggest dangers for the investor community and for business itself. Some still see ESG as a marketing gimmick and not as doing good business. If you provide stakeholders, be it investors or work councils, with false information or with inflated information to try to influence their decision-making, then it's equivalent to blowing up your balance sheet or providing inaccurate data on profitability. We call that financial fraud. To me, providing inflated data on ESG or providing information about net zero commitments that is false is on par with financial fraud and should be treated as such.

Raed Albasseet

Chief Environment and Sustainability Officer
Red Sea Global

Establishing new standards for sustainable development

We are determined to establish new standards for sustainable development at the Red Sea project. We aim to be unique and hope to become a model for regenerative tourism. Therefore, we started planning for the Red Sea project in a unique fashion. We did not begin to plan with the engineers or the architects; instead, we started working with the scientists. Our first partnership was established with the King Abdullah University of Science and Technology (KAUST) to work with scientists and terrestrial and marine ecologists. Once we had enough information, we started planning and conducted the Marine Spatial Planning exercise. We brought in all the experts to limit the negative impacts the construction of the development could have on the environment. The engineers, master planners, architects, operations, and tourism experts.

Our ambition is not only to minimize the negative environmental impacts in the construction phase but, more importantly, to leave a significant and positive impact on our planet. The mandate of the board, headed by His Royal Highness, is to achieve a 30% net conservation benefit by 2040.

Integrating local communities to promote Saudi Arabia

Integrating local communities and the Saudis into the tourism offering is crucial. We are training and sponsoring locals for hospitality at the most prestigious universities in the world. During the construction phase, we have management systems in place to ensure the uptake of locals into our contractors to ensure that they are directly benefiting from the development.

Cutting-edge smart technologies are an integral part of sustainable tourism

We need skilled and reputable regional and international partners to work with us in developing cutting-edge technologies to make informed decisions in the development of the Red Sea project. Microsoft, for example, is a big player in developing smart technology applications. These applications will not only be implemented at the company level to run our operations but also will be an integral part of our future guests' experience. Smart technologies will allow our guests to learn more about their carbon footprint, the impacts of their choices, and how they play a role in advancing our regeneration ambitions.

Anita Mendiratta

Advisor Board Member, The Royal Commission for AlUla
Special Adviser to the Secretary General, UN World Tourism Organization

Tourism in the Kingdom is not just about environmental sustainability.

It is social sustainability, economic sustainability, cultural sustainability, and, dare I say, spiritual sustainability. You cannot have tourism for tourism's sake. People can often get lost in the scale of Vision 2030 for tourism. The scale of the vision, aspirations, investment, and targets. The beauty of what the Kingdom is doing is focusing on the details. At AlUla, for example, we look at sustainability in its purest form.

People and local communities at the heart of sustainable tourism in Saudi Arabia

AlUla has become a case study for community development through tourism worldwide. However, it is not just about its history, culture, and tradition. One of the greatest beauties of AlUla is the people. One of the critical stakeholders and sustainability partners has been the local communities. We work with them very carefully and recognize that they are the primary beneficiaries of the development. The people behind AlUla are the ones who will keep the traditions and culture alive.

Benefits of promoting sustainable tourism in Saudi for the region

Tourism development has to be for the benefit of Arabia as a whole because Saudi has become the front window for Arabia. However, the positive impacts of tourism go far beyond those in the industry. A localized example of the positive effects of tourism is the partnership AlUla has with Piaget, one of the world's greatest luxury design houses. Piaget was brought into AlUla to work with local artisans, primarily women, in teaching them jewelry skills, working with metals and rock, and utilizing the local design.

This example illustrates that it is not just about the Kingdom investing outwards but attracting and inviting worldwide stakeholders to become partners of Saudi Arabia. It is not just the investment into tourism, but the importance of the return on investment, inspiration, and participation. That is where the real symbiotic value comes out of tourism development. It is not just about the Kingdom investing. It is the world investing in tourism in the Kingdom to benefit the region and the world.

Dr. Morgan Eldred

Chairman
Digital Energy

Start by setting baselines from your own activities

We need to start by looking at what we're doing on sustainability and where digital technologies can come into play on this. For example, to produce X output, our organization has historically had X or Y impact on the planet. Then, if we can start breaking that down by activities, we can get a baseline. That is first to really understand what the impact is. Then, we can look at the data initiatives that we have and tie it to real value. If we are doing construction projects, can we look at the amount of steel and material that is being used within the projects? Can we then look at how we are reducing that, the waste that is generated, and the energy that's used? We can be very practical in just tying real impact to that.

Trust in data is about trust in people

To prevent data biases, the first thing we need to do is some kind of analytics using first principles on the data that's measured. Can we check if there is fraud in it? If that data is coming from a sensor, is there any blockage that is coming there? What are the models and calculations that we are using? Do we have your ESG within your modeling teams, and not just data scientists looking at data? It's all about building that quality score up. The key thing here is we need trust in our digital systems, which means that we need trust in our data. At the end of the day, that comes down to what is the trust in our people. An organization that takes a scientific approach to measuring and doing analysis is a more open and trustworthy authority than an organization that doesn't have good data management practices.

CONCLUSION

As we reflect on the pivotal juncture that is COP28 and its implications for the private sector, the imperative to act is more clear than ever. The outcomes of this conference are not merely statements on paper; they are the compass guiding the trajectory of stakeholder contributions towards addressing environmental challenges on a global scale for the future.

This report draws from the invaluable insights and commentary harvested from dynamic platforms created by Gulf Intelligence. These spaces have not only facilitated dialogue and communication among sustainability leaders but have also accelerated the pace of climate action. The culmination of this commentary, gathered from podcasts throughout 2023, serves as a testament to the collaborative spirit and shared responsibility that underpins the private sector's fight against climate change.

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***THE SUSTAINABILITY LEADERS FEATURED IN THIS REPORT HAVE NOT BEEN RANKED IN ANY SPECIFIC ORDER. THE REPORT CAPTURES COMMENTARY ON THE NEXT STEPS NEEDED TO CREATE A SUSTAINABLE FUTURE FOR ALL.**