



Masdar
A MUBADALA COMPANY



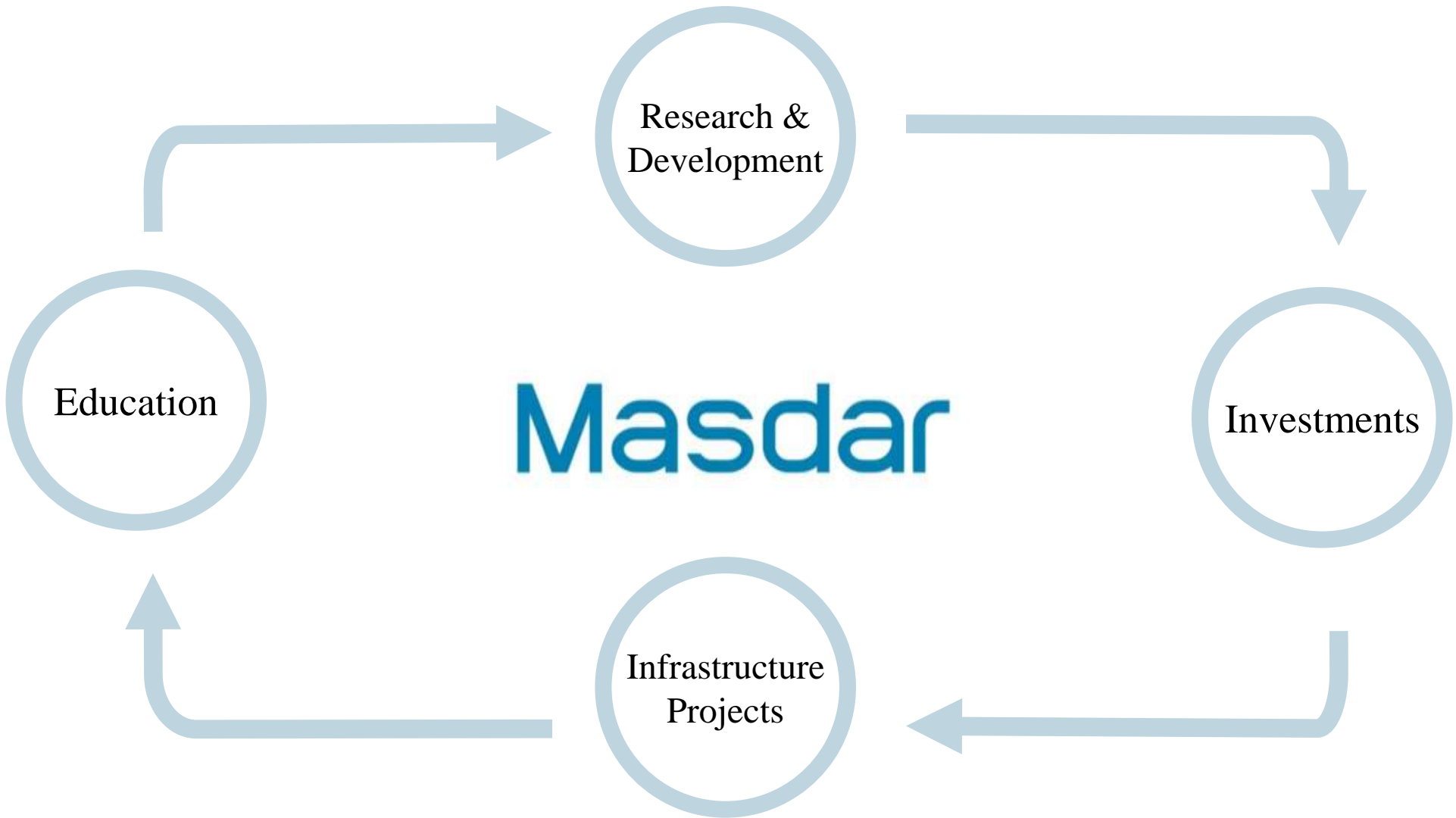
Founding Visionary Inspiration

“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.”

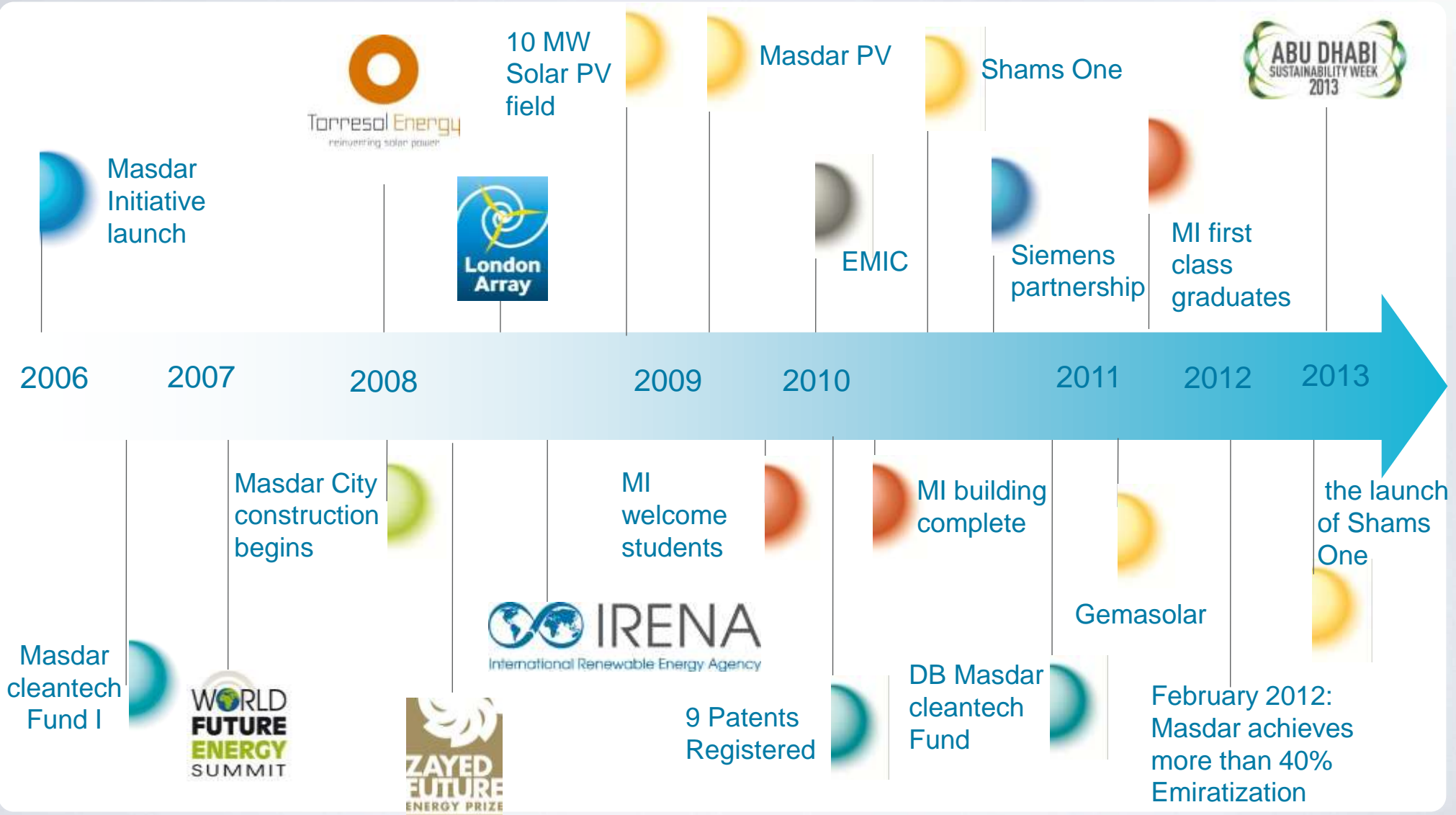
**The late Sheikh Zayed bin Sultan al Nahyan
Founder of the United Arab Emirates**



Masdar - An Integrated Approach to Renewable Energy and Cleantech



Masdar's Key Milestones Since Its Establishment in 2006



Masdar Institute

Masdar Institute: a research-driven graduate-level university

Masdar Institute Fast Facts

What is the Masdar Institute?

Graduate level education in advanced energy and sustainable technologies

Extensive collaboration with Massachusetts Institute of Technology (MIT)

Highly qualified international faculty

Elite student body

Scholarships

Research domains

Future Energy Systems
Water, Environment and Health
Microsystems & Advanced Materials

Research partnerships

Boeing, UOP/Honeywell, Etihad Airways,
Advanced Technology Investment Company,
Siemens, Emirates Aluminium, Toyota

Campus

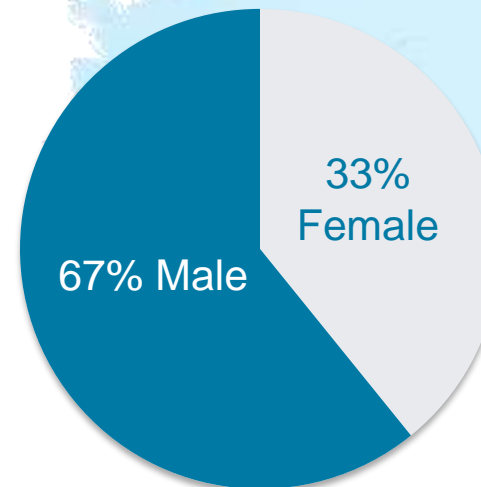
Sustainable architecture
State-of-the-art open Labs
High-tech Cleanroom
Microscopy Lab
Campus will accommodate more than 600 students over the next five years



Masdar Institute – The Brightest Minds

- 63 faculty members
- Eight Masters programs
- A Foundation program for UAE nationals

- 420 students
- 40% UAE nationals
- Aged between 20 and 37 years
- Student body to grow to 600 over next 5 years



Masdar Capital

Two Investment Funds with International Partners

Masdar Clean Tech Fund launched in 2006

- Masdar Clean Tech Fund (“Fund 1”)
- US\$250 million partnership
- US\$10-25 million investment ticket size in companies with promising technology and defendable IP
- Current investments range from Solar Thin-Film to Waste-to-Energy and Water Purification

DB Masdar Clean Tech Fund launched in 2010

- DB Masdar Clean Tech Fund (“Fund 2”)
- Established January 2010, raising US\$290 million

Investment Criteria

Management quality

Experienced, hands-on team with proven management capability

Technology

Propriety and protected (ideally international patents) technology with potential for large-scale application; Demonstrated superior performance

Regulatory certainty

Reasonable certainty around stable regulatory environment

Opportunities driven by industry logic

Fragmented market (leading to consolidation); Potential for scale benefits or vertical integration

Geographic expansion

Seek opportunities for geographic expansion of investee companies

Exit options (3-5 years)

Multiple exit options/timeframes possible via an IPO, natural owners and secondary buyers

Governance

Lead investor: board seat, other governance rights

Masdar Clean Energy

Masdar Clean Energy represents Masdar's core efforts in Utilities Management

Masdar Clean Energy Fast Facts

Mandate

To build a portfolio of large scale renewable energy power plants across the globe

Projects

Currently major projects include – Shams One (UAE), London Array (UK), Gemasolar (Spain) and the Seychelles

Technology

Break through technology in the field of solar PV, concentrated solar power, onshore and offshore wind farms

Partnerships include

DONG, e.ON, SENER, Total, Abengoa



Profile of Masdar Clean Energy projects – Shams One

Shams One Fast Facts

The flagship project

One of the world's largest concentrated solar power (CSP) plants and largest in Middle East region

- 120km Southwest of Abu Dhabi City in the UAE
- Extends over an area of 2.5km² with a capacity of 100MW



Profile of Masdar Clean Energy's International projects in Power Production

Major International Projects

- **London Array** - Phase 1 is 630MW with 175 turbines. Set to become world's largest offshore farm
- **Gemasolar** - First commercial CSP plant with solar tower tech and thermal storage, even after sun sets
- **Valle 1 & 2** - Two adjacent plants with parabolic trough tech and thermal storage with 50 MW capacity each

International Projects

- **Seychelles onshore wind farm** - The first phase of the project consists of 6MW wind farm with 8 turbines. It will constitute 11% installed capacity of electricity on the main Mahe island.
- **Mauritania Solar Power Plant** - 15MW solar power project in Nouakchott, the capital city of the Islamic Republic of Mauritania. The plant will be the first utility-scale solar power installation in the Islamic Republic of Mauritania and will deliver 10 per cent of electricity capacity in the country.



Profile of Masdar Clean Energy in Carbon Reduction

Masdar Carbon Fast Facts

Carbon Footprint

A leader in carbon emissions reduction through advance projects that bring significant reductions to UAE's carbon footprint

Clean Fossil Fuel

Focusing on clean Hydrocarbon power and industrial energy efficiency creates additional value through carbon monetization

Technology






Solution-orientated technologies addressing energy security, climate change, and global sustainable development

Partners

e.ON, ADNOC, ADWEA, Siemens, ADBIC, Total, Etihad



CCS – What is Masdar Doing?

-  Masdar is pioneering large-scale Carbon Capture and Storage (CCS), helping deliver Enhanced Oil Recovery (EOR) in Abu Dhabi.
-  Building a National Carbon Capture and Storage network
-  Capturing carbon from power generation and industry
-  Transporting to Abu Dhabi oil reservoirs
-  Using CO₂ for Enhanced Oil Recovery instead of reinjecting natural gas

Key Collaborations



Masdar City

Profile of Masdar City

Masdar City Fast Facts

Total site area

590 hectars
5.9 SqKm

Residential

52%

Commercial

38%

Retail

2%

Community

8%

Projected resident
population

40,000

Projected commuters

50,000

Residential density

140 people /
hectare



MASDAR CITY PROGRESS

Siemens ME HQ



Residential



MI Phase A



Courtyard



Residential



MI Phase B

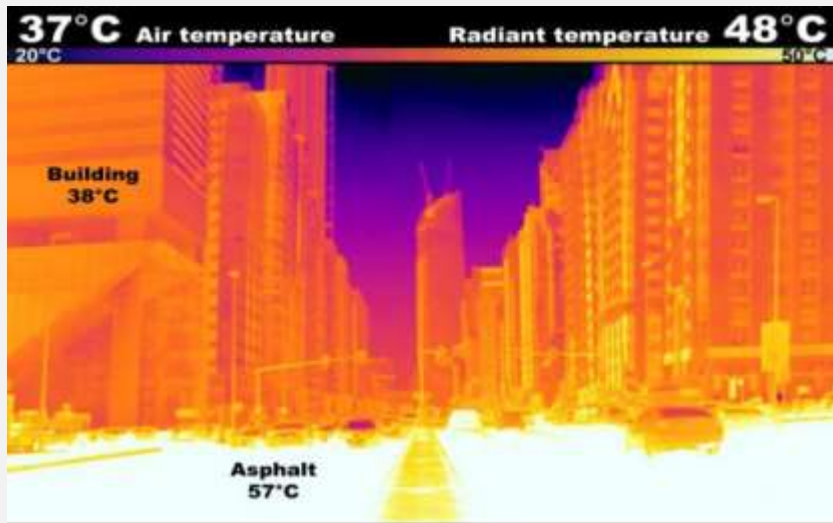
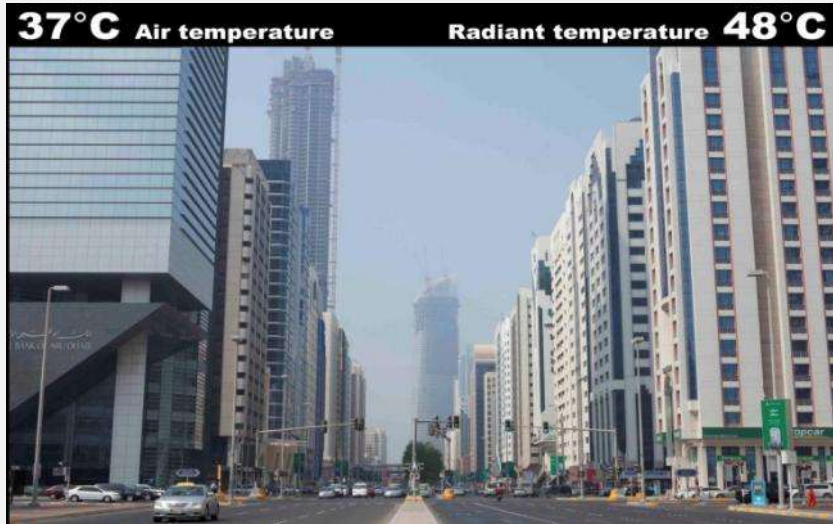


Masdar IRENA HQ

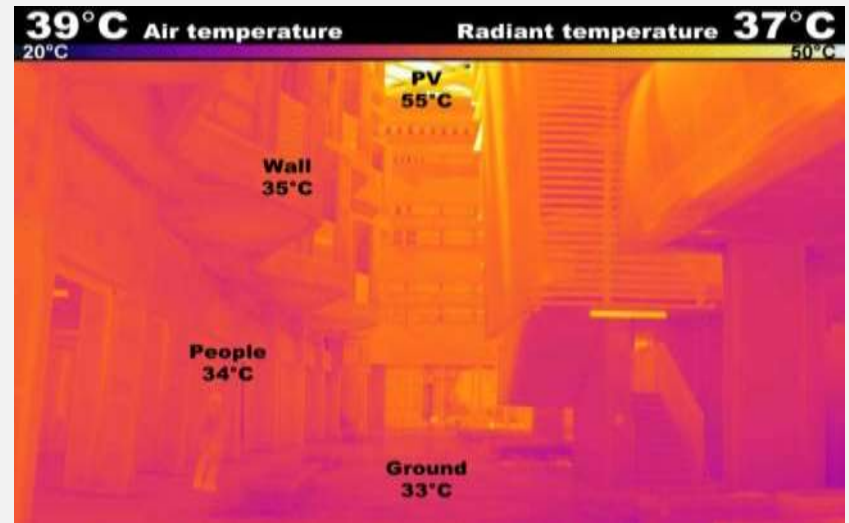
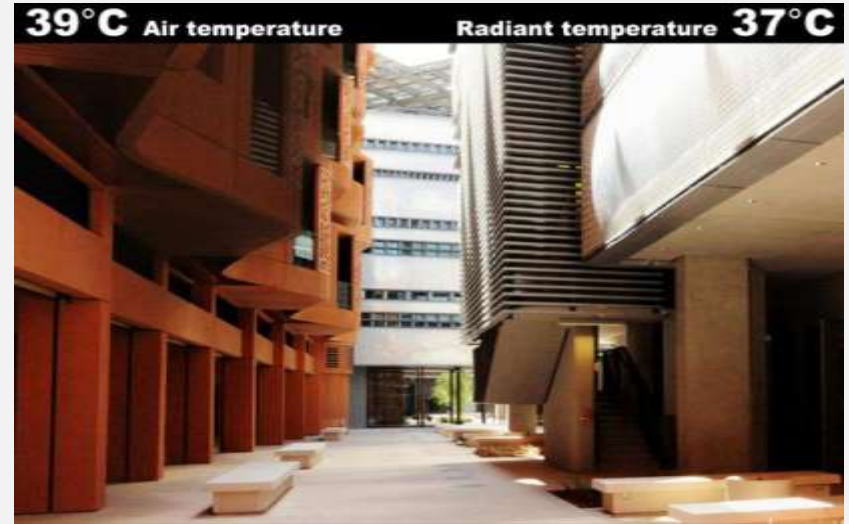


MASDAR CITY – WHAT WORKED

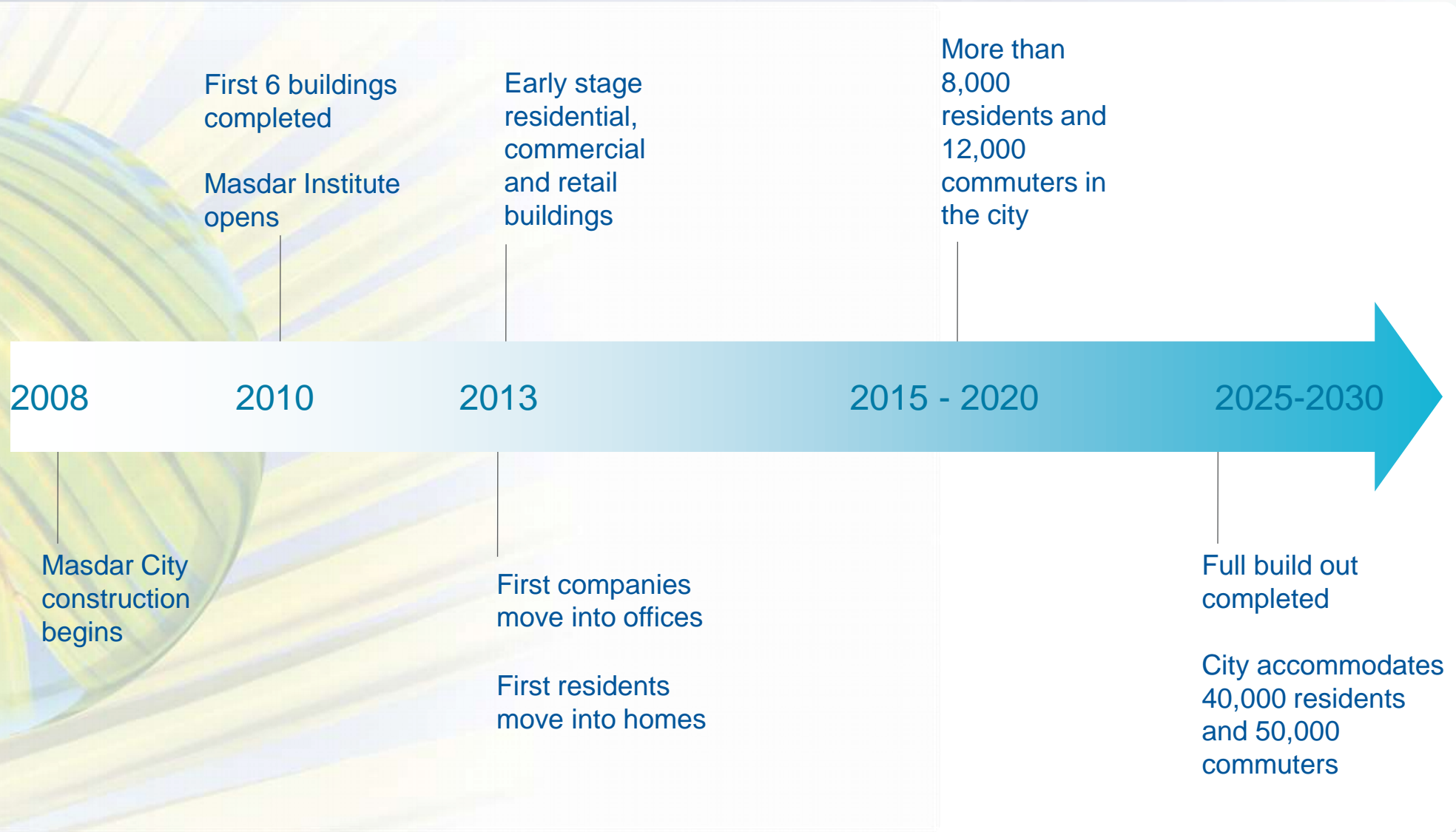
Typical Abu Dhabi



Masdar City



Masdar City – Key Milestones and Future Plans





Abu Dhabi Sustainability Week

Partner Programmes



6th edition



5th edition

INTERNATIONAL WATER SUMMIT



1st Inaugural



4th edition



1st Inaugural



Abu Dhabi Sustainability Week



The United Arab Emirates believes that by innovating through action, and empowering others through collaborative engagement, we can help support the international movement towards sustainable development. The UAE believes that maintaining sustainable economies, environments and societies can and should happen in every corner of the world.

Our efforts however, extend beyond our borders - bridging the gap between the developed and developing worlds, and enhancing international efforts to put the planet on a sustainable path.

With that in mind, and in response to the great efforts exerted by the Brazilian government at the RIO+20 Earth Summit and the global call to action – the UAE has launched the Abu Dhabi Sustainability Week.

A large, high-quality photograph of water splashing, filling the background of the slide. The water is captured in mid-air, creating a dynamic and refreshing visual. The splash is most prominent on the left side, with water droplets and streams extending towards the right. The background is a soft, light blue, which complements the water's color.

Thank You