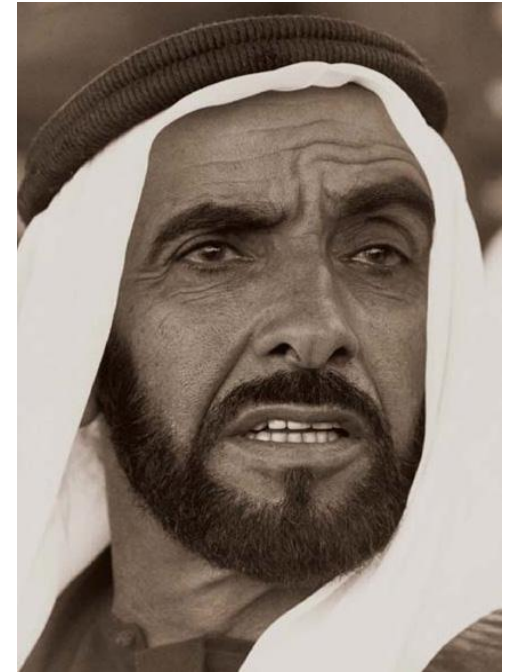
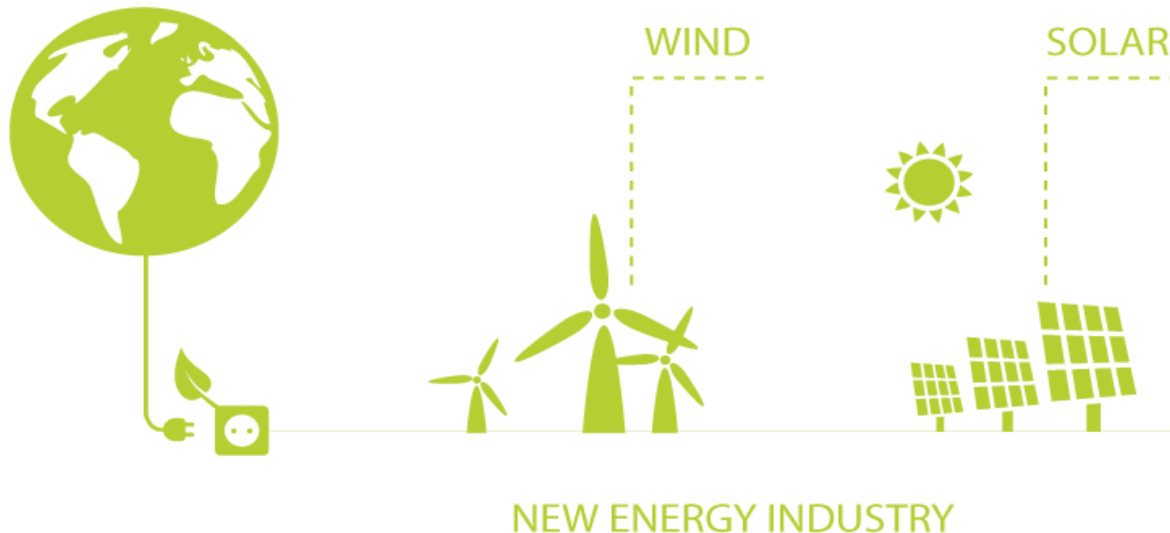


# **Masdar: Energising Communities Across the Globe**

- Today, the UAE has burgeoning sectors in aerospace, information technology, tourism, healthcare, financial services, sustainability and renewable energy
- Committed to maintaining leadership position in the world energy market, Abu Dhabi is investing, incubating and establishing a new energy industry

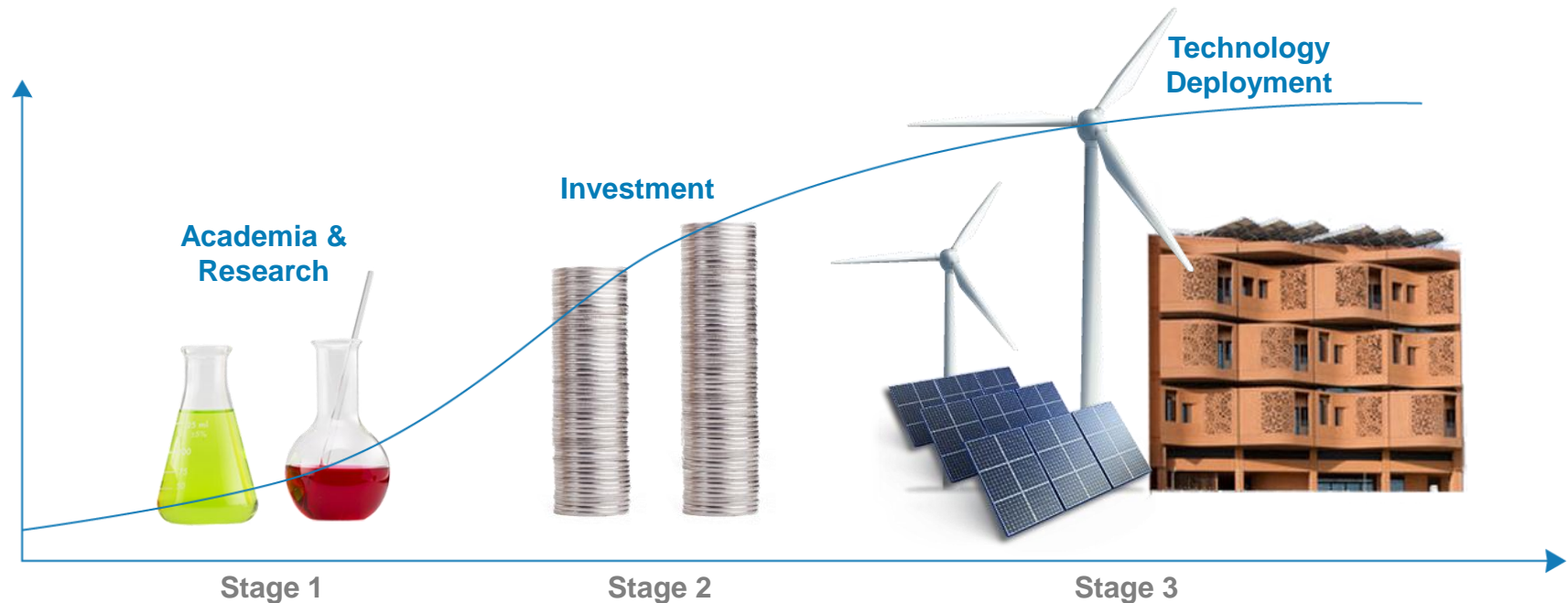


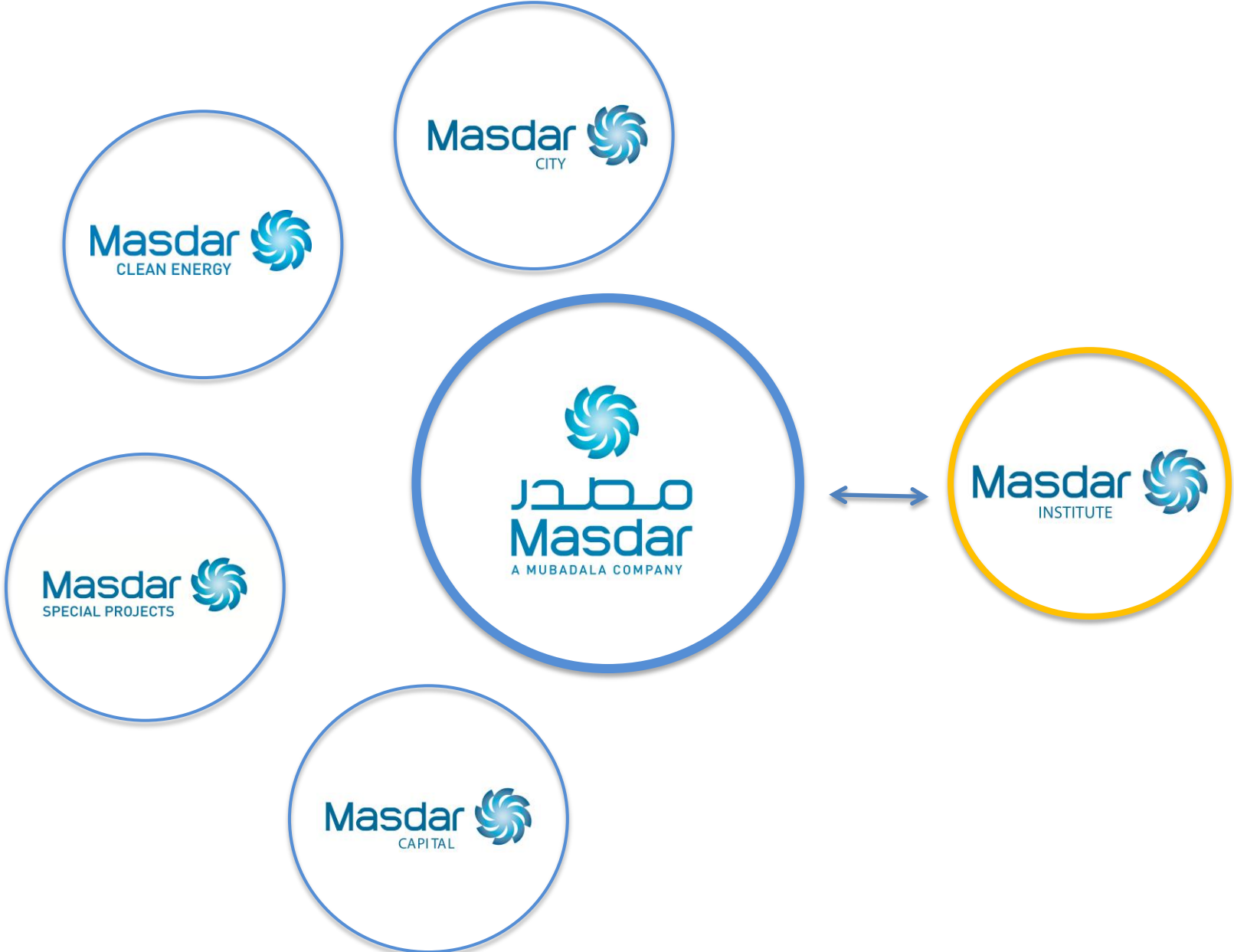
*“We must not rely on oil alone as the main source of our national income.”*

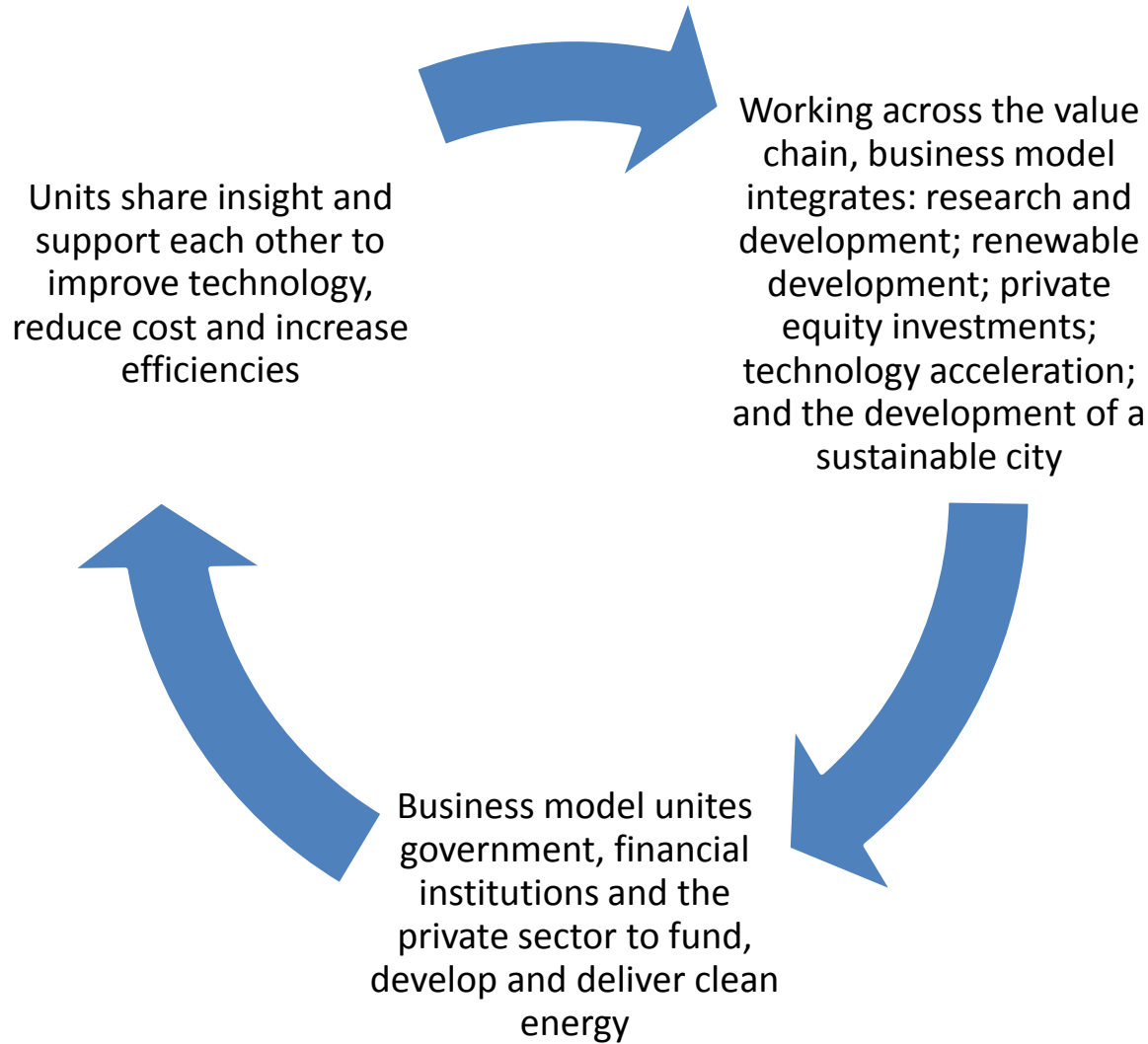
*“We have to diversify the sources of our revenue and construct economic projects that will ensure a free, stable and dignified life for the people.”*

*The late Sheikh Zayed bin Sultan al Nahyan  
Founding father of the United Arab Emirates*

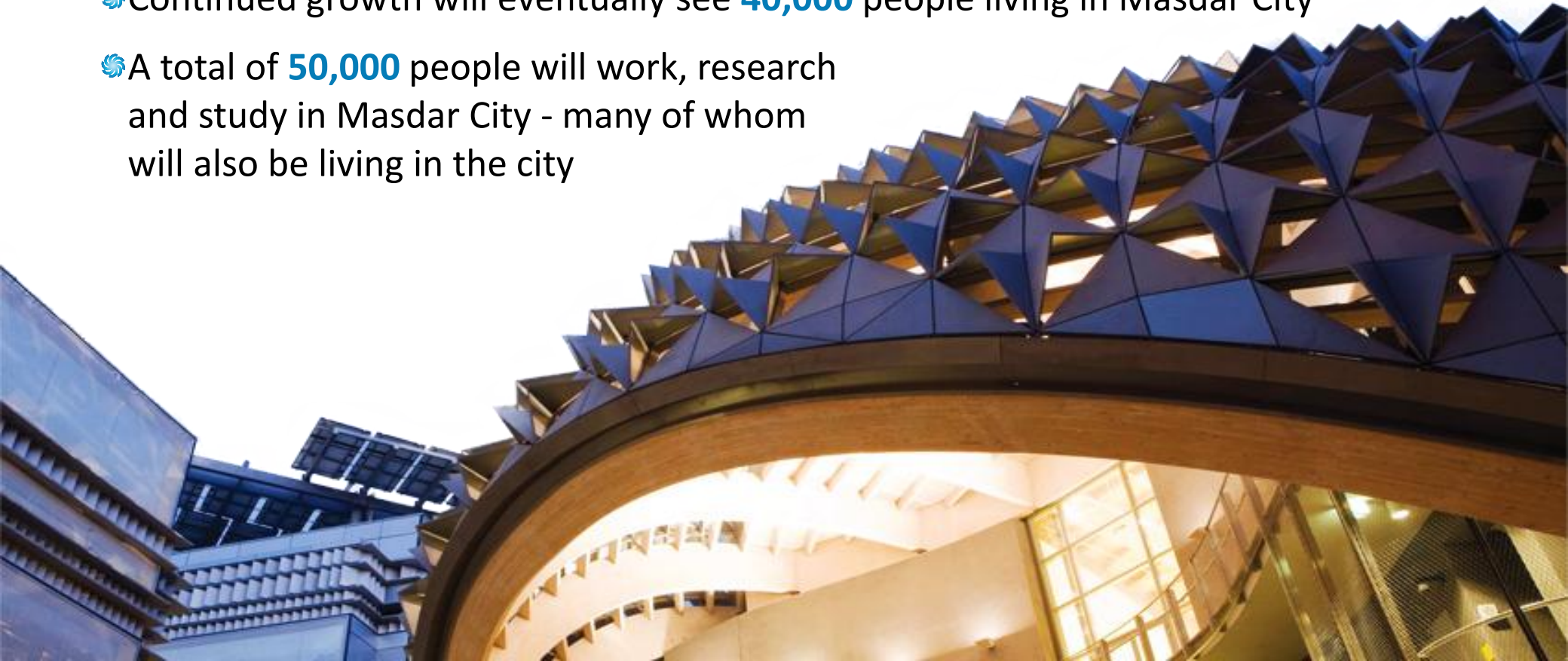
- ✦ Masdar, a subsidiary of the **Mubadala Development Company**, is mandated to expand the UAE's energy portfolio by **advancing**, **commercializing** and **deploying** future energy and clean technologies
- ✦ We operate across the industry value chain by merging **higher education**, **R&D**, **investment** and **large-scale clean energy development**
- ✦ Our holistic business model **fosters innovation** and **commercializing viable technologies**







- ☼ Masdar City, powered entirely by renewable energy, is one of the **most sustainable urban developments in the world**
- ☼ A **cleantech cluster, free zone** and **investment zone** attracting companies to commercialize and deploy new energy technologies in the Middle East
- ☼ Continued growth will eventually see **40,000** people living in Masdar City
- ☼ A total of **50,000** people will work, research and study in Masdar City - many of whom will also be living in the city

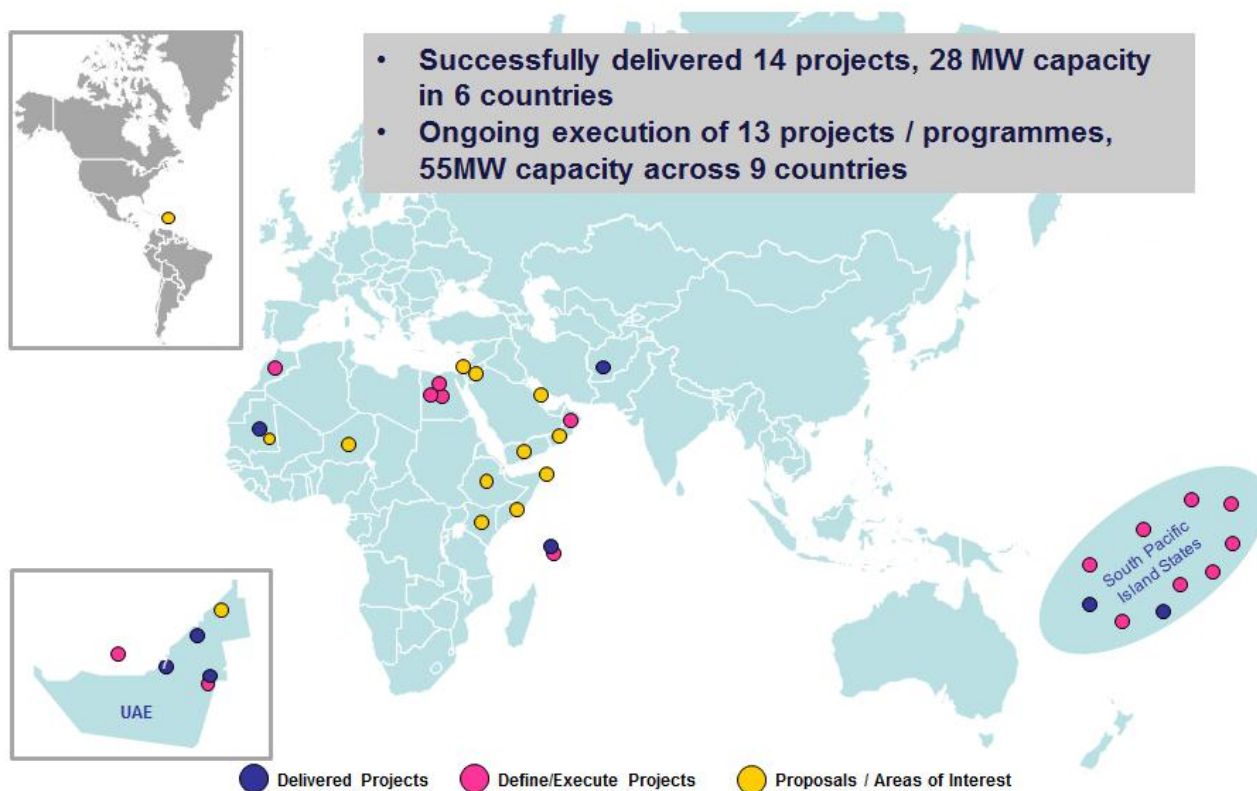


The Masdar Institute of Science and Technology is an independent, research-driven, graduate-level university focused on advanced energy and sustainable technologies.



With its world-class faculty and top-tier students, the institute is committed to finding solutions to the challenges of clean energy and climate change through education and research.

## Special Projects deploys renewable energy and clean-technology solutions to remote, rural communities around the world





## Masdar Special Projects:

### **Delivers tailored renewable-energy solutions that enable communities to thrive**

- Working across the globe – from the Pacific to Africa – Special Projects is helping enhance access to energy often under challenging, complex conditions
- Clients include governments, private sector developers and organizations

### **Leverages expertise in deploying clean technology solutions that promote sustainability, such as:**

- Water security through renewable-powered desalination
- Off-grid renewable energy generation
- Building efficiency and energy management
- Solid-waste and wastewater management

- **Sheikh Zayed Solar Power Plant Mauritania**
  - Completed in 2013
  - 15MW - largest solar PV plant in Africa at the time of completion
  - Powering 10,000 homes in Nouakchott

- **Wind Farm in the Republic of Seychelles**
  - 6MW wind farm
  - US\$28 million project was financed through a grant from Abu Dhabi Fund for Development

- **Solar Home Systems in Afghanistan**
  - Completed in 2013
  - 600 stand-alone solar systems in 27 villages

- **Abu Dhabi Solar Rooftop 2.3MW**
  - ADNEC, MI, Al Mamoura Bld, Officers Club
  - Sheikh Sultan bin Zayed Mosque





- Masdar has partnered with E.ON and DONG Energy to build the London Array, an offshore wind farm in the Thames River estuary that provides clean power for 500,000 homes in the United Kingdom.
- Masdar is expanding its work in the UK with the Dudgeon Offshore Wind Farm in the North Sea, a 402 megawatt plant that will provide low-cost electricity while creating hundreds of jobs in East Anglia. This cooperation with Statoil and Statkraft will generate enough electricity for 410,000 homes by the end of 2017.

## UAE - Pacific Partnership Fund:

A US\$50 million initiative delivering grant-funded renewable energy projects across several Pacific Island nations, delivered by Masdar.

- Project will see an annual reduction of more than 4,000 tons of CO<sub>2</sub> emissions, 1.4 million liters of diesel fuel saved (value of almost US\$2 million)
  - **Fiji - 555kW** solar PV
  - **Kiribati 400kW** solar PV and water protection
  - **Samoa 550kW** cyclone-proof wind farm
  - **Tonga 512kW** solar PV
  - **Tuvalu 350kW** rooftop solar
  - **Vanuatu 501kW** solar PV



Four new solar projects to be completed in 2016 – in the **Marshall Islands, Nauru, Palau, and the Solomon Islands.**

### **Masdar Special Projects is successfully advancing the global mission of delivering sustainable access to modern energy:**

- Helping communities gain critical access to energy – reducing costs, cutting emissions and enabling economic growth
  - The 15-megawatt PV plant in Mauritania delivers 10 percent of country's energy capacity, reduces annual consumption of diesel fuel and displaces 21,225 tons of CO2 annually.
- Renewables projects across Pacific island states save US\$2 million in energy costs and mitigate 4000 tonnes of CO2 every year
- Testing and advancing a ground-breaking pilot project to accelerate commercially viable renewable energy desalination
  - 2016: estimated completion of pilot
  - 4-5 five pilot plants will produce 1,500 to 2,500 m3 of water each day
  - Working closely with Masdar Institute and global technology partners



### **Masdar City is home to the Headquarters of the International Renewable Energy Agency (IRENA).**

IRENA is an intergovernmental organization that supports countries in their transition to a sustainable energy future, and serves as the principal platform for international cooperation, a center of excellence, and a repository of policy, technology, resource and financial knowledge on renewable energy.



### Abu Dhabi Sustainability Week

- Over 30,000 participants from 155 countries
- Over 3000 attendees to the opening ceremony
- 650 exhibitors from 40 countries
- 160 high level speakers



The Zayed Future Energy Prize was launched in 2008 by the UAE leadership

Its aim is to reward, inspire, and empower individuals and organisations across the globe to innovate and seek solutions in renewable energy and sustainability.



To date our 39 winners of the prize have;

- Changed the lives of over 150 million people;
- Enable energy access for 2.5 million people in rural Africa;
- Provide over 6 million people with affordable safe drinking water daily;
- And, helped train over 5000 women as green technicians



## Women in Sustainability, Environment and Renewable Energy

- An initiative by Masdar and the Zayed Future Energy Prize
  - Aiming to empower and inspire women to be catalysts of innovation and the drivers of commercial solutions
  - Enabling women to gain real-world experience and to build the right skills necessary to be leaders of industry, entrepreneurs and excel in sectors traditionally dominated by men
- WiSER regularly convenes women leaders to open forums that:
  - Encourage dialogue and advocate for practical solutions
  - Showcase the real-world contributions that women are having across multiple industries and disciplines
  - Amplify and share a narrative that can reach and inspire women of all ages around the world

Thank you

