

An aerial photograph of a desert landscape. The top half shows rolling sand dunes in shades of yellow and orange. The bottom half shows a series of interconnected green water reservoirs or canals, with solar panels visible on the sandy banks between them. The overall scene suggests a transition from a natural desert environment to a managed, water-rich area.

wood.

Powering a low-carbon future.

How can the Middle East leverage its natural resources to spur global decarbonisation?

White Paper

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This White Paper highlights and explores the key takeaways made by high-level energy executives at a roundtable hosted by Wood in Abu Dhabi. Leaders across national oil companies (NOCs), international energy companies and their partners openly discussed the critical question: How can the Middle East leverage its natural resources to spur global decarbonisation? This White Paper has been written and produced by Gulf Intelligence. Any further use of this material must cite this document.



Executive summary

Global energy demand in 2050 will be around 8% lower than today, but it will be expected to service an economy twice as large, with a staggering 2bn more people (totalling 9.8bn by mid-century). The urgency of meeting this challenge has been magnified by the severe warnings from COP26 – the world’s biggest climate gathering.

Energy companies are benefiting from the vast amount of emerging low-carbon energy opportunities and relying on investors to support the capital needed to progress. “I have money to spend, but I do not know where to spend it,” is a sentence often heard from the investment community, one roundtable participant shared.

For the sake of the climate clock, this disconnect must urgently be resolved through comprehensive, sustainable and transparent strategies.

Essentially, energy companies need to start joining the dots and collaborating with their partners in technology, academia, finance and government. Government-led initiatives, in terms of more supportive regulations and policies, will also help bolster investors’ confidence as they broaden their energy portfolio, especially those historically focused on fossil fuels. Whilst the bright city lights of Dubai can be seen from space, Lebanon and Jordan grapple with power shortages. Instead of aspiring for an elusive ideal solution for the region, energy stakeholders must instead focus on building progressive partnerships that truly deliver results – alliances that mean both the environment and energy economics thrive.

Amina J. Mohammed, the Deputy Secretary-General of the United Nations, stated: “In our fight against climate change, failure is a choice – not a certainty.” The Middle East has chosen to positively utilise its natural resources to drive global decarbonisation, but the pressure is on to get it right. As the adage goes: With great opportunity, comes great responsibility.

“Partnerships will play a key role in ensuring that lessons learned are transferable on a global scale. We do not have time to repeat one another’s mistakes. Pace is paramount.”

Dan Carter

Vice President of Decarbonisation and New Energies, Wood

Multifaceted offering

Oil and gas will always spring to mind when discussing natural resources in the Middle East, the historical epicentre of fossil fuels. Up to 45% of the world’s oil will come from the Middle East by 2050.¹ However, the whole story is more multifaceted. The region is fast becoming one of the world’s leading hubs for the largest and lowest-cost renewable energy projects, and also has ambitious plans for carbon capture and storage (CCS) with natural carbon sinks. The region’s natural resources are also underpinning ambitions for it to become a globally competitive clean hydrogen hub in the 2030s. In addition, the region has world-leading infrastructure in terms of size and sophistication, plus the invaluable skills developed from its decades of energy expertise and inter-regional and international relationships.

3

nations within the Gulf Corporation Council (GCC) have made net-zero commitments – Saudi Arabia (2060), UAE (2050) and Bahrain (2050).

135

countries have committed to net-zero targets so far – 68% of the 198 nations tracked – as have 32% of the world’s 2,000 largest publicly traded companies by revenue.¹ Leveraging the massive potential for renewables in the Middle East, while greening existing fossil fuel operations, is pivotal to help the region play its part in global decarbonisation.

319%

rise in the number of companies racing to set carbon targets in the last 18 months.²

\$50trn+

worth of environmental, social and governance (ESG) assets are anticipated by 2025, representing more than a third of the projected \$140.5trn in total global assets under management.³

50%

Collaborative competition over a three-to-five year period had more than a 50% chance of mutually reducing company costs throughout industry.⁴

¹ Zero Tracker

² Bloomberg

³ Bloomberg

⁴ Multidisciplinary Digital Publishing Institute

¹ International Energy Agency (IEA)

Clean hydrogen: Delivering on expectations

Great enthusiasm currently surrounds the development of clean hydrogen, with some calling it the “new oil of the 21st century”. If the Middle East continues to act proactively, it could become a global leader in clean hydrogen application in the steel, cement, shipping, aviation and aluminium sectors. However, the actual market is still minimal and there is a long way to go in just eight years.

The Middle East certainly has the right ingredients. For one, surplus solar and wind energy supports some of the world’s lowest-cost renewable energy. This includes the world’s largest solar photovoltaic (PV) plant, Al Dhafra, at 2GW.¹ It also has vast land availability, a well-established industrial presence and increasing government appetite.

As opportunities abound, energy stakeholders need to gauge the best route forward. Plans must consider the entire CO₂ footprint of low-carbon hydrogen production: not just the final product, but the whole supply chain.

Doing so now means scaling up the clean hydrogen industry into an ecosystem that will be far more durable and competitive in the long-term and therefore, more effective in supporting decarbonisation. A carbon-aware and well-validated supply chain will be a powerful differentiator amongst competitors in the 2020s. The relatively condensed nature of the Middle East’s energy facilities can also help as the tracking and monitoring of the growing market can be accurately reported via digital tools (See page 10: Digitalisation), heightening energy efficiency and powering decarbonisation

25%

share in the global clean hydrogen market by 2030 is the UAE’s goal, announced during COP26.¹

17th

is where Saudi Arabia is ranked on the Hydrogen Investability Index 2021, with the UAE (20th) Oman (25th) and Qatar (38th).²

\$11trn+

of potential value in the global transition to green hydrogen in terms of infrastructure investment opportunities over the next 30 years.³

¹ S&P Global Platts; ² Cranmore Partners, Energy Estate;

³ Bank of America; ⁴ International Energy Agency (IEA)

Big steps forward

Announced projects in Saudi Arabia, the UAE and Oman alone are set to produce 3mn t/yr of hydrogen in the 2030s, with Oman's 14-GW Al Wusta and Saudi's 4-GW NEOM projects among the world's most ambitious to date.² The world's biggest price reporting agency, S&P Global Platts, recently launched new low-carbon hydrogen assessments in the Middle East as the region strives to become a major exporter. Initial prices revealed the region is currently one of the cheapest producers of renewable hydrogen worldwide – second to Australia in the potential markets assessed by Platts.³

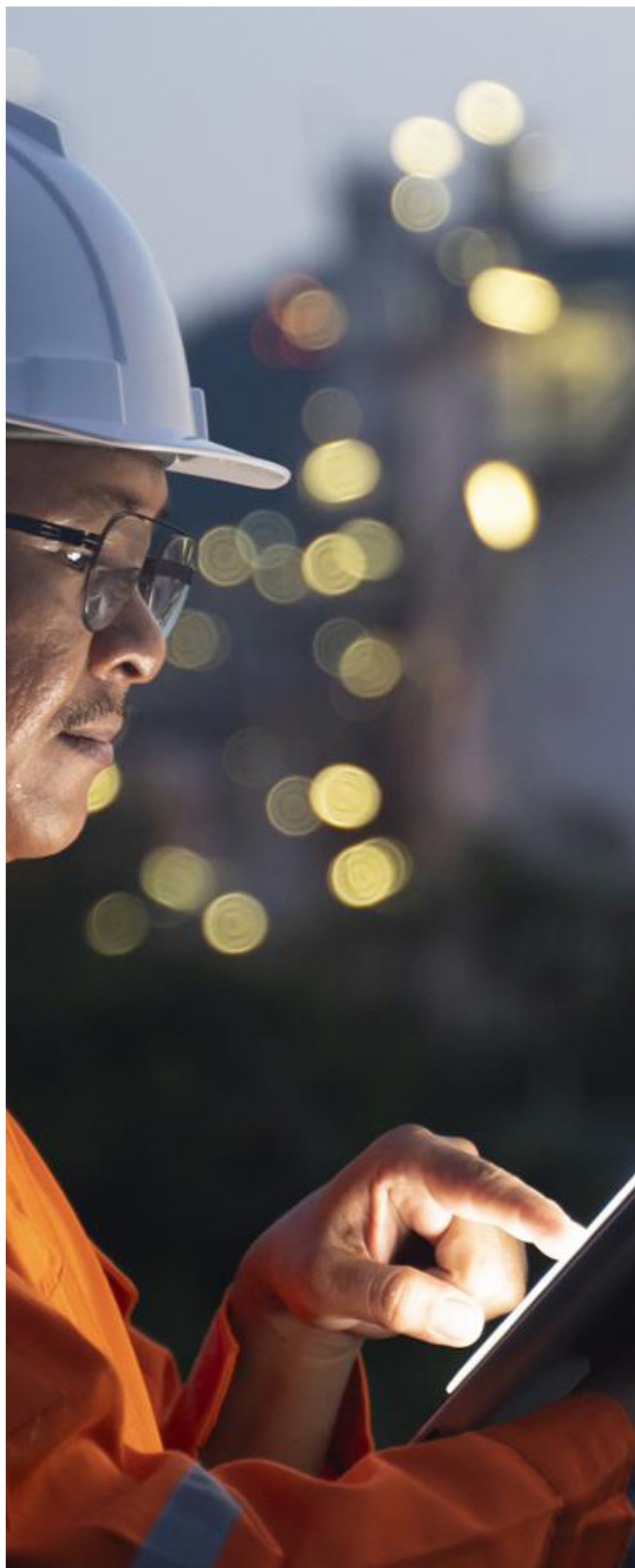
Other areas of progress this year include the creation of the Abu Dhabi Hydrogen Alliance by ADNOC, Mubadala and ADQ, which aims to spur the Emirate's leading role in hydrogen opportunities.⁴ For example, ADNOC plans to expand its carbon capture, utilisation and storage (CCUS) capacity sixfold to 5mn mt of CO₂ captured by 2030⁵ and Saudi Aramco is planning to use its \$110bn Jafurah gas field for blue hydrogen production.⁶ Meanwhile, Oman's OQ and its partners will produce 25GW of renewable solar and wind energy to generate millions of tonnes of green hydrogen per year.⁷

Head-to-head

Regional competition between energy and economic leaders – Saudi Arabia and the UAE – can accelerate the development of clean hydrogen and subsequently, help drive decarbonisation. OPEC's (Organisation of the Petroleum Exporting Countries) biggest and third-biggest producers, respectively, are charging ahead to capture the largest share in a relatively unexplored green energy market speaks volumes about clean hydrogen's appeal.

Of course, this cannot dim the value of regional and international partnerships. Such alliances are vital to boost financiers' confidence amid new territory. This is especially true as countries in the Middle East are currently developing formal hydrogen roadmaps; tools that help garner investors' appetite in other regions, such as Europe. Looking ahead, more regulatory clarity, financial guarantees and knowledge-sharing on technical and safety guidance will pay significant environmental, commercial and reputational dividends. capture the largest share in a relatively unexplored green energy market speaks volumes about clean hydrogen's entire CO₂ footprint of low-carbon hydrogen production: not just the final product, but the whole supply chain.

¹Clifford Chance; ²S&P Global Platts Analytics; ³S&P Global Platts Analytics; ⁴ADNOC; ⁵ADNOC; ⁶Bloomberg; ⁷S&P Global Platts



Carbon pricing: The time is now

Putting a price on carbon is not a simple endeavour, but it is an essential one. Decades of start-stop efforts must evolve into clear carbon pricing policy to provide energy stakeholders and investors with much needed visibility.

For the first time ever, the momentum to craft a more global carbon pricing ecosystem is gaining pace. Carbon pricing instruments generated \$53bn in revenue worldwide in 2020, climbing by 18% year-on-year.¹ It makes sense: climate-related investments need climate-related pricing.

The world's 65 carbon pricing initiatives covered 11.65 GtCO₂e of global GHG emissions in 2021 – 21.5% of the total.² While this is far more than the two carbon pricing initiatives tracked in 1990, it is still a long way from being a key engine of global decarbonisation. This is true in the Middle East, which, at this time, has no carbon pricing mechanisms.³ Still, there are small signs that the tide is changing. Saudi Arabia, the world's top oil exporter, plans to launch a trading platform for carbon offsets and credits produced in the Middle East and North Africa (MENA) region.⁴ However, it remains unclear when it will be launched. To the East, Oman has signalled plans to develop a tradable "energy efficiency" credit based on the international carbon credit market.

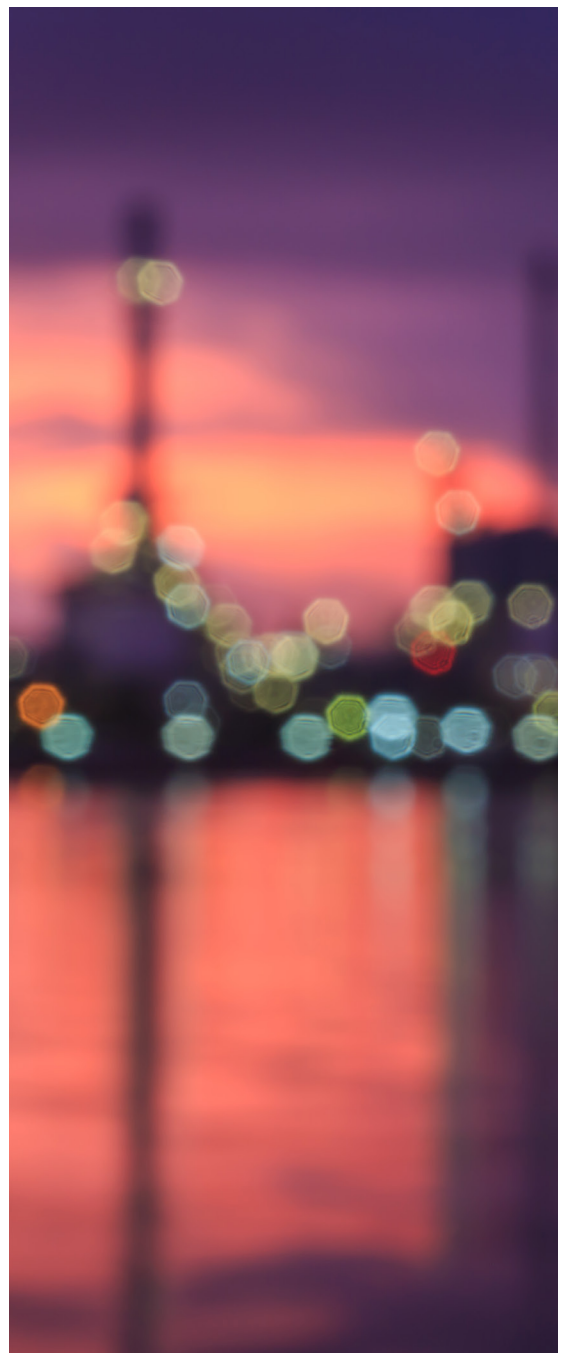
Other progress includes S&P Global Platts' launch of the first ever daily carbon offset premiums alongside monthly carbon intensity (CI) calculations for 14 major crude fields around the world.⁵ The marginal CI calculations for different oil fields will help producers, investors, shareholders and downstream purchasers better understand the emissions associated with the production of the crude oil. Over time, the CI of the production process can become its own attribute of the crude oil itself, like the density and how much sulphur is included.⁶

While not a carbon price, it does help increase economic environmental visibility of fossil fuel operations in the Middle East, giving energy stakeholders a better idea of where they need to address their CO₂ footprints. Further clarity on the details of Article 6 (carbon pricing) during COP26 also showed a meaningful step in the right direction.

"Until we have a clear vision on carbon pricing, we may not be able to achieve the pace we'd like for the energy transition."

Christian Lenoble

President and Country Manager, UAE, ExxonMobil



Realistic expectations

Putting a global price on carbon, essentially a "Brent for carbon", is far too complex a task for now, considering the business, socio-economic and environmental differences between regions. Cross-border communication, supply chains and trading mechanisms between the world's 195 sovereign nations⁷ are far too complicated to have a 'one mechanism suits all' approach. However, finding common cornerstones to form global fundamentals in carbon pricing that can support countries' decarbonisation efforts is a feasible goal for the 2020s and 2030s. For now, creating a regional carbon framework within the next few years is a realistic objective for the Middle East to pursue. Today's absence of carbon pricing signals in the region

acts as an environmental and economic inhibitor, which stops countries from reaching their full potential.

The EU's Emissions Trading Scheme (ETS), the world's oldest, established in 2005 – has reported several new record highs this year, peaking at €66/t during COP26 in mid-November.⁸ This was a welcomed sign for the energy stakeholders, who believe the €100/t-plus range indicates a healthier carbon market that will help realise net-zero goals. Carbon prices are also climbing in countries like Canada, Germany and Ireland.⁹ These stepping-stones provide a useful template for the Middle East, who can start to build their own carbon pricing strategy in the next few years, or at least offer more insight into how countries across the region expect to proceed in the long-term.

"Robust carbon pricing in the region will also play a key role in helping realise its ambition to export clean hydrogen to global markets, as a number of countries around the world are looking into adopting Carbon Border Adjustment Mechanisms"

Daria Nochevnik

Director of Policy & Partnerships, Hydrogen Council

1 World Bank; 2 World Bank; 3 World Bank; 4 S&P Global Platts; 5 PwC; 6 S&P Global Platts; 7 Nations Online; 8 Financial Times; 9 World Bank



#1

reason advocates push for the development of carbon pricing mechanisms is because it plays a crucial role in enabling investment in emissions reduction projects and technologies.

2°C

temperature goal detailed in the Paris Agreement will be near-impossible to reach if the majority of carbon prices – currently far below the \$40-80/tCO₂e range recommended for 2020 – do not significantly increase, or even double in the coming years.

65

carbon pricing initiatives worldwide so far, versus two in 1990.

Source: World Bank

Talent and culture: Keeping pace

As the energy landscape evolves, so must the minds that power it. As a leader in oil, the world's most commercialised commodity market, the Middle East region has deep-rooted technical expertise when it comes to maximising energy resources. The value of national and imported talent cannot be underestimated, but the talent pool and mindset must also evolve.

When asked about the main reasons for the ongoing skills shortage in the energy industry, 56% of recruiters said the biggest challenge they face is an aging workforce and lack of skilled staff. Meanwhile, 40% felt the biggest driver of the skills shortage is insufficient education and training.¹ So why the disconnect? In short, the surging renewables sector (there are now 12mn jobs in the global renewable energy market²), plus the rapid growth of digitalisation. Both areas are advancing faster than the available training and education. This means energy stakeholders not only need to address their decade-long talent squeeze, but they must also deal with the additional demand for talent with skills in sustainability and digitalisation. This is a difficult challenge for industry – and there are no simple fixes.

Diversification of the Middle East's energy job market, and the cultural push for low-carbon growth, cannot lead to an increasing shortage of talent for oil and gas. Both will remain critical in coming decades, with the region representing up to 45% of the world's total oil production in 2050.³ Inevitably, amid talk of peak oil and the growing attractiveness of careers in green energy, the oil and gas community in the Middle East is having to work harder to harness talent.

Highlighting the region's environmental and digital credentials, both of which remain strong, is one way the oil and gas community can enhance their global reputation as appealing employers, particularly to attract younger generations looking at careers in STEM (Science, Technology, Engineering and Mathematics).



Mastering the tightrope

The region's vast potential of "soft" power is clear: 66% of the population in the MENA region is under the age of Mastering the tightrope 35. There is also a very high level of digital awareness (for example, digital penetration reaches 99% in the UAE⁴). This pool of potential talent – often referred to as "the champions of tomorrow" – is increasingly underpinned by a growing educational focus on critical and creative thinking (often considered under the umbrella of adaptable intelligence [AQ]) and digitalisation.

This dynamic offers an exciting proposition for the Middle East's energy market, but there is a flip side if it is not smartly managed. The MENA region is the only area in the world where the risks of unemployment rise as levels of education increase.⁵ To steer away from this trend, the energy industry can help channel this vast natural resource towards a constructive future by making the industry more enticing to work in, benefitting both energy and social security. This presents an opportunity for NOCs, social and commercial champions, and for international oil companies (IOCs) looking to bolster their Environment, Social and Governance (ESG) credentials in international operations. It is also key to stopping the resource gap in a region as a high level of imported talent relocate to their home countries during the pandemic.

"As the energy industry rapidly evolves, the industry's approach to attracting, training and maintaining talent must evolve as well. Oil and gas companies in particular must showcase meaningful commitments to sustainability while further providing employment opportunities that leverage digital as well as critical and creative thinking skills."

Dr. Steve Griffiths

Senior Vice President, Research and Development,
Khalifa University

\$163bn

turnover by 2030, plus the creation of 140,000 new jobs, is anticipated in Europe as the continent's clean hydrogen market develops. Similar potential can be leveraged in the Middle East as it aims to be a globally competitive hydrogen hub by the early 2030s.¹

79%

of survey respondents from the oil and gas sector in this year's Global Energy Talent Index 2021 would consider switching to another sector in the next three years. Renewables is the most popular destination.²

¹ European Commission

² Global Energy Talent Index (GETI)

Digitalisation: Becoming future ready, now

Strengthening digital awareness, from the classroom to the boardroom, is vital in helping the Middle East efficiently leverage its natural resources. A data-led approach to boost transparency, accuracy and pinpoint even opaque operational trends that support decarbonisation is now a “must have” of boardroom agendas.



Digitalisation, as per the 4th Industrial Revolution, is an important ally for energy stakeholders' who are looking to cut CO₂ emissions, sustain energy security, explore new markets, all while being commercially robust and socially responsible. Adopting digital tools allows energy companies to realise value from low hanging fruit at a far greater speed – an advantage that must also be utilised to hasten decarbonisation. The industry does not have “ten years to scale up an idea before moving forward,” described one roundtable participant. Implementing technologies such as sensors to support predictive analytics and create digital twins, help operators to mitigate risk, increase asset productivity, and enhance their reliability and performance.

Decarbonising existing operations is typically more challenging than integrating digital solutions into new-build infrastructure. Not only does digitising existing infrastructure play a meaningful role in reducing the industry's existing CO₂ footprint, but it also improves profitability. Overall, this makes assets more commercially valuable and in turn, reduces the risk of stranded assets (estimated at \$1trn in the effort to reach Paris Agreement goals¹). This translates into less material waste and more efficient use of talent. Other more substantial digital initiatives could include data management centres for processing, storing and analysing information from power systems. This could also be valuable amid the rise of decentralisation. The Gulf Cooperation Council's (GCC) total distributed energy market is expected to generate \$602mn in revenue by December 2021, rising by 25% on 2020.² This includes solar PV, distributed wind power, hybrid systems, diesel gensets and gas gensets. This shift is expected to intensify during the 2020s, triggering a rethink in financing structures, transmission and distribution (T&D) methods and real-time supply and demand monitoring. For those involved, digital aids will be critical to ensuring energy security is sustained via streamlined and transparent channels of communication.

Strategic plans are also needed to improve data storage methods. Failing to do so means lessons are lost and efforts must be repeated. Less than 2% of the unusually high growth of data created and replicated worldwide in 2020 was saved and retained into 2021³ – a colossal loss of intel. Energy stakeholders must take note and integrate smart storage into their digital roadmaps.

Whichever route energy stakeholders take, strategies should centre around product data management (PDM) that boosts safety, operational visibility and energy efficiency. Such a data-led approach applies to all aspects of sustainability, not just energy markets. From carbon targets and community investment, to inclusion and diversity and ethical partnerships – these too are building blocks in the Middle East's drive towards decarbonisation. In this vein, capital allocation must be discussed with a long-term view; the depth of the industry's upheaval cannot sustain a "dive-in-and-out" financing approach.

Let's talk

Energy stakeholders' knowledge is certainly evolving, with more asking technology providers: what is your toolbox, how can it help us fulfill our resource potential and decarbonisation goals, and what do you need from us? Similar questions are being asked within partnerships, which are becoming a coveted differentiator in the highly competitive industry.

One emerging risk is that some energy stakeholders expect a one-stop digital shop that can be bought "off the shelf" to drive low-carbon growth with immediate benefits. The reality is that there is great value in constructive back-and-forth conversations in energy-tech alliances. These helps both parties pin down nuances in the digital offering, making sure the solution fits the exact needs of the energy company. Such tailoring will only become more valued as digitalisation becomes increasingly embedded in companies' competitive edge.



2026

could see a 11.28% rise in the compound annual growth rate (CAGR) in the big data analytics market across the global energy sector, versus this year's growth.¹ Such progress would give energy stakeholders the insights they need to accelerate their decarbonisation.

400bn

gigabytes per month of growth in global data traffic is anticipated between 2017- 2022.² Energy stakeholders' product data management (PDM) is paramount – for every step in the value chain.

3.7%

of the world's GHG emissions are generated by the global internet³ – approximately the same CO2 footprint of global shipping and aviation combined.⁴

\$63.5bn

is the anticipated value of the global market for digital twins – rising 41.7% between 2021-2027.⁵

1 Mordor Intelligence; 2 Ernst and Young; 3 Climate Care;
4 Gulf Intelligence; 5 Businesswire

1 Financial Times' Lex; 2 Frost & Sullivan; 3 International Data Corporation (IDC)

Greener skies: Helping SAF take off

Driving the development of sustainable aviation fuel (SAF) is a major and untapped opportunity in the Middle East. SAF derived sources, such as algae, jatropha, or waste by-products, have been shown to reduce the carbon footprint of aviation fuel by up to 80% over their full life cycle.

Already home to extensive expertise in fuel innovation and management, the Middle East contains some of the world's largest aviation hubs. The UAE ranked number one in the world for air trade facilitation¹ and Dubai's DXB reclaimed its title as the world's busiest international airport (from Amsterdam's Schiphol) in October 2021.²

Boosting the percentage of SAF at airports in Dubai, Abu Dhabi, Riyadh and Qatar alone, by utilising existing refining and pipeline infrastructure, could immediately increase the region's progress towards decarbonising travel. Comparatively, efforts somewhere like North America would arguably take longer and be more complex due to its vast geography and multiple airport hubs. Taking all these factors into account creates a strong platform to propel SAF development in the Middle East in the 2020s.

Some progress is already underway. For example, Emirates and GE Aviation signed a Memorandum of Understanding (MoU) to develop a programme that will see an Emirates Boeing 777-300ER conduct a test flight using 100% SAF by the end of 2022.³ Plus, Abu Dhabi's state-owned airline Etihad and local waste management firm Tadweer have agreed to develop the region's first waste-to-biojet plant,⁴ while Qatar Executive – a business jet subsidiary of Qatar Airways – has welcomed its eighth Gulfstream G650ER aircraft to operate in the US and Qatar using SAF. This makes Qatar Airways the first global business aviation operator to receive a delivery flight using SAF.⁵ However, even more efforts are needed to achieve long-term decarbonisation of aviation in the Middle East.

Building the environmental credentials of an industry, which forms a cornerstone of the globe's social and economic connectivity, will eventually pay off. The UAE's aviation industry alone supports 800,000 jobs (in a national population of 9.8mn people) and contributes \$47.4bn to the economy – 13.3% of the country's entire GDP.⁶ This rationale expands far beyond the Middle East. Nearly 88mn jobs (nearly nine times the size of the UAE's entire population) were supported worldwide in aviation and related tourism before Covid-19 took a toll on the industry.⁷ Successfully scaling up its SAF expertise in an industry that holds such global relevance means nations in the Middle East can also support their own push to become knowledge exporters, as per their National Visions.

370,000+

flights have taken to the skies using SAF since 2016. Seven technical pathways exist.

100mn

litres of SAF will be produced worldwide in 2021.

45+

airlines now have experience with SAF.

14bn

litres of SAF are in forward purchase agreements worldwide.

¹ US Department of Commerce, International Trade Administration

² Arabian Business; ³ Emirates; ⁴ Argus; ⁵ Qatar Airways;

⁶ US Department of Commerce, International Trade Administration;

⁷ Air Transport Action Group (ATAG)

What's next for the Middle East?

Clearly, there are a plethora of ways the Middle East can leverage its natural resources. The knowledge and tools we need to make them a reality already exist in some form or another, providing a critical springboard to accelerate progress in the 2020s.

We are facing an evolution, rather than a revolution, which should provide energy stakeholders with both relief and positive momentum. While the cliff of change is high, it is far from unscalable: an important distinction to sustain, and not overwhelm, stakeholders' pace.

Still, fundamental points continue to require strengthening, as roundtable participants illustrated. Notably, greater transparency, collaboration, education and financial fluidity are primary building blocks that must be reinforced so that opportunities detailed in this White Paper can truly flourish. This also applies to cross-border alliances, which we believe can have a significant and positive impact on the region's collective progress, especially in advance of COP28 in the UAE in 2023.

We look forward to working with our partners in the Middle East and beyond to help map the most environmentally and economically efficient route ahead. This will not only help ensure a win-win for all, but also enhance the Middle East's global reputation as an energy pioneer.



Participants

We would like to thank all of those who were able to join our roundtable session:

- ADNOC, James Humfrey, Executive Vice President, Growth & Industry
- Aspen Tech, Ron Beck, Global Senior Director - Industry Marketing
- Boston Consulting Group, Jamie Webster, Senior Director – Centre for Energy Impact in Washington
- ExxonMobil, Christian Lenoble, President and Country Manager, UAE
- HSBC, Hanan Bakr, Director, Sector Head of Energy and Sustainability Lead
- Honeywell, Norm Gilsdorf, President, High Growth Regions, Middle East, Russia, Turkey, Central Asia & Customs Union
- Hydrogen Council, Daria Nochevnik, Director of Policy & Partnerships
- Khalifa University, Dr. Steve Griffiths, Senior Vice President, Research and Development
- Mubadala Investment Company, Taisir Anbar, Director, UAE Investment
- Oxy, Kirby Lindsey, Vice President of Operations, - Eastern Hemisphere & UAE Exploration
- Qamar Energy, Robin Mills, CEO
- Shell, Joseph Harrison, Director, ADNOC Gas Processing; Director, Basrah Gas Company; Asset Director Abu Dhabi & Iraq, Shell International
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- Wood, Omar Bedani, Commercial Manager
- Wood, Mike Mair, Senior Business Development Director, Middle East & Africa
- Wood, Jack Stout, Vice President, Growth & Development, Applied Intelligence
- World Bank, Waleed Al Suraih, Senior Energy Specialist & GCC Infrastructure Program Leader
- Gulf Intelligence, Sean Evers, Managing Partner

Contact us

If you would like to discuss any of the points raised in this paper in more detail, then please get in touch.



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Wood. Powered by possible

The need for change has never been greater. In our industries, in the way we treat our planet, and in how we live.

To challenge the status quo we must be brave – it's having the courage to forge new answers. We're 40,000 inquisitive minds, on a quest to unlock solutions to the world's most critical challenges, across all of energy and the built environment.

United by our mission to create a sustainable future as the world evolves to a cleaner planet. Our bold spirit drives us to lead the charge, our actions transform challenges into solutions, and our curiosity keeps us pushing, innovating, making the impossible... possible.

Because we understand the time for talk is over. Because the world needs new answers to old challenges. Because at Wood, we are future ready, now.

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