



## Content

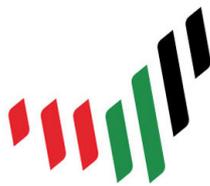
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## Siemens Energy in collaboration with Dubai Electricity and Water Authority (DEWA) inaugurate first industrial scale Green Hydrogen Project in the MENA region



الإمارات  
THE EMIRATES



FDI inflows to the UAE grew 44.2 per cent in 2020 to \$19.88bn compared to 2019, according to a report by the Ministry of Economy.

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**FDI**



Siemens Energy, in collaboration with Dubai Electricity and Water Authority (DEWA) and Expo 2020 Dubai, has inaugurated the first industrial scale, solar-driven green hydrogen facility in the Middle East and North Africa. Located at DEWA's Outdoor Testing Facility of the Research and Development (R&D) Centre at the Mohammed bin Rashid Al Maktoum Solar Park in Dubai, this trail-blazing Green Hydrogen Project serves as a major milestone in the advancement of the sustainable energy industry in the region.

The plant was inaugurated by His Highness Sheikh Ahmed bin Saeed Al Maktoum, Chairman of the Dubai Supreme Council of Energy, and Chairman of the Expo 2020 Dubai Higher Committee. His Highness Sheikh Zayed bin Sultan bin Khalifa Al Nahyan, Chairman of His

Highness Sheikh Sultan Bin Khalifa Al Nahyan Humanitarian & Scientific Foundation; Her Excellency Reem Al Hashimy, Minister of State for International Cooperation and Director General, Expo 2020 Dubai; His Excellency Saeed Mohammed Al Tayer, MD & CEO of Dubai Electricity and Water Authority (DEWA); Dr. Christian Bruch, President and CEO of Siemens Energy, and officials from the public and private sectors were present.

The integrated facility was developed with electrolysis, storage, and re-electricification capabilities, to maximize the benefits of the pilot project. Daylight solar power from the solar park will enable the pilot project to produce around 20.5kg/hr of hydrogen at 1.25MWe of peak power. Operational data from the green hydrogen electrolysis will be displayed at Expo 2020, one of the most sustainable World >

Expos in history and the largest event ever held in the Arab world.

Utilizing this pilot project, DEWA aims to demonstrate the production of green hydrogen from solar power, as well as the storage, and re-electrification of hydrogen. This is a system that allows for buffering renewable energy production, both for fast response applications, as well as for long-term storage. The plant has been built to accommodate future applications and test platforms for the different uses of hydrogen, including potential mobility and industrial uses.

Her Excellency Reem Al Hashimy said: "The Green Hydrogen project is leading by example, showing how technology and collaboration can help build a cleaner, safer and healthier future for everyone. It epitomises the shared desire of Expo 2020 Dubai, DEWA, our Official Sustainable Energy Partner, and Siemens Energy to develop a global culture of innovation and deploy life-changing ideas and technologies around sustainability."

"Expo 2020 congratulates all those involved, and believes this innovative project will inspire many more creative solutions that tackle some of the greatest challenges facing our planet. In less than five months, we will celebrate these ground-breaking collaborations, showcasing the UAE's commitment to the Sustainable Development Goals and creating a meaningful legacy that will have a positive impact beyond the site and the six months of Expo."

"This pioneering project which we have implemented with our strategic partner Siemens Energy is a role model for strategic partnerships between the public and private sectors. Through this pilot project DEWA aims to demonstrate the production of green hydrogen from solar power, its storage and re-electrification. This is a system that allows for buffering renewable energy production, both for fast response applications, as well as for long-term storage. The plant has been built to accommodate future applications and test platforms for the different uses of hydrogen, including potential mobility and industrial uses. DEWA has already explored and developed a pilot project for green mobility using hydrogen that can be executed in the near future, in addition to a number of studies, business strategies and a potential roadmap for hydrogen usage. DEWA is building know-how, ex-

perience and capabilities to contribute in shaping the clean hydrogen future of the UAE." said His Excellency Saeed Mohammed Al Tayer, MD & CEO of DEWA.

"This landmark Green Hydrogen Project highlights the importance of partnership in driving forward innovative new clean energy solutions and tackling the existential threat from global climate change. As the first industrial scale facility to produce green hydrogen in the Middle East and North Africa, it is an important milestone of the energy transformation. We look forward to working together to decarbonize industries that are hard to abate with renewable energy alone," said Christian Bruch, CEO of Siemens Energy.

"We are delighted about this excellent example of cooperation between German and UAE partners and hope that this is the first of many industrial scale green hydrogen projects in the region. The German government will continue to drive cooperation on hydrogen between the UAE and Germany in the context of our bilateral Energy Partnership and expect further bilateral projects to be launched soon", said Parliamentary State Secretary Thomas Bareiss MdB from the Ministry of Economic Affairs and Energy.

Power for the Green Hydrogen Project will be provided by the Mohammed bin Rashid Al Maktoum Solar Park, which will generate 5,000 megawatts of clean energy by 2030 as the largest single-site solar park in the world.

Hydrogen can be used for re-electrification through gas motors, gas turbines and fuel cells. It can also be used as a feedstock for the chemical industry (e.g. ammonia, syn-fuels, green-chemicals, etc.), as fuel for transportation, a reducing agent for the steel industry, as heat for industrial processes, gas for residential heating and cooking purposes, or energy for export.

Hydrogen technologies will accelerate renewable energy integration and deployment in the region and pave the way for the transition to a sustainable and green economy in the UAE. Hydrogen is a highly efficient energy carrier. Upon combustion, the only byproduct of this zero-emissions fuel is water, making it an ideal medium for electrification and the substitution of fossil fuels in industrial processes and other applications by way of sector coupling. It can be transported using existing pipeline infrastructure

and/or via trailers and tankers, either as hydrogen or derivatives like ammonia, methanol, etc.

Moreover, hydrogen is very suitable for large-scale, as well as long-term, and high-capacity storage and can provide fast and sustained energy levels, suitable to offset intermittent output from some renewable energy sources. It can be used to fuel gas turbines, which offer the flexibility and fast ramp-up needed to balance volatile power generation from some renewable sources.

The operational experience gained from the Green Hydrogen Project will be invaluable in developing sustainable and carbon-free solutions for numerous industries, which will drive green economic growth for the benefit of future generations.

Against the background of low costs of electricity for solar PV and wind power in the region, hydrogen has the potential to be a key fuel in the energy mix of the future and could open up energy export opportunities for those areas with access to abundant renewable energies.

<https://www.siemens-energy.com/global/en.html>

## UAE FDI inflow climbs over 44% to \$19.88bn in 2020

FDI outflows meanwhile amounted to \$9.2bn and covered various vital economic sectors



FDI inflows to the UAE grew 44.2 per cent in 2020 to \$19.88bn compared to 2019, according to a report by the Ministry of Economy.

Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of UAE and Ruler of Dubai tweeted on Saturday that despite the UN's estimates that global foreign direct investment flows decreased by 42 per cent in 2020 over Covid-19, the UAE witnessed a 44 per cent growth in FDI flows in 2020, compared to 2019, to reach Dhs73bn. "Good Crisis management is a guaranteed investment," added Sheikh Mohammed.

The cumulative value of foreign direct investments inflows amounted to \$174bn, a growth of 12.9 per cent during the reference period.

FDIs were recorded across sectors, primarily oil and gas, considering several investment partnerships struck by the Abu Dhabi National Oil Company (ADNOC) with a number of foreign companies.

The UAE has drawn FDIs for digital economy, including Artificial Intelligence, Internet of Things, blockchain, medical knowhow, augmented and virtual reality (AR and VR), robotics, self-drive automobiles, renewable energy, innovation, and agritech, among others.

As for FDI outflows, they amounted to \$9.2bn and covered various vital economic sectors, including aviation, transportation, mining, renewable energy, real estate, construction, communication, oil and natural gas, traditional and renewable energy, logistics, ports and infrastructure, tourism, leisure, banking, and agriculture.

"The investment landscape of the UAE has been steadily developing over the past years with the rapid introduction of progressive measures that have earned the nation a coveted position internationally while leading regionally," said Abdullah bin Touq Al Marri, Cabinet Member and Minister of Economy. He added that the coming period will see more measures to strengthen the investment landscape and

grow investor confidence in priority sectors.

Dubai recorded Dhs24.7bn worth of FDI in 2020 across 455 projects, according to data from the Dubai FDI Monitor released by the Dubai Investment Development Agency (Dubai FDI), an agency of Dubai Economy.

<https://gulfbusiness.com/uae-fdi-in-flows-climbs-over-44-to-19-88-bn-in-2020/>

UAE cements its position as a global investment destination in 2020

%44.2

Growth in FDI inflows to the UAE in 2020

USD  
174  
million

Cumulative balance of FDI flows to the UAE in 2020,

with a growth of %12.9 in 2019

USD  
9.2  
million

Volume of outward flow of UAE's direct investments in 2020

## Most important sectors of foreign direct investment in the UAE



Oil and gas



Artificial intelligence



Innovative medical technologies



Advanced Transportation



Robots



Self-driving cars



Renewable energy



Innovation and technology

## The UAE is preparing for the future by investing in advanced technology

The country is preparing to enter into the post-oil era by diversifying into a knowledge and sustainable innovation-driven economy



For the first time in modern history, humans are looking for safety in separation. The pandemic has left us relying on social distancing and masks to shield ourselves from an invisible threat that may be lurking in any space and on any surface. And unlike ever before, the online world has become our safe-haven, keeping us away from the dangers of the physical world.

The most important lesson we've learnt amid the stark challenges of the past year is that our need to communicate with each other is essential to our survival and well-being.

For humanity to prosper, we must embrace the fact that our new reality requires communication with and through, everything around us: with each other, with our devices and even between devices. And while the pandemic might have laid waste to the old ways of living and working to which we had grown accustomed to, our determination to cope with it and evolve despite it, has created a significant new opportunity.

At no other point in history has humanity had to step into the future. We have made tremendous progress in an unprecedented period of time and we now stand at the verge of a full-fledged industrial revolution that is reshaping our global economy.

Could it be that society's hope resides in machines that transmit our thoughts, emotions and concerns across cables and networks to colleagues and loved-ones near and far? The growing population of people across the world that are working remotely would suggest so. And this will certainly be further cemented as our children, the future leaders of our world, continue to have their personalities shaped virtually through distance learning and digital interactions.

Across each of the three prior industrial revolutions (steam, electricity and electronics), the direct impact has been a mass optimisation of production. However, the fourth industrial revolution (4IR) is relying on an array of new technologies, including artificial intelligence, internet of things (IoT), cloud computing, blockchain and 5G to completely transform the way industries, governments and societies function. From transport to finance, food, energy, healthcare and education, 4IR technologies will integrate communication through digitisation to enhance production and influence every aspect of our lives.

So, where does our journey to the future start? In light of the global pandemic, it is essential to understand the trends that will govern our world over the next decade. And for that, we must be inspired by countries that have successfully managed the crisis, overcome immense challenges and identified opportunities for growth and success. For us in the UAE, the answer is very simple: the future starts here.

The UAE has demonstrated an unparalleled level of crisis management to emerge as a regional and global force. It remains one of the leading countries on Covid-19 testing and is within the top five worldwide in the percentage of citizens and residents vaccinated, surpassing any of the G20 countries.

While preserving the health of its workforce, it has continued to remain economically vibrant. So much so, that at a time when the vast majority of the world was engulfed in attempting to manage the crisis, the UAE became the first Arab country to launch a probe to Mars.

The UAE's unique ability to navigate through an unprecedented situation is the result of a vision 50 years in the making. Since its establishment in 1971, the country has sought to build an advanced technological and industrial sector. Today, the industrial sector contributes to about eight per cent of the country's gross domestic product, serving as a model for developing countries looking to advance their industrial sector. And it didn't stop there.

Over the next 50 years, the country is preparing to advance into the post-oil era by diversifying into a knowledge and sustain-

able innovation-driven economy, developing an industrial sector underpinned by 4IR technologies.

With the launch of a UAE Strategy for the Fourth Industrial Revolution and the establishment of a Ministry for Artificial Intelligence, the Emirates has strengthened its position as one of the most prominent global destinations that can attract foreign direct investment in the advanced technologies sector.

In addition, the young country has made remarkable progress in advancing a number of specialised industries such as aviation, military, mining, renewable energy, and the information and communication technology sector.

For the many reasons above, the fourth edition of the Global Manufacturing and Industrialisation Summit (#GMIS2021) will be held alongside Expo Dubai under the theme of 'Rewiring Societies: Repurposing Digitalisation for Prosperity.'

From its ambitious inauguration four years ago, the Global Manufacturing and Industrialisation Summit has served as a voice and venue for heads of state, ministers, chief executives, technologists, academics and industry leaders to share their knowledge with the rest of the world.

By promoting the use of technology as a tool for global co-operation, the summit has become an international gathering place for greater investment in capabilities, innovation and global skills development.

#GMIS2021 will reinforce the vision for a future that is reliant on digitalisation and connectivity, a future where our world cannot prosper without humans and machines coexisting in harmony. In line with Expo Dubai's theme of "Connecting Minds, Creating the Future", #GMIS2021 will inspire conversations that will shape a digitally inclusive, interconnected and sustainable future for all.

Badr Al-Olama is the head of the organising committee of the Global Manufacturing and Industrialisation Summit.

<https://www.thenationalnews.com/business/the-uae-is-preparing-for-the-future-by-investing-in-advanced-technology-1.1226248>

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@expo2020dubai unveils curated #itineraries to help attract millions of #visitors



Revealed: The Expo 2020 itineraries to help attract millions of visitors to Dubai Available in a half-day, full-day or three-day formats, the journeys will target families, couples, students and business travellers arabianbusiness.com

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**The National** @TheNationalNews

Abu Dhabi's Adio in talks with 'dozens' of companies to set up innovation and R&D centres in the emirate



Abu Dhabi's Adio in talks with 'dozens' of companies to set up innovation and R... Investment office is currently holding discussions with more than 20 institutions on setting up a research base, director general Tariq bin Hendi says thenationalnews.com

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Now is the right time to allow #Dubai hotels to return to 100 percent occupancy, @dubaitourism CEO @IssamKazim says at the Arabian Travel Market #ATM2021.

arabianbusiness.com/travel-hospita...



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**Emirates Airline** @emirates

Hallo Frankfurt! Emirates' flagship @Airbus A380 is back at Frankfurt Airport, offering its passengers a daily service to and from @DXB throughout May.

@Airport\_FRA

#FlyEmiratesFlyBetter



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**The National** @TheNationalNews

Chief of Dubai Airports says international passenger volumes expected to return to pre-pandemic levels by 2024



Dubai Airports chief projects return to pre-Covid passenger volumes by 2024 Dubai airports 'ready to go' once global travel restrictions ease thenationalnews.com

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