



Advancing Sustainability

Sustainability Report

2013

Message from the CEO



It gives me great pleasure to formally introduce Masdar's 2013 Sustainability Report, which follows on from our first sustainability report in 2012. That report generated a great deal of positive feedback, not only regarding the performance of Masdar and its projects but also in terms of the level of detail and transparency. For Masdar's 2013 report, we are providing greater transparency whilst expanding the scope of reporting to include Masdar's major activities, such as Masdar Institute and Shams Power Company.

For the 2013 report, we successfully implemented the new GRI G4 guidelines to further ensure the adoption of global best practice in sustainability management. For the first time, Masdar has set targets in areas that have been identified as key to our valued stakeholders and will endeavour to work towards continuous improvement in both our reporting capabilities and the performance of the organisation as a whole.

Looking forward, Masdar will continue to embrace the challenges that we as global citizens all face in developing cleaner, more secure forms of energy that will help power local and regional economies. I am proud of the achievements that are detailed in this report, and I hope that this report provides you with a clear understanding of Masdar's achievements over the past year.

Finally, I would like to take this opportunity to welcome any feedback regarding this report and its contents, as part of Masdar's continuing efforts to develop its reporting capabilities to meet the requirements of our stakeholders as we look towards 2014 and beyond.

Thank you

Dr. Sultan Ahmed Al Jaber
Chief Executive Officer
Masdar

Key Achievements during the 2013 Reporting Period:

- Produced 1,735,000 MWh of Clean Energy.
- Delivered AED236m of Projects to Energy Poverty Areas.*
- Achieved 40% Emiratisation of Masdar's Corporate Workforce.
- Increased Number of Registered Companies in Masdar City by 27%.
- Received Outstanding Performance in Sustainable Supply Chains Award from IIAPS.

Targets for 2014 Reporting Period:

- Increase Emiratisation Rate to 43%.
- Increase operational Recycling to 15% for SAF & Masdar Institute 1A.
- Achieve a total of 1 LTI during reporting period across all reported projects.
- Reduce Energy Intensity of SAF offices by 10% from 2013 figures.
- Reduce Paper Consumption by 10% from 2013 figures.

*Delivered on behalf of the Abu Dhabi Government



What is Masdar?

Masdar is a commercially driven renewable energy company based in Abu Dhabi, United Arab Emirates. A strategic government initiative, the company has a mission to invest, incubate and establish the new energy industry in Abu Dhabi and around the world. Masdar is playing an important role in extending Abu Dhabi's energy leadership beyond hydrocarbons. By adopting an integrated, holistic business model – merging higher education, R&D, investment and sustainable living – Masdar can meet the changing needs of the evolving industry.

Key Facts & Figures:

- Founded in 2006.
- \$15 billion commitment by the Abu Dhabi government.
- Over \$1.7 billion in equity investments across renewable energy projects having a total value of over \$6.4 billion.
- A subsidiary of the Mubadala Development Company.



How is Masdar structured?

Today, Masdar is a university, a renewable energy developer, an investor and a cleantech cluster in one of the world's most sustainable urban developments.

Masdar Institute of Science and Technology is an independent, graduate-level research university dedicated to advancing renewable energy and sustainable technologies.

Masdar City is one of the most sustainable urban developments in the world. Designed as a cleantech cluster with special economic zone incentives, the city attracts companies to commercialise and deploy new energy technologies in the Middle East.

Masdar Clean Energy is a commercial-scale, renewable energy developer and investor – building some of the world's most sophisticated clean energy projects.

Masdar Capital invests in the world's most promising cleantech companies – maturing the technologies that will power a more sustainable tomorrow.

Collaboration at its Core

Masdar hosts Abu Dhabi Sustainability Week, a yearly event that unites key global leaders in an effort to address the critical needs from policy to finance to technology. The platform includes three signature events:



An annual meeting focused on advancing future energy, energy efficiency and clean technologies



A platform to promote water sustainability and the water-energy nexus in arid regions

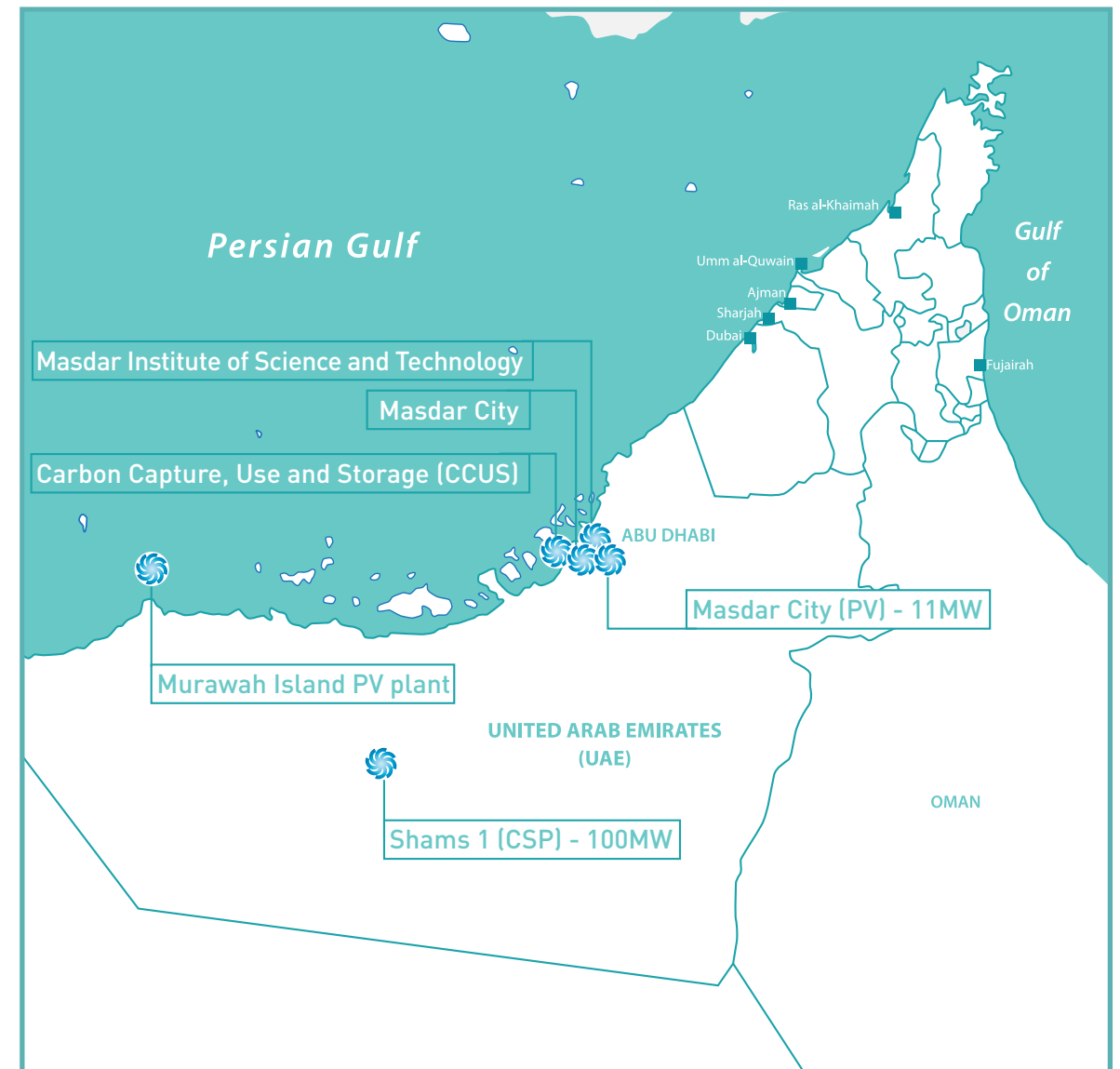
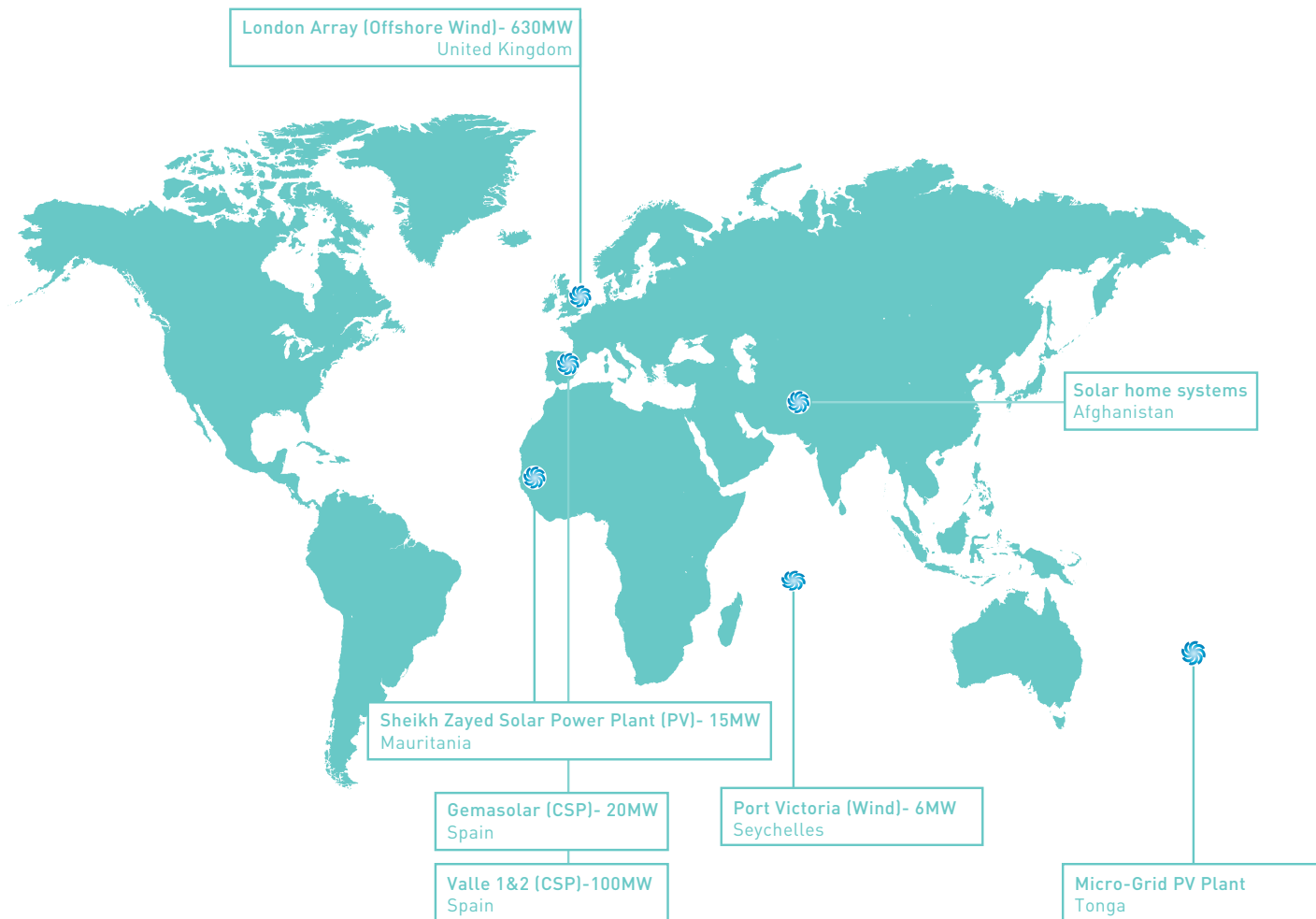


A \$4m annual prize recognising businesses, schools and individuals impacting the fields of energy and sustainability



Projects around the World

UAE projects



Masdar Board of Directors

Masdar's Organisational Chart



HE Ahmed Al Sayegh
Chairman of the Board



Dr Sultan Ahmed Al Jaber
Executive Board Member



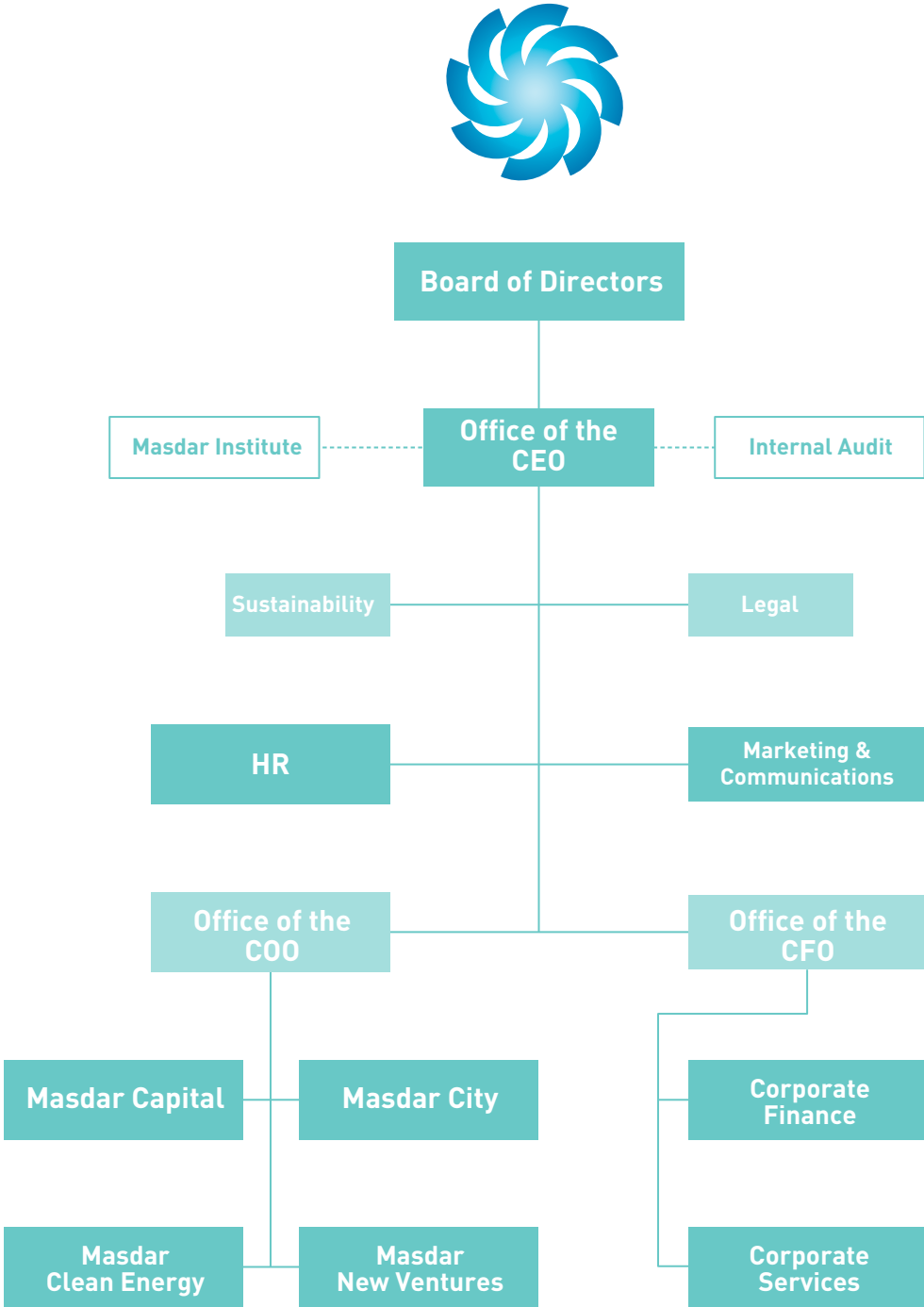
HE Abdulla Al Suwaidi
Non Executive Board Member



Carlos Obeid
Non Executive Board Member



Waleed Al Muhairi
Non Executive Board Member



Latest version as of September 2013 (Approved by senior management - January 2013)



Our Framework for Sustainability Best Practice

Our approach to sustainability for this reporting period remains the same, as we seek continuity in our methodology for addressing, monitoring and managing our sustainability performance. By maintaining a structured approach, we are able to assess the development of key focus areas outlined through our sustainability reporting framework. To further align Masdar's sustainability management with that of international best practice in sustainability reporting, the enablers and themes have been assessed and remain consistent with the new GRI G4 guidelines issued in May 2013.



Some processes and procedures have not changed, but the materiality analysis undertaken in the development of this report must be included to ensure that our stakeholders fully understand the management of key activities within the organisation.

Vision, Mission and Objectives

Masdar's actions are taken in support of the outlined corporate vision and mission. The established statements are as follows:

Masdar Vision

To make Abu Dhabi the preeminent source of renewable energy knowledge, development and implementation, and the world's benchmark for sustainable development.

Masdar Mission

To advance renewable energy and sustainable technologies through education, research and development, investment, commercialisation and adoption.

Masdar Objectives:

- To be profitable
- To build the reputation of Abu Dhabi and Masdar as global players in sustainability and renewable energy
- To contribute to the development of a diversified knowledge-based economy in Abu Dhabi
- To reduce the carbon footprint of Abu Dhabi



Organisational Drivers

Masdar has a core set of corporate values that underlie all of its business activities. The values are articulated within the company's Code of Conduct, which serves as the basis for how employees are expected to do business. The values and the sustainability policy statement are the guiding principles for Masdar's sustainability efforts and outline the ethos of the organisation.



Masdar's Sustainability Policy

A comprehensive, organisation-wide sustainability policy is also critical to ensure that Masdar's definition, commitment and approach to sustainability is clearly articulated. The following guiding principles describe how Masdar will act when operating our business to achieve sustainability excellence. These principles therefore underlie all of our efforts to drive sustainability excellence throughout the organisation:

Drive innovation and operational efficiency through leading environmental and technology practices:

1. Reduce the environmental impact of all aspects of our operations through strategic procurement, improved operational efficiency, minimising raw or non-renewable materials and energy consumption, and reducing waste and emission outputs into water, soil and the atmosphere.
2. Promote cleaner habitats and ecosystems, while building market opportunities through sound science, innovative research and deployment of sustainable technologies, and leading environmental operations, including responsible investing decisions, life-cycle accounting, interoperability infrastructure development, and integrated mobility operations.

Foster the growth and well-being of our people:

3. Provide safe, secure, and healthy interactions for all our employees, visitors, contractors and customers through adoption of best quality, health, and safety management practices, controls and risk procedures.
4. Encourage employee development, in particular by creating employment opportunities, facilitating training opportunities, and encouraging a culture of continuous learning and engagement for all of our employees.

Engage and respond to stakeholder expectations:

5. Respond to the issues, needs and expectations of our internal and external stakeholders through regular consultation, collaboration and on-going dialogue.
6. Provide transparent information and communications when reporting against our corporate goals and objectives, and where information is not available, we will provide an explanation or alternative information accordingly.

Invest in communities and people that support our business:

7. Promote a vibrant long-term social fabric through active community involvement, public outreach, and sponsorship of local cultures and heritages via sustainability-related events.
8. Encourage local capacity building, and economic development through close co-operation with a global community of suppliers, business partners, researchers, governments and citizens that contribute to the development of sustainable technologies and methodologies.

Act as a responsible corporate citizen:

9. Adopt and implement human rights and labour practices consistent with international obligations and commitments, through best practice training, management reviews, responsible sourcing and compliance assessments including internal and external verification sources as necessary.
10. Adhere to the laws of all regions and jurisdictions in which we operate and act fairly and equitably in all business practices by encouraging competitive markets, abstaining from any improper involvement in local political activities, and strictly adhering to Masdar's Code of Conduct.



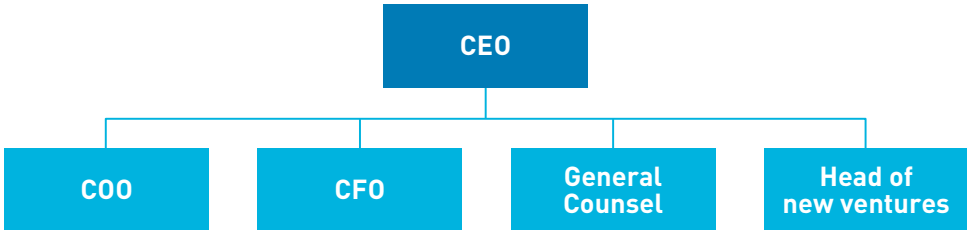
Corporate Governance at Masdar

Masdar has continued to ensure that the management of activities and the decision-making process is clearly defined to meet the challenges and opportunities the organisation faces. A strong focus on maintaining a robust governance system within Masdar allows for the necessary actions to occur that meet the strategic objectives set out by the shareholder, as well as meeting the needs of our key stakeholders. This section focuses on the specific structure, roles, responsibilities and related procedures that Masdar adopts to ensure that the responsibility for business excellence continues to occur from the highest levels of the organisation.

Masdar Governance Committees

To ensure the governance framework meets the expectations of stakeholders, Masdar has established a series of committees, each tasked to address specific areas to foster proper governance and enhance the sustainability efforts of the company.

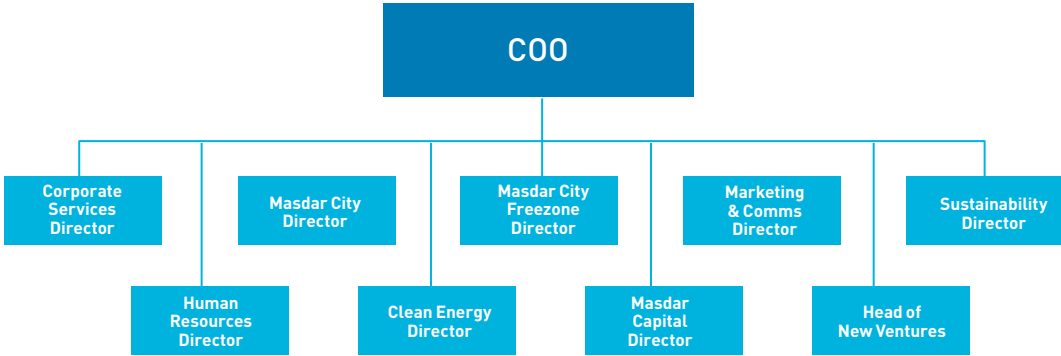
Masdar Executive Committee (ExCom)



Masdar’s ExCom is the most senior committee within Masdar and is chaired by the Masdar CEO. The committee is obliged to meet on a weekly basis and is tasked with highlighting key operational developments and issues related to the company. The committee enables a channel for upward and downward cascading of information, actions and decisions based on the following topics:

- Business update from OpCom
- Internal Audit & Compliance update
- Company Performance Tracking (monthly)
- Legal Update
- Governance/Process
- Shareholder & Stakeholder matters

Masdar Business Operating Committee (OpCom)

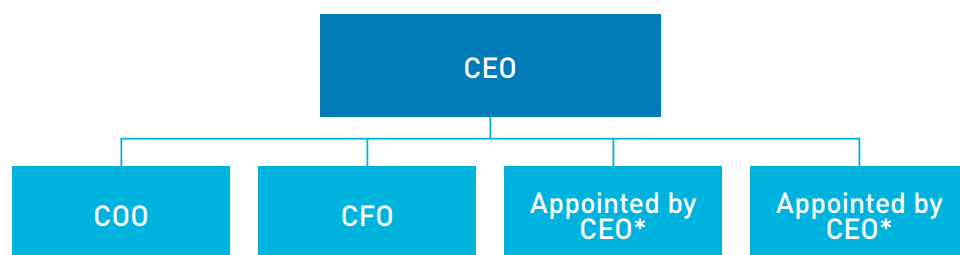


Masdar’s OpCom has been established to highlight key operational developments and issues related to projects within the Business Units. OpCom represents a communication link between the executive management and the business units and departments. The committee members meet once a week and address the following topics:

- Project updates
- Quality, Health, Safety & Environment issue
- COO feedback from ExCom
- Matters going to Investment Committee
- Special topics – CEO update Assign and track responsibilities



Masdar Investment Committee (IC)



*Board of Director Approval required

In order to ensure that the overall investment process is dealt with in the best interest of the company, the Investment Committee meets when an opportunity for investment is put forward and in need of review. The committee is tasked with evaluating and agreeing upon potential investments and divestments proposed by different business units of the company, taking into account the social and environmental impacts along with the economic benefits. The investment must address the following criteria:

Fit with Masdar Strategic Objectives	Build Rep. of AD and Masdar as global players in Sustainability & Renewable Energy
	Foster Development of Local Knowledge-Based Economy
	Critical to a Strategic Masdar Initiative
	Reduce Masdar/ AD Carbon Footprint
Financial Attractiveness	Profitability
	Ease of Exit
	Financial Exposure
Risk Profile	Risk
	Risk Mitigation
Ability to Deliver	Masdar Capabilities
	Resource Availability

Masdar Tender Committee (TC)

TC members:
Chairman (CFO), Corporate Services Director (Vice Chairman), Purchasing Manager (Secretary) + eight TC members (subject-matter experts)

TC is in place to ensure that procurements and contractual agreements are dealt with in a professional manner in order to maximise the consistency in the interpretation of the procurement process. The committee meetings may be attended by one representative from the legal department, as well as the Head of Internal Audit to ensure that anti-corruption policies are rigorously followed and auditable.



Emphasising the Importance of Organisational Culture at Masdar

Increasingly in the business world, an organisation's culture is a key component that can highlight to internal and external stakeholders the work philosophy that is encouraged to deliver on the objectives set out by shareholders. Masdar has a dynamic mandate in an emerging sector and therefore requires a unique type of organisational culture. In such circumstances, Masdar must maintain a core set of processes and procedures that support and monitor the management systems, while also boosting a strong sense of cohesion to maximise value, through integration, across the core business functions.

Masdar's Corporate Code of Conduct – 'Know the Code'

A robust set of guiding principles of how each employee should behave is clearly communicated through the corporate code of conduct to ensure Masdar operates in a respectful and responsible manner that satisfies all stakeholder requirements.

- **Acting with integrity** - Acting ethically and responsibly in the way we treat our colleagues, the Company, and the Company's assets and information: with respect, care, honesty and fairness at all times.
- **Business confidentiality** - Applies to the security and confidentiality of intellectual property and confidential information entrusted by Masdar to employees.
- **Digital system use and information technology security** - Relates to the responsible and ethical use of these assets and the data and information stored and processed on them.
- **Integrity in dealing with others** - Being fair, transparent, ethical and law abiding in all relationships with individuals and organisations outside the company.
- **Conflict of interest** - Ensure that an employee does not take actions or have interests that may make it difficult to perform his/her work for Masdar objectively, responsibly, ethically and effectively.
- **Health, safety, security and the environment** - To recognise that safe operations depend not only on technically sound plant, equipment and facilities but also on competent employees and an active health, safety, security and environment (HSSE) culture.
- **Money Laundering** - Employees are expected to use their own good judgment and common sense when assessing the integrity and ethical business practices of customers and business partners.

Encouraging a Risk- and Control-Oriented Culture at Masdar

Internal Audit is part of the corporate monitoring function within Masdar and contributes to the creation of shareholder value by promoting an organisational culture fundamentally focused on risk management and setting control parameters with an emphasis on delivering independent and objective assurance to the Board of Directors and Audit Committee about the quality of risk management, business controls and governance procedures across the company. The scope of work of the Internal Audit Function is to determine whether Masdar's business operating systems, as designed and represented by management, are adequate and functioning in a manner to ensure:

- Risks are appropriately identified and managed.
- Interaction with the various governance groups occurs as needed.
- Significant financial, managerial and operating information is accurate, reliable and timely.
- Employees' actions are in compliance with policies, standards, procedures, code of ethics and applicable laws and regulations.
- Resources are acquired economically, used efficiently and adequately protected.
- Programmes, plans and objectives are achieved.
- Quality and continuous improvement are fostered in Masdar's control process.
- Significant legislative or regulatory issues impacting Masdar are complied with and addressed appropriately.
- Opportunities for improving management control, output and Masdar's image may be identified during audits. They will be communicated to the appropriate level of management.

Masdar's Internal Audit process is developed to be in line with the mandatory requirements set out through our parent company (Mubadala Development Company) and in accordance with Abu Dhabi Accountability Authority (ADAA). Established in 2008 as an independent body, ADAA is primarily responsible for enhancing and promoting transparency and accountability across Abu Dhabi government and public entities, ensuring that these subject entities are managing and utilising their resources and funds efficiently, effectively, economically, ethically and in alignment with achieving the overall vision of Abu Dhabi.





Whistle Blowing - Kallema

In order to help create and foster the best possible work environment for everyone in the organisation, "Kallema," a whistle-blower system managed by EthicsPoint, has been implemented to allow employees to voice concerns regarding malpractice or wrongdoings, and violations of policies. Kallema is a secure platform that provides an alternative channel to communicate concerns confidentially through a secured landline, and a web-based reporting tool that allows all stakeholders to report any violation to Masdar.

"We are committed to operating our company with integrity and in accordance with the highest ethical standards. Our reputation is built upon the trust and confidence of all our stakeholders, and is an integral part of our vision to make Masdar one of the very best companies in the world."

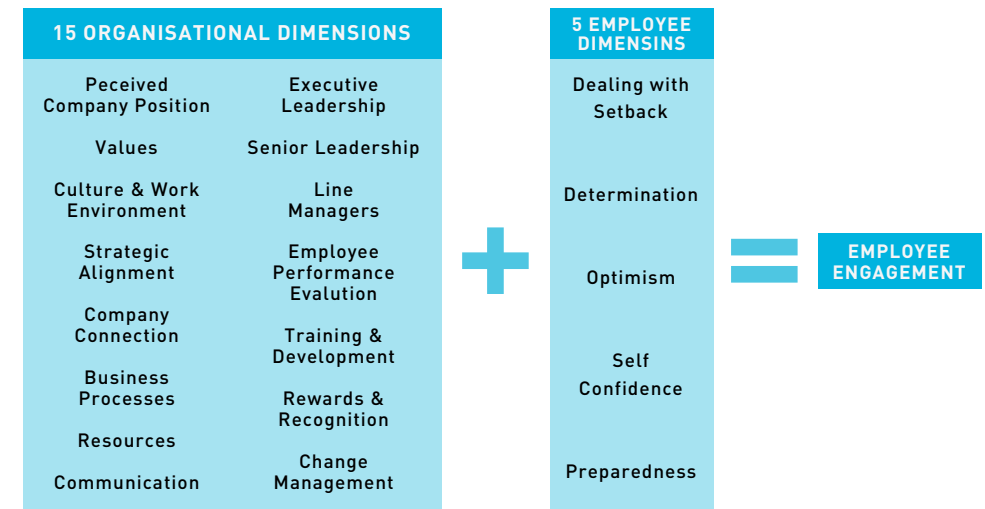
Mohamed Al Nuaimi
Associate Director, Internal Audit and Compliance

"I believe we should all have comfort in knowing we work in a safe, secure and ethical workplace. My hope is that we are proud to work here, feel good about our jobs and work at our optimal productivity. A modern, diverse and unique organisation such as Masdar faces many risks that can harm our assets and our reputation. Whether arising out of improper behaviour or violation of policies and procedures, we must ensure that incidents are managed effectively and dealt with immediately."

Dr. Sultan Ahmed Al Jaber
CEO, Masdar

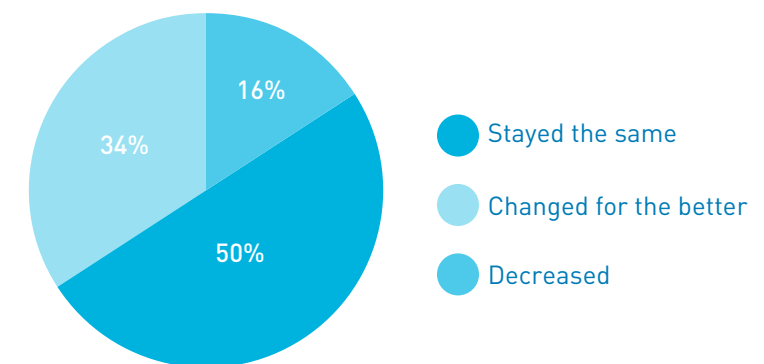
Assessing our Organisational Culture – Masdar Employee Survey

In July 2013, Masdar conducted an employee survey to assess the level of engagement within the organisation. The survey assessed elements that related to the organisation and the employee specifically. This survey is a continuation of the engagement monitoring from the previous survey conducted in July 2011.

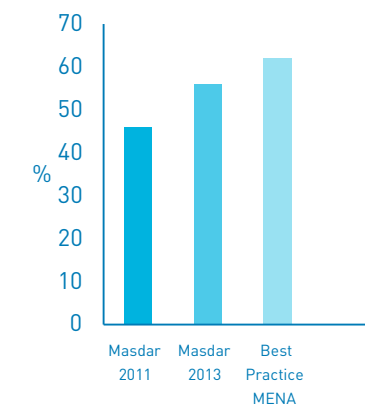


Masdar Employee Engagement Survey Results Overview

Work Culture Perception Change over last 12 months



Employee Engagement score



Raising Awareness - Masdar Health Sessions

Education and awareness is crucial to enhancing the health of the Masdar workforce. In order to ensure the maximum understanding of key health issues prevalent in the region, Masdar undertook a number of initiatives and activities to provide employees with access to information related to health and wellbeing.

October 2012	Breast Cancer Awareness	At the session, employees received brochures and information about network hospitals that provide breast cancer screening. A one-hour lecture on breast cancer, preventative measures, treatments and myths was shared with employees.
December 2012	Health Screening	All Masdar employees were invited to the annual health screening. The purpose of this initiative is to detect and prevent possible chronic diseases. The following tests were performed: <ul style="list-style-type: none"> InBody Technology: A quick analysis of body weight, fat, water and muscle composition. Blood sugar & blood pressure. FINDRisk Questionnaire: Helps calculate a patient's risk of developing type 2 diabetes in the coming years. Ezscan: A device that accurately measures a patient's diabetes risk and instantly displays results.
March 2013	Work-Life Balance and Stress Management	The seminar "Stress Management - Work-Life Balance" discussed: <ul style="list-style-type: none"> Recognising your own areas of stress Stress management techniques and strategies in reducing stress Managing stress at work Work-life balance
	Better Sleep Seminar	The seminar discussed: <ul style="list-style-type: none"> Sleep cycle Importance of sleep Signs and symptoms of sleep disorders Tips for getting a good night's sleep
May 2013	Healthy Heart	The seminar "Healthy Heart" discussed: <ul style="list-style-type: none"> Risk factors Signs and symptoms of heart disease and prevention of heart disease Information on a heart healthy diet Medical check-up (optional), which included the following free health screening tests: <ol style="list-style-type: none"> Carbon monoxide lung test Height, weight, BMI Blood pressure Cholesterol levels
June 2013	Smoke Cessation	The seminar "Get Ready to Quit Smoking - Everybody Wants to Live a Better Quality of Life" discussed: <ul style="list-style-type: none"> The harmful effects of smoking How employees can quit smoking An opportunity after the seminar for Masdar employees to measure the carbon monoxide in their lungs
September 2013	Asthma	The seminar discussed information about asthma, its process and preventive measures.

Knowledge Sharing - Masdar Institute Lecture Series

As a research institute, Masdar Institute welcomes subject matter experts to address not only MI students but also all Masdar employees and other key stakeholders. These guest lectures are designed to provide a detailed and highly technical account of a range of topics from technologies to policy implementation. The objective is to enhance knowledge sharing throughout Masdar.

Date	Guest Speaker Name	Guest Speaker Position	Organisation	Lecture Subject
October 2012	Dr Kjell Aleklett	Professor of Physics & Global Energy Systems	Uppsala University	The Future of Oil - Peaking at Peak Oil
December 2012	Georgios Papavassiliou	Director	IAMPPNM	Advanced Nanomaterials and Devices for Solar Cells and Energy Harvesting
January 2013	Prof. Karen Gleason	Department of Chemical Engineering	MIT	Designing Novel Membranes with Chemically Vapour Deposited (CVD) Polymers
March 2013	Maurizio la Noce	CEO	Mubadala Petroleum	Building a Globally Competitive Business: people, partnerships and performance
March 2013	Prof. Carlo Rubbia	Scientific Director	IASS	A Nursery of Ideas for Lasting Development
April 2013	Ahmed Al Idrissi	Executive Director	Mubadala Industry	The Crucial Role of R&D and Innovation in the Social and Economic Progress of a Community
May 2013	Suhail Al Ansari	Executive Director	Mubadala Healthcare	Mubadala Healthcare Towards Abu Dhabi's Vision 2030
September 2013	Tariq Al Gurg	CEO	Dubai Cares	The Programmatic Innovations of Dubai Cares
September 2013	Sandro Tedde	Senior Key Expert Research Scientist	Siemens AG	Perspectives on Innovation: Organic and Hybrid Photo Detectors for Medical and Industrial Applications

Masdar Social Committee

The Social Committee is comprised of employees who, aside from their day-to-day work activities, are dedicated to providing all Masdar staff with team-building activities and social events that are designed to bring everyone closer together to enhance collaboration and teamwork. Below is a list of all the activities that were managed by the social committee in the reporting year. The Social Committee also provided Masdar employees with discounted coupon booklets for use in restaurants and family entertainment centres throughout Abu Dhabi that they shared with their friends and family.

October 2012	Dragon Boat Race Competition
November 2012	Go-Karting Tournament
	Desert Safari Trip
December 2012	National Day activity – Abu Dhabi Pearl Journey
February 2013	Paintball Tournament
	First event for the year, breakfast with update from each Business Unit director
March 2013	Bike Rental – Yas Marina Race Track
April 2013	Employee bake sale
	Kayak in the Mangroves
May 2013	Golf Tournament
June 2013	Bowling Tournament
	Paintball Tournament
September 2013	Casual breakfast to welcome staff back from Eid holidays

Masdar and the Holy Month of Ramadan

The month of Ramadan brings together people in an atmosphere filled with the spirit of generosity, community and love. This year in particular was a special year for Masdar as we watched most of our major projects launched globally.



The Social Committee arranged tours to the Sheik Zayed Grand Mosque for Masdar staff and their families to learn more about the holy month of Ramadan and how it is celebrated in the UAE.

Bookamakan – Masdar’s Loyalty Programme

Bookamakan (which translates as “Book A Place”) is a loyalty programme that offers Masdar employees discounted rates at various locations through the use of a loyalty card. A customised portal, <http://masdar.bookamakan.com>, was developed by the Bookamakan team and is regularly updated with new offers.

The loyalty card offers the following benefits:

1. One convenient location for Masdar employees to access all discounts.
2. Personal health is promoted by offering discounted health services.
3. Nice-to-have items for those who wish to treat themselves from time to time.
4. Various discounted items such as furniture, travel, spa sessions, fashion, food and others.



Our Approach to Stakeholder Engagement

For Masdar, a stakeholder is a person, group or organisation that has a direct or indirect stake in an organisation because of how they can affect or be affected by the organisation's actions, objectives and policies. Examples of stakeholders include employees, investors, community members and customers. It is the role of an organisation to ensure that adequate data is made available to inform each stakeholder group. Organisations use a variety of mechanisms to communicate such as annual reports, Stakeholders read reports for various reasons. For example, potential employees might read a sustainability report to determine if the organisation's values match their own. Mapping Masdar's stakeholders is necessary to identify the universe of potential parties that could be impacted and subsequently engaged by the organisation. A systematic approach to mapping these stakeholders and their roles in impacting Masdar's efforts are highlighted below.



Masdar's Engagement Activities

Engaging both internal and external stakeholder is an important part of our organisational process as stakeholder interests, expectations and needs allow for Masdar to ensure that there is a focus on the necessary social, economic and environmental impacts. Masdar continued, during the reporting period, to maximise stakeholder engagement to obtain the best possible understanding of the key factors that affect the perception and decision-making process of our key stakeholders.

Crown Prince Court Majlis Lecture (December 2012) - Dr Sultan Al Jaber, CEO of Masdar, was asked to give a guest lecture to the Abu Dhabi Leadership on the topic of 'The UAE and Sustainable Energy Leadership'.

The lecture touched on four key discussion points:

- The role of energy in the UAE's economic development plans.
- How the UAE is turning potential resource challenges into opportunities.
- The need for an 'energy mix approach' in mitigating energy challenges and the role of renewable energy.
- What differentiates Masdar from other energy companies

Sustainability Report Engagement Workshop at WFES (January 2013) - Masdar hosted a workshop open to all attendees of the World Future Energy Summit to discuss Masdar's first sustainability report. The workshop highlighted the philosophy behind the need to report and encouraged workshop participants to make suggestions on what the report should include. Following this exercise, Masdar was able to define the elements that were identified as material to a wide range of stakeholders.

Mubadala Engagement Forum (March 2013) - Masdar was invited to attend an engagement event of all Mubadala Group entities. The event included an update from all Mubadala assets and breakout sessions to encourage cross collaboration among the different Mubadala entities.

Royal Dutch Shell - The Powering Progress Together Forum (May 2013) - An annual event co-hosted by Shell and the city of Rotterdam, Netherlands brought together specialists from business and academia to discuss the challenges the world faces in meeting the demand for energy, water and food. Bader Al Lamki, director of Masdar Clean Energy, delivered a keynote speech stressing the importance of collaboration and co-innovation as pathways to accelerate the technologies and policies needed to address global energy and water security.

Global Sustainable Cities Network Workshop (June 2013) - The first Global Sustainable Cities Network (GSCN) city-to-city workshop was held in Stockholm, Sweden. The workshop was in line with the decision by GSCN countries at the January 2013 Seoul Clean Energy Ministerial 4 preparatory meeting to convene stakeholders in waste-to-energy and demand-side management.

Employee Engagement Day (September 2013) - Masdar conducted an away day for all employees. "The Future is Ours" themed event was designed to bring all employees together to provide updates on activities and to highlight the key findings from the employee engagement survey. The day also included games and group problem solving challenges.

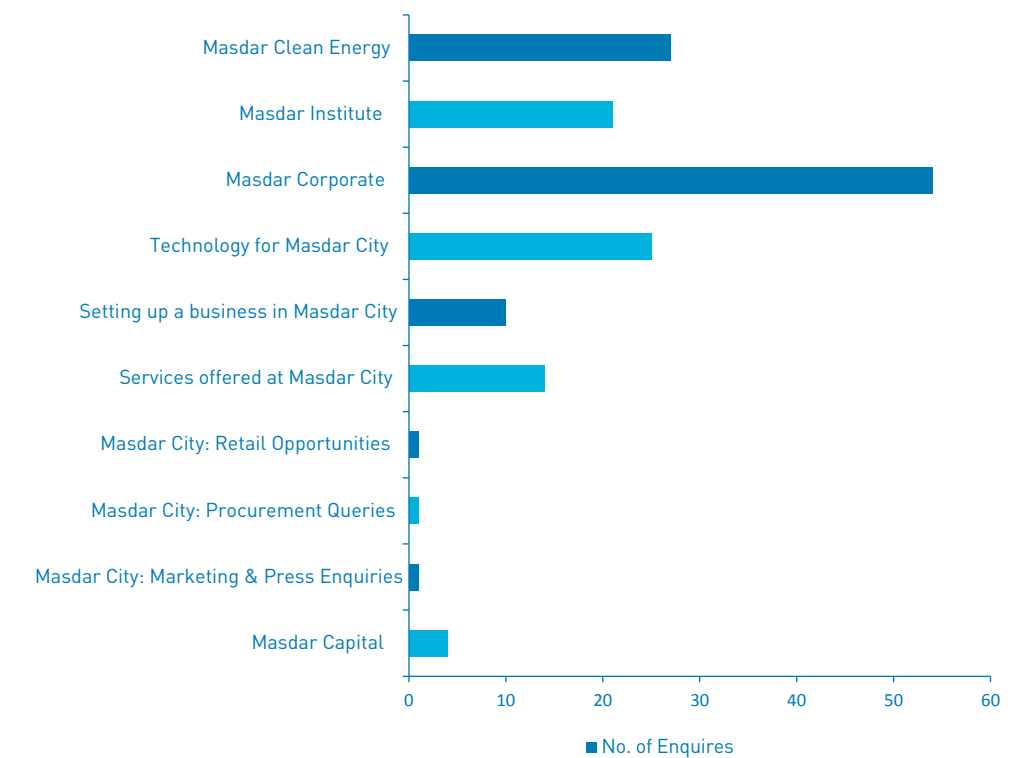
Abu Dhabi Sustainability Group (ADSG) & Masdar GRI G4 Workshop (September 2013)

- ADSG and Masdar held a workshop focused on the Global Reporting Initiative's latest guidelines and standards for sustainability reporting. The session covered all relevant topics to ensure that the attendees, from over 10 ADSG member organisations, were familiar with the new GRI standards and principles, and the most important milestones of the GRI reporting process.

Masdar Connect

Masdar has an online portal in which key stakeholders can register for meetings to discuss specific business engagements and register for a tour of Masdar City. The portal is mainly designed for educational visits requests and business / government delegations requests.

During the reporting year, a total of 153 requests through the Masdar Connect portal were logged. Below is an indication of the requests based on the type of enquiry for business activities only. School visits are addressed in the Youth Outreach section of this report (page 116).



Masdar's Stakeholder Materiality Analysis

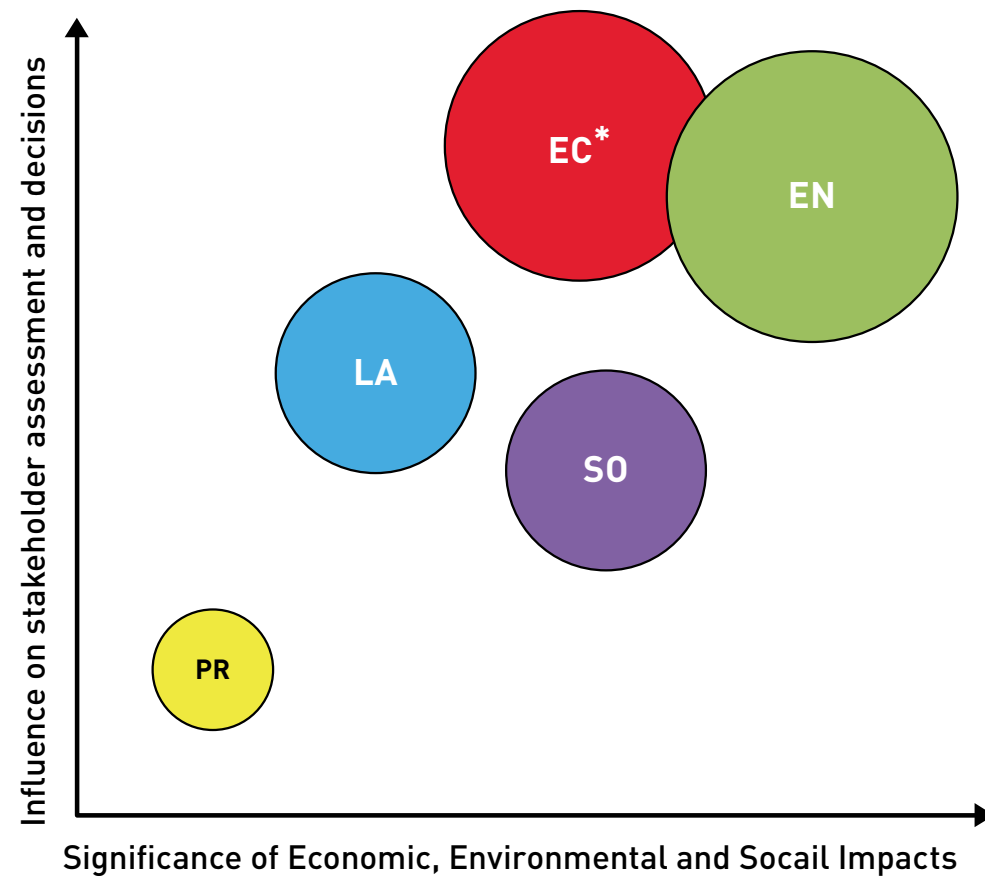
Key Stakeholders	How Masdar engages	Material issues raised during engagement exercises	Masdar's response to material issues raised
Partners	- Working groups - Progress reports - Conferences/panels - MoUs - Social media	Adherence to international standards Demonstration of ethical practices Showcase best practices Portfolio progress	Governance Supply chain Environment Products & services Performance management
Regulatory Bodies / Public Administration	- Meetings - Engagement forums - Audits - Committees	Credibility of performance data Compliance efforts Continuous disclosure	Governance Environment Performance management
Tenants	- Helpline - Meetings - Social media - Newsletters - One-on-one meetings	Access to business State of the art facilities Networking opportunities Performance data	Economic development Products & services Community Engagement Reporting & communication
Customers	- Satisfaction survey - One-on-one meetings - Helpline - Conferences - Social Media	Policies Showcase best practices Supply chain practices Performance against targets	Products & services Culture Environment
Employees and Executives	- Annual employee Survey - Intranet - Helpline - One-on-One meetings - Lunch & Learn sessions - Social media	Job security Career development Awards Recognition of work (achievements) Performance against commitments & targets Portfolio progress	Workforce Products & services Environment Culture Community involvement
Suppliers and Contractors	- Progress meetings - Audits - Pre-qualification process - Tender process - Workshops - Product directory	Supply chain management Policies Reputational assessment Organizational overview Insights into organization's values & drivers Recognition of performance data	Supply chain Economic development Culture Environment
Shareholders	- Progress meetings - One on one sessions - Working groups - Annual reports - AGM	Portfolio progress Social impacts Economic diversification Demonstrating best practices Emiratisation	Economic development Community involvement Workforce Supply chain Performance management
Non-Governmental Organization (NGO's)	- Conferences/panels - Workshops - Committees - Newsletters - Social media	Targets and commitments Follow up on past commitments Community programs	Performance management Tools & Systems Supply chain Environment
International Governing bodies	- Conferences/panels - Working groups - Committees - Progress reports - Social Media	Lessons learned Progress reports Demonstrating best practices Social impact	Products & services Community involvement Environment Supply chain
Local Communities	- Helpline - Outreach programmes - Social events - Newsletters - Social media	Benefits of amenities How the business helps 'me' the local citizen Environmental & social impacts Performance data	Community Involvement Environment Economic development Workforce Reporting & communication
Academia	- Conferences - MoU's - Lunch & Learn sessions - Newsletters - Social Media	Engagement and advancement of industry issues Lessons learned and Best Practices Performance data	Culture Performance management Environment Supply Chain
Sustainability Community and the media	- Site visits - Newsletters - Conferences/panels - Social Media	Case studies of exemplary corporate Lessons learned & Best Practices Performance data	Products & services Environment Supply chain Reporting & Communication

Masdar GRI G4 Materiality Analysis

As part of the GRI G4 guidelines, Masdar has developed the below table to indicate the general and specific standard disclosure indicators that have particular relevance to Masdar's defined stakeholders. The below table also gives the reader of this report an indication of the boundaries set for each material indicator.

Masdar Sustainability Reporting Framework	Key Stakeholders	Relevant GRI G4 Aspects
Governance	- Partners - Regulatory bodies / public administration - Sustainability community & media	Investment
Culture	- Customers - Suppliers & contractors - Employees & executives - Academia	Environmental Grievance Mechanisms Labour Practices Grievance Mechanisms Human Rights Grievance Mechanisms Grievance Mechanisms for Impacts on Society Ethics & Integrity
Stakeholder Engagement	n/a	General Standard Disclosure
Performance Management	- Partners - Regulatory bodies / public administration - Shareholders - Non-governmental Organisations (NGO's) - Academia	Compliance
Tool and Systems	- Non-governmental organisations (NGO's)	Labour/Management Relations
Reporting & Communication	- Tenants - Local communities - Sustainability community & media	General Standard Disclosure
Environment	- Partners - Regulatory bodies / public administration - Customers - Employees & executives - Suppliers & contractors - Non-governmental organizations (NGO's) - International governing bodies - Local communities - Academia - Sustainability community and media	Energy Water Emissions Effluents & Waste Transport Local Communities
Workforce	- Employees & executives - Shareholders - Local communities	Employment Occupational Health & Safety Training & Education Diversity & Equal Opportunity
Community Involvement	- Shareholders - Employees & executives - Tenants - International governing bodies - Local communities	General Standard Disclosure
Economic Development	- Tenants - Local communities - Shareholders - Suppliers & contractors	Economic Performance Market Presence Indirect Economic Impacts
Product & Services	- Partners - Tenants - Customers - Employees & executives - International governing bodies - Sustainability community and media	General Standard Disclosure
Supply Chain	- Partners - Customers - Suppliers & contractors - Shareholders - Non-governmental organisations (NGO's) - International governing bodies - Academia - Sustainability community and media	Procurement Practices Materials Supplier Environmental Assessment Supplier Assessment for Labour Practices Child Labour Forced or Compulsory Labour Assessment Supplier Assessment for Human Rights



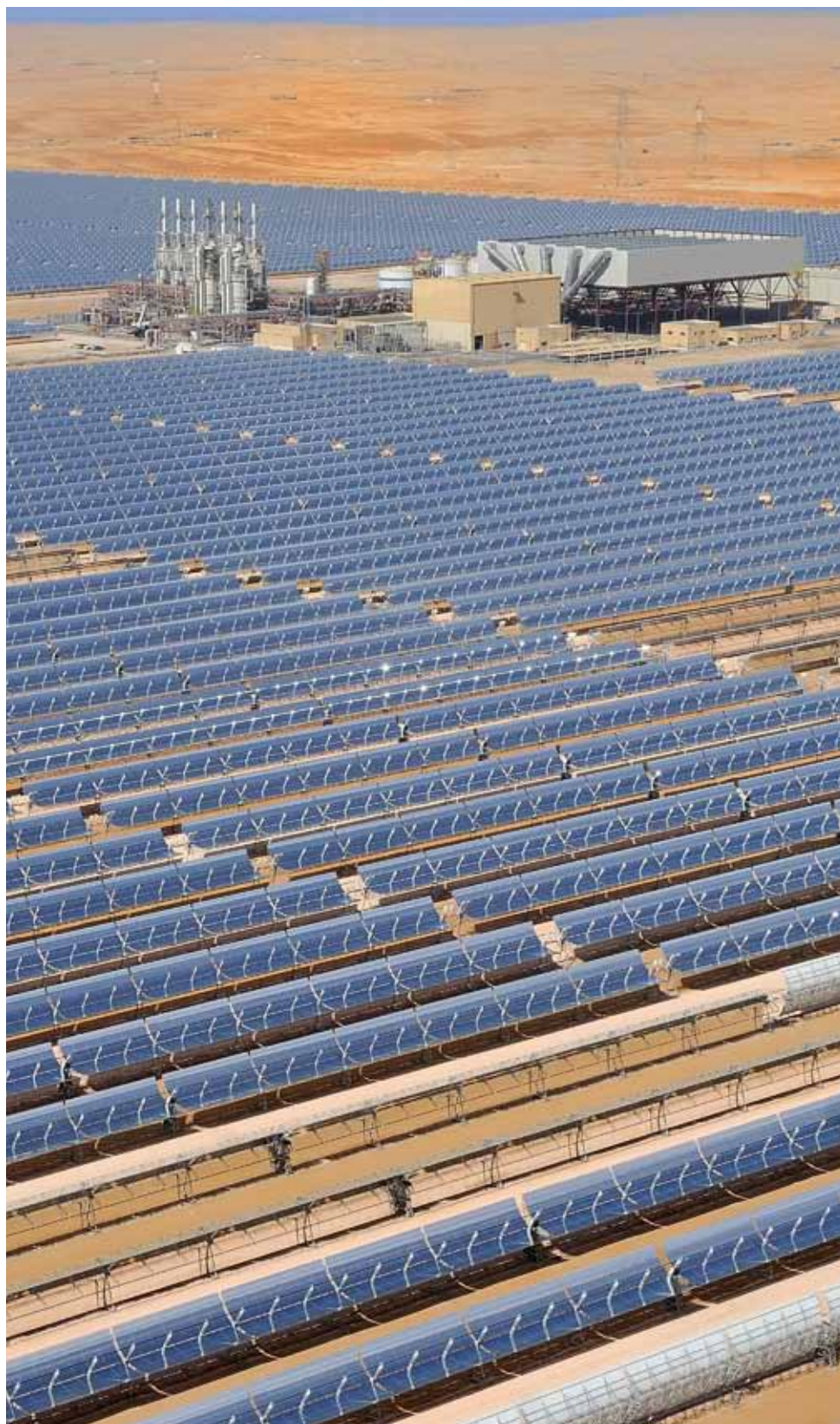


* Economic Aspects are material to Masdar however parameters for reporting on financial performance are limited by the Shareholder

GRI G4 Materiality Map and Boundary Overview

Material Aspects	Masdar Corporate				Masdar Business Units and Affiliates								
	Procurement & Finance	Human Resources	Facilities Management	Sustainability & QHSE	Masdar Institute	Masdar City	New Ventures	Masdar Capital	Clean Energy				
									EMIC	Masdar PV	Shams Power Co.	Torresol	London Array
Masdar Ownership Percentage									50%	100%	60%	40%	20%
Economic													
Economic Performance	■												
Market Presence		■			■							■	
Indirect Economic Impacts				■	■	■	■					■	■
Procurement Practices	■												
Environmental													
Materials				■		■							
Energy			■	■		■							
Water			■	■		■							
Biodiversity				■		■							
Emissions				■		■							
Effluents and Waste			■	■		■							
Compliance				■		■							
Transport			■	■		■							
Supplier Environmental Assessment	■			■									
Environmental Grievance Mechanisms				■									
Social													
Labor Practices and Decent Work													
Employment		■										■	
Labor/Management Relations		■											
Occupational Health and Safety				■		■						■	■
Training and Education		■				■						■	
Diversity and Equal Opportunity		■				■							
Supplier Assessment for Labor Practices	■			■									
Labor Practices Grievance Mechanisms		■											
Human Rights													
Investment	■												
Non-discrimination	■												
Child Labor	■			■									
Forced or Compulsory Labor	■			■									
Assessment	■												
Supplier Human Rights Assessment	■			■									
Human Rights Grievance Mechanisms		■											
Society													
Local Communities						■						■	
Anti-corruption	■												
Anti-competitive Behavior	■												
Supplier Assessment for Impacts on Society	■												





The Value of Performance Management at Masdar

For Masdar, performance management is the process of measuring the organisation's sustainability performance against its stated objectives.

Performance management is comprised of:

- Objectives
- Key Performance Indicators (KPIs)
- Targets
- The process by which these objectives and KPIs are tracked and measured (assessment process)

Objectives

Masdar sets operational objectives as a vehicle to define the expected corporate, business unit and individual outcomes to achieve the overall business plan. Incorporating sustainability into the development of annual objectives is a critical step in the integration of sustainability into how Masdar is run.

- **Workforce** - Deploy leading employee programmes and standards for all workers directly associated with Masdar operations.
- **Economic Development** - Accelerate the advancement of local economies where Masdar operates.
- **Products and Services** - Responsibly deliver products and services that promote the transition to low-carbon economies and sustainable living.
- **Environment** - Manage all operations in such a way as to minimise environmental impact while demonstrating environmental stewardship.
- **Supply Chain** - Maximise our sphere of influence through ethical business practices and responsible sourcing.
- **Community Involvement** - Collaborate with and support external stakeholders (e.g., local communities, government, NGOs) to build lasting relationships while tackling relevant sustainability concerns.

Key Performance Indicators (KPIs)

Masdar acknowledges that sustainability performance leadership begins with a selection of strategic KPIs that enables the organisation to focus on important issues. The defined KPIs are the measureable pieces of information or data used to track performance against Masdar's high-level sustainability goals and desired outcomes communicated to our stakeholders.



Organisational Performance Management Reporting (PMR)

The PMR provides an update on Masdar’s monthly operational and financial performance when compared with the operational and financial position taken by each unit in the Masdar Business Plan.

All units’ key financial and operational updates are compiled for the Masdar Senior Management. These updates are in the form of a scorecard. The scorecard system allows Masdar to address each milestone line item with sufficient detail, which gives the opportunity to capture and explain deviations, and flag them for the executive leadership’s attention, when necessary.

An annual Masdar score is a weighted sum of all unit and department scorecards that is then issued to senior management for distribution to the board of directors and Masdar’s shareholder.

Unit scores represent a snapshot of Masdar’s actual performance against its planned annual targets. A ‘compliance’ score signifies the achievement of major / strategic objectives, as well as compliance with reporting guidelines.

At the year end, the individual employee’s performance assessment is a reflection of: 1) the employee’s delivery against his/her individual KPIs, 2) the performance of the employee’s business unit, and 3) Masdar’s overall performance score. The employee performance evaluation is utilised using Talent Management software to track, monitor and report an individual’s KPI accomplishments.

Employee Performance Management at Masdar

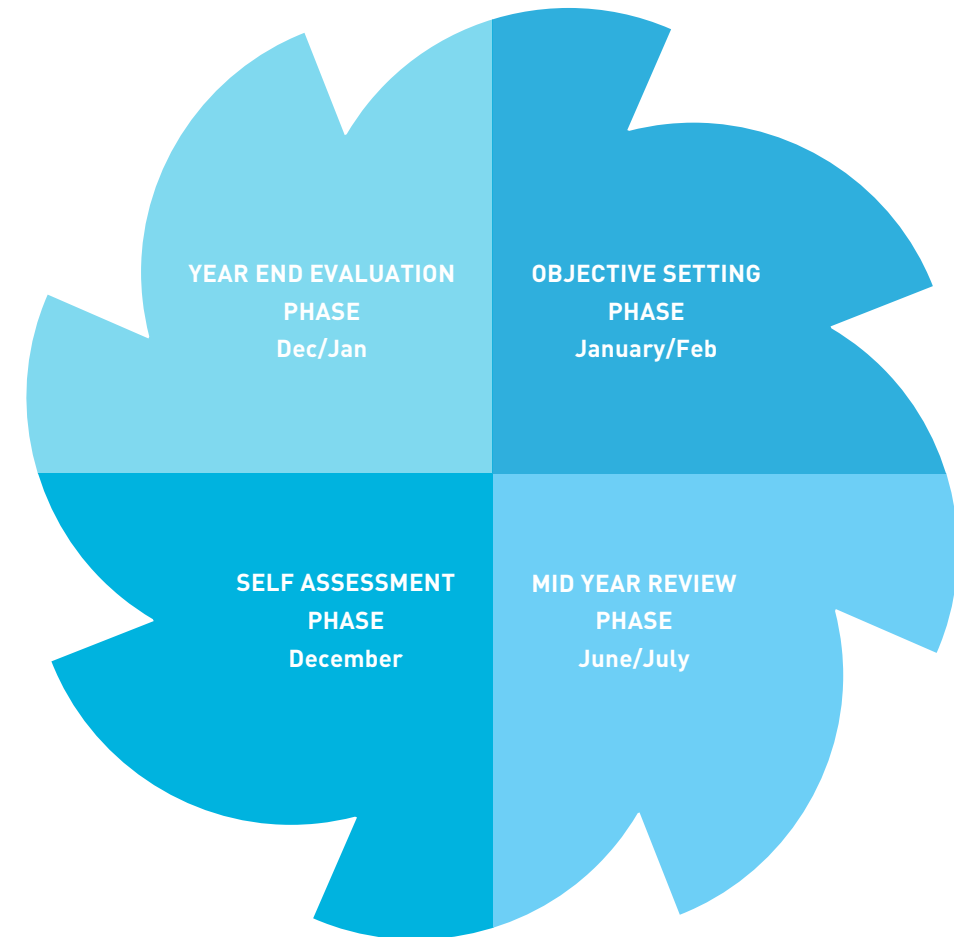
The employee performance management system is the basis of Masdar’s results-orientated performance-driven culture. The purpose of performance management is to:

- Align employee goals with Masdar’s business objectives and strategic plans.
- Use objective and quantifiable measurements when planning or evaluating employee performance.
- Monitor and provide feedback to employees on their performance during the performance cycle.
- Improve employee performance through structured development activities.
- Sustain the link between employee performance, career progression and reward.

The employee performance management system is comprised of two main functions:

- Setting organisational and employee objectives on a bi-annual basis.
- Setting a competency framework to be used for defining acceptable corporate behaviour.

Masdar’s Employee Performance Cycle



In 2013, Masdar began using Oracle Fusion for all talent- / performance-related matters. It is called The Talent Management Portal. The portal currently covers the following functions, Goal Management, Performance Management and Talent Review / Career Development.



Quality, Health, Safety and Environment (QHSE) Performance Management at Masdar

Masdar's QHSE team do their utmost to meet the established strategic goals and attain optimal, sustainable and safe operations by supporting Masdar in the implementation of QHSE policies. In line with Masdar's commitment for continuous improvement of QHSE performance, the department is tasked with:

- Initiating, developing and reviewing the required QHSE codes of practice and guidelines for implementation by Masdar.
- Analysing and monitoring QHSE performance of all departments and reporting findings to management and other concerned parties.
- Organising and conducting audits to ensure all departments comply with QHSE legislation, requirements and corporate expectations.
- Keeping abreast of the latest relevant QHSE developments and advising departments and contractors on QHSE issues.
- Providing Health, Safety and Environment (HSE) advice and assistance to ensure HSE requirements are being considered in all company projects.
- Maintaining professional relationships on behalf of Masdar's business units with federal and Abu Dhabi authorities to ensure relevant QHSE legislation is applied by the company's business units.



Construction Environmental Management Plan (CEMP) at Masdar City

The CEMP is a compliance document that is issued under every construction contract with companies working within Masdar City. CEMP compliance is verified through a set of regular internal and third-party audits and inspections. In addition, the Environment Agency-Abu Dhabi (EAD) carries out random visits to the construction site.

The following criteria are used to assess the performance of projects within Masdar City against the CEMP:

- **Training & Induction Procedure**

Environmental training is essential for executing work in an environmentally sound fashion during the construction of Masdar City Phase 1. This procedure covers all aspects of training involving those personnel and activities likely to have an effect on the environment.

- **Environmental Complaints Procedure** - Complaints are the primary indicator of nuisance and other community dissatisfaction with site activities. It is important that all complaints are properly and systematically recorded, and acted upon.
- **Environmental Auditing & Inspection Procedure** - This procedure is to set out how the environmental compliance of the construction activities, as documented within CEMP, will be periodically inspected and audited.
- **Air-Quality Control Procedure** - This procedure sets out the practices that contractors will adopt to minimise the air-quality impacts arising from their construction activities.
- **Noise Control Procedure** - This procedure sets out the practices that contractors will adopt to minimise noise generated from their construction works and to protect sensitive receptors.
- **Water Management Procedure** - This procedure sets out the practices that contractors will adopt to ensure that water resources are managed sustainably.
- **Materials Management Procedure** - This procedure aims to minimise environmental impacts through the responsible use of materials during construction.
- **Waste Management Procedure** - This procedure aims to minimise environmental impacts through the appropriate management of materials and waste generated during construction.
- **Energy Management Procedure** - This procedure aims to minimise environmental impacts from energy use associated with construction activities.
- **Environmental Incident Procedure** - This procedure seeks to provide details of the response to any environmental incidents that occur during construction.
- **Environmental Monitoring Procedure** - This procedure seeks to provide details of the environmental monitoring requirements during the construction phase.



Management Tools and Systems at Masdar

To achieve excellence in QHSE performance, Masdar employees and contractors strive to apply the established Quality, Health, Safety and Environment Integrated Management System (QHSE IMS).

The purpose of this is to provide a framework to ensure that:

- Masdar's products and services are designed, delivered and operated to the highest quality standards, thereby meeting the expectations of customers, stakeholders and regulatory bodies.
- Masdar's activities are carried out in an environmentally responsible and protective manner, and continually meet the underlying environmental performance expectations of the Masdar initiative.
- Safe and healthy working conditions are assured to employees, contractors associated with Masdar's activities and visitors.
- QHSE requirements are considered throughout the project life cycle and during operations.
- Masdar's products, services, facilities and activities continue to meet regulatory requirements.
- The system provides dynamism for continual improvement in all the aspects of QHSE and flexibility to adapt to changing requirements.

In April 2013, Masdar applied for recertification for the ISO9001, ISO14001 and OHSAS18001. The external audit was carried out on a random sampling basis to fall in line with the Scope of Certification as per the audit criteria of ISO 9001:2008, ISO 14001:2004 & OHSAS 18001:2007. The processes were found well controlled, being handled by the competent personnel.

The results / summary of the recertification are as follows:

- Overall system implementation and maintenance were found to be satisfactory.
- Implementation of policy commitments was found to be appropriate.
- With reference to the above statement, the tools for continual improvement such as objectives and management reviews are being utilised effectively to demonstrate improvements.
- No non-conformances were raised during the second surveillance audit.
- The details of findings are given in Detailed Results & Number of Findings.

Masdar has implemented these systems as part of an Integrated Management System for Quality, Health, Safety and Environment. The system is approved by the Abu Dhabi Environmental, Health & Safety Centre (AD EHSC) and certified by an accredited certification body to respective international standards.

ISO certificates





Green Building Rating Systems

Masdar City uses a number of green building rating systems to determine and verify the sustainability attributes of selected buildings. The Estidama Pearl rating system is a mandatory requirement for all new buildings designed and constructed in Abu Dhabi and is the green building rating system used in Masdar City. In addition to the mandatory Estidama Pearl rating system, Masdar has used more internationally known green building rating systems such as LEED in some cases such as the Siemens Building, which was officially certified LEED Platinum for core and shell.

Masdar City's Siemens Building was officially certified LEED Platinum in October 2013.



Masdar has partnered with a number of providers of data collection and management tools that support the on-going capture, collection, tracking and analytics for the reporting of sustainability performance data.

C3 Energy - Operational Sustainability Management Tool

Masdar uses C3 Energy to manage the energy and emissions-related consumption and production throughout Masdar's assets, including purchased energy, generated energy from solar and wind, purchased water, water consumption and water treatment.

SoFi - Construction Sustainability Management Tool

Masdar's construction carbon-tracking tool is designed to collect the relevant qualitative and quantitative information and has capacity for the collection of such information for various entities, phases and projects related to construction in Masdar City.

SafeQ - Print Management tool

SafeQ delivers comprehensive management and administrative control of all printing, copying and scanning operations. It provides high levels of security for all documents, cost savings, conservation of environmental resources, and greater convenience for Masdar users.

CAFM - Computer Aided Facilities Management Tool

This tool offers a single, holistic view of all facilities and maintenance activities, and tracks every location, asset and person. It can analyse the processes, costs and efforts required for optimal operations, and can help understand the impact of acquisitions, utilisation, maintenance, improvements, service provision and expenditures.

EDMS - Enterprise-Wide Document Management System

EDMS is critical to helping any organisation manage its key asset by enabling knowledge and document management. This is central to sustaining growth and also to protecting the organisation by facilitating document retrieval and referencing.

Oracle Fusion - Talent Management tool

Oracle Fusion Talent Management Base's graphical organizational chart provides an integrated view of all information related to an employee with an extremely user-friendly interface.



Our Approach to Reporting & Communications

Masdar's reporting and communications are key to ensuring that adequate information is made available to its stakeholders. This information is important in helping them to assess whether their material issues and concerns are being addressed and also to understand the progress that Masdar and its affiliates are making in the many activities relevant to them. During the reporting year, Masdar continued to act as a change agent across its various communication platforms, not only by discussing its activities and operations, but also by raising awareness to its stakeholders of the importance of sustainability. These platforms included:

- **The Masdar Times** – Published quarterly and distributed to key stakeholders, this printed newsletter is designed to deliver key updates and reflect the progress of company activities.
- **The Source** – This intranet platform for Masdar employees is designed to provide them with access to all Masdar policy and procedure documents, as well as a location to find information about upcoming events hosted by Masdar and the wider sustainability community in Abu Dhabi. It also is the location for Masdar's START microsite, which provides information, tips and recommendations to employees about sustainability and living in a more sustainable manner.
- **Masdar's Spotlight Initiative** - In 2013, Masdar introduced a bi-quarterly internal video blog that updates Masdar staff on the company's latest news and key messages – in a fun informative way. This method of communication highlights the diversified manner in which Masdar communicates with its stakeholders.

Masdar uses several methods to deliver significant messages to its external stakeholders. Masdar recognises its communication objective is not only to provide insights into its activities but also to help people understand why sustainability is important in Abu Dhabi and the region. The following methods of communication are used to engage with Masdar's external stakeholders:

- | | |
|-----------------------|-------------|
| • Press releases | • Features |
| • Press conferences | • Q&As |
| • Forums and meetings | • Interview |
| • Op-eds | |

During 2012 and 2013, Dr Sultan Ahmed Al Jaber, Masdar CEO, continued to provide articles to THE HUFFINGTON POST, a global internet news aggregator. During the reporting period, the following entries were submitted:

- 'From Oil to Renewables' (6th December 2012)
- 'The Middle East You Don't See' (30th January 2013)
- 'An Open Letter to Incoming Energy Secretary Ernest Moniz' (29th May 2013)

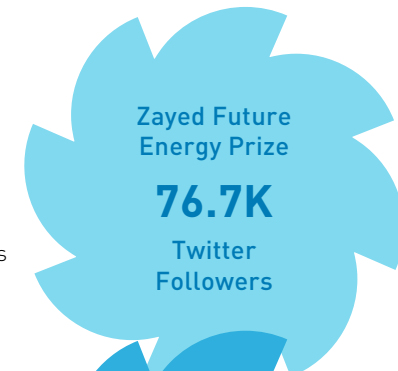
In May 2013, Bloomberg TV aired a 20-minute documentary as part of its 'Bloomberg Brink' series outlining the achievements of Masdar, thereby providing significant global exposure to the company

Masdar's Social Media Initiatives

During the reporting period, Masdar has significantly enhanced its presence in the world of social media. Recognising the power of social media as a platform to communicate to its stakeholders around the world, Masdar developed a rigorous expansion plan of key social media outlets. Masdar continues to focus on the most widely used forms of social media (Twitter, Facebook, and LinkedIn) and in April 2013, Masdar established an Instagram account to further communicate to its digital audience.

Masdar Twitter Facts (Q4'12-Q3'13):

- 2,512 tweets posted
- Average of 6.34 tweets posted per day
- 1,500 user mentions
- 2,121 links posted
- 1,469 tweets retweeted a total of 3,782 times
- 757 tweets favoured a total of 1,110 times
- Average of 1,567 new followers per month



Instagram Facts:

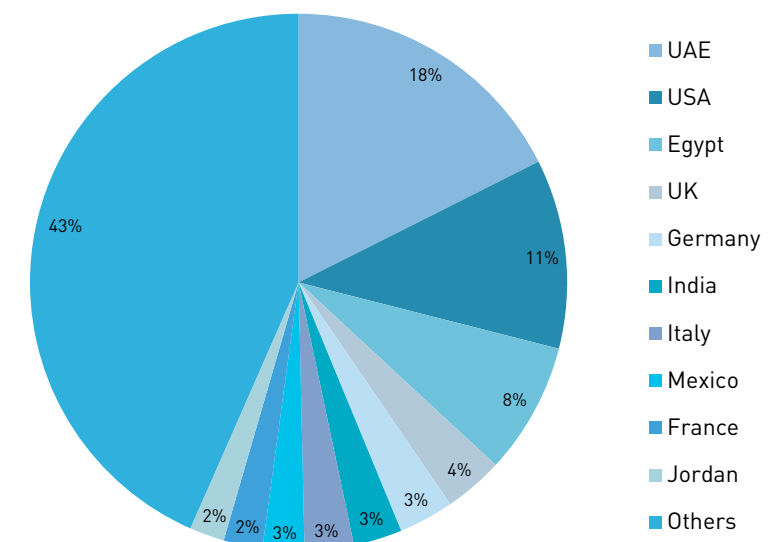
- 1,223 followers
- 200 posts since activation
- +100 - Likes per post (average)



Facebook Facts:

Page likes: 8,381

Facebook Fan Distribution



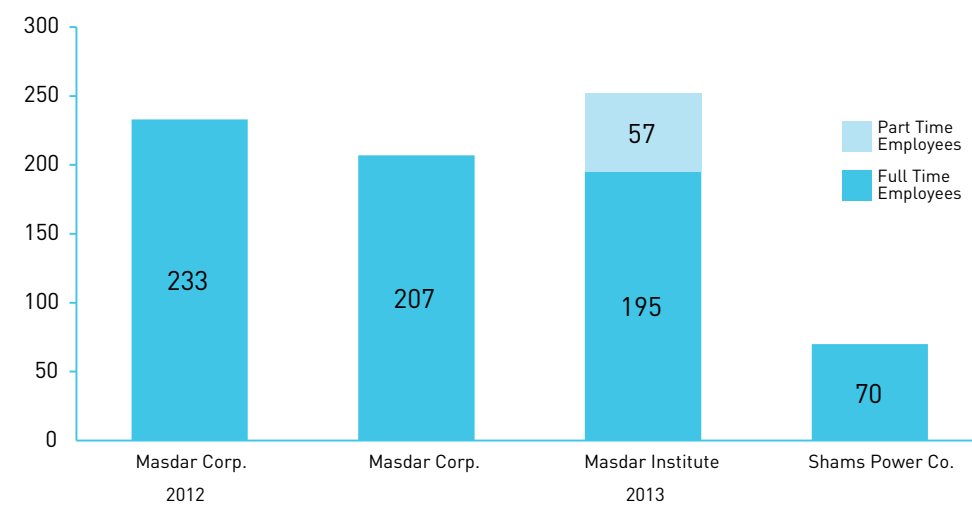
An Overview of Masdar's Workforce

The workforce section of this report is designed to give our stakeholders an insight into the makeup of personnel working for Masdar and selected Masdar entities. The following components have been deemed material to the organisations and will be addressed in greater detail throughout this section:

- Ensure a safe, secure, healthy and rewarding workplace.
- Recognise the abilities and diversity of all employees.
- Promote continuous learning and development for all employees.
- Train and develop employee core competencies, skills, knowledge and abilities to meet present and future job requirements.
- Create opportunities for personal and professional growth while encouraging teamwork.

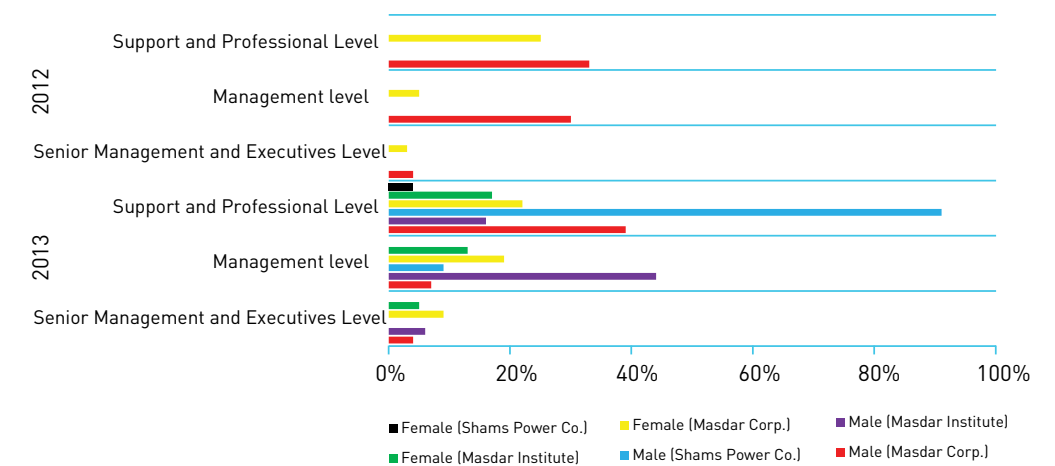
Masdar has developed this section to be in accordance with the 'Material' aspects within an important section of the GRI G4 guidelines, 'Labour Practices and Decent Work'. Masdar remains committed to creating and maintaining a workforce that is well equipped to not only meet but exceed the expectations set out in the organisations objectives and business plans. Diversity is a key component to delivering innovation and excellence whilst upholding the commitment to continuously develop local talent.

For this section, the reporting boundary will be expanded from that of the 2012 sustainability report to include affiliates such as Masdar Institute and Shams Power Company, and – with regards to occupational health and safety data – the London Array project as well. As Masdar continues to advance its reporting capabilities, there is the intention in successive sustainability reports to further expand the level of detail and the reporting boundary.



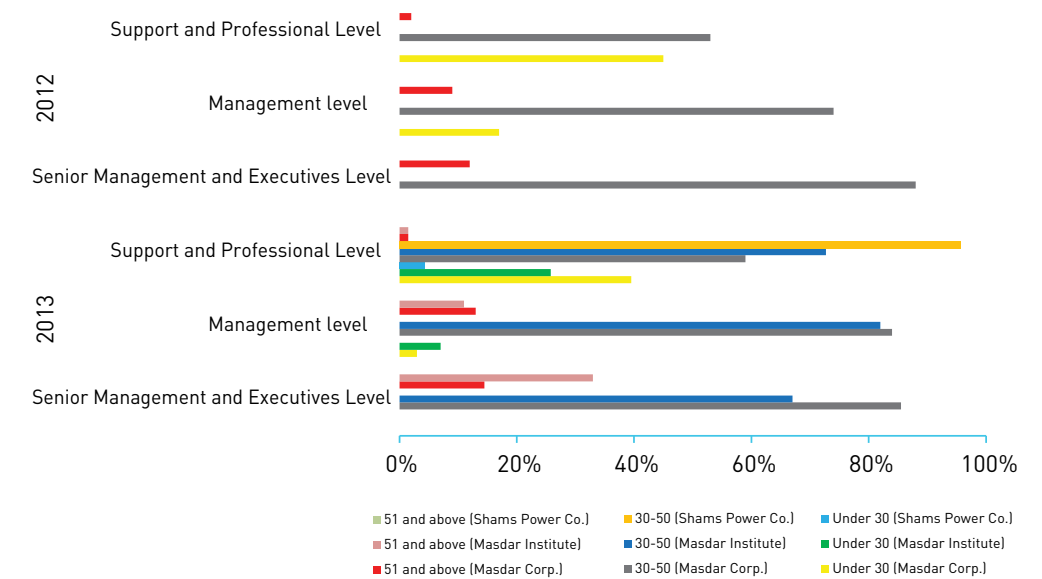
Total Masdar Employees by Gender (%)

For Masdar, a balanced gender ratio is seen as a key indicator of the progress of providing opportunities and significant roles and responsibilities to women within the organisation. During the reporting period, Masdar successfully increased the number of management and senior management positions held by women. During the reporting period, 21% of the senior management positions were held by women, up from 14% during the 2012 period.



Total Masdar Employees by Age Group (%)

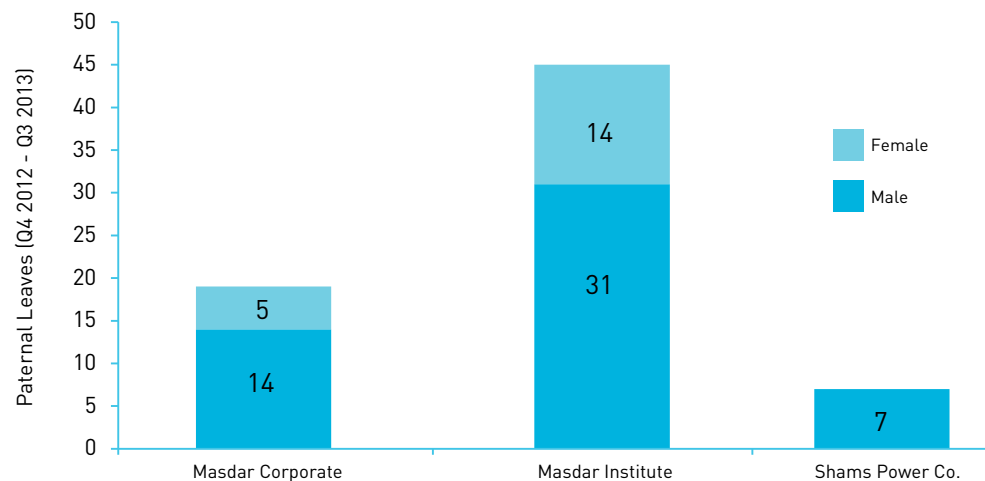
Within the renewable energy sector, it is important for the workforce to include a blend of seasoned staffers with extensive experience and younger staffers with fresh perspectives and a greater tendency toward innovative forward thinking. Masdar recognises this and embraces the need to develop talent whilst remaining grounded through an experienced set of core personnel. As a young nation, the UAE has a highly skilled, ambitious workforce that Masdar will continue to utilise and provide opportunities to develop.



Total Parental Leave at Masdar (by gender)

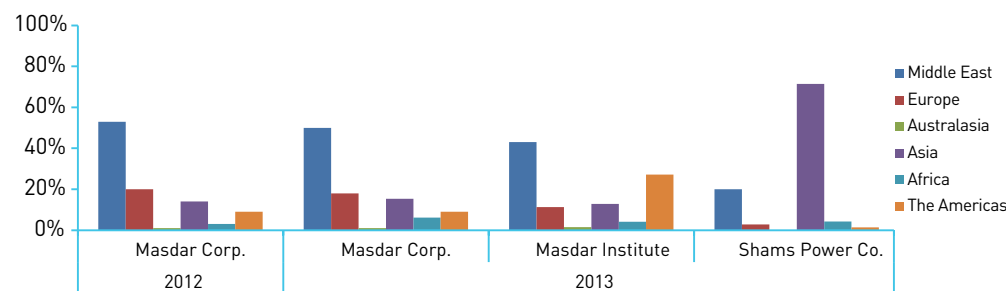
In keeping with its commitment to provide a working environment that allows for a healthy work-life balance, Masdar offers parental leave and flexible hours. Masdar offers assurance that all employees who take parental leave are able to benefit the organisation and meet family commitments upon their return to work.

During the reporting period, of all the parental leave taken, 100% of both male and female employees returned to work following their leave and continued their employment with Masdar and the affiliates reported in the above graph.



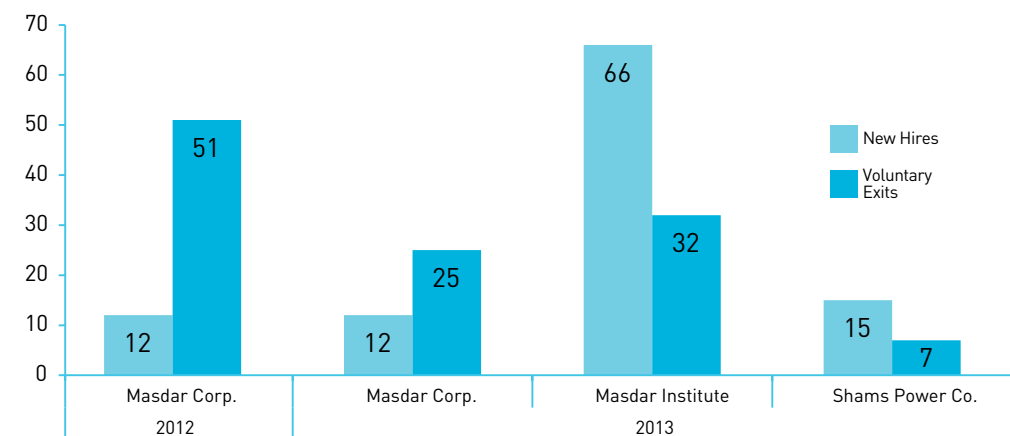
Total Masdar Employees by Origin (%)

In an ongoing effort to meet the demands of aggressive expansion and an ever-widening portfolio of projects and activities, Masdar recognises that as well as developing local talent, key personnel that have the necessary expertise to deliver on Masdar's objectives must be sourced from more established regions.



Masdar Employee Turnover

During the early developmental years of any organisation, there is inevitably a period when it works to establish the right balance of workforce staffing with regards to the activities it engages in to comply fully with its obligations to shareholders and other key stakeholders. In recent years, Masdar has taken the necessary steps to achieve the correct balance; however, as affiliates such as Masdar Institute and Shams Power Company continue to expand, so too does the workforce in terms of new hires.



Masdar Benefits Plan per Employee type

The compensation and benefits structure at Masdar is designed to attract, motivate and retain employees who will help Masdar implement its strategies and achieve its objectives. Its policy is to pay fair, equitable and competitive salaries to employees. The below graphics outline the variations between Masdar and Masdar Institute (Shams Power Company is not included). The highlighted elements are those benefits that are specific to Masdar Institute only.

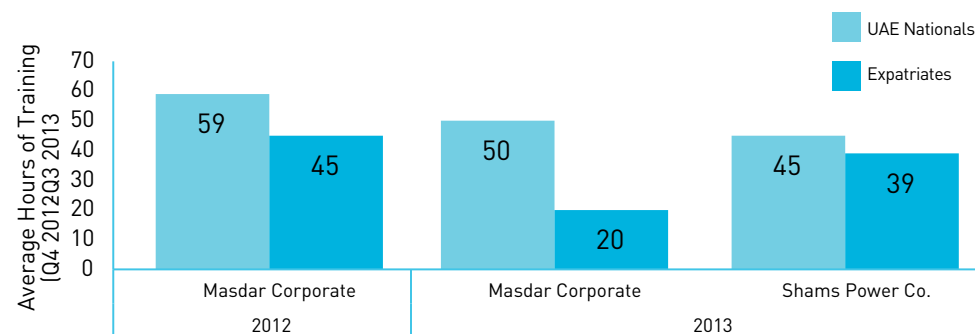
Full Time Employee Benefits:	Temporary Employee Benefits:
<ul style="list-style-type: none"> Salary Annual Leave Health Insurance Life Insurance Child Education Assistance Housing Allowance Furniture Allowance Vacation Travel Allowance Repatriation tickets for expats Visa/medical expenses for employee, spouse and children Tuition Fees 	<ul style="list-style-type: none"> Salary Annual Leave Health Insurance Repatriation ticket Visa/medical expenses for employee only
<ul style="list-style-type: none"> Internship Benefits: Internship Salary for UAE Nationals only 	

Training and Educational Programmes

A key strategy for delivering on the objectives as per Masdar's set business plans is to ensure that all personnel are equipped for their roles. This is done through training and education that furthers their abilities to carry out the specific tasks related to their business function and job requirement.

Many initiatives have been put in place to ensure that the training needs are met for all Masdar staff and mentioned affiliates through both in-house and external training programmes and workshops.

Masdar Training Programmes - Overview			
	In-House	Online	External
Masdar Corporate	<ol style="list-style-type: none"> 1. Project Management 2. Finance 3. Leadership 4. Decision Making 	<ol style="list-style-type: none"> 1. Project Management (8 Modules) 2. Finance for Non-Finance Professionals (6 Modules) 	All areas of technical training: <ol style="list-style-type: none"> 1. ICT 2. Energy 3. Project Management 4. Human Resources 5. Marketing, Strategy 6. Academic Training 7. Executive Training
Masdar Institute	<ol style="list-style-type: none"> 1. Emotional Intelligence 2. PMP Preparation 3. Highly Productive and Effective Administrator 	<ol style="list-style-type: none"> 3. Business English Writing (3 Modules) 4. Mentoring (2 Modules) 5. Green Business Strategies (3 Modules) 6. Introduction to Sustainability (1 Module) 	<ol style="list-style-type: none"> 1. Effective Brand Management 2. Management Development Course 3. Certified Brand Manager 4. CIPD HR Practice 5. Foundations of Leadership 6. Category Management and Sourcing 7. Problem Solving and Communication 8. Building a University Brand
Shams Power Co.	Specific Technical Training	-	Specific Technical Training



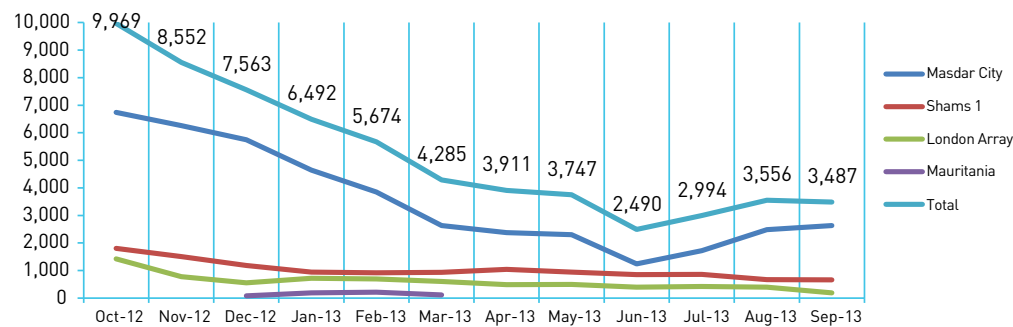
	2012	2013
Average Hours Training per Employee	50 Hrs.	34 Hrs.



Occupational Health and Safety Management at Masdar

Masdar recognises its responsibility to provide a safe working environment, not only in the corporate setting but also across its projects. Masdar ensures that employees are well educated in the procedures for issues related to health and safety, with fire drills, employee first aid and fire warden training throughout the organisation. During the reporting period, no first aid incidents or lost-time injuries were recorded in the SAF offices.

The below data extends the reporting boundary beyond that of the Masdar 2012 Sustainability Report, which covered only Masdar City's construction activities (not Masdar City operational health and safety data). Also covered in this report is Shams 1, the London Array and the Sheikh Zayed Solar Power Plant in Mauritania. The below chart reflects the number of workers working on Masdar projects. Masdar's involvement in Mauritania ended when the plant was handed over to the local utility provider upon project completion.



Masdar and Affiliates - Health and Safety Performance Data Overview

As reflected in the below data, health and safety performance across Masdar portfolio construction projects has fallen. As a result, significant measures have been put in place to ensure better performance over the 2014 reporting period. As a result, Masdar has set a series of targets to satisfy its stakeholders that measures are being taken to improve health and safety performance.

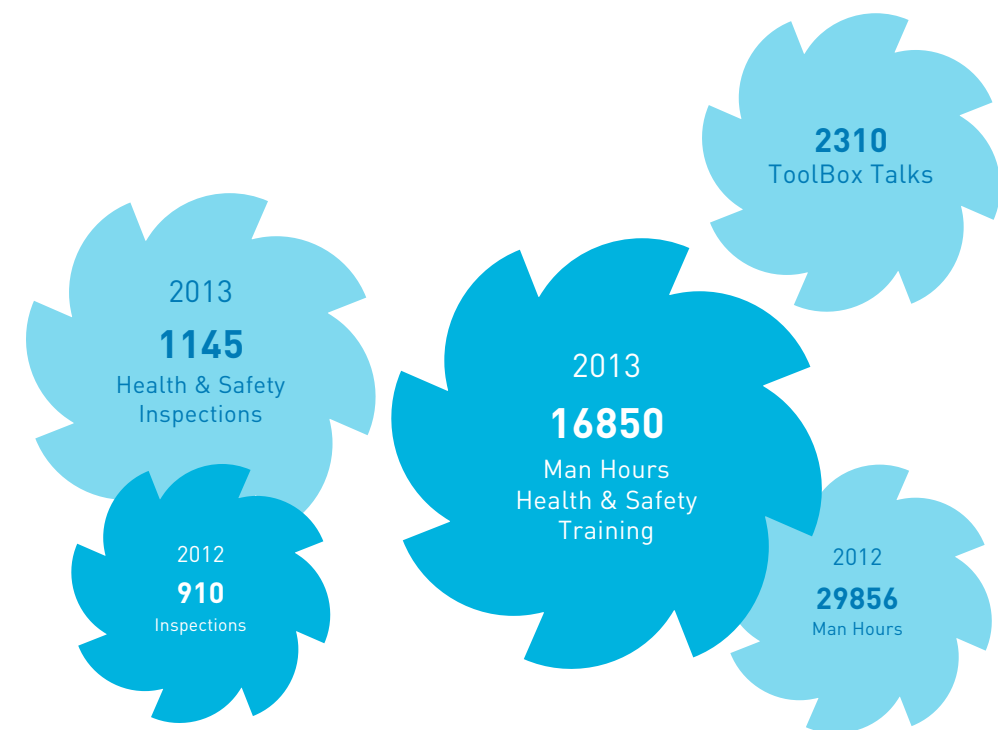
Metric	Actual		Target
	2012	2013	2014
Number of Lost Time Injuries	1	3	1
Man-Hours Without a Lost Time Injury	Actual		
	2012	2013	
	12,927,422	6,028,826	
Average Monthly First Aid Incidences (per 1000 workers)	Actual		Target
	2012	2013	2014
	3.82	13.4	7.5

Proactive Health and Safety Initiatives at Masdar City

In an effort to manage the health and safety risks associated with construction activities, the health and safety team at Masdar carefully monitors the numbers of incidents as shown above and uses proactive measures to maximise the safety of the Masdar City construction workforce at all times.

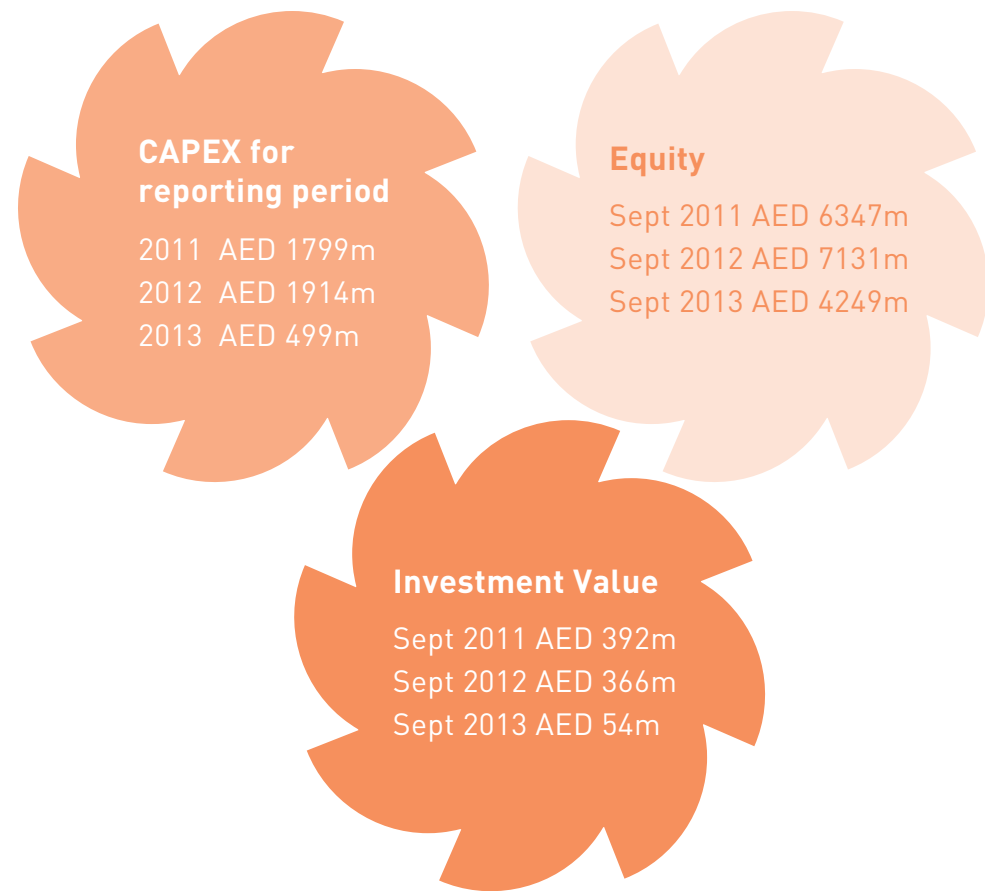
These proactive measures include:

- Health and Safety Inspections**
 Inspections are designed to ensure that contractors continue to operate within the guidelines outline by Masdar, and to ensure the safety of all staff at all times.
- Health and Safety Training**
 Specialised training for site construction teams and the construction workforce include topics such as working with hazardous materials and waste, materials handling and incident response training.
- Tool-Box Talks**
 Task-specific health and safety trainings are expected to be provided on a daily basis (on average) to the members of the construction workforce and contract staff in order to ensure their specific activities are done with health and safety procedures in mind.



Masdar's Financial Summary

As a government-related enterprise that is wholly owned by Abu Dhabi-government owned Mubadala, Masdar is constrained regarding the level of financial detail that can be disclosed to the public. Therefore, as in the 2012 sustainability report (Q4'11 – Q3'12), Masdar management and its shareholder have deemed appropriate the disclosure of the following financial information. The below table offers data for the past three years and requires some situational explanation.

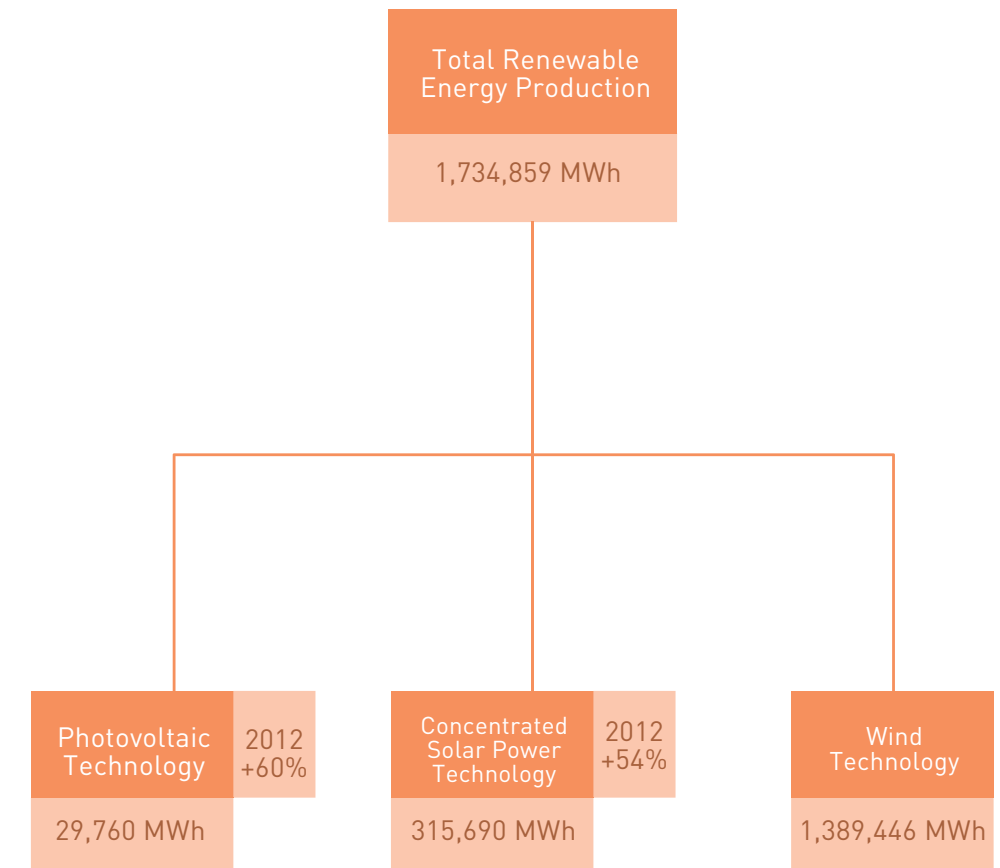


Unlike in previous years, Masdar has recognised the completion of a number of on-going projects during the reporting period and subsequently has seen a reduction in capital expenditure and investment value. During the reporting year, Masdar was pleased to repatriate almost AED 3bn to our shareholder. This explains the large drop in equity value between 2012 and 2013.

Contributing to the Global Renewable Energy Mix

In 2013, Masdar and its partners recognised the completion of a number of major projects that added to the renewable energy mix, both in Abu Dhabi and elsewhere. Significant strides were taken in working towards the renewable energy target of 7%, set out as part of the Abu Dhabi Economic Vision 2030 and the objective of establishing Abu Dhabi and the UAE as global leaders in the deployment of renewable energy capacity. In 2013, Masdar witnessed the significant expansion of the types of renewable energy deployed, extending from solar PV and concentrated solar power (CSP) to include significant advancements in wind technology deployment.

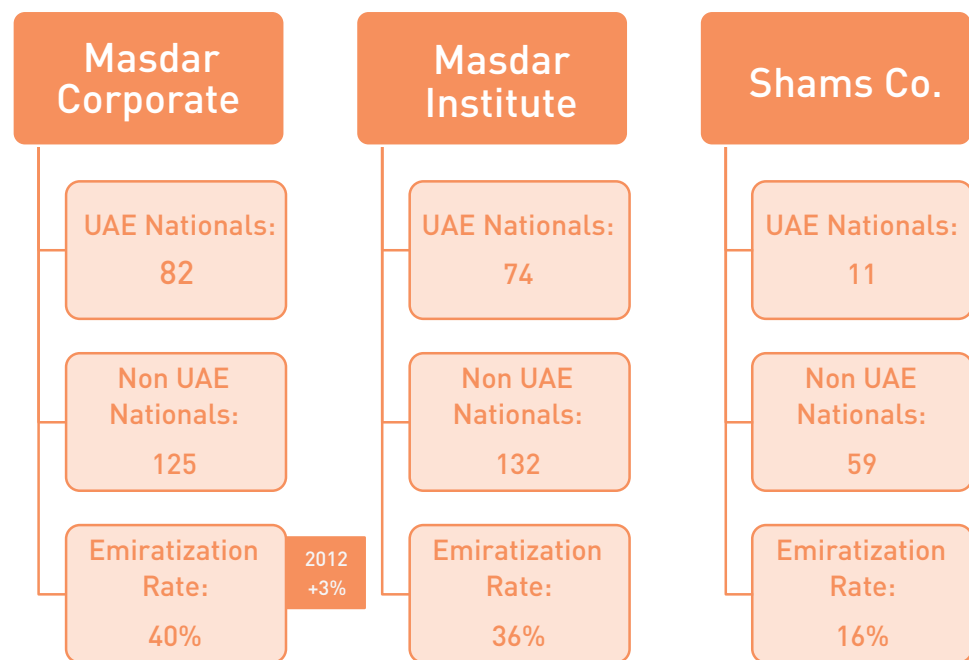
The below diagram provides an overview of the total renewable energy generation of Masdar's assets locally and abroad during the reporting period.





Enhancing Opportunities for the Local Workforce

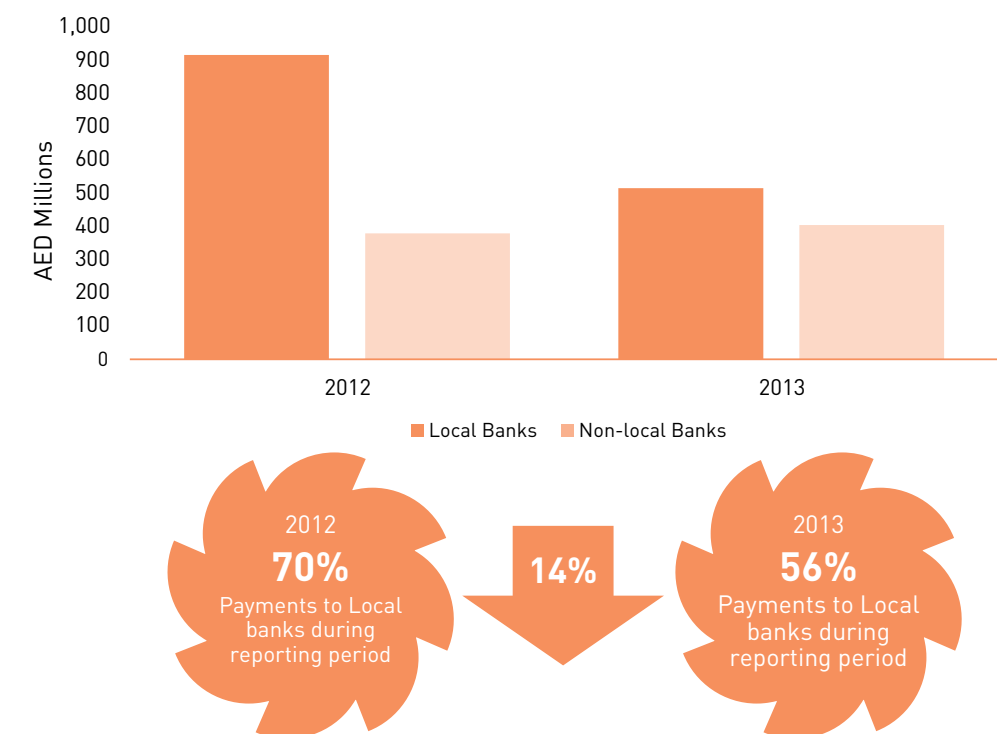
Masdar is committed to developing local talent within the areas in which it operates and with a strong emphasis on strengthening the local UAE labour force. A drive by the Abu Dhabi government and consequently Masdar's shareholder have established a comprehensive Emiratisation initiative designed to enhance employment opportunities for talented UAE nationals. Career development programmes are tailored to suit these individuals' target career paths.



A key factor regarding Emiratisation is the number of UAE nationals in senior positions within the organisation. For Masdar, excluding its affiliates (Masdar Institute and Shams Power Company), a total of 57% of directors and senior executives of business units and departments are UAE nationals, showcasing Masdar as an organisation that develops and provides UAE nationals with opportunities to lead.

Supporting the Advancement of Local Economies

In addition to harnessing the local labour force, Masdar strives to invest and progress the local economy by supporting and encouraging local businesses engagement. A key component of sustainable development is the establishment of a thriving local economy and not solely relying on external sources to supply products and services. The maturing of a local economy such as the UAE has resulted in numerous advantages and Masdar remains committed to working with locally established organisations to further enrich the society at large.



During the reporting period, Masdar issued payments of AED515m to local banks, and although this is a reduction in spending locally, this is still a significant sum that has contributed to the local economy and reflects the transition towards a maturing local market with adequate offerings of products and services, even for an organisation such as Masdar, which operates in new industry sectors such as renewable energy.



Providing Opportunities for New Businesses in Abu Dhabi

As Masdar City is widely recognised as one of the world's most exciting eco-developments, it is also a free zone located in close proximity to Abu Dhabi International Airport and 17km from downtown Abu Dhabi. Masdar City offers clients an exceptional value proposition:

- 100% foreign ownership
- 100% exemption from corporate and personal income taxes
- 0% import tariffs
- Quick and easy set-up with a 'One-Stop Shop' for registration, government relations and visa processing
- Freedom of repatriation of both capital and profits
- One of the world's most beautiful and sustainable living and working business clusters
- A launching point into local, regional and international markets
- A critical mass of sector knowledge and talent
- R&D hub partnering with Masdar Institute
- Highly cost-effective licensing and office space
- Proximity to Abu Dhabi International Airport, Khalifa City, Yas Island; just 40 minutes from Dubai

Potential clients, developers and investors have a number of lease options:

Land: Developers have the option to lease land (Musataha) for a period of 30 years and develop projects suited for commercial, residential and community living (schools, shopping malls, hotels, etc.).

Design-Construct-Lease (DCL): Firms can sign a long-term lease with Masdar to design, develop and deliver a superior building – thus catering to the firm's specific requirements whilst showcasing its commitment to both the Masdar initiative and its own green credentials – all at market competitive rates.

Business Centre: Clients can lease a ready-to-go office.

Office / Retail Space (Core & Shell): Clients can lease the office / retail space and carry out the fit-out works that suit their operational requirements.

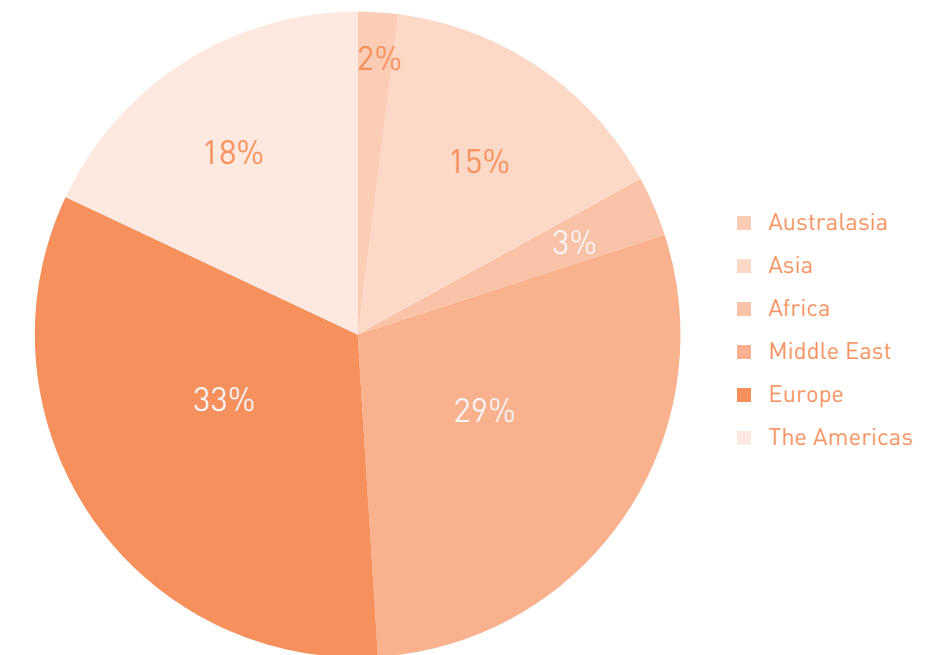


Masdar City continues to attract like-minded companies that recognise the importance of sustainability and sustainable development, with a total of 98 registered companies taking advantage of the benefits of free zone status. Twenty-one of these companies joined the Masdar City free zone during the reporting period.

The below table and diagram highlight the types of organisations setting up in Masdar City and their origins, emphasising the global attractiveness of Masdar City free zone and the region as a whole for new business opportunities.

Company Legal Framework	Total company & company type breakdown	
	2012	2013
Limited Liability Company (LLC)	47	65
Branch (Foreign Company)	20	20
Branch (UAE Company)	1	2
Branch (Retail)	9	11
Total	77	98

Origin of registered Freezone Companies



Masdar City's One-Stop Shop

The 'One-Stop Shop' handles all registration, licensing and leasing issues related to Masdar City, as well as all government services, such as visas and customs. With one central location, the 'One-Stop Shop' handles services associated with:

- Leasing of Commercial Space
- Incorporation of New Business Entities
- Issuance and Renewal of Commercial Licenses
- Government Relations Services (Entry Visa and Residency, Stamping, Emirates Post, Customs, Department of Economic Development)
- Fit-out and Facilities Management Services

Depending on the company's activities and financial plan, one can choose from the available annual licensing tariff options:

- | | |
|--|------------|
| • Registration Fee (one-off payment) | AED 5,000 |
| • Association (non-profit organisation) | AED 10,000 |
| • General Segments | AED 10,000 |
| • Light Industrial / Manufacturing Activity | AED 20,000 |
| • License Tariff Fee (maximum 15 activities per license) | AED 30,000 |

There are a number of licensing categories or 'segments' that are accepted within Masdar City free zone:

Renewable Energy	Clean Tech & ICT
Marketing and Events	HR Development
Energy Industry	Healthcare Services
Carbon Management	Service Providers
Property Development Services	Business Centres & Data Centres
Regional HQ, Trading and Holding Companies	Oil & Gas Services

Community Services

(retail, food & beverage outlets)

UAE nationals and Khalifa Fund SMEs can benefit from the unique price plans to further encourage entrepreneurship which include:

- No registration fee
- Five activities from any segment AED 10,000
- Each additional activity AED 1,000
- Khalifa Fund SMEs are eligible for first-year license waiver

'One-Stop Shop' Testimonials

"The support received from Masdar City Services has been invaluable in quickly setting up the branch and in administering the employees' visas. Their web-based One-Stop Shop is a great added value for an international company like Abengoa to streamline the company's business administration."

Allison Lenthall
Director of Communications and CSR
Abengoa Solar Power, S.A.

"When we established our office in Masdar City, we realised that we don't need to seek help. Masdar City staff are always ready to provide help and guidance. I can very confidently say that with Masdar everything is simpler."

Mahmood Moosa
Managing Director – Finance
M+W Middle East Limited

"We are satisfied with the quality of services Masdar provides. We truly appreciate the quick responsiveness on all our requests. Looking forward to more years being a business partner with Masdar."

Akihiko Tsuchida
General Manager
Mitsubishi Heavy Industries, Ltd

"Gulf Green is enjoying the benefits of setting up in Masdar City, and we would like to thank everyone at Masdar for their continued support. This includes genuine interest in creating and developing a sustainable future for all."

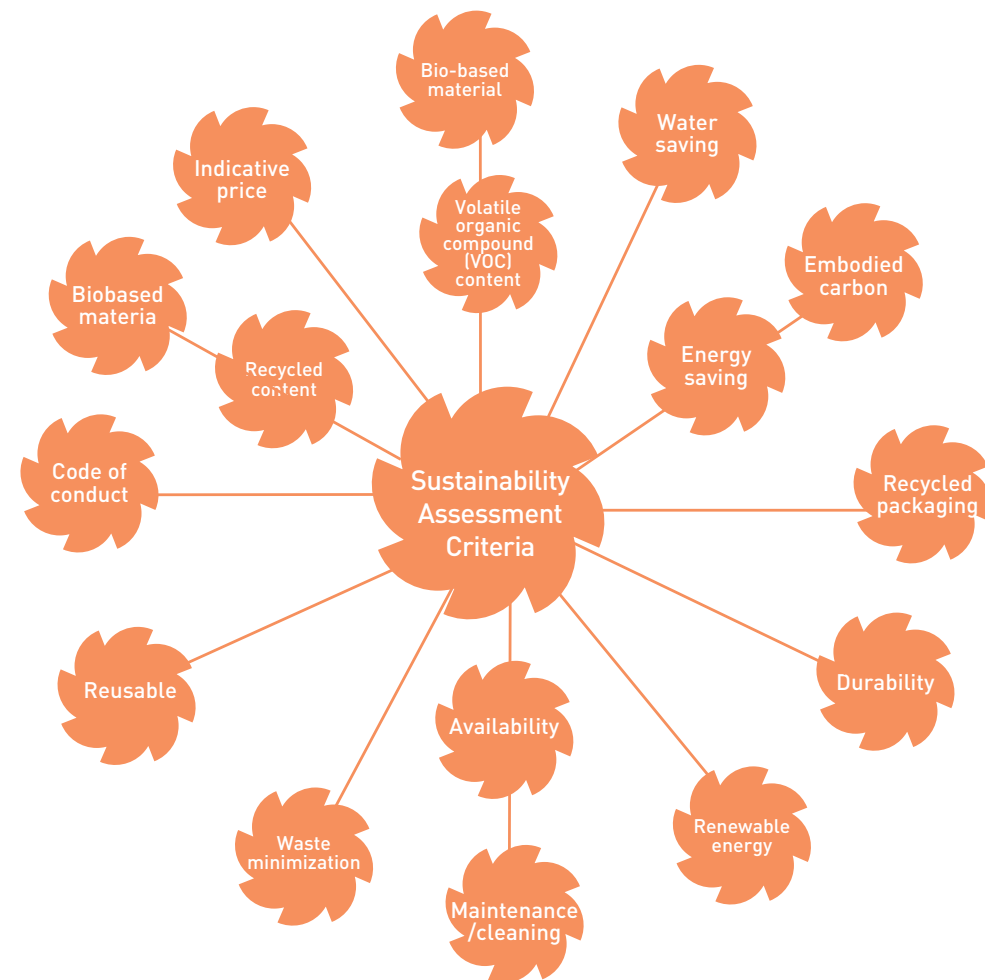
Paul Williams
General Manager
Gulf Green Environmental Limited

Stimulating and Promoting New Markets – Green Building Materials

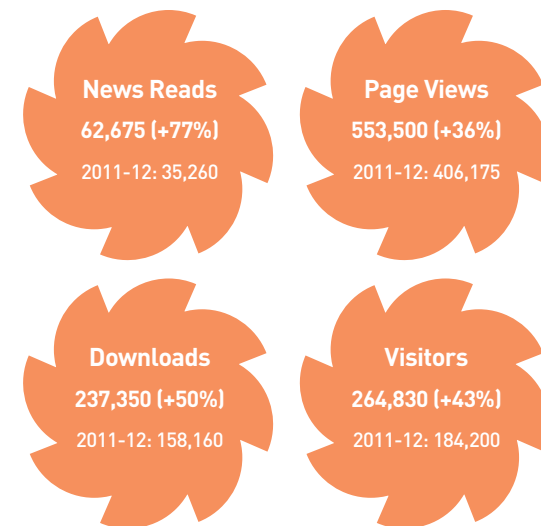
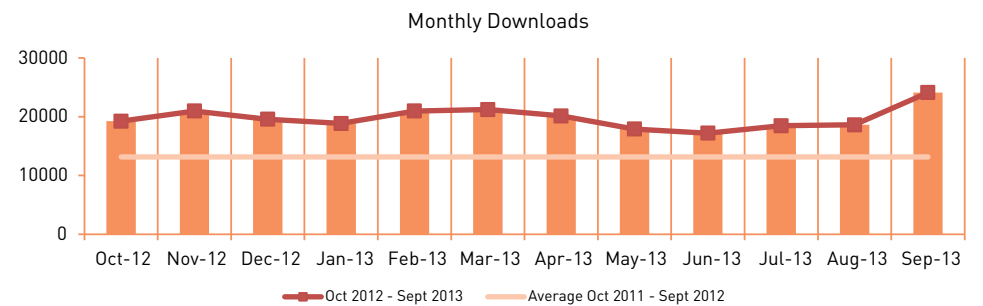
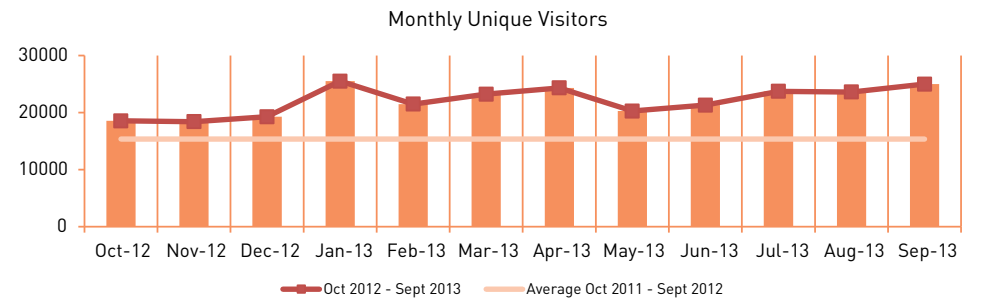
The first portal of its kind to originate in the Arab world, The Future Build assists architects, engineers and contractors in identifying and sourcing building products and materials that have been independently assessed to ensure they deliver the environmental benefits claimed. The Future Build offers an unrivalled platform for suppliers of green building products to bring their products and materials to the attention of all elements of the construction industry, particularly in the United Arab Emirates and wider Arab world.

The portal reflects the vital need of Masdar City – as with any project that seeks to accurately manage its environmental footprint – to understand and manage the embodied carbon and other environmental implications of products and materials used to construct and operate the city.

Listings include a brief product description, supplier contact information and then an assessment of the product using The Future Build Sustainability Matrix©



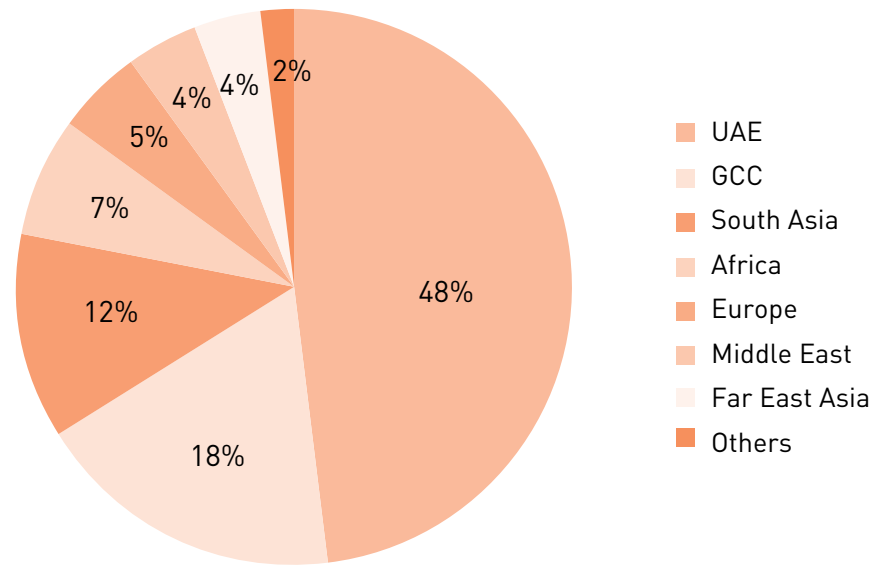
The Future Build Facts and Figures



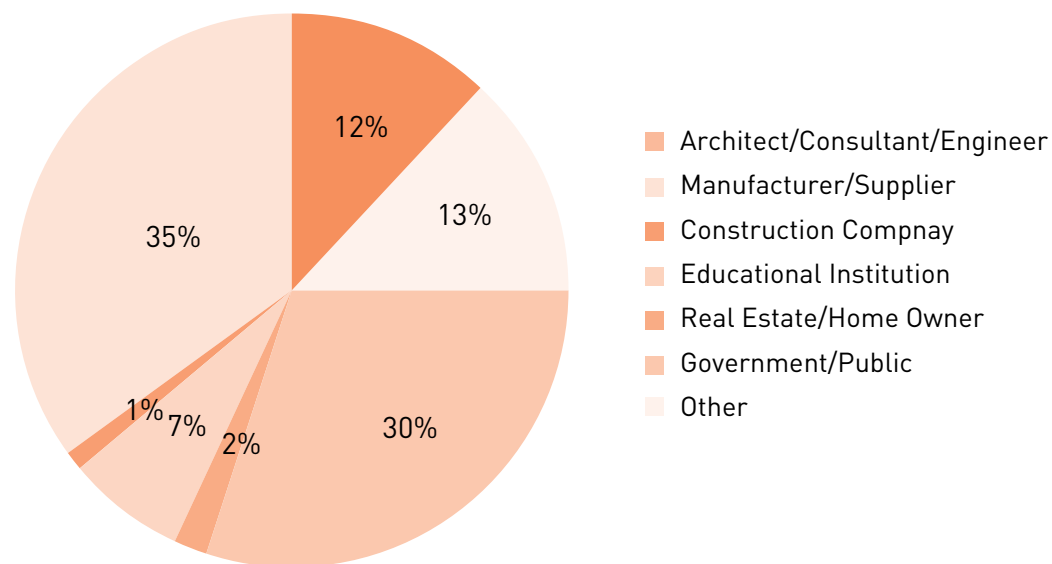
While The Future Build has been developed to serve specifiers and contractors in the UAE and wider region, the strength of its assessments and user-focused design make it a valuable tool for industry professionals worldwide. The below charts are intended to highlight the location and type of The Future Build audience, based on the data collected from the Request for Information system.



Origin of Visitors to The Future Build Portal



Type of Visitor to The Future Build Portal



The Future Build Portal Testimonials

Masdar judges the success of initiatives such as The Future Build through customer feedback. The Future Build, although only launched in 2011, is now seen as a vital platform for linking those seeking to adopt more sustainable construction practices with leading-edge product manufacturers who recognise the value added in delivering sustainable materials to the marketplace.

"Underpinning the strategy of the Hadley Group is a strong commitment to the development of environmentally sustainable building products for use throughout the world. As such, we share the same aims as The Future Build portal, and we fully champion its use, both as a route to market and as a reference point for the construction industry in general. The Hadley Group is proud to be associated with this key initiative and pleased that our products have been deemed suitable for inclusion in The Future Build portal."

Mark Williams
Commercial Director
Hadley Industries (Middle East) FZE

"Since the inception of Masdar, SODAMCO-Weber has embraced the goals of Masdar and was among the first few companies to have our products evaluated, approved and listed in the project and on the portal. When The Future Build was launched, we found it as a great tool aligning with our goals of increasing the awareness among construction professionals towards the use and promotion of green building materials for sustainable habitat. SODAMCO-Weber has been supportive to all initiatives launched by Masdar, and we find The Future Build portal a successful and unique tool in this part of the world."

Tarek Fransawi
Country Manager
SODAMCO-Weber Emirates

"Ever since its foundation in 1901, environmental and social awareness have been intrinsic values for Hansgrohe. In the late 1980s we started developing innovative water- and energy-saving technologies like EcoSmart and AirPower to ensure efficient water pleasure. Hence, we are delighted to see that more and more stakeholders of the construction industry come on board to promote sustainability. For Hansgrohe, Masdar's The Future Build portal is a quintessential tool in the Middle East region in guiding and educating professionals on smart choice green products."

Dirk Schilmoeller
Sales Director Middle East
Hansgrohe SE

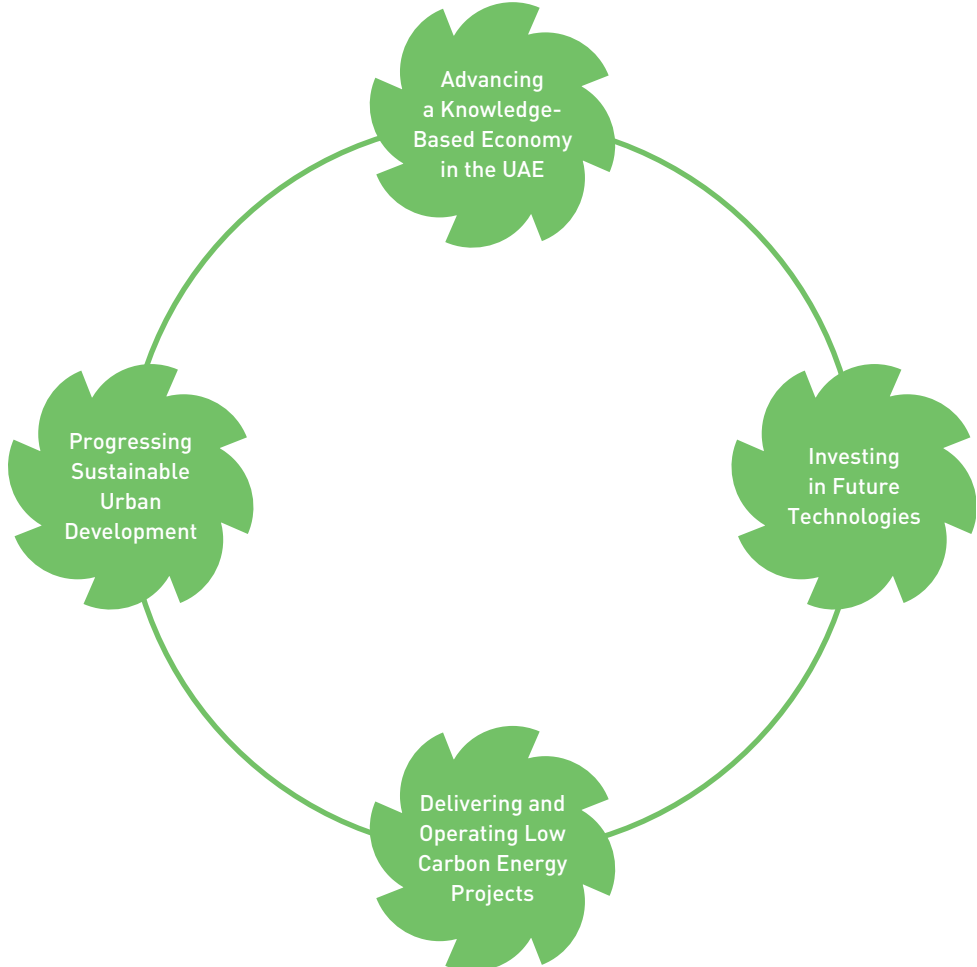


Masdar's Products and Services



In order to truly understand Masdar's social, economic and environmental impact on its stakeholders, a brief overview of the key activities conducted by Masdar and its affiliates is given. During the reporting period, a series of on-going projects, both locally and abroad, have transitioned from construction to operation, bringing a new dimension to Masdar that involves operational asset management, as well as project delivery. The products and services section of this report is designed to put into context the material social, economic and environmental aspects outlined in other parts of this sustainability report.

In line with its Vision and Mission, Masdar and its key affiliates remain focused on addressing the following core areas.

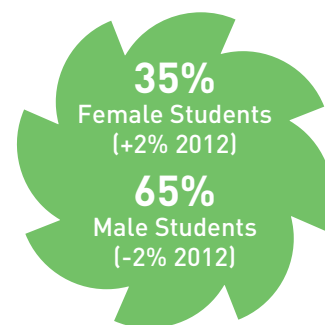
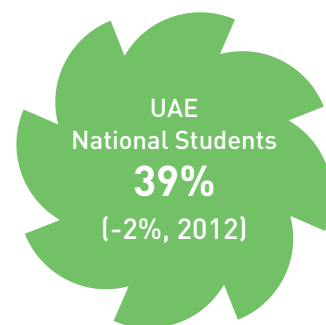


Advancing a Knowledge-Based Economy in the UAE

Masdar Institute of Science and Technology was established by the government of Abu Dhabi as an independent, non-profit, research-driven graduate university dedicated to higher education and research in advanced energy and sustainable technologies. Located in Abu Dhabi, Masdar Institute aims to support the Emirate's economic diversification by nurturing highly skilled human and intellectual capital to help the Emirate transform to a knowledge-based economy as per the Abu Dhabi Economic Vision 2030.

Masdar Institute was developed with the support and cooperation of the Massachusetts Institute of Technology (MIT), and currently operates in a close on-going collaboration with MIT to develop research and development. It serves as a source of innovation and human capital for the region, providing qualified students with the opportunity to pursue graduate studies and research in critical areas such as renewable energy, sustainability, environment, water resources, engineering systems, management and advanced materials, among others.

Masdar Institute currently has 82 faculty members from over 20 countries.



Investing in Future Technologies

Masdar Capital invests in the commercialisation of tomorrow's most promising technologies through two cleantech funds with \$540m under management.

Created to support the development of new technologies and projects, and generate positive returns for Abu Dhabi, both funds follow an active management investment strategy and seek to realise strong risk-adjusted returns.

Through these funds, Masdar Capital promotes and commercialises renewable technologies in the UAE, and identifies synergies between its investments and other Masdar activities, in line with the UAE's long-term energy and development programme. Masdar Capital has been an active investor in the cleantech marketplace since 2006 and will continue to raise new funds to take advantage of profitable sectors, whilst growing its assets under management.

Masdar Clean Tech Fund - \$250m (Fully Invested)

- Launched in 2006
- Co-managed with Consensus Business Group and Credit Suisse
- LP participation from Siemens AG
- Investment areas: Waste Treatment, Biofuels, Clean-Water Technologies
- Masdar Clean Tech Fund Investments
 - 65% in USA
 - 35% in Europe

DB Masdar Clean Tech Fund - \$290m (Partially Invested)

- Launched in 2010
- Co-managed with Deutsche Bank Climate Change Advisors (DBCCA)
- Investment areas: Clean Energy, Environmental Resources, Energy and Material Efficiency

Notable portfolio companies include:

eCullet (USA) – Advanced processing technology to deliver quality recycled glass.

FRX Polymers Inc. (USA & Belgium) – Commercialising safe and non-toxic alternative fire resistant plastics.

Europlasma (France) – Manufactures high-temperature plasma torch systems (waste destruction and gasification for renewable energy production)

Delivering and Operating Low Carbon Energy Projects

To diversify Abu Dhabi's energy mix and expand the Emirate's range of commercial energy expertise, Masdar invests in the development of large-scale clean-energy projects, ranging from utility-scale wind and solar to energy efficiency and carbon capture and storage (CCS).

Concentrated Solar Power Generation - International

Torresol Energy was established in 2008 as a joint venture between Spanish engineering group SENER (60%) and Masdar (40%), with the aim of becoming the world leader in the concentrated solar power (CSP) sector through the development and operation of large CSP plants around the world.

The company has three CSP plants operational in Spain:

Gemasolar

The first commercial-scale plant in the world to apply central tower receiver and molten-salt heat storage technology.

- 19.9 MW Installed Capacity
- Solar Field: 2,650 heliostats on 185 hectares
- Heat Storage System: Up to 15hrs independent electricity generation without any solar feed

Valle 1 & 2

Two adjacent solar plants that generate electricity by means of cylindrical-parabolic collectors.

- Each 50MW Installed Capacity
- Solar Field: 510,000m² of SENERtrough® cylindrical-parabolic collectors
- Heat Storage System: Up to 7hrs independent electricity generation without any solar feed

Concentrated Solar Power – United Arab Emirates

Shams 1, Abu Dhabi

Shams 1 is one of the largest concentrated solar power (CSP) plant in the world. Developed, owned and operated by Shams Power Company, a joint venture of Masdar (60%), Total (20%) and Abengoa (20%). Shams 1 extends over an area of 2.5 km², with a capacity of 100MW and a solar field consisting of 768 parabolic trough collectors.

- 192 parallel loops with four series-connected collectors
- Power supplied is enough to power 20,000 UAE homes
- Displaces approx. 175,000 tons of CO₂ annually
- Official inauguration: 17th March 2013



"The inauguration of Shams 1 is a major milestone in our country's economic diversification and a step toward long-term energy security.... Expanding our leadership into renewable sources of power demonstrates the United Arab Emirates' commitment to maintaining its position as a major provider of energy."

**His Highness Sheikh Khalifa bin Zayed Al Nahyan
President of the United Arab Emirates and Ruler of Abu Dhabi**

Photovoltaic Power Generation

10mw Solar PV Plant - Masdar City, Abu Dhabi

The facility, constructed by Abu Dhabi-based Enviromena Power Systems, a leading developer of solar projects in the region, was inaugurated in June 2009.

- Land Area: 210,000 m²
- 10MW Installed Capacity
- Displaces approx. 15,000 tons of CO₂ annually
- 87,780 modules (18,228 – Suntech / 69,552 – First Solar)

Sheikh Zayed Solar Power Plant – Nouakchott, Mauritania

The Sheikh Zayed Solar Power Plant, delivered by Masdar, is one of the largest solar power installations in Africa. The project is the first utility-scale solar power installation in the Islamic Republic of Mauritania.

- 15MW Installed Capacity
- 29,826 Masdar PV thin-film panels
- Land area: 300,000 m²
- Project Cost = AED 117.5m (\$31.99m) grant provided by Abu Dhabi Government
- Displaces approx. 21,225 tons of CO₂ annually
- Accounts for 10% of Mauritania's grid capacity.
- Official inauguration: 18th April 2013

Photovoltaic Manufacturing Facility – Masdar PV, Germany

The German facility is the first-ever fully Abu Dhabi-owned and operated high-tech venture in the heart of Europe. Fully operational, it produces amorphous silicon thin-film photovoltaic modules.

Masdar PV Facts:

- 200MW annual production capacity at facility
- Latest generation of equipment from the world's leading supplier, Applied Materials
- All products are compliant with the IEC 61646 and IEC 61730 standards
- 25-year performance guarantee on each module
- 10-year product guarantee on each module

Afghanistan Solar Home Systems

The Afghanistan Project is Masdar's initiative to supply and install 600 solar home systems in 27 villages within the Helmand Province in the south of Afghanistan. The project enhances the lives of more than 3,000 people who are completely deprived of any other form of electricity. The UAE believes that developing countries have the right to utilise clean energy, which will generate a positive impact on enhancing social and humanitarian development.

- Powers 545 houses and 55 public facilities, including schools, mosques and clinics
- Installed systems include solar PV panels, energy-efficient lighting, two fans, a TV and a refrigerator
- Batteries can store enough energy to provide power for two days
- Cost: AED 15.4m (\$4.22m) grant provided by Abu Dhabi Government
- Project completed: September 2013

Micro-Grid PV Plant – Vava'u, Tonga

In 2013, Masdar delivered the first large-scale renewable energy project in the kingdom of Tonga. The project provided state-of-the-art technology allowing the plant to utilise 67% of solar energy during peak sun hours and transfer it into the grid.

- 512KW Installed Capacity
- Grant funding by Abu Dhabi Fund for Development (ADFD)
- Feeding approx. 866MWh of clean energy each year into the grid of Vava'u
- Replaces 280,000 litres of diesel fuel annually
- Displaces approx. 724 tons of CO₂ annually
- Meets 17% of Vava'u Island's annual electricity demand
- Powers 850 houses on the island of Vava'u



Wind Power Generation Projects

London Array – United Kingdom

One of Masdar's most notable achievements of 2013, the London Array, is the world's largest offshore wind farm. Located in the outer Thames Estuary in the United Kingdom, the project was undertaken as a joint venture between DONG Energy (50%), E.ON (30%) and Masdar (20%) in an effort to provide renewable energy to thousands of households.

- 175 wind turbines (Siemens 3.6MW turbines)
- 630MW Installed Capacity
- Covers an area of 100km²
- Powers over half a million homes
- Displaces approx. 925,000 ton of CO₂ annually
- First power was achieved in October 2012
- Final turbine was installed in December 2012
- Official Inauguration: 4th July 2013



Port Victoria Wind Power Project – Seychelles

The Port Victoria Wind Power Project in the Republic of Seychelles is the country's first large-scale, renewable-energy project on the archipelago's main island of Mahe, where 90% of the country's residents live. The plant consists of eight wind turbines across two small islands off the coast of Mahe. On behalf of the Abu Dhabi Fund for Development, Masdar developed and delivered the project, which is now owned and operated by the government of the Seychelles

- 6MW Installed Capacity
- 750kW wind turbines are supplied by Unison Company
- Supplies more than 8% of Mahe Island's grid capacity
- Displaces approx. 5,500 ton of CO₂ annually
- Powers approx. 2,100 homes annually
- Cost: AED 102.8m (\$28m) grant provided by Abu Dhabi Fund for Development (ADFD)
- Official inauguration 17th June 2013



"The 6-megawatt wind farm that has been successfully delivered by Masdar and the Abu Dhabi Fund for Development will help us meet our rising demand for energy and also liberates budget to invest in economic and social growth opportunities."

H.E. James Michel
President
Republic of Seychelles



Progressing Sustainable Urban Development

Masdar City, Abu Dhabi

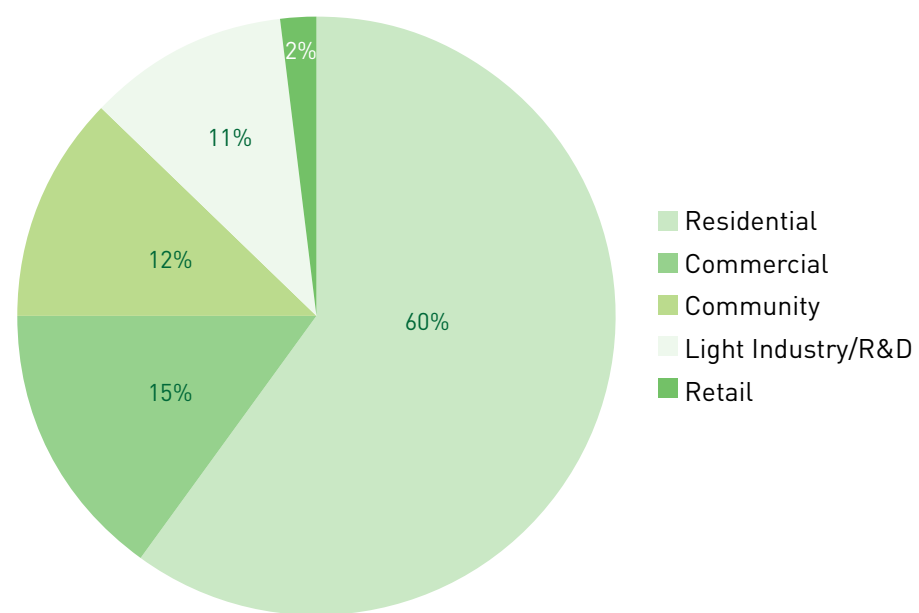
One of the world's most sustainable communities for technology, Masdar City is an emerging global hub for knowledge, business, research and development.

Located 17km from downtown Abu Dhabi, the capital of the United Arab Emirates, Masdar City positions companies located here at the heart of this global industry. A special economic zone where businesses can thrive and innovation can flourish, Masdar City is a modern Arabian city that, like its forerunners, is in tune with its surroundings. A high density, pedestrian-friendly, sustainable development, Masdar City not only embodies Abu Dhabi's commitment to a sustainable future but it is also pioneering best practices in sustainable urban planning, design, development and operation.

As such, it is a model for sustainable urban development regionally and globally, as it delivers the highest quality living and working environment with the lowest possible ecological footprint, all in a commercially viable development.

Masdar City - Facts

- Total Site Size: 700 hectares
- Gross Floor Area: 3.8m m2
- 40,000 Residents
- 50,000 Commuters
- Target 40% Reduction in Energy & Water Demand
- Target 40% Reduction in Embodied Carbon

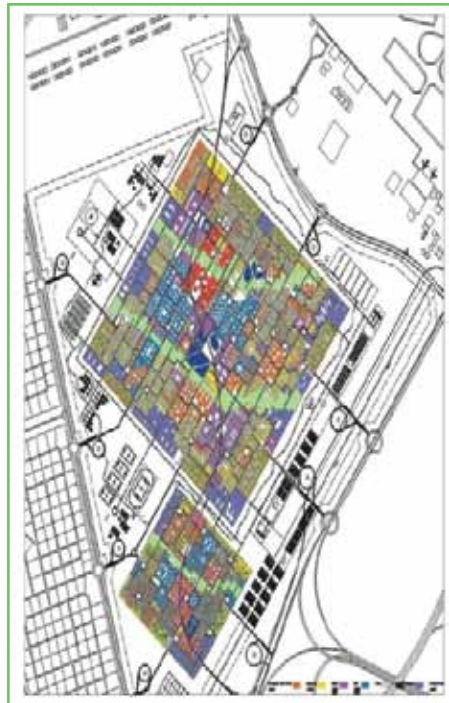


Anchor Tenants:



The Evolution of the Masdar City Master Plan

2008



- Cars outside city
- Podium 7.5m above ground
- PRT everywhere below podium
- Small square: mixed use
- Cars at edge of city

2011



- Podium discontinued; use only in selected areas (e.g., MI campus)
- PRT everywhere below podium
- Small square: light industrial area

2013



- **Cars into certain areas of city**
- PRT expanded within core only
- GRT loop throughout city
- Walkable neighbourhoods
- Small square: lower density NH



Masdar Institute

Size (GFA): 79,162 m²



Combining passive and intelligent design, the Masdar Institute buildings integrate best practices – and state-of-the-art technologies – in sustainable development. From narrow corridors to smart shading to green materials, the campus reduces heat in the summer months and uses solar panels to generate renewable energy directly from the rooftops.

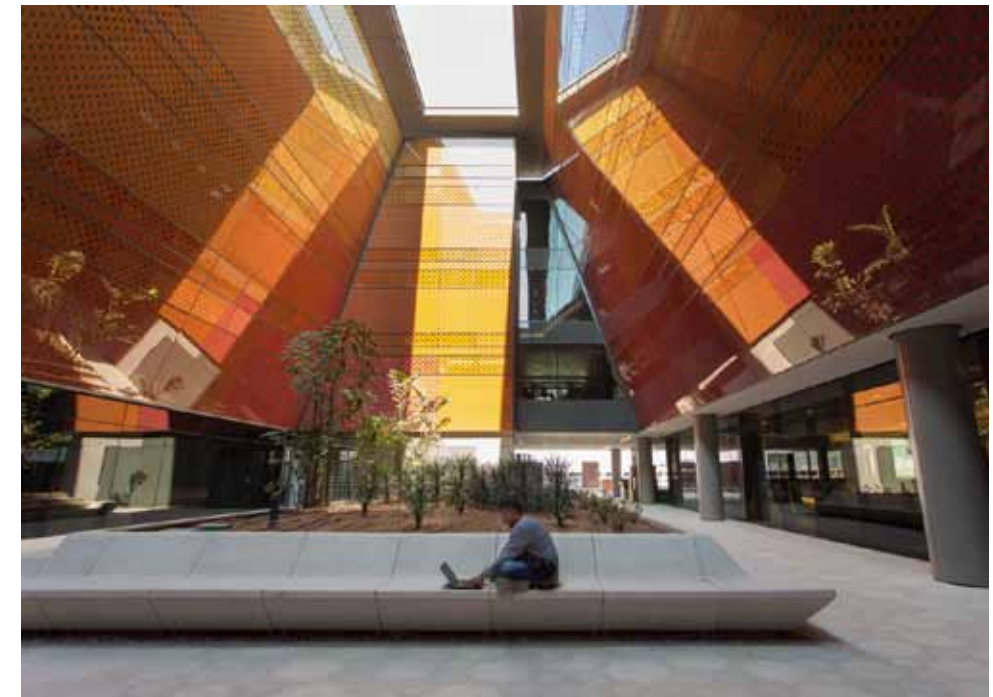
The lab buildings within the Masdar Institute campus are shielded with ETFE (ethylene tetrafluoroethylene) cushions that ensure almost no solar gain on the structures, while also limiting the heat radiated on to the street. Windows not already shaded by adjacent buildings have louvers set to prevent direct sunlight from entering the building.

In 2013, Masdar completed the second phase of the Masdar Institute and by doing so, doubled the size of the university's campus by adding 221 residential apartments and three laboratory buildings. Masdar Institute's new multi-use hall provides a well-equipped space suitable for a wide range of activities and events. It also has a swimming pool, a gymnasium and a basketball court in an effort to promote healthy living.



Incubator Building

Size (GFA): 9709m²



The Incubator Building lies at the heart of the Masdar City development and is strategically located adjacent to Masdar Institute.

Due to its close proximity to Masdar Institute, the Incubator Building serves as a wellspring for entrepreneurs and innovators looking to leverage partnerships with the Institute. The flexible floor plates provide start-up and SMEs the flexibility to configure their space to suit their needs.

Built around a cool public courtyard area, with access provided via shaded walkways, the Incubator Building uses innovative design, high-performance ceramic façade and smart shading strategies to reduce solar radiation by nearly 40%, offering lower operating costs to businesses.

Incubator Facts:

- 45% annual reduction in energy demand
- 75% solar hot-water generation
- 81% efficiency (NIA/GFA)



Masdar's Environmental Impacts

This environmental section focuses on how Masdar continually seeks, innovates and implements leading environmental management practices to proactively understand, manage and mitigate negative environmental impacts in its key operations.

This section looks at Masdar's response to challenges in:

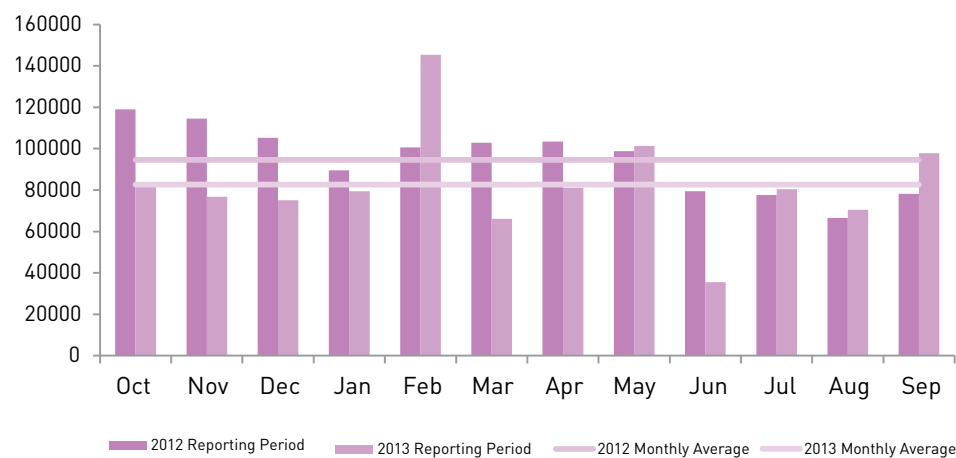
- Paper Management
- Energy Management
- Water Management
- Wastewater Management
- Construction Waste Management
- Operational Waste Management
- Greenhouse Gas Emissions
- Sustainable Transport Solutions
- Biodiversity Management
- Compliance Management

For this section of the report, as with last year, Masdar will continue to only report on Masdar City, Masdar Corporate and Masdar Institute activities. In 2013, significant steps were put in place to incorporate Masdar Clean Energy affiliates such as Shams Power Company and the London Array into the Health and Safety reporting as part of the corporate QHSE however efforts continue to address the inclusion of environmental performance data for these projects into Masdar's reporting matrix. It is worth mentioning that Shams Power Company's main offices outside of the Shams 1 plant are within SAF and are therefore included in the respective data below.

Paper Management at Masdar

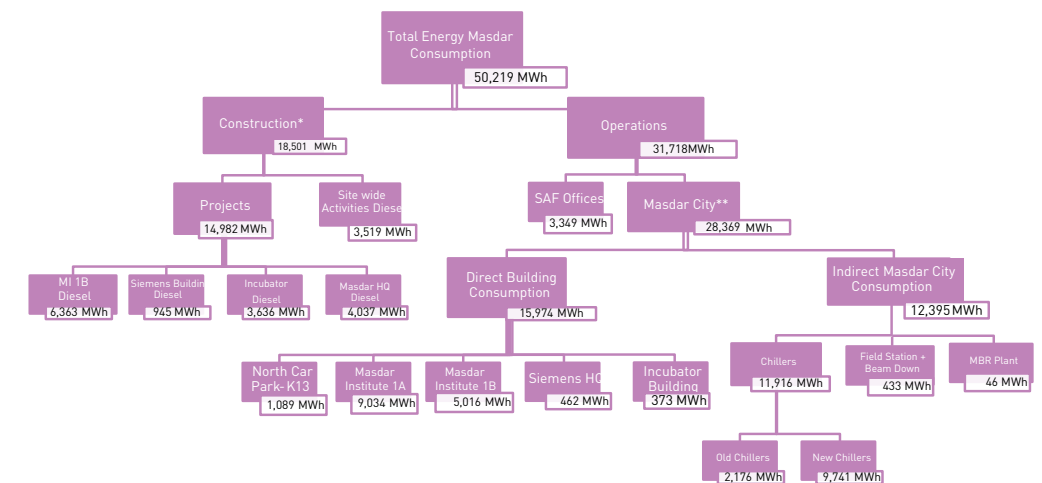
As part of Masdar's on-going green ICT initiative, an increase in sustainable office awareness and the SafeQ print management system have allowed Masdar to witness a reduction of 143,621 pages printed during the reporting period, compared with the previous period. This resulted in a monthly average reduction of 13%.

The below graph shows a comparison of print activities between the 2012 and 2013 reporting periods.



Energy Management at Masdar

Masdar and in particular Masdar City have made considerable efforts in energy management, both in the construction and the design and operation of buildings within Masdar City. During the reporting period, a number of projects within Masdar City transitioned from the construction to the operational phase. This has resulted in a reduction of construction energy (diesel) consumption and a significant increase in operational activities within Masdar. Due to this, the comparability of data is only possible for previously operational buildings such as the SAF offices and Masdar Institute 1A + North Car Park which were previously defined as 'direct Masdar City consumption'. For this report, an energy intensity comparison of the SAF and Masdar Institute 1A/North Car Park has been provided at the bottom of the page.



* Adjusted Diesel conversion factor.

2012 – 9.7KWh/litre (<http://hypertextbook.com/facts/2006/TatyanaNektalova.shtml>)
 2013 – 11KWh/ litre (http://www.carbontrust.com/media/18223/ctl153_conversion_factors.pdf)

**Estimations on consumption amounts from Oct 2012 – Dec 2012

*** In 2013, both SAF and Masdar 1A was operating at 100% occupancy

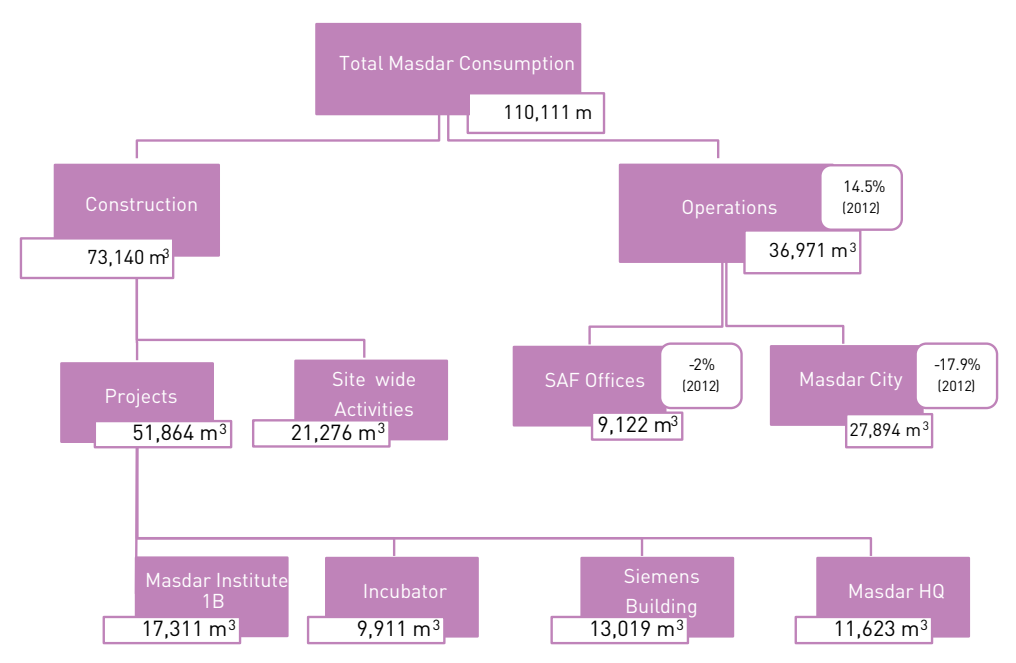
SAF facilities are a typical office function whereas Masdar Institute has a number of energy demanding activities as a research facility hence the greater energy intensity.

Building Energy Intensity (KWh/m2)	Actual		Target
	2012	2013**	2014
Masdar Institute 1A & North Car Park**	284.84	294.66	N/A
SAF Offices	173.39	186.08	- 10%*

*Based on 2013 figures
 **Excluding district cooling

Water Management at Masdar

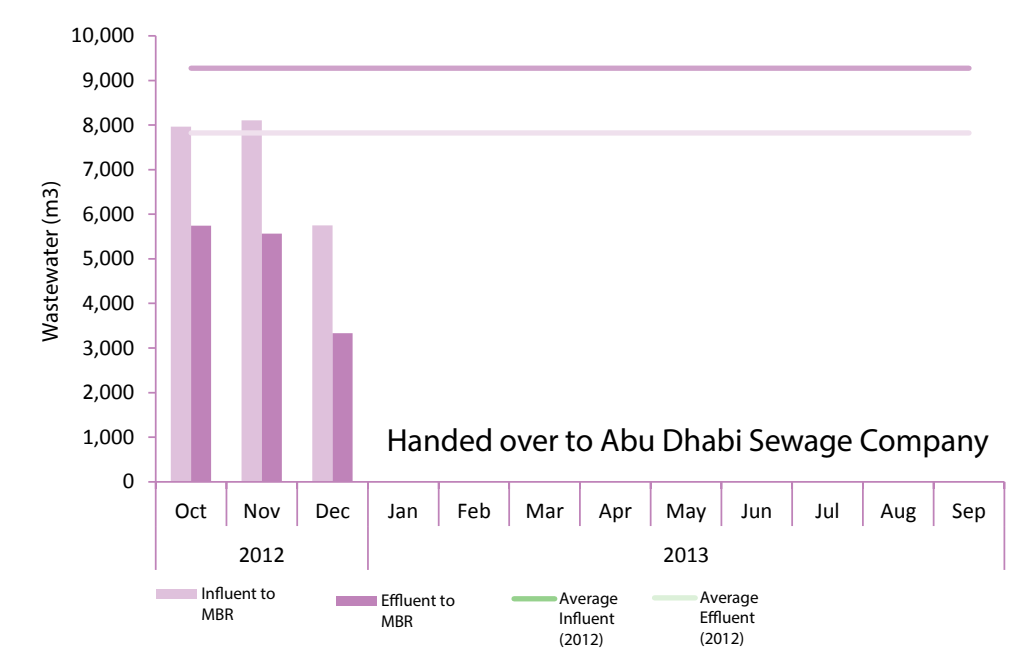
Increasingly, water consumption and management are getting as much attention, if not more, than energy consumption and management. For Masdar, which is headquartered in the arid Middle East where water is an even more valuable commodity than in other parts of world, the importance of preserving and reusing water is well understood. Extensive measures have been taken to raise awareness about water conservation, to incorporate water efficiency in building design, and to monitor water usage in construction and operations. The results show that, where comparisons are available, Masdar has successfully reduced water consumption in both Masdar City and Masdar's SAF offices.



The water used by Masdar City and the SAF offices is sourced from the municipality distribution network, with the exception of site-wide construction activities water consumption. The 21,276 m³ of site-wide water consumption was sourced from the onsite membrane bioreactor (MBR) plant. The vast majority of it was used for Masdar City landscape irrigation and dust suppression for the network of construction roads used by construction trucks, thereby reducing the volume of particulates impacting the air quality of local communities.

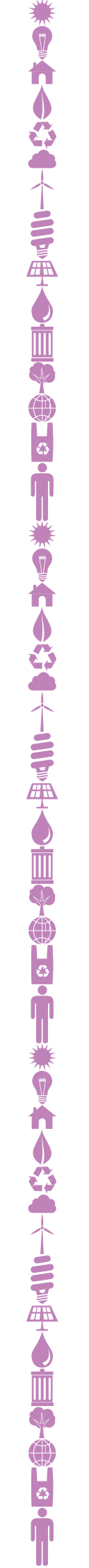
The second key area of water management, aside from construction and operational water efficiency, is wastewater recycling. In 2010, Masdar identified the need to manage wastewater recycling by constructing and operating an MBR plant to ensure that any wastewater generated can be treated and reused onsite or within the local community.

In January 2013, Masdar handed over management of the MBR plant located at Masdar City to Abu Dhabi Sewerage Service Company (ADSSC) to allow ADSSC to incorporate the MBR plant into the emirate-wide network of wastewater recycling plants. As a result of the handover, Masdar is unable to report the performance of the plant after January 2013. As mentioned above, Masdar is fortunate to be able to access the treated wastewater for use in Masdar City site-wide activities.



As reported in the Masdar Sustainability Report 2012, 100% of wastewater produced onsite (Masdar City & SAF offices) was treated and recycled through the onsite MBR plant. Following the handover, all wastewater produced in Masdar City and SAF offices is handled by ADSSC and is treated and reused as treated sewage effluent (TSE) for landscape irrigation as part of the wider Abu Dhabi distribution network.

Masdar will continue to work with ADSSC to establish a line of reporting to understanding the performance data of the Masdar City MBR plant for future reporting purposes.

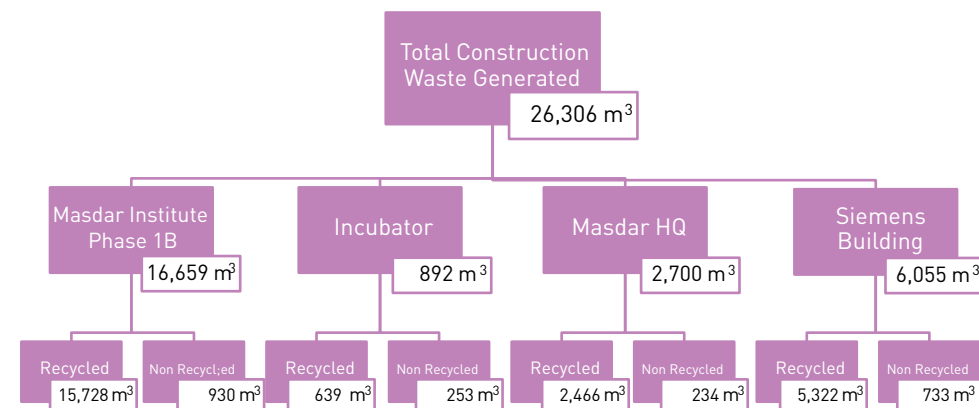


Construction Waste Management at Masdar

Masdar City is working to minimise waste during the construction process by seeking to reuse and recycle all waste steel, concrete and wood. In order to achieve this, nearly all Masdar City construction waste is brought by contractors to the onsite Material Recycling Centre (MRC), where it is then separately stored. Wood is stockpiled for reuse in building the city or processing in a wood chipper to benefit the landscaped areas. Steel, other metals and plastics are collected and sent offsite for recycling. Concrete waste is ground down using a crusher for reuse in construction.

The below diagrams outline the construction activities at Masdar City during the reporting period.

During the reporting period, Masdar continued to maximise its waste diversion from landfill, achieving a similar rate to the previous year, successfully diverting 86.3% of all construction waste from landfill.



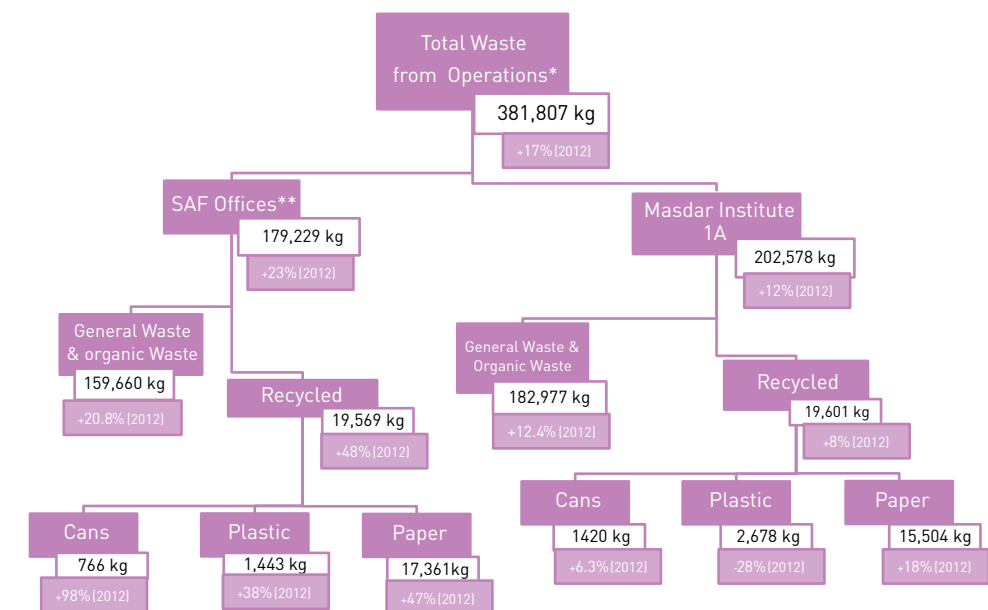
Hazardous Waste Management at Masdar

In compliance with the requirements of Federal Law 21 of 2005, Masdar ensures that all hazardous waste, both in operations and construction, is both transported and disposed of by a waste-disposal company licensed by the Center of Waste Management-Abu Dhabi (CWM). The below table indicates the quantity of hazardous waste produced and disposed of during the reporting period.

		2012			2013								
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Operational Hazardous Waste	kg	-	-	100	100	100	200	100	260	100	100	100	200
Construction Hazardous Waste	m³	-	-	-	15	-	-	20	-	-	-	10	60

Operational Waste Management at Masdar

For Masdar, operational waste management is a blend of raising awareness and providing facilities and technologies that are both suitable and adequate in supporting the ambitions of Masdar to showcase sustainability best practice in the workplace. The successful combination of increasing awareness of the importance of recycling and piloting technologies such as an onsite composting system and a reverse vending machine have resulted in an overall increase in the volume of operational waste recycled, as compared with the previous reporting period. This increase, although an achievement, is still below the target that is perceived to be achievable. In order to build on this, Masdar has set a target to increase the recycling rate further in the next reporting period.



*No data available for August 2013 therefore an average was taken from July 2013 & September 2013 for use as August 2013 data.

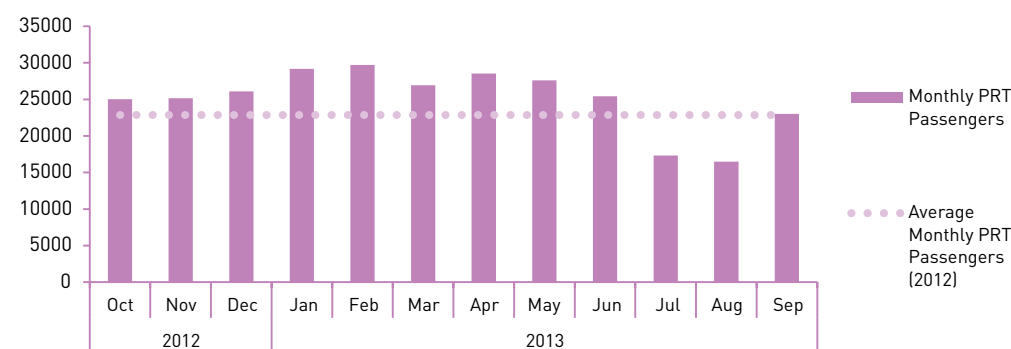
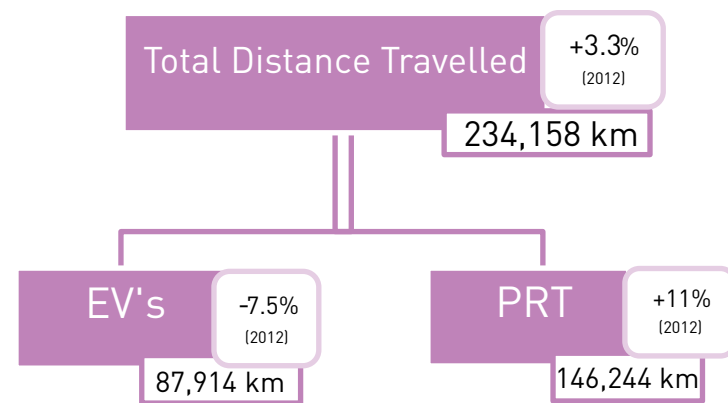
**Total occupancy of SAF facilities increased during reporting period from 1000 (Sept 2012) to 1500 (Sept 2013)

Sustainable Transport Systems at Masdar

Masdar has two alternative transportation systems currently in place at Masdar City. They are:

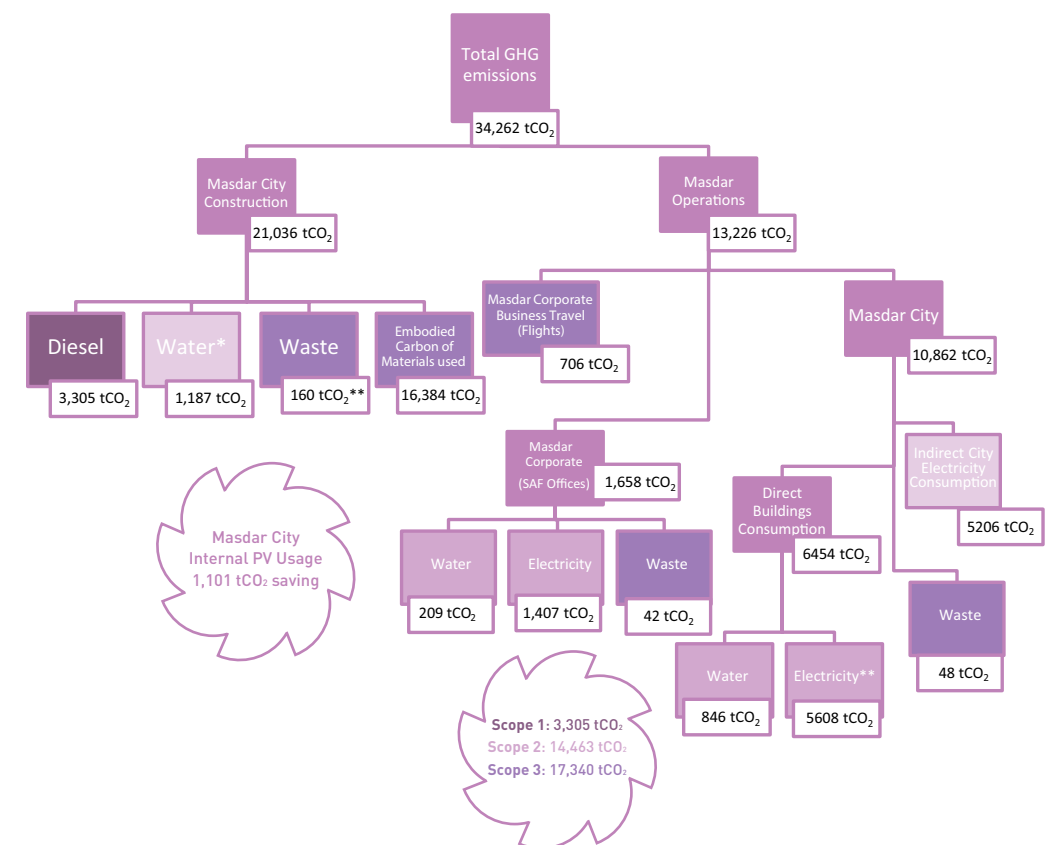
The Personal Rapid Transit System (PRT) – The driverless vehicles are controlled by an advanced navigation system. They use magnets embedded in the PRT pathways to know their position and on-board sensors to detect any obstacles in their path. A wireless connection keeps them linked to the central computer, which guides them on their journey and ensures smooth operation among all vehicles.

Mitsubishi Electric Vehicles (EV) - Initiated in January 2011, the pilot project uses a fleet of Mitsubishi Motor i-MiEV new-generation electric vehicles. The i-MiEVs are powered by a 16kWh lithium-ion battery, have a top speed of 130kph and can be charged from empty to 80% in 30 minutes using the rapid charging station at the SAF offices. This pilot project also looks at testing and validating the performance of electric vehicles as well as various charging solutions, given the region's climate and patterns of vehicle usage. As well as around Masdar City, the i-MiEVs take passengers to various locations in Abu Dhabi, such as the Al Mamoura Building and Abu Dhabi National Exhibition Centre (ADNEC).



Masdar's Greenhouse Gas (GHG) Emissions Overview

The GHG calculations, as with last year's report, have followed the World Resources Institute's (WRI) proposed methodology. However, instead of using the IPCC emission factors for purchased electricity, Masdar has continued to use the emission factors put forward by Masdar Institute members (Dr Scott Kennedy, Dr Sgouris Sgouridis, Pei-Yun Lin, Arslan Khalid). The emission factors used are listed below for grid electricity consumption, potable water and diesel. General waste, which has been included for the 2013 report and the emission factor, is also listed below. Masdar has also included the GHG emissions related to corporate business (air) travel to further expand detail of its key activities and impacts. The embodied carbon of construction materials used in Masdar City construction activities is – like last year – addressed in the supply chain section of this report.



Emission Factors Overview

1. Grid Electricity: 0.42 tCO₂/MWh
2. Water (potable): 0.02288 tCO₂/m³
3. Diesel: 2.60 tCO₂/m³ ***
4. Waste****: 0.29 tCO₂/ton*****

*Does not include site-wide water use (100% recycled received from the MBR plant)

**Only includes the GHG emissions for purchased electricity (28,369MWh) for Masdar City and does not include electricity (2,622MWh) being supplied from internal PV production and usage.

*** http://www.carbontrust.com/media/18223/ctl153_conversion_factors.pdf

****1 m³ Un-compacted General Waste = 0.131 ton Source: R. Birdsey (2001) NSW Environment Protection Authority WRAPP Program.

***** 2011 guidelines to Defra/DECC's greenhouse gas conversion factors for company reporting

Biodiversity in Masdar City

The Masdar City site is primarily a brown-field development site that was once a municipality tree nursery site that had been created by importing 'sweet' sand to infill an area that was formerly 'sabkha' (salt flats). As part of Masdar's environmental impact assessment conducted in 2009, the habitats observed on site were assessed in terms of their quality and potential value to species, particularly those species that are rare or threatened in the UAE. Specific species identified on site were reviewed to determine their rarity or threat by reviewing their status on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species (IUCN, 2008). The surveys indicated there were no threatened species present on Masdar City site, and development would have no impact on the marine environment. A biodiversity action plan was developed to maintain levels of habitat through the construction phases. The below map of the Masdar City site highlights areas that have been identified as biodiversity protection areas for Phase 1 construction. These areas have been preserved to provide habitat that will not be significantly impacted by construction activities.



- 1. Green = Biodiversity Areas
- 2. Light Green = Masdar Construction Projects & Operational Buildings
- 3. Turquoise = Dewatering Ponds
- 4. Dark Blue = SAF Offices

Based on the Masdar City 2013 Masdar Plan, a new Environmental Impact Assessment will be conducted and once complete, the findings will be published as part of Masdar's 2014 Sustainability Report.

Construction Environmental Management Compliance

The performance over the reporting period is highlighted below and shows the non-compliance or observations that have been acknowledge against the various Construction Environmental Management Plan (CEMP) assessment criteria compiled by an EAD-approved auditing company and conducted on a quarterly basis. All audit reports once finalised are submitted to EAD, providing a reference regarding the performance of Masdar City projects.

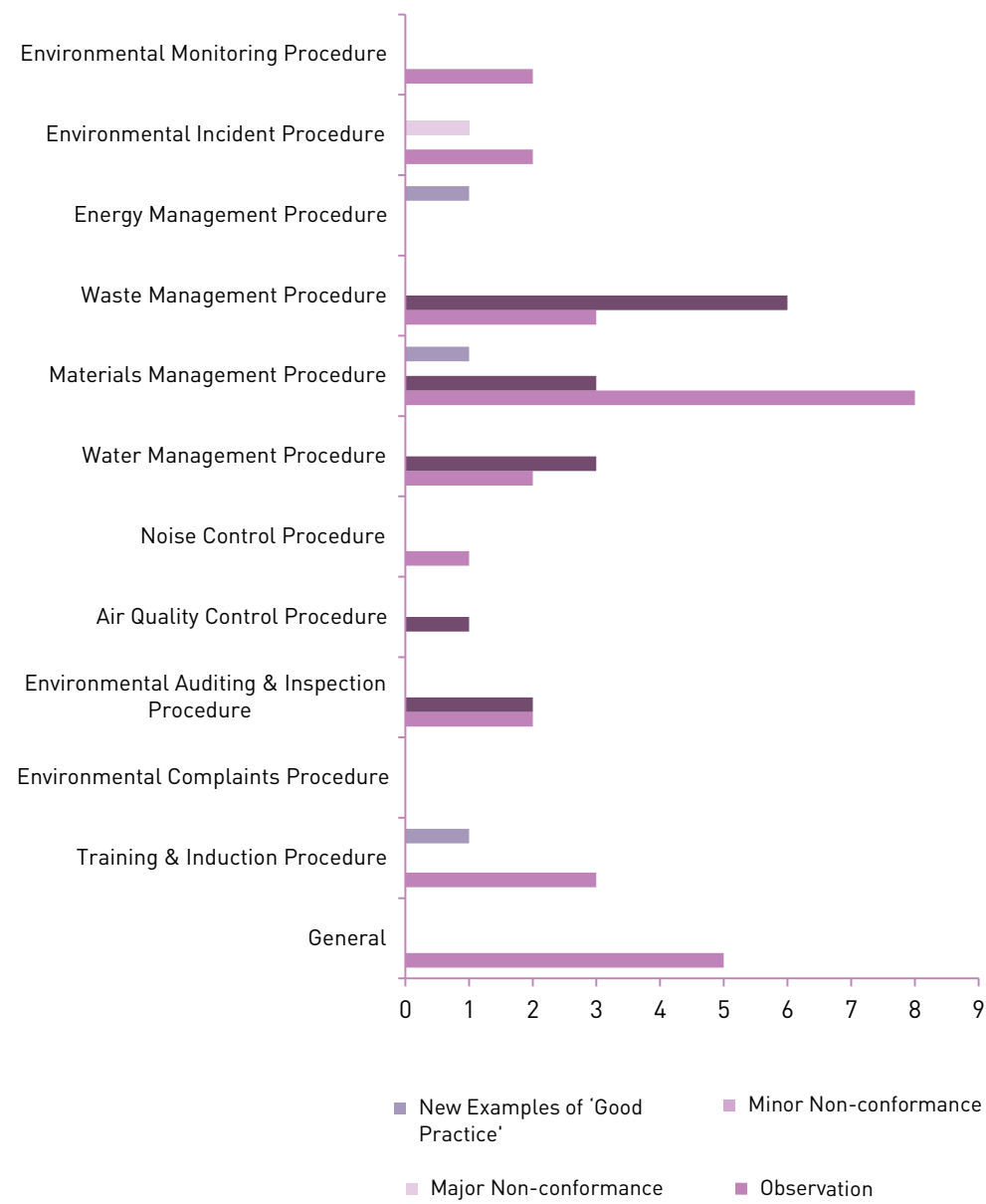
Below is an update of Masdar City's construction environmental management. The results reflect that the reporting period was one of transition away from major construction activity. This reduced the demand for a comprehensive environmental programme. Highlighted below are key points from the construction environmental management of Masdar City, including comparisons with 2012.

- **32 Internal Environmental Audits
-54% (2012)**
- **39 Environmental Inspections
-71% (2012)**
- **700 Man-Hours of Environmental Training**
- **1 Minor Environmental Incident***
- **0 Complaints from Local Community**

**One environmental incident involved an oil spill in April 2013.*



As part of Masdar's obligation to EAD, an external environmental auditor is contracted to assess and verify Masdar's compliance with the agreed CEMP. The audits are conducted and based on the amount of site activity, which decreased from the previous years due to project completion. As a result, one external audit took place during the reporting period and the below table highlights the results of the audit in terms of non-conformances and observations related to the reporting year.



Masdar's Supply Chain Management

Masdar continues to excel in procurement and supply chain management, continuing on from the previous reporting year in which it received the CIIPS Silver Award for procurement management. During this reporting period (Q4'12 - Q3'13), Masdar chaired the Abu Dhabi Sustainability Procurement Group, which is tasked with developing sustainable procurement practices throughout the Emirate of Abu Dhabi.

In February 2013, Masdar aligned its procurement process with that of the Mubadala Group by following a specific group-wide purchasing hierarchy to allow for greater enhancement of strategic procurement through the use of spend analytics. Mubadala Corporate Support Services issued an approved spend hierarchy to be used for the categorisation of all asset indirect spend data. The capital equipment, services and supplies required to support the business, but which are not in any real sense 'sold on' to the end consumer, are collectively known as indirect spend.

The benefits of spend analytics include:

- Greater visibility and control over indirect spend
- Structure of supply chain mapped
- Profiling of spend to detect patterns
- Opportunities identified to reduce costs / improve quality
- Identification of risk in relation to categorised spend areas
- Targeted approach to supply chain development

Masdar Spend Categories

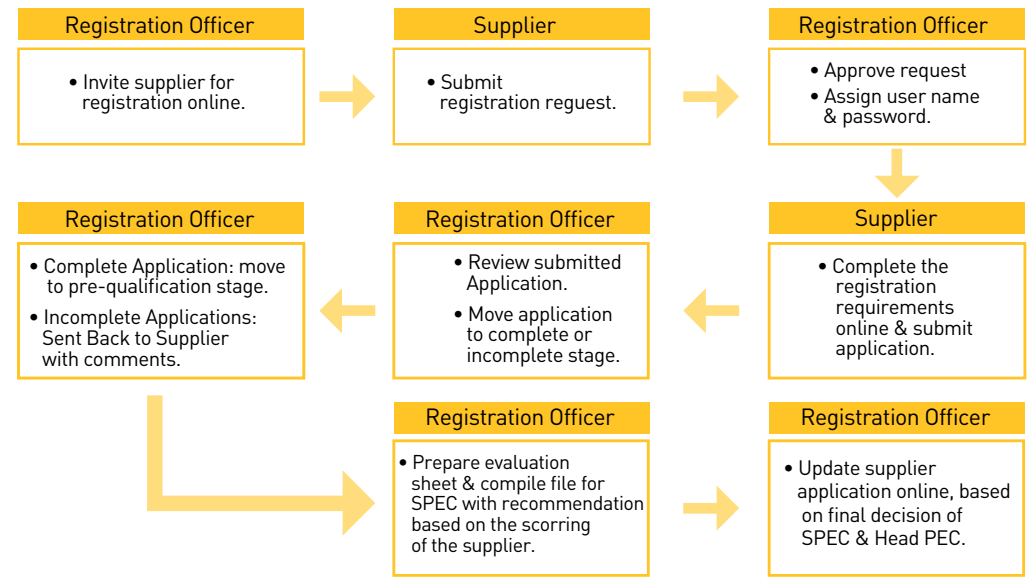
Direct Costs - Goods and services required for the business and linked to production or service delivery

Indirect Costs - The capital equipment, services and supplies required to support the business but not in any real sense 'sold on' to the end consumer

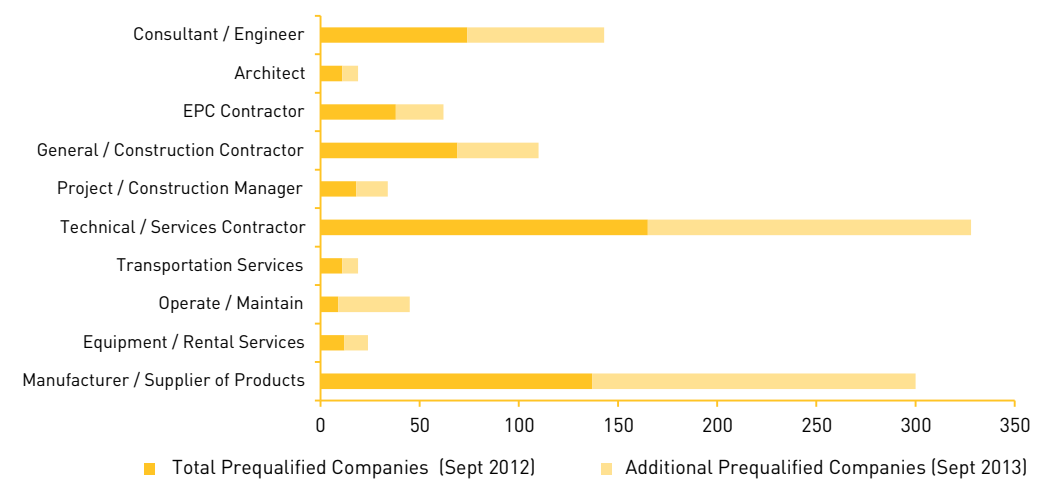
Professional Services	Travel	Construction	Logistics Services	Consulting
Non-Sourceable (Staff Payroll)	Facilities	HR Services	IT and Telecom	Communications

Procurement Prequalification at Masdar

The below table flowchart highlights the supply chain activities and processes from initial registration to qualified to providing products and services to Masdar.



As of the end of the reporting period, Masdar had a total of 1,084 prequalified companies that have been evaluated to ensure that they meet all of Masdar's sustainable and ethical supply chain requirements. Below is a breakdown of the type of companies prequalified.



Ethical Supply Chain at Masdar

In addition to strategic procurement practices introduced this reporting year, Masdar continues to adopt best practices in sustainable and ethical supply chain management through the Masdar procurement portal. The portal is designed to screen all potential companies that wish to provide products and services to Masdar.

The screening process not only looks at the financial stability and business security attributes but is also used as an assessment point to gauge the company’s ability to meet Masdar environmental and social criteria. In order to enter into purchasing agreements with Masdar, each organisation must adhere to all elements that are part of the Masdar Sustainability Supply Chain Code of Conduct highlighted below:

- The supplier must comply with all relevant local and national laws and regulations with regard to employment practices, benefits, health and safety, and anti-discrimination.
- The supplier must not use child, forced or involuntary labour in any form.
- The supplier must comply with all relevant local and national laws and regulations with regard to occupational health and safety, and the provision of health-related benefits to employees.
- The supplier must comply with all relevant local and national laws and regulations with regard to land and water management, waste and recycling, the handling and disposal of toxic substances, discharges and emissions, noise, transportation of products, and waste.
- The supplier must strictly comply with all laws and regulations on bribery, corruption and prohibited business practices.

Each company that wishes to work with Masdar is required to acknowledge these prerequisites and is subject to review and audits periodically or in the event of suspect information or behaviour.



Supply Chain Excellence at Masdar

In March 2013, Masdar won the coveted award for ‘Outstanding Performance in Sustainable Supply Chains’ at the Excellence in Category Management & Strategic Sourcing Awards, for the Europe, Middle East and Africa (EMEA) region. The award is organised by the International Institute for Advanced Purchasing & Supply (IIAPS).

Masdar was also selected from all of the specific category award winners, which included DHL and Vodafone, to take home the ‘Premier Award for Outstanding Supply Chain Performance’ in the EMEA, which is awarded to the organisation showing the most significant improvement in process management and value-for-money performance in any category of spend.

Masdar is dedicated to reducing its carbon footprint in all activities, especially those concerning Masdar City development. Within the Masdar City design team, there is an increased drive to source green building products that optimise raw material usage through process improvements, implement energy-efficient technologies, and promote recycling and other energy-conservation practices. In addition, Masdar has taken a leadership role in encouraging manufacturers and suppliers to shrink the life-cycle environmental impact of their products.

	Masdar Institute Phase 1b			Siemens Building			Masdar HQ Building				Incubator Building		
	Steel	Concrete	Aluminium	Steel	Concrete	Aluminium	Steel	Concrete	Masonry	Aluminium	Steel	Concrete	Aluminium
	Kgs	M ³	Kgs	Kgs	M ³	Kgs	Kgs	M ³	M ³	Kgs	Kgs	M ³	Kgs
Oct-12	7984	0	0	136460	962	1118	0	0	0	0	-	-	0
Nov-12	0	0	0	104890	713	25,700	0	0	0	0	-	-	6620
Dec-12	0	0		84750	175	14,300	0	0	0	0	-	-	6610
Jan-13	-	-	-	-	153	-	786632	0	0	0	-	-	-
Feb-13	-	-	-	-	-	-	449866	12	252	0	-	-	-
Mar-13	-	-	-	-	-	-	515445	170	168	0	-	-	-
Apr-13	-	-	-	-	-	-	2330481	250	56.9	0	-	-	-
May-13	-	-	-	-	-	-	1158640	4261	65.9	0	-	-	-
Jun-13	-	-	-	-	-	-	469891	1447	347	0	-	-	-
Jul-13	-	-	-	-	-	-	506246	1514	708	0	-	-	-
Aug-13	-	-	-	-	-	-	193829	1645	361	0	-	-	-
Sep-13	-	-	-	-	-	-	22444	1524	155	0	-	-	-
	Building Construction finished October 2012			Building Construction Finished in January 2013			Building construction ongoing				Building Construction Finished in December 12		

Major Materials Used	Quantity	Recycled Content	Recycled
(Oct-12 - Sept 13)	(Tons)	Tons	(%)
Concrete	31,750	2,294	7.23%
Steel	6,767	3,721	55%
Aluminium	54.4	49	90%

**Recycled content of steel reduced this year due to high use of structural steel during the reporting period*

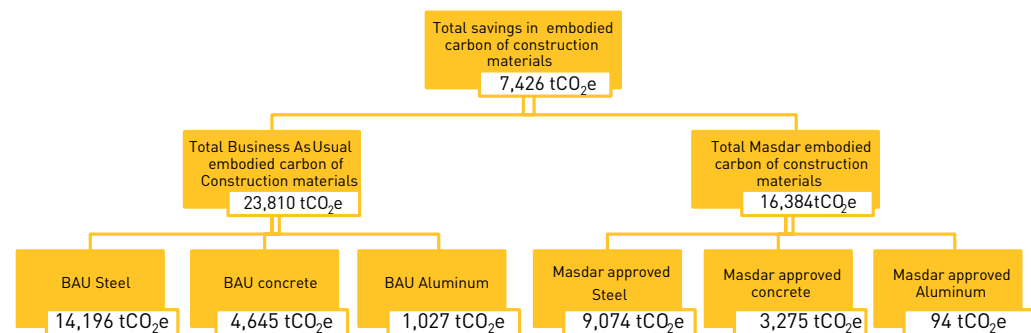


Embodied Carbon Management at Masdar

A major attribute of Masdar’s award-winning sustainable supply chain management practices is the continual monitoring and analysis of the environmental impact of buildings during the design and construction phase. As a building’s operational efficiency in terms of energy and water consumption increases, a greater focus must be placed on the embodied carbon impact of the building itself.

Masdar, through Masdar City, has pioneered the field of low-embodied carbon materials, with the main example being the green aluminium introduced in Masdar City buildings in 2009. A world first, this green aluminium reduced the embodied carbon of the aluminium from 10.44kgCO₂/Kg to only 0.98kgCO₂/Kg through rigorous supply chain management.

The below diagram shows the performance of Masdar City in terms of building embodied-carbon activities during the reporting period.



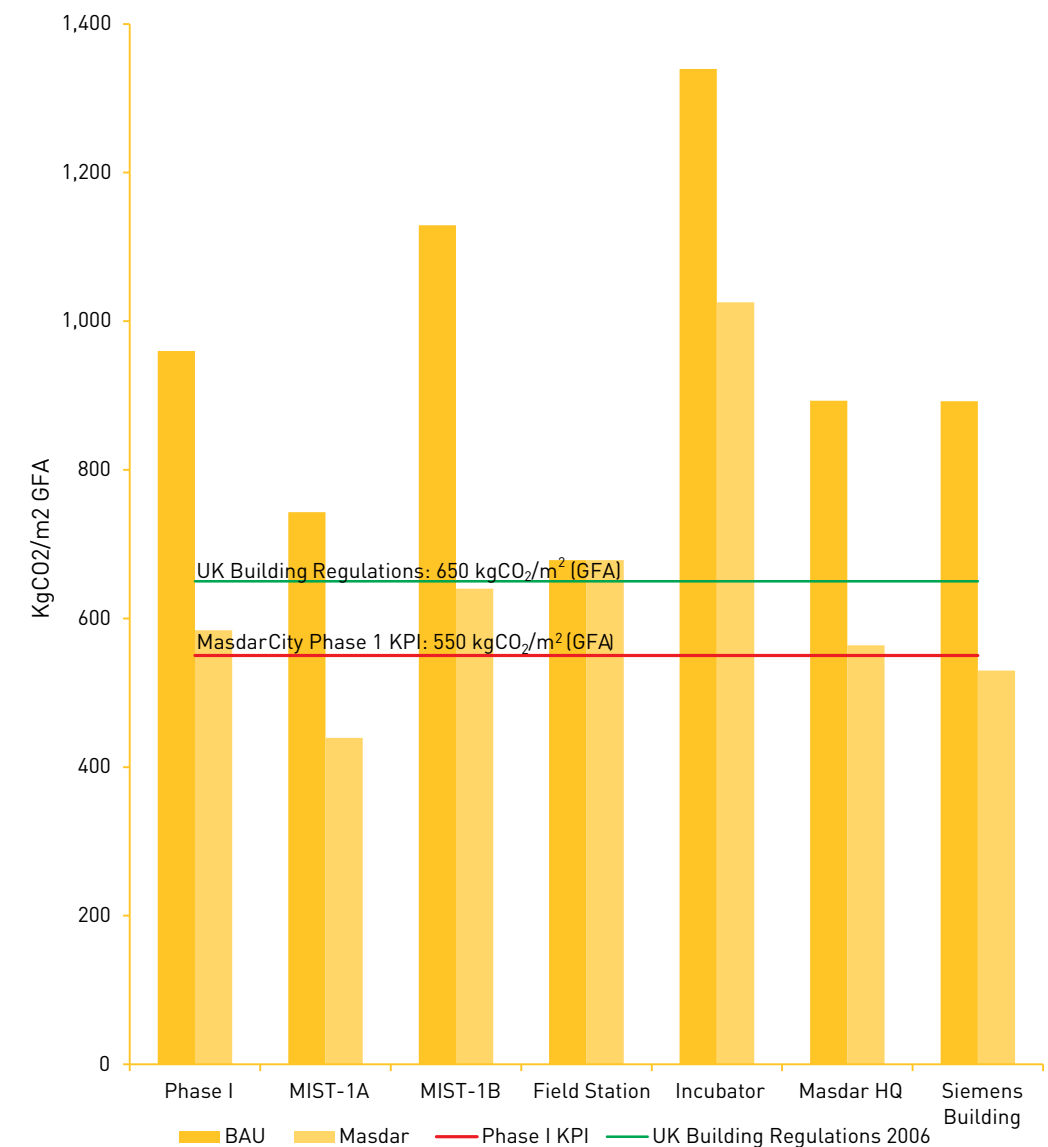
Embodied Carbon Numbers:

Material Type	Business as Usual	Masdar Used	Embodied Carbon Ref**
Concrete	299 kgCO ₂ /m ³ – 432 kgCO ₂ /m ³	168 kgCO ₂ /m ³ – 260 kgCO ₂ /m ³	EPD in accordance to ISO 14025
Rebar	1.724 tCO ₂ /ton	0.517 tCO ₂ /ton	ICE*
Steel Section	1.78 -2.78 tCO ₂ /ton	0.44 - 2.78 tCO ₂ /ton	ICE*
Aluminium	18.903 tCO ₂ /ton	1.736 tCO ₂ /ton	LCA in accordance to ISO 14040

* For Inventory of Carbon & Energy (ICE), University of Bath, UK (<http://www.bath.ac.uk/research/features/embodiedenergy.html>)

Masdar City Embodied Carbon Benchmarking

The below data looks at the total embodied carbon of Masdar City projects (completed and under construction). Masdar uses UK regulations as an international benchmark and has set a target for the developments of Masdar City Phase 1.



** Business as Usual (BAU) numbers are based on the lowest recycled content normally achieved as standard practice in the UK. Reference: The Waste & Resources Action Programme Plan (WRAP), www.wrap.org.uk

Community Involvement at Masdar

Community Involvement at Masdar



Masdar strives to support and help enhance community development, including both the local community in which Masdar operates and the wider sustainability community. By fostering strong relationships, Masdar is able to contribute to the development and building of skills that support the establishment of fundamental elements key to a transition to global sustainability.

This section of Masdar's sustainability report will identify the role that Masdar has played in advancing dialogue across the sustainability community on both a local and international level, and also Masdar's involvement through sponsorships and partnerships in events or initiatives that have had a positive impact on educating the local community in sustainability and sustainable living.

In keeping with the concept of knowledge sharing, Masdar and its affiliated entities continue to hold representation in a number of externally managed initiatives through memberships and affiliations.

Global Green Growth Institute

مجموعة أبوظبي للاستدامة
Abu Dhabi Sustainability Group

EWS

WWF

A sustainable UAE
Every child's
right

ESIA

EU-GCC
Cleanergy.Net

Global Sustainable
Cities Network

CIPS
Centre of Excellence



Masdar's Involvement with the Global Sustainability Community

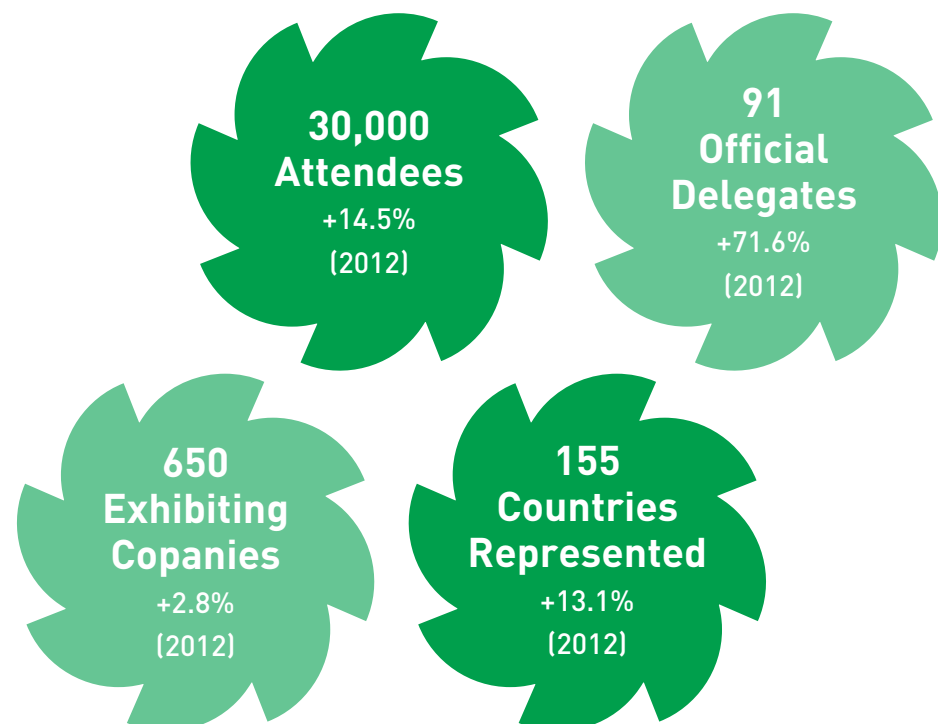
Masdar has continued to add value to discussions on lessons learned through unique experiences in the delivery of renewable energy and sustainable development and remains an active participant in the discussions on advancing the sustainability agenda both locally and on a global platform. During the reporting period, Masdar hosted the first Abu Dhabi Sustainability Week. As host, Masdar invited key heads of state and business leaders in an effort, both to enhance dialogue between nations and the private sector on the ever-increasing concerns surrounding climate change and to help facilitate actions to address these concerns.



In January 2013, Masdar hosted the first Abu Dhabi Sustainability Week (ADSW), which is the largest gathering on sustainability in the Middle East and a significant platform for international dialogue and cooperation. ADSW seeks to:

- Tackle the world's pressing issues in energy, water and environment.
- Accelerate the global adoption of renewable energy and sustainable development.
- Address water challenges in arid regions.
- Elevate the water-energy nexus topics on the global agenda.
- Encourage the dialogue between broad industry stakeholders to strengthen strategic partnerships.
- Stimulate investment in water, energy and environment projects.
- Empower the young generations and entrepreneurs.

ADSW 2013 in Numbers:



Key Events during Abu Dhabi Sustainability Week 2013



The World Future Energy Summit (WFES) is the world's foremost annual meeting committed to advancing future energy, energy efficiency and clean technologies by engaging political, business, finance, academic and industry leaders to drive innovation, business and investment opportunities in response to the growing need for sustainable energy.



In 2013, IREC in Abu Dhabi (ADIREC) continued to build upon the successes and outcomes of the previous conferences held in Delhi in 2010, Washington in 2008, Beijing in 2005 and Bonn in 2004. IREC is for government, private sector and civil society leaders to jointly address the goal of advancing renewable energy and has provided the impulse for several momentous initiatives over the past decade.



The International Water Summit (IWS) is a new global platform for promoting water sustainability in arid regions. As a natural extension of the UAE's commitment to sustainability, the first IWS was co-located with the World Future Energy Summit – bringing together policymakers, scientists and business leaders to tackle urgent water issues.

South American-Arab League Energy Ministerial

During ADSW 2013, the first Energy Ministerial of Arab and South American Countries took place. Ministers and senior officials reaffirmed their commitment to enhance energy links between the two regions and highlighted the opportunities for cooperation in the rapidly diversifying global energy portfolio. The ministerial meeting put into action the call for energy to form an axis and backbone of the bi-regional relationship in the coming years.

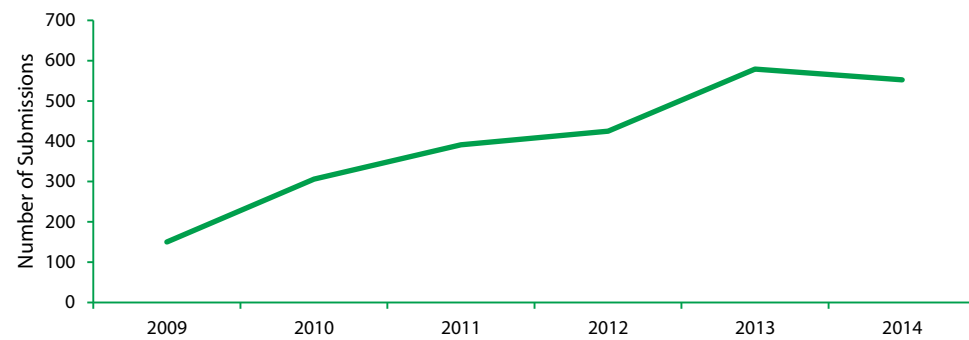
Awarding Innovation – Zayed Future Energy Prize

The Zayed Future Energy Prize represents the vision of the Founding Father of the United Arab Emirates, the late Sheikh Zayed bin Sultan Al Nahyan, who championed sustainability and environmental stewardship. The prize categories (Large Corporation, SME, NGO, Lifetime Achievement and Global High Schools Prize) focus on supporting emerging businesses, individuals and future generations that have innovative ideas and projects offering real-world solutions that can create a positive impact on meeting the requirements of our greatest energy and sustainability challenges.

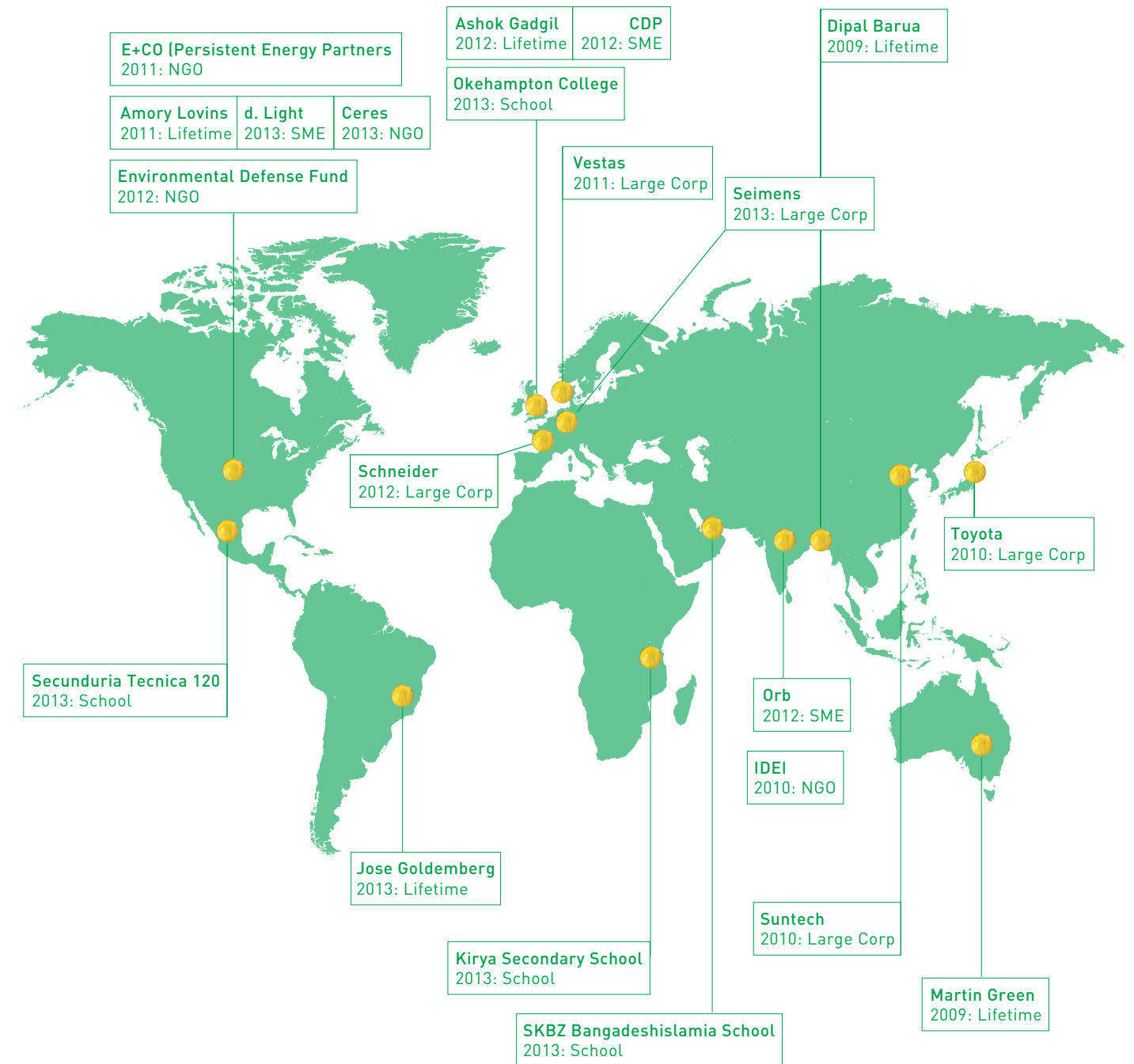
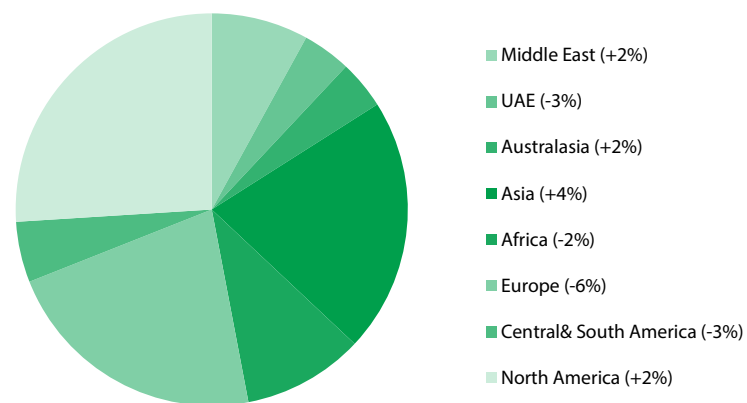
Each of these categories is evaluated based on the four core criteria of the prize:

- Leadership
- Long-Term Vision
- Innovation
- Impact

In January 2013, the 5th annual Awards Ceremony of the Zayed Future Energy Prize took place, and submissions opened for the 6th Zayed Future Energy Prize in March 2013.



Origin of ZFEP Submissions (2014)



Community Engagement - Masdar's 2012 Blogging Contest

In the build-up to ADSW 2013, Masdar designed and executed a strategic, online communication campaign called 'Engage: The Water-Energy Nexus'. A blogging contest, the campaign invited key audiences, including bloggers, academia, industry leaders and the general public to write an original story, post it, and then encourage people to vote for it. Each story responded to the same question:

What steps can individuals, businesses or world leaders take to address the most pressing and often interrelated water and energy challenges?

To capture diverse arguments from a wide array of voices, anyone with a thoughtful viewpoint, no matter their 'day job', was encouraged to participate. The contest ran between 17th December and 31st December 2012, and voting was permitted until 3rd January 2013.

Published on Masdar's website, each story was supported by a voting system (1-5 stars) and social media assets, giving voters the ability to 'share', 'tweet', and 'like' each story.

In conjunction, Masdar also executed an online advertising campaign, combined with an earned media relations effort, to spark dialogue and encourage participation. The campaign included partnerships with reputable sustainability publications, such as Triple Pundit, to amplify the timeliness of the water-energy issue and feature banners to drive readers to the contest. This also generated sponsored content, which helped shape the debate and endorse the importance of the water-energy nexus issue.

In two weeks, the online communications campaign resulted in the submission of more than 70 original blog posts from 20 countries. Participants included influential online media, academics, students, NGOs, corporations and industry experts.

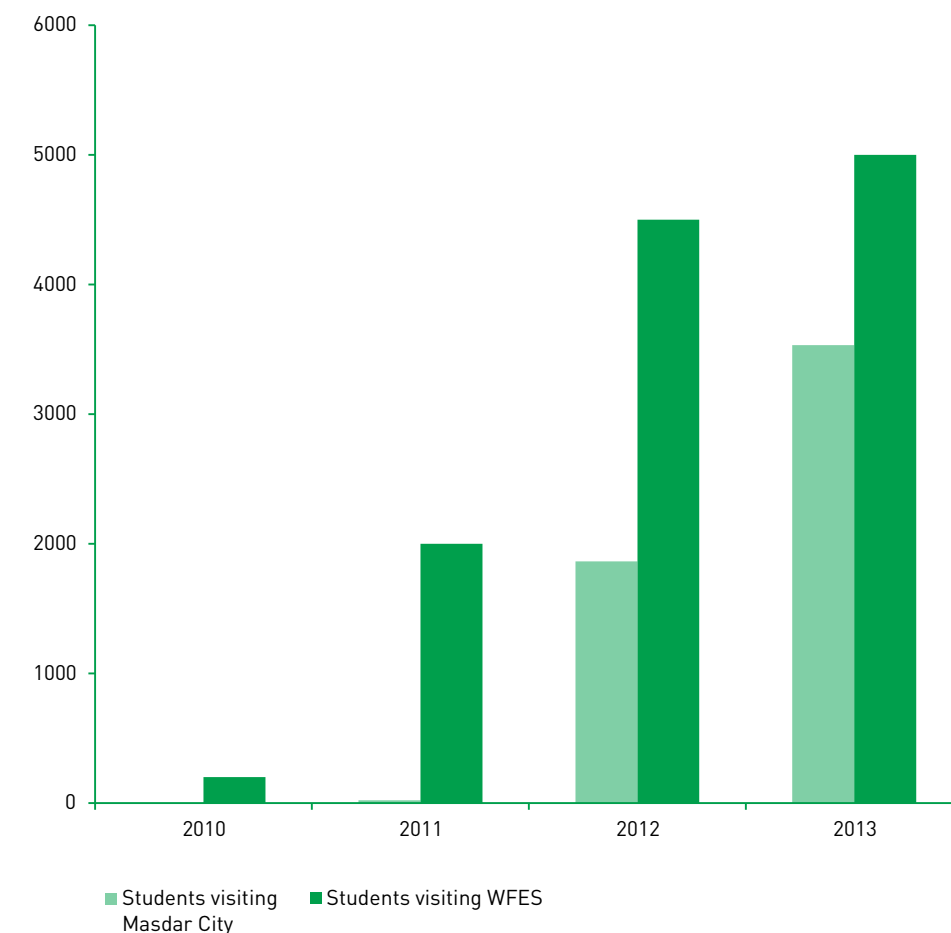
The overall winning entry, entitled 'Demystifying the Water-Energy Nexus', was submitted by Dallas Blaney, a professor of public and environmental affairs at the University of Wisconsin Green Bay in the United States. Prof. Blaney's submission argued that a comprehensive approach is necessary to address the interrelated issues of water and energy, with a special emphasis on establishing a research agenda and advancing public awareness of water and energy challenges.



Youth Outreach at Masdar

The Young Future Energy Leaders (YFEL) programme is a key element of the annual World Future Energy Summit (WFES). YFEL focuses on raising the awareness of students and young professionals in the fields of renewable energy and sustainability. This unique programme, led by Masdar Institute, helps mentor future leaders in the field of alternative energy by engaging them with the leaders of today. YFEL also offers young professionals and students from the UAE and abroad the opportunity to become more engaged in finding solutions to the world's biggest challenges: energy efficiency and climate change.

During WFES, some of the world's brightest students and young professionals engage in debates and discussions about the future of energy and seek sustainable solutions to the challenges of climate change.



During the reporting period, Masdar City welcomed schools from: Abu Dhabi, Dubai, Sharjah, Fujairah, Japan, Russia, Iran and Argentina to learn more about sustainable living and renewable energy.



Community Outreach at Masdar

Along with hosting Abu Dhabi Sustainability Week in January 2013, Masdar was able to support and deliver a number of key community-based initiatives to push the message of sustainability to the local community and deliver key youth outreach programmes.



The Abu Dhabi Film Festival (ADFF), powered by twofour54, is presented each October to help create a vibrant film culture throughout the region, with a focus on Arab cinema and the wealth of emerging and established film talent from around the world. As part of ADFF 2012, Masdar sponsored two films – 'Trashed' and 'Polluting Paradise' – both of which had an environmental theme to help promote environmental awareness to the local community and support the production of documentaries that shed light on the impact our actions have on the planet.



In October 2012, Masdar sponsored and participated in the Abu Dhabi Science Festival, a globally awarded strategic initiative organised by the Abu Dhabi Technology Development Committee (TDC). The festival aims to inspire the nation's youth with science-related hands-on activities and is part of a wider strategy to build a talent base in science, technology and innovation in the UAE. As a participant, Masdar organised a series of interactive hands-on activities aimed at challenging students and inspiring them to pursue science-based careers and developing their interest in renewable energy. Masdar also held an online competition in which students had to answer energy-related questions in order to win a trip to visit Masdar's 100MW Shams 1 CSP plant in Abu Dhabi.

Masdar – Red Crescent Partnership

The UAE's legacy of delivering humanitarian aid and promoting sustainability was instilled by the country's Founding Father, the late Sheikh Zayed bin Sultan Al Nahyan, who founded the UAE Red Crescent Authority in 1983. He recognised the need to help countries in need and also stressed the importance of preserving natural resources for future generations. The agreement between Masdar and the Red Crescent is a testament to his legacy and the country's commitment to creating a better future. In July 2013, the two entities signed a framework agreement to develop renewable energy solutions that will provide humanitarian relief to people across the world who lack basic services, such as electricity and water.

The agreement states that Masdar has been appointed the exclusive 'Programme Management Consultant' for renewable energy projects that will be deployed to regions where the Red Crescent already provides other forms of humanitarian assistance.

"This co-operation underscores the growing role renewable energy can play in providing relief to underserved communities and establishing pathways for economic development. Together with Masdar, the Red Crescent is extending the UAE's commitment to humanitarian aid to the countries that need it most."

Dr Mohammed Atiq Al Falahi
Secretary General
UAE Red Crescent Authority

First Gulf Bank Green Credit Card in Association with Masdar

In January 2013, First Gulf Bank, in association with Masdar, launched the UAE's first green Visa card at the World Future Energy Summit in Abu Dhabi. The card itself is environmentally friendly and biodegradable, and offers customers an exclusive First Green Rewards loyalty programme. This allows cardholders to earn up to 1.5 First Green points for every dirham spent and can be redeemed against a variety of eco-friendly products and at green merchants.



APPENDIX



Using the Principles to Define the Reporting Content

This report has used the most current Global Reporting Initiative Guidelines. The GRI G4 requirements have been used as the assessment criteria to enrich the integrity of the Masdar Sustainability Report 2013.

Materiality

In accordance with the GRI G4 guidelines, Masdar has developed the report to ensure that only those aspects deemed material to Masdar stakeholders have been incorporated in the 2013 sustainability report. This has been elaborated on in the materiality section of this report.

Completeness

Masdar has designed this report to ensure that complete and concise data is provided to allow for stakeholder evaluation and to help inform the decision-making process. The report also offers justifications for areas in the report where data is incomplete and remedial action plans are in place for this data's inclusion in future reports.

Stakeholder Inclusiveness

As part of this reporting exercise, we feel we have successfully acknowledged all keys stakeholders and their specific issues related to Masdar's activities. The elements focused on in this report are in response to the communications with these stakeholders.

Sustainability Context

We at Masdar feel that this report highlights and includes the major sustainability-related impacts that affect the defined operations and activities. The report addresses the identified economic, environmental and social issues with reference to their regional and global significance.



Using the Reporting Principles for Defining Quality

Balance

In developing this report, we feel we have highlighted both positive and less positive performances in the selected activities outlined. The report is balanced in its content to provide a true account of Masdar's operations.

Comparability

Where applicable, Masdar's 2013 report has been able to offer a comparison against the performance of material aspects set out in the 2012 report and will continue to highlight trends and performance to assist our stakeholders in making their assessments. We have followed the same reporting period of October to September, in this case October 2012 to September 2013.

Accuracy

We believe that both the quantitative and qualitative data is accurate and auditable. Any limitations and estimations have been clearly identified.

Timeliness

This report is inclusive of the most up-to-date information and allows for a relevant assessment of the organisations current economic, environmental and social status of operations and activities.

Clarity

This report has been designed and worded to ensure that the reader is able to understand and comprehend the messages and information provided in a clear and concise manner.

Reliability

The report has been designed and subjected to a rigorous review internally. We have used various tools to ensure that the calculations and information are reliable, and we have utilised recognised methodologies that allow for the verification of data. Masdar has also taken the necessary action to have this report externally assured, both for the quality of data and for meeting the necessary requirements for 'in accordance' with GRI G4 guidelines at a core level.



GRI G4 Index – General Standard Disclosure

Profile Disclosure	Page Number or Direct Answer	External Assurance
Strategy and Analysis		
G4-1	3	YES (Pages 126-129)
Organizational Profile		
G4-3	Abu Dhabi Future Energy Company – Masdar	YES (Pages 126-129)
G4-4	5,6,7,8, 114	YES (Pages 126-129)
G4-5	PO Box 54115, Masdar City, Abu Dhabi, UAE	YES (Pages 126-129)
G4-6	7,8	YES (Pages 126-129)
G4-7	State Owned Enterprise Subsidiary	YES (Pages 126-129)
G4-8	6,7	-
G4-9	6,7,47	YES (Pages 126-129)
G4-10	47-49,59	YES (Pages 126-129)
G4-11	n/a in UAE	YES (Pages 126-129)
G4-12	103-108	YES (Pages 126-129)
G4-13	47	YES (Pages 126-129)
G4-14	15-17,19-21	-
G4-15	41-43,110	YES (Pages 126-129)
G4-16	110	YES (Pages 126-129)
Identified Material Aspects and Boundaries		
G4-17	34	-
G4-18	27-33	YES (Pages 126-129)
G4-19	34	YES (Pages 126-129)
G4-20	34*	YES (Pages 126-129)
G4-21	34	YES (Pages 126-129)
G4-22	No Restatements of Information	-
G4-23	34	YES (Pages 126-129)
Stakeholder Engagement		
G4-24	28	YES (Pages 126-129)
G4-25	28	YES (Pages 126-129)
G4-26	29-30	-
G4-27	31	YES (Pages 126-129)
Report Profile		
G4-28	Q4 2012 - Q3 2013	YES (Pages 126-129)
G4-29	Q4 2011 - Q3 2012	YES (Pages 126-129)
G4-30	Annual	YES (Pages 126-129)
G4-31	1	YES (Pages 126-129)
G4-32	123-125	YES (Pages 126-129)
G4-33	126-129	YES (Pages 126-129)
Governance		
G4-34	9-10	YES (Pages 126-129)
G4-38	9	YES (Pages 126-129)
G4-39	9	YES (Pages 126-129)
Ethics and Integrity		
G4-56	12, 13, 14, 19, 105	YES (Pages 126-129)
G4-58	21	YES (Pages 126-129)

* Masdar Corporate QHSE activities include both the corporate activities as well as defined projects such as Shams Power Co. and London Array.

GRI G4 Index – Specific Standard Disclosure

Indicators	DMA	Page	Omission	External Assurance
Economic				
EC1	36-37, 41, 103-105	57	Partial data available due to proprietary information	YES (Pages 126-129)
EC2		17		YES (Pages 126-129)
EC3		50		YES (Pages 126-129)
EC4		-	State Owned Enterprise Subsidiary	-
EC5		-	No Minimum wage in UAE	-
EC6		59		YES (Pages 126-129)
EC7		58,72-78		YES (Pages 126-129)
EC8		58-59,61-68		YES (Pages 126-129)
EC9		60		YES (Pages 126-129)
Environmental				
EN1	36-37,39-43, 103-105	91,106		YES (Pages 126-129)
EN2		106		YES (Pages 126-129)
EN3		92		YES (Pages 126-129)
EN4		-	Outside of reporting boundary	-
EN5		92		YES (Pages 126-129)
EN6		92		YES (Pages 126-129)
EN7		84-91		YES (Pages 126-129)
EN8		93-94		YES (Pages 126-129)
EN9		94-95		YES (Pages 126-129)
EN10		94		YES (Pages 126-129)
EN11		99		YES (Pages 126-129)
EN12		99		YES (Pages 126-129)
EN13		99		-
EN14		99		-
EN15		99		-
EN15		98		YES (Pages 126-129)
EN16		98		YES (Pages 126-129)
EN17		98		-
EN18		-	No comparable methodology defined	-
EN19		107-108		YES (Pages 126-129)
EN20		-	No data available	-
EN21		-	No data available	-
EN22		94		-
EN23		95		YES (Pages 126-129)
EN24		99		YES (Pages 126-129)
EN25		94		YES (Pages 126-129)
EN26		94		-
EN29		101		YES (Pages 126-129)
EN30		97		YES (Pages 126-129)
EN31		-	No data available	-
EN32		104-105 (100%)		YES (Pages 126-129)
EN33		107-108		YES (Pages 126-129)
EN34		Zero		-



External Assurance Letter

Social: Labour Practices and Decent Work					
LA1	36-43, 103-105	48-49		YES (Pages 126-129)	
LA2		50		YES (Pages 126-129)	
LA3		49		YES (Pages 126-129)	
LA5		Total 15 employees in total: 3 in QHSE/12 ISO Reps		YES (Pages 126-129)	
LA6		53		YES (Pages 126-129)	
LA7		53-54		YES (Pages 126-129)	
LA8		-	No trade Unions in UAE	-	
LA9		51		YES (Pages 126-129)	
LA10		51		YES (Pages 126-129)	
LA11		37 (100%)		YES (Pages 126-129)	
LA12		9, 48		YES (Pages 126-129)	
LA14		104 (100%)		YES (Pages 126-129)	
LA15		105		YES (Pages 126-129)	
LA16		Zero		-	
Social: Human Rights					
HR1		14-17, 36-43, 103-105	17, 105		YES (Pages 126-129)
HR2	-		no data available	-	
HR5	105			YES (Pages 126-129)	
HR6	105			YES (Pages 126-129)	
HR9	39, 105			-	
HR10	104			YES (Pages 126-129)	
HR11	105			YES (Pages 126-129)	
HR12	Zero			-	
Social: Society					
S01	14-17, 36-43	100%		YES (Pages 126-129)	
S02		100-101		YES (Pages 126-129)	
S03		100%		YES (Pages 126-129)	
S04		19-21		YES (Pages 126-129)	
S05		zero incidents		-	
S07		Zero		YES (Pages 126-129)	
S09		105		YES (Pages 126-129)	



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January 10th 2014

Assurance Statement

Background

RSK Environment Llc (RSK) was commissioned by Abu Dhabi Future Energy Company (MASDAR) to carry out assurance of MASDAR's Corporate Sustainability Report 2012-13 ('the Report') in its printed format which was prepared in accordance with Core option of the G4 Sustainability Reporting Guidelines issued by the Global Reporting Initiative (GRI).

This independent assurance report is made solely to MASDAR in accordance with the terms of RSK's proposed scope.

This assurance statement provides readers of the Report with an independent opinion on the reliability of information, based on our assessment of the Report and underlying systems and evidence. This Statement is intended both for the general readers and for stakeholders who have a professional interest in MASDAR's sustainability performance and challenges. The assurance engagement is based on the assumption that the data and information provided to RSK is complete and sufficient. RSK expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this assurance statement.

Responsibility

MASDAR were responsible for preparing the Report and the information and statements within it. They were responsible for identification of stakeholders and material issues, for defining objectives with respect to sustainability performance, and for establishing and maintaining appropriate performance management and internal control systems from which the reported information is derived.

RSK's responsibility was to express our conclusions in relation to the assurance scope.

Scope of Assurance

The scope of work agreed upon with MASDAR includes the following:

- Assess the robustness of the data management system, information flow and controls;
- Undertake an audit trail on selected claims and data streams to determine the level of accuracy in collection, recording and accumulation;
- Examine and review documents and data made available to RSK by MASDAR;
- Visit MASDAR head-office;



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www.rsk.co.uk



- Review MASDAR's approach to materiality analysis;
- Perform sample-based audits of the mechanisms for implementing MASDAR's own sustainability-related policies, as described in the Report; and
- Perform sample-based audits of the processes for generating, gathering and managing the quantitative and qualitative data included in the Report.

The assurance was made according to AA1000APS (2008) at a moderate level of assurance.

Limitations

The change between the reference of reporting (from G3.1 to G4 in the Report) has resulted in additional or different but acceptable measurement techniques, which can result in materially different measurements and can impact comparability with previous reports. The precision of different measurement techniques and boundaries may also vary.

Inherent limitations affect the conversion of electricity, water, waste and fuel used to calculate carbon emissions. Conversion to carbon emissions is based upon information and factors derived by independent third parties. RSK's assurance work has not included examination of the derivation of those factors and other third-party information. Our assurance work has not included challenging the scientific work undertaken by independent third parties when calculating these emissions factors.

Our Independence

RSK did not provide any services to MASDAR during 2012-13 that could conflict with the independence of our work. RSK was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement.

Methodology

RSK planned and performed the work to obtain all the evidence, information and explanations that were considered necessary in relation to the above scope.

Verification of the full Report was based on GRI Guidelines and the AA1000 Assurance Standard (2008). Throughout the assurance process, RSK concentrated on the issues that are believed to be most material for both MASDAR and its stakeholders.

As part of the verification RSK has:

- Challenged the sustainability-related statements and claims made in the Report and assessed the robustness of the data management system, information flow and controls;
- Executed the audit trail on selected items and data streams to determine the level of accuracy in collection, and recoding;
- Examined and reviewed documents, data and other information made available to RSK by MASDAR;
- Undertaken a visit to MASDAR head-office;

- Reviewed and challenged MASDAR's approach to materiality analysis;
- Performed sample-based audits of the mechanisms for implementing MASDAR's own sustainability-related policies, as described in the Report;
- Performed sample-based audits of the processes for generating, gathering and managing the quantitative and qualitative data included in the Report; and
- Provided recommendations to MASDAR for future reporting.

An initial readiness assessment allowed MASDAR to provide documentation for review by RSK and implement corrective actions for discrepancies detected during both quantitative and qualitative reviews. Once a revised draft was delivered, RSK confirmed the conclusions on the Report as set out in this statement.

Conclusions

In RSK's opinion, information presented in the Report provide a material and complete representation of MASDAR performance in the context of sustainable development. The verification process confirmed that the Report was prepared based on factual statements and that the data contained within the Report are accurate. It is a fair representation of initiatives, targets, progress and performance on MASDAR's sustainable development achievements.

The Report provides an adequate and fair account of MASDAR's sustainability performance on material aspects and demonstrates satisfactory disclosures of the Core option of the GRI's G4 sustainability Reporting guidelines. RSK confirms that the GRI requirements for Application 'in accordance criteria' have been met.

- **Materiality:** MASDAR has identified material issues by conducting internal assessments of risks and opportunities, and consulting with stakeholders. MASDAR has considered information gained from industry colleagues and stakeholders during participation in various international initiatives and the activities of the Abu Dhabi sustainability group. The identified material issues are transparently addressed in the Report.
- **Completeness:** Based on RSK's review and within the reporting boundary defined by MASDAR, RSK is not aware that the Report omits relevant information that would significantly influence stakeholder assessments or decisions or that reflect significant economic, environmental and social impacts. The completeness of quantitative data reported can be further improved in certain environmental parameters.
- **Accuracy:** The data measurement techniques and bases for calculations have been adequately described to RSK. Although no systematic errors have been detected, RSK identified some manual errors which have subsequently been corrected. MASDAR is committed to continually improving the quality of data and is in the process of adopting a more structured data management system. In the final form of the Report, RSK has not found material inaccuracies in the data verified or instances where data is presented in a way which significantly affects the comparability of data.





- **Neutrality:** RSK considers the information contained in the Report to be balanced and proportionate to their relative materiality.
- **Comparability:** The information in the Report is presented in a format that allows users to see positive and negative trends in performance.
- **Responsiveness:** MASDAR demonstrates a commitment to dialogue with its stakeholders.

Recommendations

The following is a summary of the observations and opportunities reported back to MASDAR. However, these do not affect RSK's conclusions on the Report, and they are consistent with MASDAR's objectives.

- An internal mechanism should be developed to help improve internal communication on sustainability reporting.
- RSK recommends that MASDAR revisits the processes for stakeholder engagement and assessing materiality in order to better understand, manage and improve its sustainability performance.
- Definition of boundaries of reporting on the different aspects would benefit from a more structured approach.


Ruba Farkh
Associate Director


Fergus A. Collie
Managing Director



