

DELIVERING A SUSTAINABLE EXPO

Expo 2020 Dubai Sustainability Report 2018





“We pay the utmost care and attention to our environment for it is an integral part of the country, our history and our heritage. Our forefathers and our ancestors lived in this land and coexisted with its environment, on land and sea, and instinctively realised the need to preserve it.”

LATE SHEIKH ZAYED BIN SULTAN AL NAHYAN

Founder of the UAE



“Protection of the environment and achievement of sustainable development in the UAE is a national duty; it has its own institutional structures, integrated legislature and advanced systems.”

HIS HIGHNESS SHEIKH KHALIFA BIN ZAYED AL NAHYAN
President of the United Arab Emirates



“We are building a new reality for our people, a new future for our children, and a new model of development.”

HIS HIGHNESS SHEIKH MOHAMMED BIN RASHID AL MAKTOUM

Vice-President and Prime Minister of the UAE and Ruler of Dubai



“The civilised, advanced nation we seek to build and the sustainable development we are keen to achieve both require concerted efforts from all sectors of the community and from all public and private entities and organisations. They require consistent and harmonious work in order to achieve our goals and promote and underpin our nation’s status with its distinct role regionally and internationally.”

HIS HIGHNESS SHEIKH MOHAMED BIN ZAYED AL NAHYAN

Crown Prince of Abu Dhabi and Deputy Supreme Commander of UAE Armed Forces

HIS HIGHNESS SHEIKH AHMED BIN SAEED AL MAKTOUM



**President, Dubai Civil Aviation Authority
Chairman of the Expo Dubai 2020 Higher Committee**

It gives me great pleasure to introduce the first Expo 2020 Dubai Sustainability Report (2018) as we build up to the World Expo in 2020. Through this report, we aim to provide our stakeholders and all interested parties with a platform to view our sustainability standards and activities, in line with the commitments we have made to the Bureau International des Expositions (BIE).

Our focus is to outline the various ways the Expo 2020 Dubai family has helped to establish and adhere to environmental and societal proposed norms and regulations. We present how we have maintained an ethos of sustainable progress and commitment.

Expo 2020 Dubai provides us with the opportunity to express the proud spirit and values of our nation. For the UAE, the event is especially significant because it will coincide with the 50th anniversary of the founding of the United Arab Emirates, our Golden Jubilee. The future is full of exciting possibilities and we look forward to tomorrow with an invigorated spirit as we proudly carry forward the legacy of our forefathers.

By initiating sustainability objectives and performance targets, and by tracking our performance against targets over time, we are safeguarding transparency and fulfilling our promise of adherence to UAE Vision 2021. The progress and efficiency of our work ensures that we are acting steadfastly towards not only delivering an exceptional Expo, but also one of the most sustainable World Expos in history.

As we create a lasting legacy that lives up to our theme 'Connecting minds, Creating the future', we aim to develop and advance scalable, sustainable solutions whose benefits extend to our local community and the world beyond. Together, with all our stakeholders, we aim to deliver an exceptional Expo that will have an impactful legacy.

Our goal is to deliver a World Expo that celebrates the potential of human cooperation, one which motivates and drives a positive, enduring impact on the future of communities around the world.

Expo 2020 Dubai will be a festival of imagination that will inspire innovation and provide a forum that cultivates sustainable solutions to global challenges. As we work towards Expo 2020 Dubai, we look to our nation's sustainable development goals as a foundation for boosting overall happiness levels in our communities.

HER EXCELLENCY REEM EBRAHIM AL HASHIMY

**UAE Minister of State for International Cooperation
Director General, Expo 2020 Dubai Bureau**



The world is watching as we gear up to host the first World Expo in the Middle East, Africa and South Asia (MEASA) region. Expo 2020 Dubai will be a unique global event connecting more than 190 countries and the international business community by engaging millions of visitors around our themes of opportunity, mobility and sustainability.

Expo 2020 Dubai has designed its Sustainability Strategy to **integrate** sustainability throughout every function of this World Exposition. We have already begun to deliver an **impact** beyond our event site to **inspire** the global community towards the opportunity of creating a sustainable future. As such, we have structured our 2018 Sustainability Report around our three pillars – integrate, impact and inspire – through which we follow the GRI Standard, which is used by leading organisations globally, to ensure balance, transparency and accountability.

We are very proud to have created a healthy work environment where all employees are encouraged to deliver their objectives with integrity, humility, respect, cooperation and excellence. With more than a hundred million work hours already completed, our sustainable practices have been embraced by our staff and stakeholders alike.

Expo 2020 Dubai is an exciting opportunity to advance the UAE's own sustainability goals and the United Nations Sustainable Development Agenda. These initiatives are ingrained in our mission and throughout this Sustainability Report to build a legacy after Expo 2020 Dubai closes its doors. Following the six-month World Expo, the event site will be transformed into 'District 2020' to continue advancing smart technology, smart infrastructure, wellness and sustainability to go on inspiring future generations of innovators and pioneers.

Through this first annual Sustainability Report, we offer a unique insight into the evolution of our sustainability strategy and sustainability practices at Expo 2020 Dubai by highlighting the economic, social and environmental impact of Expo 2020 within the United Arab Emirates in 2018. We are on our way to meeting and exceeding our sustainability commitments as we prepare to welcome the world in 2020.

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ABOUT EXPO 2020 DUBAI



A. ABOUT THIS REPORT

This is the first Sustainability Report for Expo 2020 Dubai. This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. The GRI Standards are a globally recognised sustainability reporting mechanism, which provides a common language and platform for organisations and their stakeholders to communicate their economic, environmental and social impacts. Using a balanced and transparent approach, this annual report conveys the impacts of Expo 2020 Dubai within the United Arab Emirates (UAE) in 2018.

i. SCOPE

The performance data provided in this report covers the period between 1 January 2018 and 31 December 2018. Where relevant, data and initiatives from previous years have also been included to demonstrate trends in improvement and growth.

ii. CONTENT

The sustainability performance information detailed in this report follows the set principles of balance, transparency and accountability, to ensure content quality and to set this Sustainability Report as a benchmark for similar events around the world.

Accordingly, Expo 2020's Sustainability Strategy is designed to **Integrate, Impact and Inspire**. Expo 2020 Dubai seeks to **integrate** sustainability into all aspects of Expo, to embed it within the organisation's DNA and strengthen it as a subtheme.

Expo 2020 embraces the opportunity to make a meaningful **impact**, extending beyond the site and beyond the six months of the event. It aims to **inspire** visitors and the community to become part of the solution for a sustainable future.

As such, the 2018 Sustainability Report is structured around these three pillars.

iii. CONTACT

Expo 2020 Dubai aims to meet its commitment to sustainability by maintaining close communication with its stakeholders. To ensure better sustainability performance during and after the event, Expo 2020 welcomes comments, questions or suggestions related to this Sustainability Report. Communication with Expo 2020 can be initiated via the following email address: sustainability@expo2020.ae

An electronic version of this report can be downloaded at www.expo2020dubai.com



B. EXPO 2020: AT A GLANCE

i. THE ROLE OF THE BUREAU INTERNATIONAL DES EXPOSITIONS

The Bureau International des Expositions (BIE) is an intergovernmental organisation that has encouraged education, innovation and cooperation through the administration and regulation of World Expos since 1931. Today, four main Expos fall under its umbrella: World Expos, International Specialised Expos, Horticultural Exhibitions, and the Design Triennale of Milan.

BIE's organisational structure includes the General Assembly, Committees, the Secretariat and 170 countries or Member States. To date, more than 50 Expos have been organised under the auspices of the BIE, with the objective of ensuring the quality of Expos, as well as guarding the rights of their organisers and participants.

ii. THE HISTORY OF WORLD EXPOS

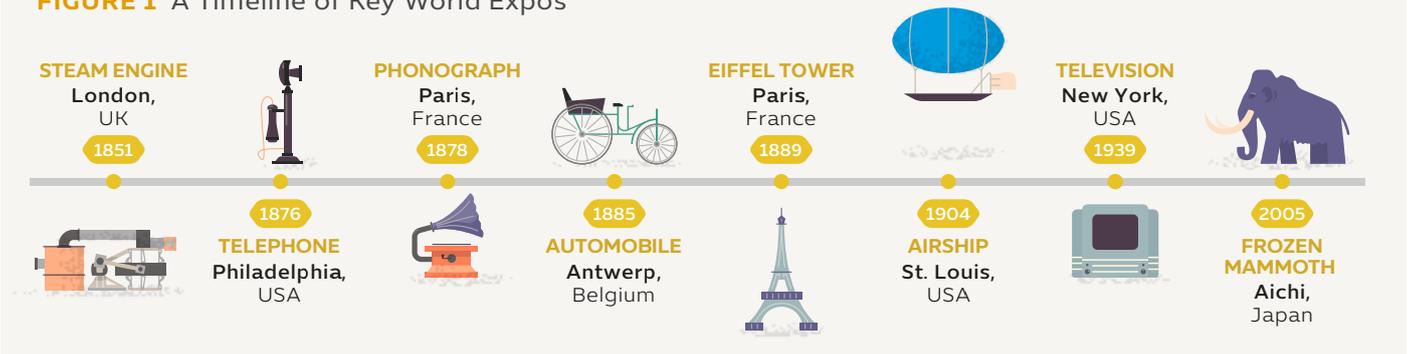
Since London's Great Exhibition in 1851, World Expos have been a platform for educational, economic and cultural change. They have inspired millions of people from around the globe, united cultures and showcased innovations, while also encouraging and stimulating new and exciting paths to progress.

The World Expos are one of the oldest and largest international events, arranged and assisted by governments with the intention of educating the public, promoting progress and fostering cooperation. These events are a festival of wonder and imagination, where visitors can experience, explore, discover and have fun while sharing ideas and working together.

World Expos give countries the opportunity to showcase their culture and display their architectural and technological abilities. In the past, paradigm-shifting discoveries such as the telephone, X-ray machines and architectural marvels such as the Eiffel Tower have all made their debut at different World Expo events. Today, these Expos continue to bring the world together for a global exhibition of solutions to the fundamental challenges facing humanity.



FIGURE 1 A Timeline of Key World Expos



iii. THE EXPO 2020 DUBAI THEME

On 27 November 2013, Dubai was selected by a record vote by the BIE members to host the World Expo in 2020 – becoming the first Arab nation and first country in the Middle East Africa and South Asia (MEASA) region to host the event. Dubai’s winning bid was an inspiring collaboration between the UAE’s leadership and the event’s organisers to plan, design and operate an event with a legacy that would last for generations.

Under the theme ‘Connecting Minds, Creating the Future’, Expo 2020 Dubai is about forging new connections and new partnerships across sectors and geographies to inspire solutions that will shape the future. Within this overarching theme, Expo 2020 has identified three interconnected drivers of progress – Opportunity, Mobility and Sustainability – as subthemes.

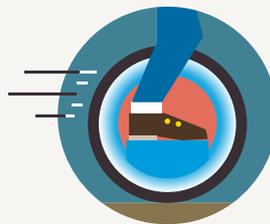
FIGURE 2 Expo 2020 Three Subthemes



OPPORTUNITY

Unlocking the potential within individuals and communities to shape the future. This subtheme will address:

- New industries
- Employment
- Education
- Financial capital
- Governance



MOBILITY

Creating smarter and more productive connections. The physical movement of people and goods forms an invisible tier of meaning, changing, shifting and expanding as new relationships, routes and platforms facilitate the movement of not only people and goods but also ideas. This is further enhanced and strengthened through digital communication pathways that create an entirely new platform from which to access people, services and experiences. This will be addressed through the following channels:

- Logistics
- Personal mobility
- Transportation
- Travel and exploration
- Digital connectivity



SUSTAINABILITY

Living in balance with the world. This subtheme touches the environmental, economic and social dimensions of the places where we live and explores how we can connect to them in a way that protects and enhances our natural resources. It is based on the belief that every generation is responsible for safeguarding the world for the future. Visitors to Expo 2020 will gain awareness about the following:

- Resources
- Climate change
- Green growth
- Natural ecosystems and biodiversity
- Sustainable cities and the built habitat

1. Expo 2020's Global Platform

The theme and subthemes of Expo 2020 Dubai have been developed to capture the common aspirations that link the UAE leadership's vision for the future (from Vision 2021 through to the 2071 Centennial Plan), regional priorities and global challenges; as reflected in the 2030 Agenda for Sustainable Development and the United Nations (UN) Sustainable Development Goals (SDGs).

Creating a more sustainable future is a global concern – as one of Expo 2020's main subthemes, the concept of sustainability is in its DNA. Expo 2020 Dubai will use its platform to create a global movement towards positive change. With immersive technologies within the Sustainability Pavilion, groundbreaking innovations and a sustainable infrastructure, Expo hopes to create connections across the world that will bring people, businesses and countries together to develop solutions to these global issues.

The Expo 2020 Dubai theme and subthemes will be brought to life through an events programme that will provide a powerful opportunity to captivate, inspire and enthral visitors from across the world, encouraging them to engage with the thematic content in new and entertaining ways. The Expo programme of events is not limited to the six-month duration of Expo 2020 Dubai, and planning has already been well underway since 2017.

Expo 2020 Dubai will engage with the international community: the total number of visits is expected to reach 25 million, with 70 per cent of visitors projected to come from outside of the UAE. Visitors will be able to embark on a seamless journey for seeking collective solutions to the global challenges of Opportunity, Mobility and Sustainability.

By creating a dynamic and welcoming hub of innovation, collaboration and aspiration, the UAE will be ready to deliver an exceptional Expo, with a lasting legacy of partnerships and associations that will bring enduring benefits and touch the lives of people across the world for generations to come.



2. The Expo 2020 Logo

The official Expo 2020 logo was launched in March 2016 at a ceremony held by the Dubai Fountain in Downtown Dubai, which saw it projected onto the façade of the Burj Khalifa in front of thousands of supporters, including His Highness Sheikh Mohammed bin Rashid Al Maktoum. The logo was designed through an international competition announced in 2015, which attracted more than 19,000 entries from around the world. The competition’s objective was to create a logo design which embodied the Expo theme of ‘Connecting Minds, Creating the Future’.

The winning logo has been hailed ‘as an authentic Emirati logo’, embodying the rebirth of ancient history and its connection with modern UAE aspirations, represented by a shape that evokes



connectivity, resilience and strength. The emblem is inspired by the shape of an intricate gold ring discovered in 2002 at Saruq Al-Hadid, an archaeological site set amid the spectacular desert landscape of southern Dubai. The ring and corresponding Expo 2020 logo represent a 4,000-year-old civilisation (one that left significant clues as to their metallurgical prowess), and its connection to the contemporary era, where Dubai continues to make significant strides as a connector of civilisations and a centre of innovation.

EXPO 2020 VALUES



HUMILITY

HUMILITY

Upholding a culture of humility, understanding and openness. Listening to one another, being welcoming and curious about colleagues’ ideas and initiatives and taking full advantage of Expo’s rich diversity as a cornerstone for success.



RESPECT

RESPECT

Being respectful of one another, and adhering to Expo’s code of conduct. Being considerate and sensitive to all cultures and ethnic diversities, nurturing an environment that champions the strength that comes from variety.



INTEGRITY

INTEGRITY

Believing in the power of integrity, and in never compromising on the commitment towards high standards of behaviour, the courage to stand up for what one believes in and the boldness needed to confront the greatest challenges.



EXCELLENCE

EXCELLENCE

Pursuing excellence, not just in what Expo does, but in what it aims to be; through learning, remaining curious and inspired to strive and, ultimately, to succeed.



COOPERATION

COOPERATION

Recognising the importance of working in cooperation and collaboration with a shared purpose. Understanding that the unity of Expo team, its family, is also its ultimate strength.

iv. SUSTAINABILITY STRATEGY

During the World Expo bid, Expo 2020 Dubai made a number of commitments to the BIE, including a pledge ‘to deliver one of the most sustainable World Expos in history’.

Expo 2020 Dubai focuses on the UAE’s ongoing transition to a knowledge-based economy, fuelled by Opportunity, Mobility and Sustainability. Driving the ‘Green Economy’ is both key to and a daily practice for Expo 2020. It is not just about ‘green business’; by adopting improved water technologies, photovoltaic (PV) panels or greener materials, it is also the way the UAE conducts business, makes connections and addresses challenges through innovative solutions. At the heart of this is Expo 2020 – opportunity, entrepreneurship, education, connectivity and future growth.

Expo 2020 Dubai’s comprehensive sustainability strategy will focus on key sustainability target areas and develop key performance indicators (KPIs) within each to reach its objectives and ‘deliver one of the most sustainable World Expos in history’. It includes four key objectives:

- Leave a legacy of sustainable infrastructure and cutting-edge sustainability practices
- Catalyse sustainability efforts in Dubai and the UAE

- Increase public awareness and engage society about sustainability principles and sustainable living
- Develop sustainability solutions that are scalable, extending benefits to the wider economy

To achieve a sustainable Expo 2020 Dubai, a coherent, strategic approach addressing all of the key sustainability areas is required, which is also aligned with national and sub-national drivers. This programme-wide Sustainability Strategy sets out the overall methodology for the integration of sustainability into the planning, design, construction and operational processes and provides a framework for each of the identified key areas. This programme-wide Sustainability Strategy provides the following:

- Programme-wide approach to sustainability, prioritising the delivery of passive solutions
- Programme-wide approach to integrated sustainable design
- Sustainability key areas approach

Therefore, sustainability shall be implemented across all elements and disciplines of design and construction through an integrated design process to achieve the best sustainability outcomes for the programme.

FIGURE 3 Expo 2020 Alignment with Regional and Global Aspirations

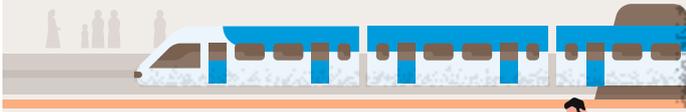


FIGURE 4 Expo 2020 Sustainability Objectives and KPIs



Transport

Provide sustainable, lower carbon public transport



KPI

Significant deviation from baseline in passenger modal shifts



Energy

Reduce energy consumption

20%

outperformance of the ASHRAE 90.1 standard for building efficiency



Public Realm

Create people-centric, comfortable and walkable spaces

KPI

75%

of primary walkways in thematic districts to provide shade at 13.00

KPI

60%

of hard landscaping in self-built pavilion areas and public open spaces to provide shade at 13.00



Ecology

Enhance the ecological value of the site and promote local species



KPI

50%

of landscape plants to be native/adaptive species



KPI

95%

of landscape area managed without the use of chemical pesticides, herbicides or fertilisers



Water

1 Minimise potable water consumption through use of recycled water



KPI

100%

of non-potable exterior water uses (e.g. irrigation, cooling) to be met by treated sewage effluent (TSE)

KPI

95%

of condensate recovered from buildings

2 Reduce water consumption

KPI

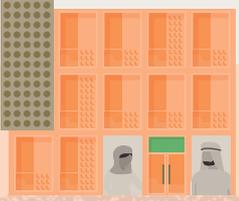
40%

improvement on Dubai Electricity and Water Authority (DEWA) baseline to reduce water consumption in buildings



Materials

Minimise depletion of natural resources through design for reuse and Legacy



KPI

90%

of materials used in permanent construction to be retained for Legacy

KPI

75%

of materials in temporary construction to be redeployed, taken back or recycled



Waste

Minimise quantity of waste to landfill

KPI

85%

(by weight) of waste segregated into different waste streams, during construction, operation and decommissioning, to allow for diversion from landfill



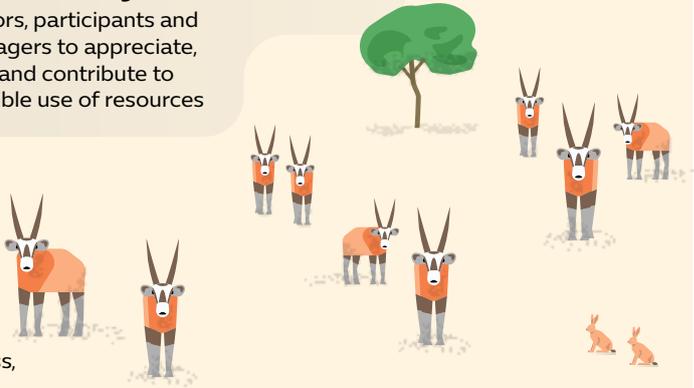

Sustainability Awareness

Enable visitors, participants and facility managers to appreciate, understand and contribute to the responsible use of resources

KPI

75%

of sustainability features with educational awareness, collateral or activities

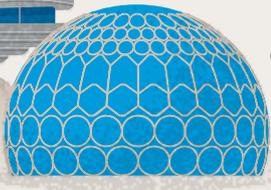



Sustainability Certification

Demonstrate added value through sustainability certification of both horizontal and vertical infrastructure

KPI

Achieve LEED Gold Certification for Expo building projects



KPI

Achieve CEEQUAL Excellent Certification for Expo infrastructure projects




Sustainable Events Operations and Management

Communicate sustainability progress and achievements in a transparent and stakeholder responsive way

KPI

Achieve ISO 20121 Sustainable Event Management certification



KPI

Publish sustainability reports based on internationally recognised guidelines




Carbon

Minimise carbon emissions in Expo 2020 Dubai

KPI

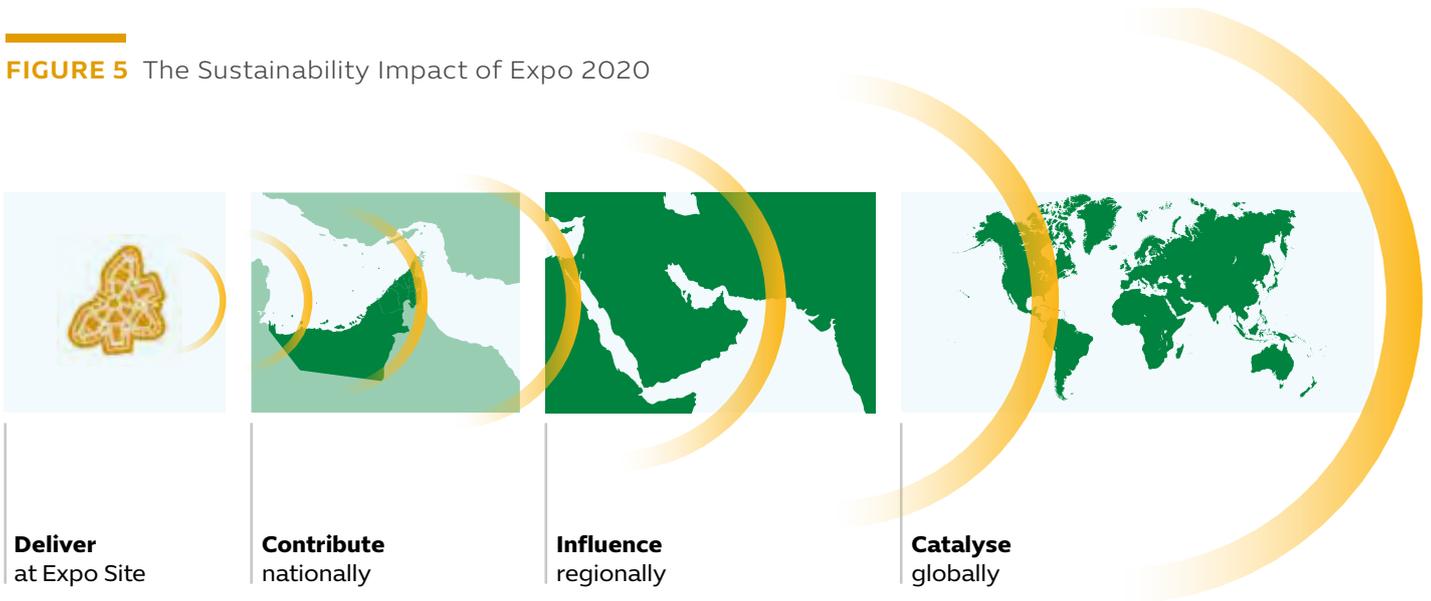
Fully implement a greenhouse gas (GHG) mitigation and off-setting strategy



Expo 2020 Dubai has more than 40 KPIs in 11 categories and is working with the design and construction teams to meet the targets for the base-build and event phase. There are an additional four categories for the legacy phase that are being integrated into the legacy master plan.

Expo 2020 aims to expand its impact beyond the boundaries of the site and beyond the six months of the event to inspire change on a national, regional and global scale, and lead to a sustainable future.

FIGURE 5 The Sustainability Impact of Expo 2020



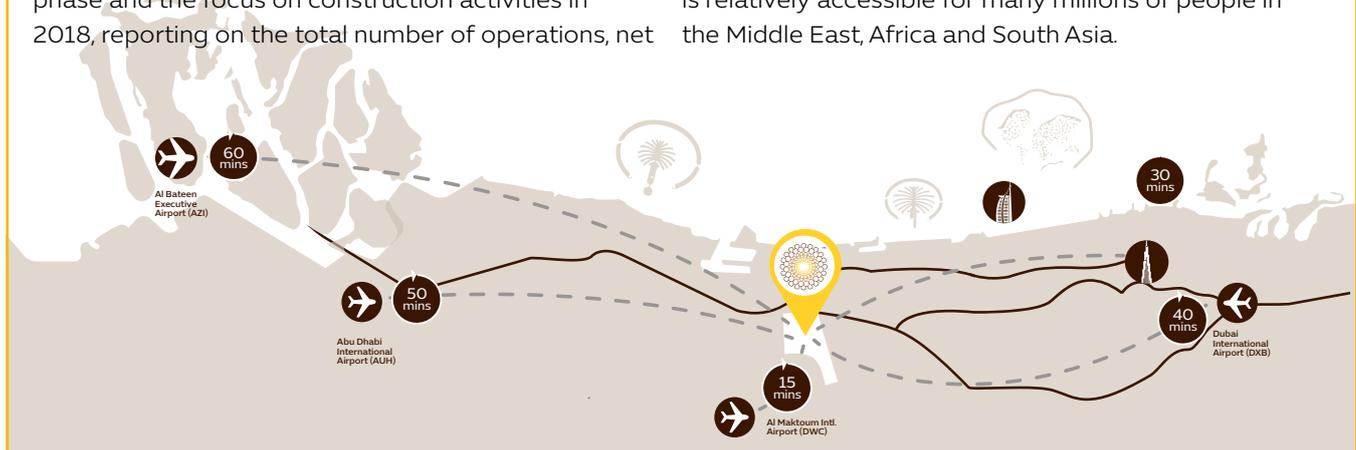
The Expo 2020 Dubai Site

2018 was a year of intense on-site construction activity, witnessing the transformation of the subthemes into structural proof on the Expo site. Several key buildings and projects were completed, including a significant portion of the infrastructure. In April, handover of selected plots began for participating countries and organisations to start construction work on their pavilions, while the Metro viaduct on the Expo site was completed in July.

Given the nature of the organisation in this pre-event phase and the focus on construction activities in 2018, reporting on the total number of operations, net

sales and revenues, total capitalisation and quantity of products and services provided are not applicable.

The 4.38 sq km Expo 2020 site is located in the Dubai South region and was chosen for optimum operational and logistical efficiency. It is accessible by one-third of the world’s population within a four-hour plane journey, and is also located mid-way between the cities of Dubai and Abu Dhabi. It is served by three airports, including Al Maktoum International Airport, which is approximately six kilometres from the Expo site centre. Expo 2020 Dubai will be the first Expo that is relatively accessible for many millions of people in the Middle East, Africa and South Asia.



V. THE MASTER PLAN

At the core of the Master Plan are three distinct Thematic Districts which converge at the central Al Wasl Plaza, each focused on one of the subthemes.



AL WASL PLAZA

Al Wasl Plaza is situated at the heart of the Expo site and serves as a gateway to each of the primary concourses. The domed trellis acts as a 360-degree video projection, which will create an immersive experience that can also be viewed from the sky above.

THEMATIC DISTRICTS

Three petal-shaped Thematic Districts extend from Al Wasl Plaza, accommodating country pavilions in individual building structures. The design reflects the region's traditional urban developments, with permanent buildings, narrow walkways and courtyards.



v. THE MASTER PLAN (cont.)

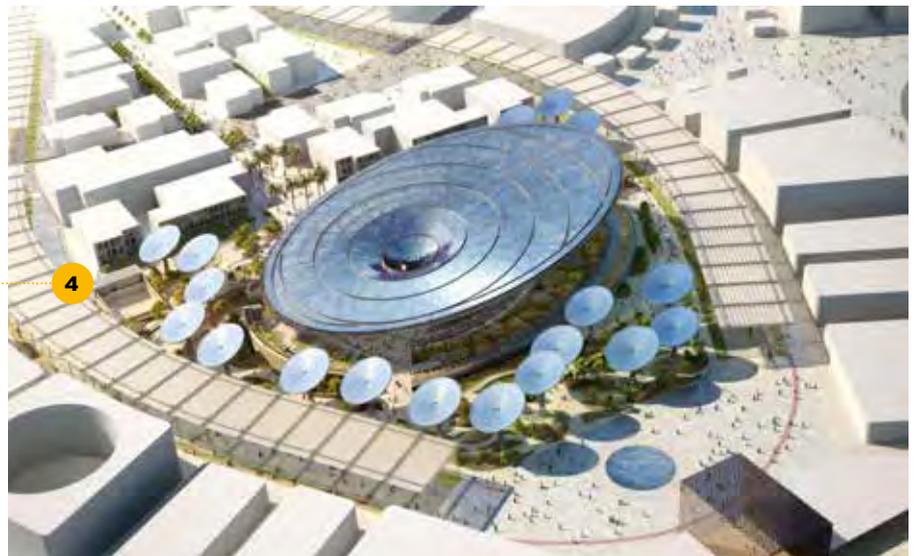


UAE PAVILION

A LEED Platinum-certified building, the innovative design was inspired by a flying falcon. The longest individual wing section on the roof is 70 metres.

SUSTAINABILITY PAVILION

True to its subtheme, the LEED Platinum-certified Sustainability Pavilion is targeting zero net energy consumption. Sustainable features include 9,300 sq metres of PV panels on the steel canopy, 4,100 sq metres of PV panels across 18 'Energy Trees', and a system that filters and reuses water collected through the canopy.



MOBILITY PAVILION

The Mobility Pavilion which is a LEED Gold building, features a dynamic landscape with undulating tracks and demonstration areas for the latest innovations related to the Mobility subtheme.



v. THE MASTER PLAN (cont.)

PARKS

Two major parks provide space for large outdoor performance areas, plus zones for recreational activities. Facilities include washrooms, prayer rooms and food and beverage outlets. Total park areas add up to 45,000 m².



DUBAI EXHIBITION CENTRE

The Dubai Exhibition Centre (DEC) will be used as a multi-purpose function and event venue.

ARRIVAL PLAZAS

There are four entrances to the Expo 2020 site: three leading to the welcome plazas for each Thematic District, and a fourth entrance concourse running from the Metro Station to the DEC.



v. THE MASTER PLAN (cont.)



METRO STATION

The Metro Station is part of Route 2020, an extension created by the Roads and Transport Authority (RTA) to serve the Expo site. With a fleet of 50 trains, it will run every two minutes, carrying up to 46,000 passengers per hour.

PERMANENT BUILDINGS AND INFRASTRUCTURE

All permanent buildings on the Expo site are on track to achieve a minimum of LEED Gold and the highest rated infrastructure in the region: CEEQUAL Excellence.



CAR PARKS

Approximately 30,000 car parking spaces will be available during Expo 2020. The roads were built using reclaimed crushed concrete, salvaged from previous buildings.

vi. PARTICIPATING COUNTRIES

To date, **192 countries** have confirmed their participation in Expo 2020, out of which **136 countries** have publicly announced their participation.

192
COUNTRIES HAVE
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PARTICIPATION

136
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vii. GOVERNANCE

1. Corporate Governance

STATUTORY AND LEGAL BACKGROUND

Pursuant to the Convention Relating to International Exhibitions, signed in Paris on 22 November 1928 and the regulations made for its implementation, as the host of Expo 2020 Dubai, the UAE is required to implement a series of legislative and financial measures to facilitate the event's organisation. To comply with its obligations under the convention, the UAE Government is developing the legal, financial and organisational measures necessary to organise and host the event successfully.

To this end, the Dubai Government established the World Expo 2020 Preparatory Committee (the Higher Committee) through Decree 49 of 2013. The Higher Committee was formed to oversee the overall planning and delivery of Expo 2020's requirements and activities.

Decree 30 of 2014, issued on 25 June 2014, set up the Bureau Expo Dubai 2020 (the Bureau), while Decree 31 of 2014 appointed Her Excellency Reem Al Hashimy, UAE Minister of State for International Cooperation, as the Director General of the Bureau.

On 12 December 2015, the Bureau incorporated Expo Dubai 2020 LLC in the Department of Economic Development. This company set up a Board of Directors to advise the Director General on operational development and overseeing the Expo, reporting through the Bureau to the Higher Committee.

Compliance to laws and regulations are administered by respective departments pertaining to their scope. Expo 2020 has a dedicated internal audit team which monitors each department's compliance based on their operations. This process is overseen by higher management to ensure full compliance to applicable laws and regulations in the UAE.

To centralise strategic decisions, the Higher Committee was established under the supervision of His Highness Sheikh Ahmed bin Saeed Al Maktoum, Second Vice Chairman of the Dubai Executive Council. The Higher Committee was formed to facilitate a coordinated government approach to the planning and delivery of the event. The Higher Committee's functions and powers include:

- Setting up the strategic plan for the organisation of the committee's work to reach its objectives
- Preparing for the execution of Expo 2020 Dubai
- Evaluating the infrastructure's capability to host Expo 2020 Dubai (such as tourism and health departments and the road transportation network)
- Determining Dubai's requirements for facilities, financial, equipment, artistic, media, economic and touristic resources to host Expo 2020
- Coordinating with all the public and private authorities inside and outside the Emirate of Dubai and in all aspects related to Expo 2020 Dubai
- Choosing the location for the execution of Expo 2020 Dubai
- Determining programmes, events and exhibitions related to Expo 2020 Dubai
- Supervising the marketing and advertising for the Emirate of Dubai (locally, regionally and internationally) to ensure Expo 2020 is a success
- Continuing to attract local, regional, international companies and entities to sponsor Dubai as host of Expo 2020
- Supervising the publicity around Expo 2020 Dubai and supporting it with the aid of companies and entities specialised in this field
- Managing any other functions and powers as the committee sees fit to fulfil its mission

HIGHER COMMITTEE

The Higher Committee’s members come from various government organisations across the UAE, bringing a wealth of experience and expertise. The members of the committee are:



His Highness Sheikh Ahmed Bin Saeed Al Maktoum

President, Dubai Civil Aviation Authority
Chairman of the Expo Dubai 2020 Higher Committee



His Excellency Mohammed Ibrahim Al Shaibani

Director General, HH The Ruler’s Court of Dubai, UAE
Vice Chairman of the Expo Dubai 2020 Higher Committee



Her Excellency Reem Ebrahim Al Hashimy

UAE Minister of State for International Cooperation
Director General, Expo 2020 Dubai Bureau



His Excellency Sheikh Sultan Bin Tahnoon Al Nahyan

Member of the Abu Dhabi Executive Council
Member of the Expo Dubai 2020 Higher Committee



His Excellency Dr. Sultan Ahmed Al Jaber

Cabinet Member and Minister of State
Chairman of the Board of Directors of the National Media Council
Member of the Expo Dubai 2020 Higher Committee



His Excellency Mohamed Alabbar

Chairman, Emaar Properties PJSC
Member of the Expo Dubai 2020 Higher Committee



His Excellency Mattar Mohammed Al Tayer

Chairman of the Board and Executive Director, Roads and Transport Authority (RTA)
Member of the Expo Dubai 2020 Higher Committee



His Excellency Dawood Abdulrahman Al Hajiri

Director General, Dubai Municipality (DM)
Member of the Expo Dubai 2020 Higher Committee



His Excellency Helal Saeed Al Marri

Director General, Dubai Department of Tourism and Commerce Marketing (DTCM)
Member of the Expo Dubai 2020 Higher Committee



His Excellency Khalifa Al Zaffin

Executive Chairman, Dubai Aviation City Corporation (DACC)
Member of the Expo Dubai 2020 Higher Committee



His Excellency Major General Abdullah Khalifa Al Marri

Commander-in-Chief of Dubai Police
Member of the Expo Dubai 2020 Higher Committee



Expo 2020 team at the BIE in Paris, France after Dubai was awarded as the host (November, 2013).

The Higher Committee established the following Specialised Committees to ensure efficiency and transparency through the committees' direct supervision on all funding, procurement and contracting processes:

FINANCE AND BUDGET COMMITTEE

Responsible for the financial support of Expo 2020 and supervising budgeting and the use of allocated funds

CONTRACTS AND TENDER COMMITTEE

Responsible for the supervision of procurement and tendering processes in relation to the work conducted for Expo 2020 Dubai

GOVERNANCE COMMITTEE

Responsible for ensuring that Expo 2020 governance is protected and respected by departments

2. The Bureau

The Bureau Expo 2020 Dubai is a government entity, acquiring its legal and financial jurisdiction and powers directly from the Dubai Government. The Bureau acts as the executive arm of the Higher Committee, and holds the following functions and powers:

- Supervising preparations for the delivery of Expo 2020 Dubai

- Liaising with relevant government entities to ensure the availability of the right infrastructure for hosting Expo 2020 Dubai (such as tourist facilities, sanitary facilities and road transportation networks)
- Coordinating with the relevant entities to ensure that Dubai will fulfil and meet all requirements from facilities, equipment, financial, artistic, media, security, economic and tourism resources to host the event
- Coordinating with public and private entities, locally and internationally, on all matters related to Expo 2020 Dubai
- Advertising and marketing the event (locally, regionally and internationally) to ensure its success
- Attracting local, regional, international companies and entities to sponsor Dubai for hosting Expo 2020
- Performing any other functions and powers assigned to it by the Higher Committee

Her Excellency Reem Al Hashimy is the Director General of Expo 2020 Dubai and a member of the Higher Committee. She therefore acts as the primary conduit for reporting on the progress of the Bureau and its subsidiaries at Higher Committee meetings.

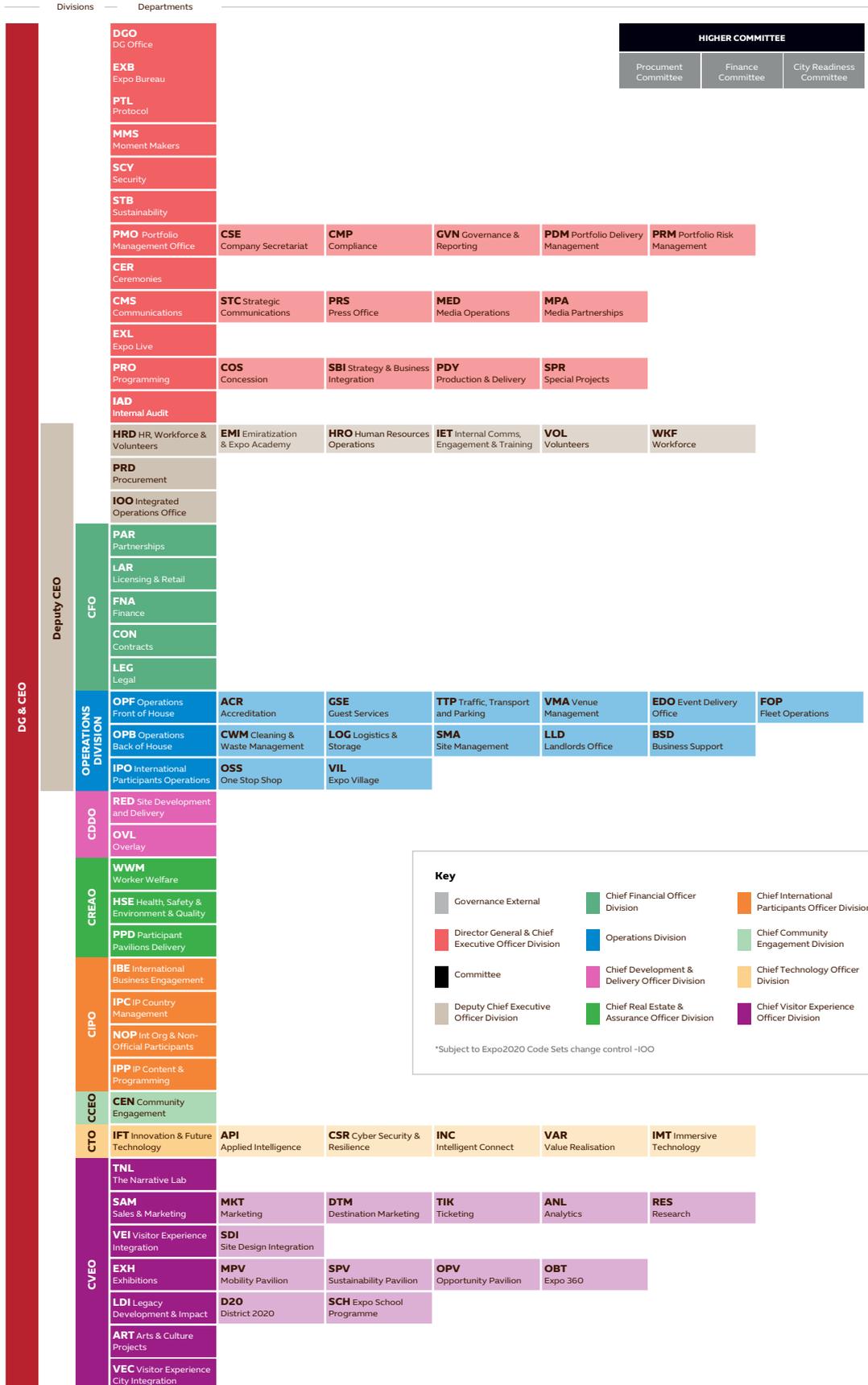
3. The Company

In order to assist with the operational delivery and hosting of Expo 2020 Dubai, the Bureau incorporated Expo Dubai 2020 LLC (the Company) in the Department of Economic Development in 2015. It has now set up a Board of Directors, Board Committees and a management governance structure to oversee, with the Director General, the operational development of the Expo and support the timely reporting of information through the Bureau to the Higher Committee.

Board membership is anticipated to be for up to three years, subject to annual review. The company maintains a Register of Interests to identify any potential conflicts of interest.

4. Governance Framework

An organisational structure and governance framework have been put in place to meet the international obligations accepted by the UAE in hosting Expo 2020 Dubai, as well as to facilitate the efficient, transparent and successful delivery of the event.



2

THE FOUNDATIONS OF A SUSTAINABLE EXPO



A. INTEGRATE

i. STAKEHOLDERS & MATERIALITY

1. Stakeholder Mapping

Expo 2020 Dubai’s stakeholder mapping exercise entailed a comprehensive charting of relevant entities in the country. This was benchmarked against previous major events such as Milan Expo 2015 to ensure that precedent was met and if possible, exceeded. Stakeholders were initially identified as per the ISO 20121:2012 framework, which outlines at a minimum the parties that are expected to be affected by Expo 2020’s activities and services, and reasonably affected by the organisation’s strategies and objectives.

The final comprehensive stakeholder categories cover all the essential recipients of Expo 2020’s relevance. This includes prominent governing bodies such as the BIE, UAE governmental organisation, and equally significant, Expo employees, volunteers and visitors to the event. Figure 6 shows the relevant stakeholders to the 2018 report. Stakeholder categories were adopted largely under the ISO 20121:2012 framework, however, workers’ trade union organisations were not

FIGURE 6 Stakeholder Categories

- 1 Expo 2020 Dubai LLC and its employees
- 2 International Participants
- 3 Vendors and Suppliers
- 4 Local Community and Volunteers
- 5 Civil Society
- 6 Construction Consultants, Contractors and Workers
- 7 Partners
- 8 Youth and Schools Programmes
- 9 Government Authorities and Entities

included in the materiality exercise because under UAE law expatriate workers are directed to take recourse with the Ministry of Labour for all work-related grievances. Additionally, to prevent a complete exclusion of this category, material topic discussions with internal and external stakeholders were designed to be inclusive of all levels of employee interaction.



Stakeholder mapping began on 18 April 2018, which saw the heads of various departments at Expo 2020 participating in an awareness session hosted by the Expo Sustainability Team. The purpose of the session was to ensure that all departments were fully briefed on Expo’s decision to produce a GRI Standard Sustainability Report.

The session included:

- The process of developing a sustainability report
- The details of GRI Standards reporting
- The meaning of ‘materiality’ and ranking material topics
- How to identify stakeholders and the importance of early engagement
- How different Expos have presented their sustainability reports
- The information that will be required from each department

2. Stakeholder Engagement

In mid-2018, three stakeholder materiality workshops were held for Expo 2020 higher management staff, employees and external stakeholders. These sessions were designed to ascertain the importance of the shortlisted economic, environmental and social material topics which aligned most with Expo 2020’s theme, subthemes, values and strategic goals. Material topics were selected taking into account site selection, recruitment, workforce training, supply procurement, community impact management and accessibility for people of determination.

Internal stakeholders comprised Expo senior management staff and all employee representatives, including work groups, volunteers and contractors.

FIGURE 7 External Stakeholders Who Attended the Expo 2020 Materiality Workshop

- 1 Department of Economic Development
- 2 Department of Tourism and Commerce Marketing
- 3 Dubai Airports
- 4 Dubai Government Media Office
- 5 Dubai Municipality
- 6 Dubai Police
- 7 Ministry of Climate Change and Environment
- 8 Ministry of Foreign Affairs
- 9 Ministry of Human Resources and Emiratisation
- 10 Roads and Transport Authority
- 11 Ministry of Food Security
- 12 Federal Competitiveness and Statistics Authority
- 13 Dubai Electricity and Water Authority
- 14 Siemens
- 15 PepsiCo
- 16 UPS
- 17 ENOC

FIGURE 8 Expo 2020 Internal Stakeholder Departments

- 1 Bureau
- 2 Real Estate and Delivery
- 3 Legacy Development and Impact
- 4 Visitor Experience
- 5 Content and Programming
- 6 Event Operations
- 7 Expo Live
- 8 Health, Safety, Quality and Environment Assurance
- 9 Commercial and Partnerships
- 10 Sustainability
- 11 Human Resources, Workforce and Volunteers
- 12 Design and Overlay
- 13 Business Support
- 14 Portfolio Management Office
- 15 Procurement

3. Materiality

Participants in the workshops were asked to rank the significance of the impact of each topic on a scale of 1–10, with 1 being 'Not Significant' and 10 being 'Very Significant'. The shortlisted topics were chosen from the GRI-specific standard disclosures and are shown in Table 1.

TABLE 1 Final Identified Material Topics

| GRI Standard Number | Topic |
|---------------------|-----------------------------------|
| 302 | Energy |
| 303 | Water |
| 403 | Occupational Health and Safety |
| 305 | Emissions |
| 306 | Effluents and Waste |
| 201 | Economic Performance |
| 301 | Materials |
| 307 | Environmental Compliance |
| 419 | Socio-economic Compliance |
| 412 | Human Rights Assessment |
| 413 | Local Community |
| 308 | Supplier Environmental Assessment |
| 406 | Non-discrimination |
| 404 | Training and Education |
| 202 | Market Presence |
| 401 | Employment |
| 408 | Child Labour |
| N/A | Innovation |



ii. SUSTAINABLE PARTNERSHIPS

1. Supply Chain

The Expo Higher Committee has a specialised Contracts and Tender Committee that is responsible for supervising the procurement and tendering process in relation to work undertaken for Expo 2020 Dubai. The process is structured and ratified through specific guidelines which pertain to material selection and carbon emissions abatement.

To positively impact construction industry practices for the event and the region as a whole, the Committee works with contractors and suppliers to increase their awareness around sustainability issues and has embedded critical Key Performance Indicators (KPIs) into their contracts. The KPIs for Expo’s sustainable procurement strategy are derived from

the Expo Environmental Policy and the Sustainable Materials Guideline and apply to all contractors employed by Expo 2020, including third-party delivery agents, developers and participants.

Due to the intense on-site construction activity and planned decommissioning of structures, the sustainable material selection for Expo 2020 Dubai requires understanding and integration of multiple material aspects (including recycled content, embedded carbon, regional sourcing, and the selection of materials that do not have a negative impact on indoor environmental quality). Additionally, contractors must demonstrate compliance with Expo 2020’s Sustainable Materials Guidelines, as detailed in Table 2.

TABLE 2 Overview of Compliance Requirements for Key Materials

| Product | Certification | Submission requirement | |
|---------------|---|---|--|
| STEEL | <ul style="list-style-type: none"> World Steel Association Climate Action Programme (CAP) membership | <ul style="list-style-type: none"> CARES Sustainability Standard, BES 6001 or equivalent | <ul style="list-style-type: none"> EPD Evidence of membership |
| CONCRETE | <ul style="list-style-type: none"> EPD to EN 15804 Certified to the WBCSD Cement Sustainability Initiative Responsible Sourcing Scheme | <ul style="list-style-type: none"> Replacement of Portland Cement with Fly Ash, Silica Fume and/or GGBS | <ul style="list-style-type: none"> EPD Certificate Evidence of membership |
| TIMBER | <ul style="list-style-type: none"> Forestry Stewardship Council (FSC) certification | <ul style="list-style-type: none"> Programme for the Endorsement of Forest Certification (PEFC) certification | <ul style="list-style-type: none"> Chain of Custody (CoC) certificate with codes or serial numbers Copy of certificate |
| AGGREGATE | <ul style="list-style-type: none"> BES 6001 certification Crushed Concrete Aggregate (CCA) in concrete production conforms to BS 8500 requirements | <ul style="list-style-type: none"> ACI 555R in conjunction with corresponding ASTM standards Reuse based on ASTM and AASHTO standards | <ul style="list-style-type: none"> Copy of certificate Lab test results |
| PVC | <ul style="list-style-type: none"> ECVM Industry Charter for the Production of VCM and PVC | | <ul style="list-style-type: none"> Certificate Product data sheet |
| ALL MATERIALS | <p>For suppliers with more than 250 employees:</p> <ul style="list-style-type: none"> BS EN ISO 14001 accreditation EMAS accreditation Employer Approved Environmental Management System | <ul style="list-style-type: none"> BS EN ISO 9001 accreditation BS OHAS 18001 accreditation | <ul style="list-style-type: none"> Copy of certificate and/or management system Document demonstrating compliance |



Material selection KPIs also aim for the following minimum procurement targets:

- Contractors must incorporate a sustainability assessment into their procurement process for all materials and products.
- 95 per cent of materials procured must be in accordance with the Expo Sustainable Materials Guideline.
- Where possible, the contractor must also arrange with suppliers to take back packaging of products delivered to site.
- Diesel fuel used on-site must comprise at least 20 per cent biodiesel where technically feasible.
- Any changes to materials or products recommended by the contractor must align with the overall sustainability goals for the project, evidence of which must be approved by the site engineer.

In 2018, Expo 2020 Dubai awarded a total of 2,336 contracts, split between 81 strategic awards and 2,255 tactical awards. Out of the total contracts, 1,277 were awarded to small and medium-sized enterprises (SMEs). The significance of contracts is defined based on the tier of the contract, the value it adds to the organisation and potential associated risks. Contracts incorporate clauses on worker welfare and human rights as they are subject to worker welfare assessments. In addition, all companies that register on the Expo Online Market Place are required to sign the Vendors' Code of Conduct. Expo will continue to engage actively with local, regional and international businesses of all sizes in the spirit of 'Connecting Minds, Creating the Future'.

In 2018, Expo 2020 Dubai awarded a total of 2,336 contracts, split between 81 strategic awards and 2,255 tactical awards, with 1,277 of the total contracts awarded to SMEs.

2. Expo Partnerships

Expo has developed a robust network of partners who play a vital role in delivering a successful world-class event and will support the event’s visitor experience and its legacy.

Expo 2020 closed 2018 with a mix of local and international partners. Also in 2018, ‘Official Provider’ was added as a new partner category. At the heart of Expo 2020 Dubai is a belief in the power of connections. This belief drives the vision and strategy for nurturing smart, strong and sustainable partnerships across cultures, organisations and generations. The organisers of Expo 2020 have deployed all the resources at their disposal to attract a spectrum of participants representing developed as well as developing countries, multilateral organisations, businesses from relevant sectors and educational institutions.

Expo 2020 aims to be a universal Expo by incorporating a multitude of organisations and leaders in research and development, working together to address global sustainability challenges by finding practical solutions to real problems. Their experience and expertise will help bring the Expo subthemes to life, creating tangible and exciting visitor experiences, and underlining Expo’s core vision of innovation and global partnerships.

Expo 2020’s focus on innovation across diverse perspectives will highlight

creative leadership, dynamism and a willingness to collaborate in order to overcome the challenges of dependence and imbalance. It will forge a new image and reputation, not only of individual participants but also of Expo’s global spirit of partnership: all participants will profit from the opportunity to showcase their vision and accomplishments to the global audience at Expo 2020, and gain access to myriad sectors of the local and regional economy likely to enable their future in the region.

Part of Expo 2020’s legacy will be the boosting of Dubai’s supply chain capabilities through the implementation of business-friendly legislation to encourage foreign partnerships, and investment in local manufacturing and service provision. This legacy will lie in the partnerships and projects formed during Expo that will continue to grow and flourish past 2020.

Expo 2020 Dubai will contribute to substantial GDP growth, generate employment, and help strengthen mutually beneficial partnerships. The transition to the post-Expo stage (whether through the retention of pavilion structures on the Expo site or transport links to a different part of the city, region or world) serves as a global manifestation of the shared experiences, connections and partnerships that are developing through Expo 2020.



Official Premier Partners for Expo 2020 Dubai



| | |
|------------------------------|--------------------------|
| COMPANY NAME | EMIRATES AIRLINE |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Airline Partner |

Emirates will play a key role in bringing visitors to Expo. Emirates will be a licensed ticket reseller and will use its extensive route network of over 150 destinations to support Expo marketing and communications. Emirates will also offer hospitality services and support to Expo participants.



| | |
|------------------------------|---------------------------------------|
| COMPANY NAME | DP WORLD |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Premier Global Trade Partner |

DP World is a leading enabler of global marine and inland trade. It owns and operates 77 terminals globally including the Jebel Ali Port, less than 10km from the Expo site. DP World will play a vital role in the supply chain for Expo, enabling the attendance of 192 nations. As an active supporter of innovation and start-up organisations, both locally and internationally, DP World will complement various Expo 2020 initiatives.



| | |
|------------------------------|--|
| COMPANY NAME | ETISALAT |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Telecommunications Partner Official Digital Service Partner (jointly with Accenture) |

Etisalat is the UAE's leading international telecoms and technology service provider. Etisalat will provide site connectivity and telecoms infrastructure enabling Expo to offer its visitors and participants cutting edge, immersive digital experiences that bring the Expo themes to life. Etisalat will also provide high-speed Wi-Fi, capable of handling hundreds of thousands of people on-site at peak times.



| | |
|------------------------------|--|
| COMPANY NAME | ACCENTURE |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Digital Service Partner (jointly with Etisalat) |

Working closely with Telecommunications Partner Etisalat, Accenture will ensure world-class integration of various ICT systems and innovative solutions to meet the digital needs of visitors, organisers and participants. Accenture will also design, build and run solutions in areas such as virtual assistance, business intelligence, analytics, mobile applications and guest relations.



| | |
|------------------------------|---|
| COMPANY NAME | SAP |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Innovative Enterprise Software Partner |

SAP will co-innovate on real-time technology platforms that enable organisers and exhibitors to instantaneously analyse data and identify visitor trends. These insights will help tailor each visitor's experience to their personal preferences. Expo is expecting to run more than 20 real-time solutions on the SAP HANA in-memory platform and the SAP S/4HANA real-time business suite.



| | |
|------------------------------|----------------------------------|
| COMPANY NAME | CISCO |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Digital Network Partner |

Cisco will provide secure connectivity through its intent-based networking solution. Cisco® provides an infrastructure that constantly learns, adapts and protects, making it the ideal foundation for the complete digital experience offered at Expo 2020. It will help enable visitors, exhibitors and organisers to connect anywhere, on any device – securely, reliably and seamlessly. Expo 2020 will also utilise the Cisco Vision™ signage solution to help deliver information and experiences throughout Expo in a way that enhances attendee engagement.

Official Premier Partners for Expo 2020 Dubai (Cont.)



| | |
|--------------------------|--|
| COMPANY NAME | PEPSICO |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Beverage and Snack Partner |

Expo and PepsiCo have joined forces with a shared vision to work together towards a healthier and more sustainable future in the lead-up to, during and beyond the World Expo in 2020. They will work together to inspire and educate millions on areas of critical importance including water stewardship, sustainable packaging, agriculture and nutrition. PepsiCo will also bring its portfolio of brands, activation and entertainment expertise to the event.



| | |
|--------------------------|--|
| COMPANY NAME | MASTERCARD |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Payment Technology Partner |

The partnership includes developing innovative payment solutions that help deliver a personalised, seamless and cashless experience for millions of visitors from around the world. Mastercard will offer its innovative payment solutions, using technology including augmented and virtual reality, and biometrics such as facial and fingerprint recognition, as well as new payment methods including contactless technologies.



| | |
|--------------------------|--|
| COMPANY NAME | SIEMENS |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Infrastructure and Digitalisation Partner |

As one of the largest manufacturing and electronics companies in the world, Siemens will provide a range of innovative solutions, technologies and products. These include security and building management systems and MindSphere, an open operating system for the Internet of Things, that will play a central role in the smart operations of the Expo site. Siemens has also chosen the Expo site as the future location of its global logistics HQ.



| | |
|--------------------------|--------------------------|
| COMPANY NAME | EMIRATES NBD |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Banking Partner |

Emirates NBD is the on-site banking partner for Expo, providing ATM machines and an on-site 'Bank of the Future' where the UAE-based banking group will offer a variety of services to visitors, participants and organisers, such as merchant account operations, Islamic banking and foreign exchange services.



| | |
|--------------------------|-----------------------------|
| COMPANY NAME | NISSAN |
| PARTNERSHIP TIER | Premier Partner |
| CATEGORY/ DESIGNATION | Official Automotive Partner |

Nissan will provide the Expo fleet, including electric vehicles featuring advanced technologies. Expo will be the first organisation in the Middle East to use the Nissan Leaf for commercial purposes. Knowledge from the partnership will help accelerate the electrification of mobility in the region. Nissan 'intelligent mobility' technologies will be showcased during the event at various points across the site.

Official Partners



| | |
|------------------------------|----------------------------|
| COMPANY NAME | UPS |
| PARTNERSHIP TIER | Official Partner |
| CATEGORY/ DESIGNATION | Official Logistics Partner |

As Official Logistics Partner, UPS will provide thousands of square metres of warehouse space and a team of 1,000 dedicated logistics personnel during the six months of Expo 2020. UPS will draw from expertise and experience gained as logistics partner of the 2012 Olympic Games in London and the 2008 Olympic Games in Beijing.



| | |
|------------------------------|-------------------------------------|
| COMPANY NAME | DEWA |
| PARTNERSHIP TIER | Official Partner |
| CATEGORY/ DESIGNATION | Official Sustainable Energy Partner |

DEWA is the Official Sustainability Partner for Expo 2020 and is working with Expo to deliver renewable energy, electricity and water projects that minimise the environmental impact of the event.



| | |
|------------------------------|--|
| COMPANY NAME | EMAAR |
| PARTNERSHIP TIER | Official Partner |
| CATEGORY/ DESIGNATION | Official Hotel and Hospitality Partner |

Emaar will provide truly authentic Emirati hospitality to visitors and participants in their hotels and venues in the journey to, during and beyond Expo 2020. During the event, Emaar will operate one of the hotels, will manage VIP hospitality and also provide catering services on site. As part of the Expo Legacy, Emaar will operate two hotels in District 2020.



| | |
|------------------------------|-----------------------------------|
| COMPANY NAME | DULSCO |
| PARTNERSHIP TIER | Official Partner |
| CATEGORY/ DESIGNATION | Official Waste Management Partner |

DulSCO is tasked with helping Expo achieve the target of diverting 85 per cent of waste from landfill. DulSCO's purpose-built Waste2Resource plant in Dubai South will support Expo's mission to reduce, reuse, recycle and repurpose. This could involve recycling paper and cardboard to produce useful daily items or upcycling glass and plastic to create sustainable Expo-branded mementos.



| | |
|------------------------------|------------------------------------|
| COMPANY NAME | ENOC |
| PARTNERSHIP TIER | Official Partner |
| CATEGORY/ DESIGNATION | Official Integrated Energy Partner |

ENOC is the Official Integrated Energy Partner of Expo. ENOC will operate a number of its Zoom convenience stores across the site. Part of ENOC's focus will include setting up a fully functioning, futuristic service station during the six months of Expo which will serve the event's fleet vehicles. ENOC will also host a pavilion in Al Forsan area to engage visitors in immersive and interactive experiences.



| | |
|------------------------------|---|
| COMPANY NAME | CHRISTIE DIGITAL |
| PARTNERSHIP TIER | Official Partner |
| CATEGORY/ DESIGNATION | Official Displays and Projections Partner |

Christie, a global leader in displays and projectors, will showcase Expo as the most sophisticated collection of digital experiences in the world. Christie will partner with Expo with the aim of being the most advanced and technologically memorable exposition ever. The company will showcase its breakthrough laser projection technology, including using more than 250 of its D4K40-RGB projectors to create life-evolving scenes on Al Wasl Plaza's giant 130-metre-wide projection surface.

Official Providers



| | |
|--------------------------|-------------------------------------|
| COMPANY NAME | DARKMATTER |
| PARTNERSHIP TIER | Official Provider |
| CATEGORY/ DESIGNATION | Official Cyber Security Provider |

DarkMatter will protect the entire digital platform, as well as the data and applications it supports. The firm will provide a range of cutting-edge services before, during and after Expo, including security management, monitoring, risk assessment, incident response and technical forensics. DarkMatter is a UAE-headquartered cyber security firm that will help safeguard the digital experience of millions of visitors and more than 200 participants at Expo 2020.



| | |
|--------------------------|-----------------------------|
| COMPANY NAME | ORIENT INSURANCE PJSC |
| PARTNERSHIP TIER | Official Partner |
| CATEGORY/ DESIGNATION | Official Insurance Provider |

Orient Insurance will provide property insurance for the Expo site's iconic architecture, plus liability coverage for operations. It will also offer services to participants, including businesses, multi-lateral organisations, non-government organisations, educational institutions and 192 nations.





B. IMPACT

i. ECONOMIC

Expo 2020’s Economic Impact Report defines three distinct phases, covering both on-site and off-site activities.

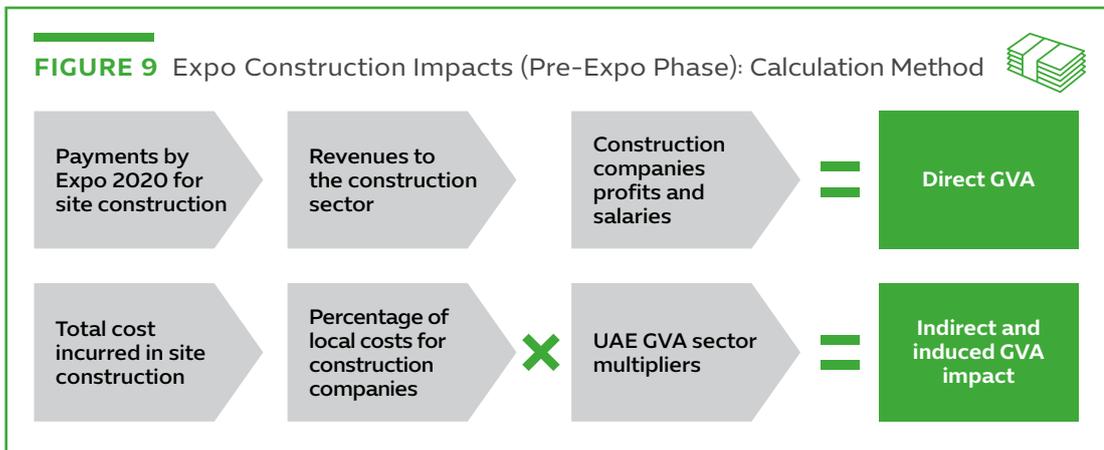
These are:

- 1 Pre-Expo: From Dubai’s winning bid in November 2013 to the official start of Expo 2020 in October 2020
- 2 During Expo: From October 2020 until April 2021
- 3 Legacy: From May 2021 until December 2031

The report focuses on the Pre-Expo construction phase, where economic value for the event has been calculated based on specific distribution factors (see Figure 9).

The activities pertaining to the economic impact calculations for the Pre-Expo phase include:

- 1 Construction: On-site, supporting infrastructure, adjacent sites
- 2 Employment: Construction sector
- 3 Pre-Expo Contribution



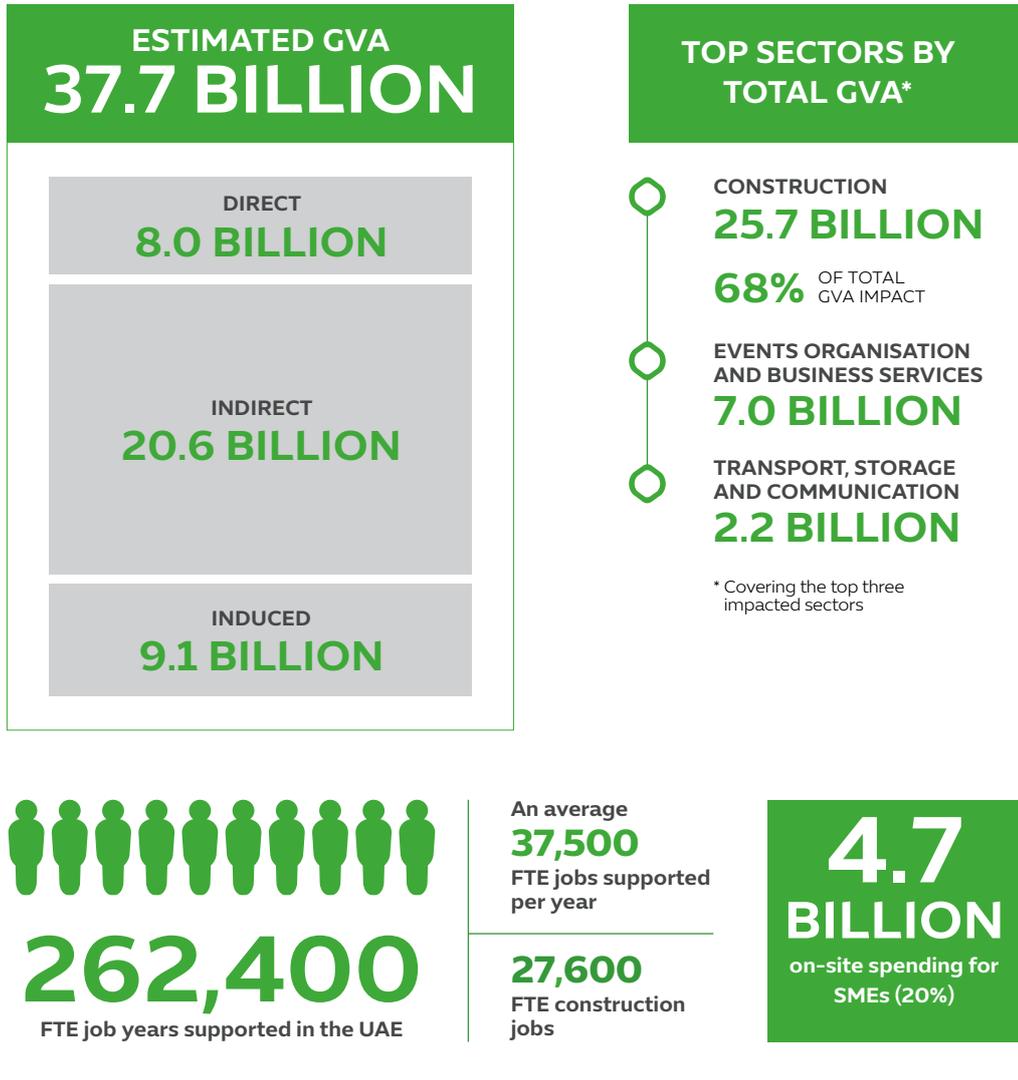
Construction activity is expected to drive Expo-related activity during the Pre-Expo period.

This includes:

- **On-site activities**, such as site preparation, facilities and infrastructure development through investments by the Expo 2020 organisers and other infrastructure providers, and on-site investments. This also includes on-site investment by participating countries through their pavilions.
- **Off-site activities**, such as third-party investment in activities, or investments that have been brought forward as a result of Expo 2020, with most of the activities related to infrastructure investments by the Roads and Transport Authority (RTA), Dubai Electricity & Water Authority (DEWA), Etisalat and Dubai Municipality (DM).



FIGURE 10 Results of the Economic Impact Report for the Pre-Expo Phase
All figures in AED



ii. SOCIAL

1. Social Framework

Expo 2020 is actively engaging with a wide range of stakeholder categories, the largest of which will be the 25 million visits that the event expects between October 2020 and April 2021.

Since the bid phase, Expo 2020 Dubai has pledged to create a positive social impact on its stakeholders, undertaking local and regional community-building exercises alongside its efforts to host a successful event with an enduring legacy. As part of its commitment to the BIE,

the Expo 2020 team developed an integrated framework for its outreach and stakeholder engagement tasks that aligns with the event’s subthemes of Opportunity, Mobility and Sustainability.

Three key stakeholders play a role in this community building assignment:

- SMEs
- Local youth
- Volunteers



2. Initiatives

SMEs

According to the Dubai Department of Economic Development (DED), SMEs:

- Account for 95 per cent of the total enterprises in Dubai
- Employ around 42 per cent of Dubai’s workforce
- Contribute 40 per cent of the total value added in Dubai

In line with government policy, and driven by a strong belief in the power of entrepreneurship in creating new opportunities for economic development and social inclusion, Expo 2020 has developed a robust SME engagement framework to harness the entrepreneurial mind-set of the region. An ongoing commitment to the BIE, this also ensures that the distribution of the benefits of hosting the event are socially sustainable.

An integral part of this framework is a stipulation within all contracts awarded worth AED 125 million and above,

whereby contractors must commit to procuring goods and/or services worth 20 per cent of the awarded contract value from SMEs, throughout the duration of their contract with Expo. This procurement can relate to either requirements on Expo projects or on other non-Expo projects in which the supplier is presently engaged.

2018 also saw Expo continuing to cultivate strong ties and a meaningful dialogue with the local and international business communities, so as to optimise the involvement and impact of the private sector on the event. In 2018, the Expo Roadshow team attended 18 different roadshows and events, as well as travelling across the world to countries including the UK, Germany, Italy, USA, Japan, China and India, to discuss the unique commercial opportunities of Expo 2020 with key government and business entities.

“Through these sessions we are delivering value to SMEs by encouraging networking and providing them with a platform to connect with each other, therefore boosting opportunities across the region, before, during and after Expo.”

MANAL ALBAYAT, CHIEF COMMUNITY ENGAGEMENT OFFICER, EXPO 2020 DUBAI



CASE STUDY



The Expo School Programme



A key component of Expo 2020 Dubai is the Expo School Programme. Schools are integral to the success and legacy of Expo 2020 Dubai, with the school community playing an essential role in bringing excitement and momentum to this historic event. Featuring its own dedicated team, the Expo School Programme is collaborating with educators and students across the UAE, offering interactive, meaningful and age-appropriate educational experiences to inspire and engage with the youth of the UAE, inviting them to explore, create, and learn in a fun and immersive environment before and during the event. As of December 2018, the team has reached out to more than 700 schools, connecting with more than 50,000 students.

Expo 2020's Visitor Centre is a dedicated space for schools and students to explore and engage with Expo 2020's theme and subthemes, as well as exploring the global impact of past Expos. Visits to the centre are followed by four unique, hands-on workshops that are inspired by the Expo subthemes and enable students to discover ideas that will shape the future. For the Sustainability subtheme, for example, students are taken on a fun journey to discover the beauty of the Arabian Gulf's coral reefs and their fragile ecosystems.

The Expo School Programme's team also provides teachers with the tools necessary to prepare their students for the world ahead. More than 50 Expo-related learning resources have been developed, offering students a fresh perspective on the planet and suggesting ways in which humankind can pursue progress while respecting the environment and living in harmony with the rest of the world.



“From our earliest days of planning for Expo, we were determined to put our youth at the heart of our plans.”

HE REEM AL HASHIMY, UAE MINISTER OF STATE FOR INTERNATIONAL COOPERATION AND DIRECTOR GENERAL, EXPO 2020 DUBAI

CASE STUDY



Expo Live

Launched in January 2017, Expo Live is the Innovation and Partnership Programme of Expo 2020, which funds, accelerates and promotes creative solutions from start-ups, SMEs, non-profit organisations and social enterprises from across the world. The programme focuses on innovations from 'unconventional' markets, which can promise the potential to improve lives while also preserving the planet.

Expo Live will demonstrate how innovations that come from all places and people can advance the pace of progress and inspire a more inclusive and prosperous future. The programme also supports social entrepreneurs working to solve social, environmental and/or humanitarian problems.

In 2016, Expo Live launched the global Innovation Impact Grant Programme, offering grants of up to USD 100,000 for small organisations, start-ups and social enterprises to fuel and capacitate their innovative projects as part of their journey to scale.

MAP Expo Live Global Innovators by December 2018



Innovation can come from anywhere, to everyone

----- ORIGIN OF INNOVATION
 -> IMPACT OF INNOVATION

CASE STUDY



Expo Live (cont.)



6,900
APPLICATIONS FROM
174 COUNTRIES

70
GLOBAL INNOVATORS FROM
42 COUNTRIES

Between January 2017 and December 2018, Expo Live:

- Conducted four rounds of calls for proposals, receiving more than 6,900 applications from 174 countries.
- Confirmed 70 grantees (Expo Live Global Innovators) from 42 countries, with projects that had a direct impact within their communities. Sectors included, but were not limited to: water, healthcare, energy, employment, health, agriculture and employment.
- Hosted the first Expo Live Global Innovator Summit in Dubai in October 2018. The event connected the government sector with global innovators, incubators, Expo partners and others, to connect, share, learn and inspire.
- Awarded grants to 47 student teams from 19 universities from across the UAE, as part of the University Innovation Programme. In November 2018, 28 teams from 16 universities were awarded grants.

Expo Live Innovation Impact Grant Programme Recipients



Mobicure
A Nigerian tech start-up that provides maternal, pre-natal, antenatal and childcare services to women in Benin City and across Nigeria.



F123
A Brazilian social enterprise that has developed innovative, low-cost computer software that enables visually impaired individuals to have access to equal opportunities.



Desert Control ME
A Norway-based start-up piloting their water-saving technology in the UAE. The solution is a patented liquid nanoclay that converts dry, sandy soils into arable, fertile land using just a fraction of the water usually needed for irrigation.

CASE STUDY

Accessibility and Inclusivity

In the UAE's National Policy for Empowering People with Special Needs, people with special needs or disabilities are referred to as 'People of Determination'. The key principles of accessibility include equity, dignity, functionality and independence, which should be applied through every stage of a development, including concept, build, design and operations.

Inclusion and accessibility are an integral part of Expo 2020 Dubai, and are aligned with the Dubai leadership's vision to ensure that public buildings and city-wide facilities are accessible for people of determination by 2020. Expo's infrastructure design means that visitors will be able to physically access and experience the event; its operations will offer all visitors a truly seamless experience; and its legacy will ensure that Expo 2020 Dubai has created not only an environment that can be used and enjoyed by as many people as possible beyond the Expo event, but also a culture of understanding and acceptance. Inclusion and accessibility focus on the needs of all audience segments of Expo 2020 – including, but not limited to, people of determination.

To deliver a true 'Expo for Everyone', Expo 2020 Dubai will deliver experiences for all, irrespective of age or physical, sensory and/or psychological challenges. The event will demonstrate the power in bringing together people with different capabilities, to harness ideas, generate innovations and demonstrate best practices. The same values are expected of Expo partners, as a consideration when developing content and experiences, as well as during the construction phase.



CASE STUDY

Accessibility and Inclusivity (cont.)



PHYSICAL IMPAIRMENT



VISUAL IMPAIRMENT



HEARING IMPAIRMENT



INTELLECTUAL IMPAIRMENT

PEOPLE OF DETERMINATION



FAMILIES



ELDERLY



TEMPORARY INJURIES



EXPECTANT MOTHER



FATIGUED

PEOPLE WITH ACCESSIBLE NEEDS

A key aspect of Expo 2020's inclusive and accessible vision is that people of determination, older adults, people with fatigue or short-term injuries or illnesses, and families will be recognised as having a need for accessibility. To ensure that a comparable experience is delivered to all visitors, it is essential to understand their needs, which begins from within the organisation.

In July 2018, Expo 2020 Dubai employees participated in a week-long inclusive experience. Those who volunteered were asked to 'live with a determination' for a day in order to gain a better understanding of inclusivity ahead of Expo. For the initiative, 79 employees underwent 89 different experiences, which ranged from one to 10 hours, during which they used a selection of accessibility devices to mimic permanent and temporary physical impairments. This included wheelchairs and crutches, earplugs to replicate hearing impairments, glasses to simulate different types of visual impairment, and special gloves designed to demonstrate the effects of arthritis in the wrists.

The experiment aimed to enable the Expo 2020 team to develop a better understanding of accessibility in order to provide an environment and services that will cater to everyone's needs. Additionally, the experience highlighted the importance of understanding people's needs and being mindful of their abilities. As the event gears up to attract an estimated 25 million visits in its six-month duration, the Expo team must be ready to welcome all visitors, regardless of their abilities.

CASE STUDY



International Participants Meeting (IPM) 2018

Held annually, the third International Participants Meeting (IPM) took place on 26 and 27 November 2018. The two-day event brought more than 600 participating international representatives to Dubai to receive information and updates on the delivery and progress of Expo 2020 Dubai.

During the IPM, there were five plenary presentations, five information sessions and a site tour. The presentations varied in scope, while the remarkable development of the Expo site and 'Site Readiness and Progress' session demonstrated that Phase 1 of the infrastructure programme was complete. Drone footage of each facility highlighted the successful delivery of the various infrastructure elements.

International participants were taken through the process of preparing for Expo 2020 Dubai – and how the Expo team can help and support participants at every step. The IPM also examined how the Expo is capturing a global audience, and the ways in which participant partners are being promoted to the world. The IPM underlined how content and programming are critical to the Expo's success, and the need for international participants to engage and inspire in

order to achieve this. Audience members at the event were encouraged to come forward and develop their theme statements to turn vision into reality. The event also marketed the live launch of the Expo 2020 Dubai Calendar Booking system, and its availability via the Participant Portal.



The IPM examined how Expo is capturing a global audience and the ways in which participant partners are promoted to the world.

CASE STUDY

IPM (cont.)

The 2018 IPM saw the launch of Expo 2020 Dubai’s Global Best Practice Programme, an international call for people to gather and highlight established initiatives that could be amended, replicated and scaled to cultivate a worldwide impact.

The Expo team addressed a range of participant queries through a series of dedicated information sessions, advising delegates on how to make significant progress towards the Expo 2020 launch, and outlining the ways in which Expo will offer them support throughout the lead-up to the event, and during the six months of Expo itself. The Real Estate and Delivery team used these information sessions to identify key considerations for planning the development of participant pavilions, as well as requirements for design and construction approvals.

On the final afternoon of IPM 2018, more than 350 representatives were invited to join an extensive site tour of Expo 2020 Dubai. Delegates were granted a rare opportunity to view up-close the progress that was being made in the delivery of the Expo 2020 site.

(Right to left) His Highness Sheikh Ahmed Bin Saeed Al Maktoum, Chairman of the Expo 2020 Dubai Higher Committee; His Highness Sheikh Abdullah bin Zayed Al Nahyan, UAE Minister of Foreign Affairs and International Cooperation; Vicente Gonzalez Loscertales, Secretary General of the Bureau International des Expositions (BIE); Her Excellency Reem Al Hashimy, UAE Minister of State for International Cooperation and Director General of Expo 2020 Dubai.



(Left to right): Dr. Hayat Shamsuddin, Vice-President of Arts and Culture in Expo 2020 Dubai; Mohammed Fairouz, the Composer; Maha Gargash, the Librettist.

The Launch of Al Wasl Opera

At IPM 2018, Expo 2020 Dubai unveiled a new, landmark contribution to the cultural impact – and legacy – of Expo. Commissioned by Expo, Al Wasl is a brand new opera that will stage its world premiere in Dubai in 2020, before a global tour. Performed in Arabic and English, it tells an Emirati story through a narrative that spans centuries. The opera will celebrate the UAE’s rich cultural heritage, its achievements in the half-century since the country was founded, and its aspirations for the future. It will feature the talents of more than 100 artists and musicians, and a production team of more than 70 professionals.

CASE STUDY



World Majlis

The World Majlis is Expo 2020’s signature platform for ‘Connecting Minds’. It is an original format for open, informed and measured conversations between diverse thought leaders, visionaries and change-makers along with bright university students. Its objective is to generate new perspectives and incubate meaningful connections between people and new ideas.

The World Majlis is both a physical and digital space for connected conversations on some of the most important topics of today that can benefit from greater depth of understanding and dialogue.



“The conversation that flourished at the World Majlis demonstrates the potential of what we can achieve when we bring our differences together for a common goal. In this sense, the World Majlis is pushing the boundaries of what a World Expo can be: a driver for positive change, not only for the six months of the Expo itself, but throughout our journey to 2020 and beyond.”

HE REEM AL HASHIMY, UAE MINISTER OF STATE FOR INTERNATIONAL COOPERATION AND DIRECTOR GENERAL, EXPO 2020 DUBAI



CASE STUDY



World Majlis (cont.)

World Majlis Format

The World Majlis is uniquely diverse and inclusive, welcoming voices across cultures, sectors and generations committed to creating a better future. The World Majlis takes place in culturally significant locations, both local and international. It provides an intimate setting, emphasising the importance of all participants facing each other, and enabling connected conversations.

Each Majlis brings together 10 to 15 globally recognised thought leaders to explore a topic of great significance for humanity connected to the Expo themes and subthemes. The goal is to collectively inform the Expo’s roadmap towards 2020 while shaping a rich programme of global conversations during the six months of Expo, leading to a meaningful legacy. Each session is hosted by a senior leader that is personally and professionally committed to the specific World Majlis theme. Everybody participates on an equal footing, offering expertise, ideas and views.

The following topics were discussed in the World Majlis in 2018

12 FEB 2018

Aligning Clock Speed Transformation in Technology, Society and Government
Madinat Jumeirah, Dubai, UAE

If the pendulums of technology, government and society swing at different speeds, will we find solutions and alignment only by adjusting clock speed?

14 NOV 2018

Next Gen World Majlis CityZen 2020: Generation Z and the Future of Cities
Visitor Centre, Dubai, UAE

A conversation on opportunities and challenges of the future city with a focus on the new ideas that can help create better cities and happier, stronger and more sustainable communities for our common future.

14 MAY 2018

Sustainability Through New Eyes
Manarat Al Saadiyat, Abu Dhabi, UAE

How can we draw from traditional values as well as current thinking on sustainability to create a meaningful impact for Expo 2020?

23 SEPT 2018

8 Billion Possibilities
New Museum, New York, US

In a world headed towards 8 billion people sharing a common sky, how can the power of innovation and the human spirit enable more people to create their own future?

14 DEC 2018

Cities, Futures, ChangeWorld Expos as Experiments in Mega-change
World Expo Museum, Shanghai, China

How can Expos shape the future of urban living and influence the long-term development of host cities and beyond?



iii. ENVIRONMENTAL

Management Approach

Expo 2020 Dubai embodies the principles of sustainable development, respecting ecological limits and natural resource constraints; encouraging prosperity and well-being while optimising conditions for human development. It also lays the foundations of a sustainable legacy for future generations.

Expo 2020’s environmental strategy aims to develop and implement innovative solutions and also redefine environmental excellence in programme delivery. This is being achieved through a proactive, collaborative culture of environmental oversight that flows directly from the highest levels of management down to each individual employee.

Towards this end, an Environmental Impact Assessment (EIA) took place in 2014 before the commencement of any construction work to ensure that it would not cause a negative impact.

The Expo 2020 Health, Safety, Environment and Quality (HSQE) Policy was also updated in 2018 and it outlines the minimum standards applicable to third-party delivery agents, developers, participants, consultants and contractors. The policy ensures sound environmental

By embracing a proactive, collaborative and innovative approach to Expo 2020, the mandate to protect and sustain the environment is embedded into the event’s DNA.

management for all activities, compliance with applicable environmental laws and regulations, and management of environmental risks on the Expo 2020 Programme.

All suppliers operating on the Expo 2020 Dubai site undergo environmental screening according to the requirements specified in the Environmental Assurance Standards and the Construction Environmental Management Plan (CEMP). The CEMP is a site-wide and site-specific overall plan tailored to ensure that appropriate environmental management practices are adopted and implemented throughout the construction phase of the Expo 2020 Dubai Programme, in response to the environmental impacts identified in the previously performed EIA study and in accordance with the applicable regulatory environmental technical guidelines.

The policy requires the implementation of practices and procedures that foster a culture of environmental awareness and care. It works on the premise that every individual has a duty to take reasonable care of the environment, themselves and those around them.

In addition to the Expo 2020 HSQE Policy, the Expo 2020 Sustainability Policy builds upon the Sustainability Strategy, setting out the methodology by which sustainability is integrated into the planning, design, construction and operational processes of the event. The Expo Sustainability Strategy is an essential framework for a programme-wide, integrated approach to sustainability for the key areas.





1. Climate Change

Climate change presents significant environmental, social and economic risks that will substantially increase in the cost of sustaining life on the planet, as well as posing an existential threat to humanity as extreme weather patterns grow in frequency and magnitude across the globe.

Humankind must harness its collective ingenuity, innovation and technological capacity to drastically reduce future greenhouse gas (GHG) emissions to avoid the worst consequences of climate change. Governments around the world are implementing policies to reduce GHG emissions from all sectors

of development, but individual behaviour change is also necessary.

Expo 2020 Dubai presents a unique opportunity to inspire millions of individuals to join the fight against climate change. By reducing or offsetting the footprint of the event to the greatest extent possible, and by promoting innovation and collaboration, Expo hopes to work with other organisations and individuals to better manage their own GHG footprint in the future. Expo’s carbon management strategy is aligned with the international and local strategies and accords in the following table.

TABLE 3 Expo 2020 Alignment with International and Local Strategies and Accords



Kyoto Protocol

Ratified by the UAE in 2005. Expo 2020 is in line with the UAE’s goals of monitoring, tracking and reducing GHG emissions.



UAE Vision 2021 & National Agenda

Expo 2020 is fully aligned with the National Agenda’s KPI for a sustainable environment and infrastructure.



Dubai Clean Energy Strategy & Demand Side Management Strategy

Expo 2020 has designed renewable energy systems within permanent buildings on site that will provide renewable energy during and after the event and contribute to Dubai’s seven per cent clean generated energy target for 2020.

Carbon Abatement Strategy 2021

Dubai is targeting a 16 per cent reduction to GHG footprint by 2021. Expo supports this goal and will take all feasible measures to reduce its own GHG footprint.



Dubai Plan 2021

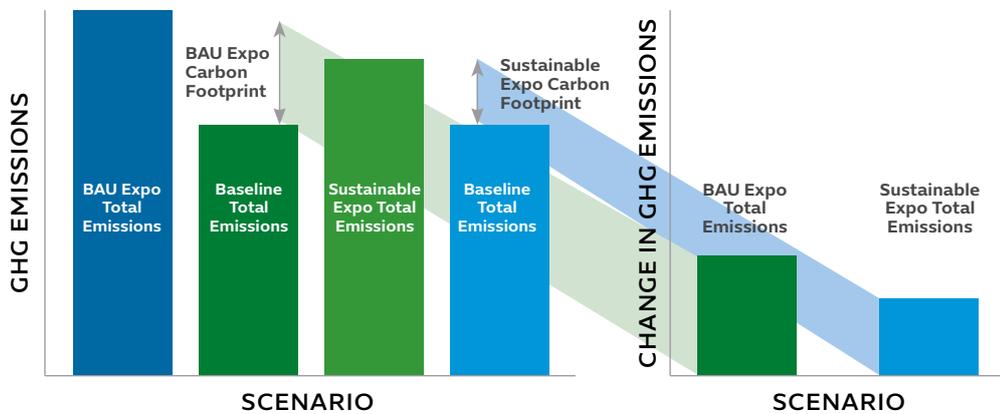
Dubai Plan 2021’s vision of a sustainable city includes reduced CO₂ emissions per GDP.

CARBON

Expo 2020 Dubai has developed a multi-year GHG Emissions Inventory to assess the event’s total impact. For the purposes of this report, Expo 2020’s carbon management team have identified the emissions accountable in 2018 to be consistent with the data boundaries for the majority of GRI Standards in this report. Because of

the unique characteristics of a global event, Expo is not using the corporate accounting categorisation of emissions into Scopes 1, 2 and 3. Instead, the analysis captures all impacts that are a consequence of the Expo without attempting to differentiate those emissions based on ownership and control which is typical of an inventory following the corporate accounting standard.

FIGURE 11 Expo Business As Usual (BAU) Emissions VS Sustainable Expo Emissions



In order to quantify the estimated total past and future GHG footprint of the Expo, as well as the GHG reductions achieved through progressive management, estimates have been prepared for two scenarios:

BAU Expo Carbon Footprint

A scenario where typical design, construction and operations would occur without sustainability management efforts such as minimising energy use and construction materials, and other sustainability programmes.

Sustainable Expo Carbon Footprint

The actual scenario where Expo’s sustainability commitments are considered. Estimated GHG emission increases from sources of concern with preparations for and hosting of the Expo under the umbrella of a world-class energy and sustainability programme, which is underpinned by a range of mandatory sustainability requirements and standards such as CEEQUAL and LEED.

The Expo carbon management team has analysed the two scenarios in detail and has quantified all past and future GHG emissions caused by the event, including those such as air travel that may be emitted from sources owned by others and outside the physical boundary of the event. Comparison of the two scenarios yields the GHG reductions attributable to

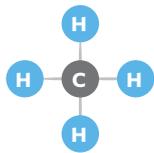
Expo’s sustainability programme. Based on these impact assessments, it is estimated that approximately 7 per cent of Expo 2020 Dubai’s 2018 carbon footprint was reduced through the Sustainable Expo scenario, compared to the BAU scenario – a reduction of 44,600 tonnes of carbon dioxide equivalent (CO₂e).

Expo 2020 Dubai’s GHG Inventory includes all GHGs identified in the Kyoto Protocol. However, greater than 99 per cent of the Expo GHG footprint is carbon dioxide, and emissions of all other gases caused by the event are negligible:



Carbon Dioxide (CO₂)

The most significant GHG for global anthropogenic impacts as well as Expo 2020 emissions. Expo’s emissions result from fuel combustion in mobile sources (such as on-site construction equipment) and aircraft for international flights, the indirect impacts of consumption of electricity generated by other parties, and the indirect energy- and process-related emissions from the production and transportation of construction materials.



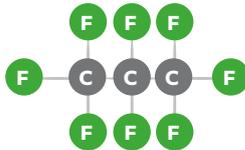
Methane (CH₄)

These emissions come from a wide variety of sources including oil and gas operations, livestock management and anaerobic biomass decomposition. For Expo, by-products of fuel combustion and off-site management of wastewater and solid waste will cause minor emissions of CH₄.



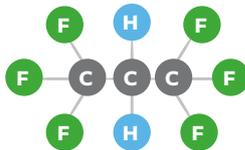
Nitrous Oxide (N₂O)

These emissions also come from a wide variety of sources including fertiliser production and other industrial processes. For Expo, by-products of fuel combustion will cause minor emissions of N₂O.



Perfluorocarbons (PFCs)

Primarily a by-product of various industrial processes. No potential sources were identified at Expo in 2018, nor are they expected during Expo’s operational phase.



Hydrofluorocarbons (HFCs)

Commonly used as refrigerants for comfort cooling and food storage systems, with inadvertent leakage or venting causing a GHG impact. While they are expected to be a minor component of the overall Expo carbon footprint, fugitive emissions from leaking refrigerants are included in the inventory for completeness.



Sulphur Hexafluoride (SF₆)

Used in high voltage electrical equipment, particularly in switchyards. No requirements for equipment containing SF₆ has been identified to date for Expo.

REPORTING STANDARDS AND METHODOLOGIES

Expo 2020 Dubai developed a GHG Inventory Management Plan to formalise the technical and policy decisions regarding the identification of the event’s GHG emissions, as well as the relevant standards to be followed, information sources, calculation methodology, quality assurance procedures and other aspects of the assessment.

Several options already exist for the selection of reference standards or

protocols to develop GHG inventories, however none are a perfect fit for assessing events of a limited duration that involve GHG emission sources owned and controlled by others, such as those at Expo. Some precedents exist, such as the carbon footprint assessments from the 2012 London Olympics, Milan Expo 2015, 2020 Tokyo Olympics and 2010 South Africa FIFA World Cup™, but there are substantial differences in approach between those references.

FIGURE 12 Standards and Protocols Considered for Expo 2020 Dubai**Corporate accounting standards**

for estimating the overall GHG emissions of a company or other organisation (e.g. sub-national government entity), with emissions typically expressed in terms of total emissions per calendar or fiscal year.

Project accounting standards

used to estimate the GHG impacts of a discrete action, irrespective of ownership of the affected sources. Currently, most standards are expressly intended to estimate GHG reductions resulting from an action taken for mitigating GHG emissions. However, most of the concepts from these protocols are also relevant to projects that increase emissions.

Product life cycle standards

used to guide the estimation of overall GHG impacts associated with production, use and disposal of consumer or industrial products. Results may be expressed as 'cradle-to-grave', meaning that all aspects of raw material sourcing, manufacture, transportation, use and disposal or recycling are considered. 'Cradle-to-gate' considers all aspects of sourcing and manufacturing, but the analysis ends when the product leaves the production facility.

Scope 3 or 'Value Chain' standards

analogous to the corporate standards, in that they are primarily intended for organisational GHG quantification, with results expressed in quantity of GHGs per calendar year. In this case, however, the analysis is focused on the indirect impacts of the organisation's activities, instead of emissions from sources owned or controlled by the organisation, such as raw material supply, employee commuting, business travel or outsourced operations.

GHG Protocol 'Guidelines for Quantifying GHG Reductions from

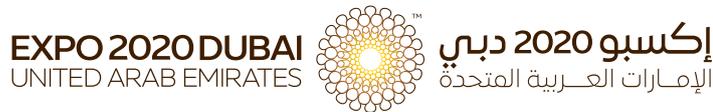
Grid-Connected Electricity Projects' offers a relatively unique basis for estimating the potential benefits of renewable energy projects that are outside the immediate boundaries of Expo 2020.

Several recent standards are relevant to the comprehensive evaluation of GHG impacts from infrastructure construction and operations. These include '**Whole life carbon assessment for the built environment**' from the Royal Institution of Chartered Surveyors (RICS) in the United Kingdom (UK), and '**PAS 2080:2016 Carbon Management in Infrastructure**' from the British Standard Institution (BSI). While less formal or commonly accepted than standards such as the GHG Protocol, these are nonetheless valuable for examination of the legacy aspects of infrastructure development for unique evaluations, such as for Expo 2020.

World Resources Institute (WRI)

recently developed its Policies and Actions Accounting and Reporting Standard for analysis of policies and programmes aimed at reducing emissions. It also intended to provide a framework for analysing large-scale programmes which decrease emissions. The key difference between the Policies and Actions Standard and Project Accounting Standards is that the Policies and Actions Standard is intended for large-scale programmes or policies. Examples include economy-wide fuel efficiency standards issued by a national government, Nationally Appropriate Mitigation Actions (NAMAs), and global, corporate initiatives that have broad impacts across economies, as opposed to temporally discrete actions of a single project. This standard may be informative of some Expo actions that are expected to have a broad influence on the nation's development.

FIGURE 13 Accounting Principles Overlap



Assessment of Expo 2020 Dubai’s carbon footprint follows a typical project-based and policy-based accounting approach. Within reason, all sources and sinks of GHGs potentially impacted by Expo have been identified, regardless of ownership or control by Expo 2020. For each source, Expo’s impact is determined by comparing the estimated emissions that will occur with or without the event. As such, the estimated carbon footprint is the sum of net increases to each.

EMISSION BOUNDARIES

The Expo 2020 Dubai carbon footprint will be measured using the boundary and baseline assessment procedures of the project’s protocols, and the calculation methodologies of the corporate and life cycle analysis standards.

CARBON REDUCTION MEASURES

To achieve Expo’s planned carbon mitigation, Expo’s Carbon Management Strategy includes a number of actions to minimise the GHG emissions of the sources within the assessment boundary. During 2018, a majority of Expo’s carbon mitigation efforts focused on the selection of construction materials, such as concrete and steel, with lower embedded carbon, with further reduction measurements planned for the operations phase.



2. Biodiversity & Ecology

Expo 2020 Overall Sustainability Targets

BIODIVERSITY & ECOLOGY

- Ensure Expo 2020’s development will enhance ecosystem management and the natural environment through preservation of existing resources and creation of new urban and non-urban natural areas.
- Protect existing ecology both within and outside the project area by maximising landscaping with native/adaptive species and minimising the planting of invasive species.
- Ensure that 95 per cent of the landscape area is managed without the use of chemical pesticides, herbicides or fertilisers.

The Expo 2020 site is located in an arid desert environment that has a unique and diverse ecology. From the outset, the Expo team prepared for the potential threat of climate change, overharvesting, invasive species, pollution and habitat change resulting from the construction and operational phases of the event. For Expo 2020, the focus of this key area of sustainability is to protect existing ecology both within and outside project areas, and to set requirements that enhance biodiversity and ecology. As a result, all development projects that take place within the Expo 2020 site offer enhancements to ecosystem management and the natural environment through the preservation of existing resources and the creation of new urban and non-urban natural areas.

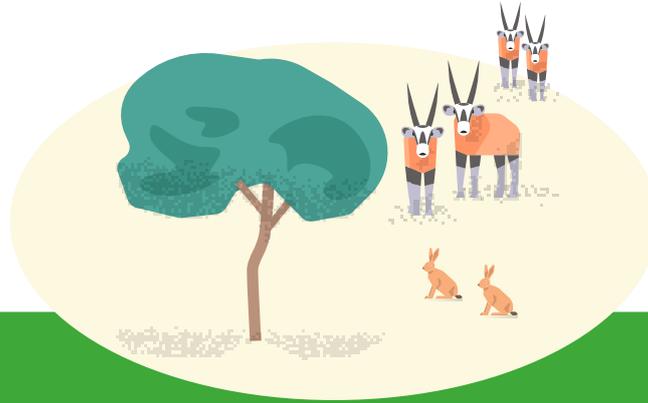
into its sustainability management programme, and recognises the intrinsic economic, scientific and social values of preserving and enhancing the biodiversity of species through habitat protection and creation.

Expo’s project teams apply a systems approach to understand and manage the extent of the project’s work in respect to the various ecosystems, its surroundings and natural connections beyond the systems’ boundaries. This approach involves the measurement, management and mitigation of the adverse impacts of the event on the region’s ecological systems, the restoration and creation of habitat with a high ecological value and the protection of natural water systems, including groundwater.

Expo 2020 has incorporated ecosystem management and biodiversity strategies



FIGURE 14 Implementing the Event-Wide Biodiversity Strategy for the Expo 2020 Site



ECOSYSTEM AND BIODIVERSITY MANAGEMENT APPROACH

Maximising protection of existing biodiversity and habitats and engaging with regulatory bodies and other stakeholders to minimise desertification and degradation of habitat.

Using trees and plant covers/buffers to protect the soil of existing and new landscapes from sandstorms and other adverse wind conditions contributing to desertification.

Engaging with regulatory bodies and other stakeholders to control invasive species and genetically modified organisms (GMOs) to limit risks to local biodiversity.

Maximising potential for creating efficient and diverse new habitats.

Engaging with regulatory bodies and other stakeholders to support an understanding of the importance of protecting biodiversity and urban ecology to minimise extinction risks of threatened species.

Implementing an operations and maintenance plan that considers local climate conditions that reflect and include all the above listed items.

Implementing a biological landscape maintenance plan, including the use of organic/biological soil amendments other than peat (this could include local soil amendments, such as composted horse and camel manure, coconut fibre and other agricultural waste products suitable as soil amendments), biological fertilisers, biological pest control, and the limited use of pesticides that cause no harm to flora/fauna/human health and have a short shelf life.

Minimising harm of vermin through pest control activities.

Considering and including various landscape forms and planting themes, including edible landscapes and perennials rather than seasonal landscapes.

Implementing a high-quality tree service programme (with trained personnel certified by the International Society of Arboriculture) to provide skilled and safe tree care, pruning and trimming to protect the investment in trees as high-value habitat, as well as also increasing the property value.

Conducting a water balance audit and implementing a water efficiency programme to address irrigation needs and develop methods which minimise water loss through evaporation; and the collection of irrigation run-off to reduce overall water use.



SURVEYS AND ASSESSMENTS

An environmental impact assessment was conducted at the Expo site in 2014. Visual assessment of terrestrial ecology has been carried out by the Expo 2020 team and site contractors since 2015 as part of the daily tours and inspections. Additional visual assessments were also undertaken as part of quarterly field monitoring works. For the reporting period, sightings of local fauna and relevant actions taken were detailed in the Environmental Performance Report (EPR).

FLORA

From the surveys, the report concluded that the project site supports limited flora and resident fauna, and the majority of the remaining trees and shrubs are found to be neither native nor in a healthy state (due to lack of irrigation). These existing floral species are not to be considered as a potential asset or plant stock for the event, however such species may be included in the planting palette for the programme's landscape design.

A few contractors reported the relocation of existing trees from construction areas to other locations within the event's site boundaries to ensure their preservation. As part of the plantation campaign, contractors have also used ghaf trees and other native plants for on-site plantations.

FAUNA

In addition to other relocation activities that have taken place in previous years, a reptile and small mammal relocation survey was undertaken in April 2018 in the area immediately adjacent to Highway E611, which was undergoing

Expo 2020 recognises the intrinsic economic, scientific and social values of preserving and enhancing the biodiversity of species.

the initial earth moving activities associated with the development of the Expo site. The survey followed an initial site visit in February 2018, during which the presence of several species of fauna were identified.

A noteworthy observation during this reporting period was the discovery of a bee swarm under a pile of steel rebar in the Sustainability Pavilion project site. The bees were removed with the support of the UAE Beekeepers Association, adopted by Expo 2020's Sustainability Team and relocated to a beehive within Sustainable City, Dubai.

A number of animals were observed and/or captured during the 2018 reptile and small mammal relocation survey, including leverets (baby Arabian Hares) and a hooded Malpolon snake. These were released into suitable receptor locations by an approved consultant. Due to the danger posed by the construction work, two leverets were relocated to Dubai Safari. At all times, the Expo Site Delivery Team consulted with the Dubai Municipality to ensure proper handling of fauna. All captured species were classified as either 'Least Concern' or have not been classified under the conservation classification of the International Union for Conservation of Nature (IUCN) Red List and Environment Agency – Abu Dhabi (EAD).

CASE STUDY

Fauna Relocation: The Arabian Hare

As part of Expo’s ongoing flora and fauna relocation efforts, in 2018 two leverets (baby Arabian Hares) were found within the Expo site boundary during the loading of material from an existing stockpile.

In spite of the location being well within the Expo site, the field team believe that the mother hare had found the area suitable for leaving her young unattended, as the stockpile had been in situ for some time.

Following the discovery of the leverets, the field team immediately protected the animals from harm ahead of the relocation. The Expo HSQE team coordinated with the Dubai Municipality to transport the leverets to safety at Dubai Safari, while the project team conducted further surveys of the vicinity to identify other wildlife in the area. None was found.

Protecting biodiversity by ensuring that no fauna and flora are harmed on or around the Expo site is a key sustainability commitment for Expo 2020.



Post-relocation Recommendations

After the leverets were relocated, the Expo team made several recommendations to operators to protect native species:

- Raise awareness among operators to conduct visual checks of the site for flora and fauna, particularly around stockpiles or undisturbed ground.
- If wildlife is discovered, take the following actions:
 - Leave the animals and habitat undisturbed (use a barricade or protection, if necessary)
 - Record the wildlife’s location, and inform the Expo HSQE team as soon as possible
 - Expo 2020 will coordinate with the relevant authorities to organise any further action





3. Energy

Efficient energy use and sustainable energy production are key aspects of Expo's overall energy strategy and include baseline energy use, building form and design, energy-efficient technologies and systems, efficient energy supply and renewable energy generation both on-site and off-site. The objective of the programme-level energy strategy is to ensure cost effective solutions with a clear use in the Legacy phase based on a viable business case.

Passive design solutions were prioritised, implemented and maximised prior to selection of appropriate 'active' industry standard solutions, integrated with innovative technological solutions. This approach will result in cost effective environmental outcomes that are realised through comprehensive energy savings.



RENEWABLE ENERGY

The installation of on-site renewable energy will offset some of the operational energy demands during the event. All permanent buildings within the main Expo site have renewable energy systems to support the on-site generation of renewable energy sources. The off-site renewable energy targets are also a main aspect of the energy strategy, through engaging with the schools community and collaborating with partners and external stakeholders to place renewable energy systems beyond the Expo site and contribute to national renewable energy strategies.

ENERGY CONSUMPTION

During 2018, Expo did not purchase any electricity: all Expo site offices and the masterplan site area remained off-grid and were powered entirely by diesel- and biodiesel-run generators as the site is in the construction phase. See Table 4 for a breakdown of fuel used in 2018 and the amount of energy generated and consumed on-site. This shows the total fuel used for the seven main contractors that consume the highest

amount of fuel on-site. All other contractors consume smaller percentages of fuel, so are not included in these calculations.

ENERGY REDUCTION

The modelling for energy reduction on the Expo site was calculated following the methodology and criteria of the international standards ASHRAE 90.1 for building efficiency.

Based on modelled energy usage, Expo was able to reduce site-wide energy consumption by

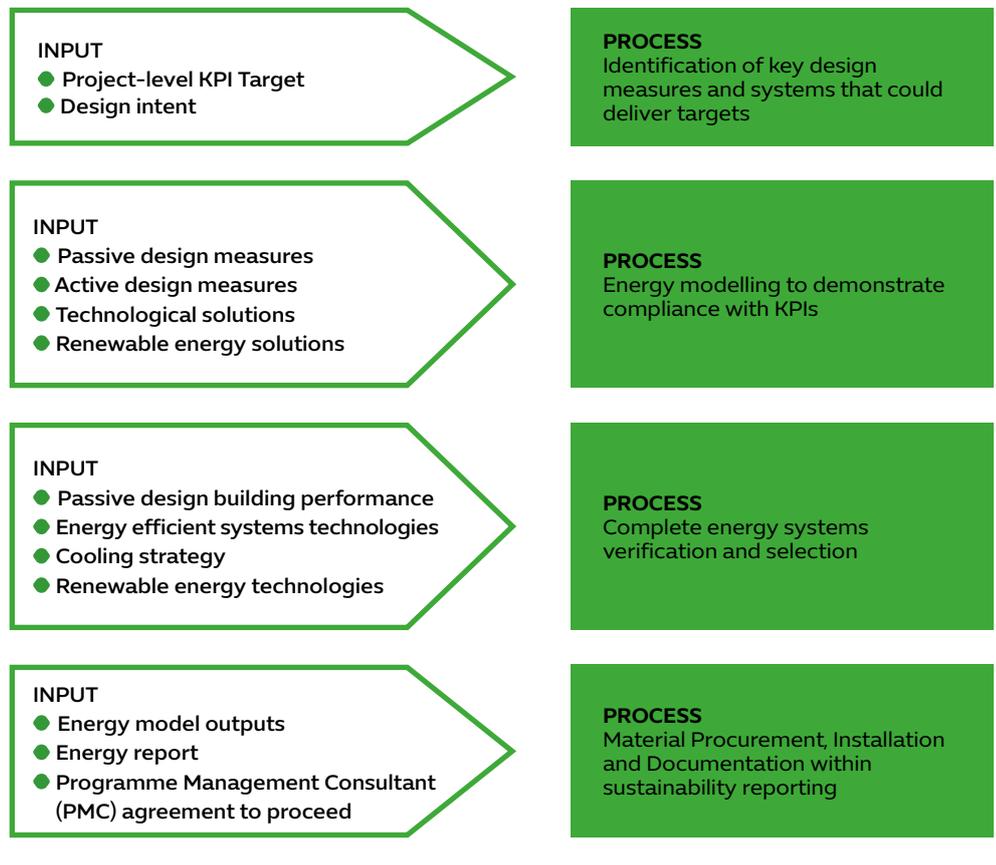
47.3%



TABLE 4 Total Energy Consumption and Generation Jan-Dec 2018

| Type of Fuel | Overall Consumption (Litres) | Fuel Consumption by Generators (Litres) | Generator Consumption to Fuel Consumption | Energy Generated On-site (kWh) |
|--------------|------------------------------|---|---|--------------------------------|
| DIESEL | 11,707,761 | 2,868,402 | 24.5 per cent | 4,958,534 |
| PETROL | 262,450 | 0 | 0.0 per cent | 0 |
| BIODIESEL | 5,703,775 | 3,365,227 | 59.0 per cent | 527,505 |
| TOTAL | 17,673,986 | 6,233,629 | 35.3 per cent | 5,486,039 |

FIGURE 15 Energy Reduction Design Process





4. Water

Expo 2020 Overall Sustainability Targets

WATER

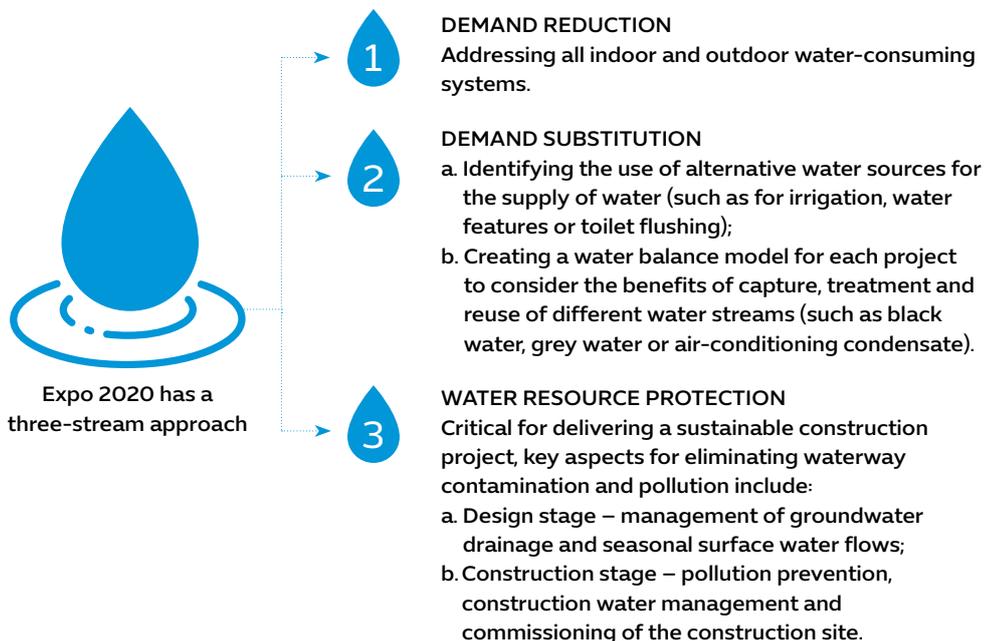
- Reduce water consumption in Expo 2020 buildings with 40 per cent improvement above the regulatory baseline provided by the Dubai Electricity and Water Authority (DEWA).
- Install smart controls on 100 per cent of publicly accessible water fixtures and fittings.
- Monitor leak detection for 90 per cent of external water networks.
- 100 per cent of non-potable exterior water use to be from treated sewage effluent (TSE).
- 95 per cent of air-conditioning condensate recovered from buildings larger than 1,000 sq m for on-site reuse.
- Indoor water demand reduction implemented through the installation of efficient or water-less fixtures.
- Reduce potable water use through substitution of grey water, black water, air-conditioning condensate, and on-site capture of shallow groundwater.
- Protect natural water resources during construction through proper site management.

Water is a very scarce natural resource in the UAE, with approximately 42 per cent of the country’s potable water obtained from desalination. Seawater desalination is an energy intensive process, so a reduction in water demand and consumption results in significant energy savings as well as reducing corresponding GHG emissions. In line with the UAE Water Security Strategy 2036, Expo 2020 has developed its own water strategy, focusing on reducing the

demand on potable water systems by applying a hierarchy of use for efficiency, followed by the substitution of potable water with non-potable water supplies.

The Expo 2020 site uses groundwater and third-party, municipally-sourced potable water only. For both design and construction, there is an opportunity to deliver water sensitive sustainable solutions across the Expo event.

FIGURE 16 Expo 2020 Approach to Reducing Water Consumption



**WATER DEMAND REDUCTION
IN BUILDINGS**

Expo 2020 is achieving this target in part by using green buildings and precinct rating systems to access the processes and tools needed to effectively measure sustainable design and construction against recognised, reliable standards. By the end of 2018, more than 100 Expo 2020 buildings were on their way to attaining Gold Certification under the Leadership in Energy and Environmental Design (LEED) Standard. By using a third-party green building and site certification strategy such as LEED to evaluate its responsible water usage, Expo aims to demonstrate its leadership, innovation, environmental stewardship and social responsibility on a global level.

The benefits of a LEED-certified building include verified, performance-based improvements using a number of passive and active design measures. The LEED v4.0/4.1 Rating System uses the EPA (US Environmental Protection Agency) Watersense label, or equivalent standards, to establish a baseline. Expo 2020's LEED

As part of Expo 2020's ambitious water-saving targets, several Expo site buildings are set to reduce their water consumption with a 40 per cent improvement on DEWA's regulatory baseline.

buildings have demonstrated compliance with this standard and have achieved a high level of water savings (see Table 5).

In addition to LEED's water-saving prescriptive measures, the rating system also requires Expo building owners and users to support water management and identify opportunities for additional water savings through a number of behaviour influencing measures. All Expo buildings within the reporting boundary have installed water meter systems and indoor fixtures in order to better gauge their water efficiency and take corrective action if water is being wasted. Additionally, signage in offices and at the construction site reminds Expo staff to conserve water during work-related tasks.

TABLE 5 Calculated LEED Water Savings: Water Consumption Reduction on Expo 2020 Site Buildings from Baseline Calculations

| Indoor Water Use Reduction | Annual Baseline Water Consumption (Megalitres/year) | Annual Design Water Consumption (Megalitres/year) | Percentage Reduction from Baseline from Non-potable Water Sources |
|----------------------------|---|---|---|
| THEMATIC DISTRICTS | 0.83 | 0.38 | 54.97 |
| MULTILATERAL PAVILIONS | 3.90 | 1.76 | 54.92 |
| RENTED PAVILIONS | 0.56 | 0.25 | 54.90 |
| SERVICE PAVILIONS | 1.51 | 0.68 | 54.95 |



WATER DEMAND SUBSTITUTION

In compliance with LEED standards and the Al Sa’fat Rating System followed by the Expo’s contractors and design teams, Expo 2020 expects to see at least a 50 per cent reduction in its landscape water requirements from the calculated baseline for the site’s peak watering month. The reduction of landscape water requirement from the calculated baseline has been achieved through the following strategies:

- 1) Use of large hydrozone surfaces with plants of medium or low water requirement based on the planting design criteria.
- 2) Use of dripline and subsurface irrigation with a distribution uniformity of 90 per cent as irrigation type.
- 3) High moisture retention of soil mixes (such as perlite and peat moss or recycled coco fibres).

Expo 2020 expects to see at least a 50 per cent reduction in its landscape water requirements from the calculated baseline for the site’s peak watering month.

TABLE 6 Irrigation Water Savings: Main Thematic Pavilions

| Outdoor Water Use Reduction | Annual Landscape Water Baseline (Megalitres/year) | Annual Landscape Water Requirement (Megalitres/year) | Percentage Reduction from Baseline |
|-----------------------------|---|--|------------------------------------|
| SUSTAINABILITY PAVILION | 1.07 | 0.42 | 61 |
| OPPORTUNITY PAVILION | 1.39 | 0.66 | 53 |
| MOBILITY PAVILION | 1.68 | 1.05 | 38 |
| OVERALL LANDSCAPE | 4.14 | 2.13 | 49 |

GROUNDWATER CONSUMPTION

Expo 2020’s groundwater supply is sourced from external dewatering activities and transported to the site by third-party service providers. It is used mainly for dust suppression, road levelling, soil levelling and on-site construction work. Groundwater is also extracted from on-site bore wells, after obtaining the necessary permits and approvals from concerned authorities such as the Dubai Municipality (DM). The DM permits provided indicate that the groundwater meets the required standards for its usage in construction work and no substance of concern exists. All groundwater extracted from on-site bore wells is used for construction works and no quantity is discharged externally. Daily water consumption records are maintained by Expo 2020’s contractors, while monthly records are maintained through Environment Data Logs.

Third-party laboratory analysis on groundwater also ensures that the water quality complies with Dubai Municipality standards. On-site water requirements for construction works are generally

TABLE 7 Total Expo 2020 Water Consumption by Type in 2018 in Megalitres

| Water Type | Event Master Plan Projects |
|-----------------------------|----------------------------|
| GROUNDWATER | 544.674 |
| POTABLE WATER | 258.936 |
| TSE | 148.05 |
| TOTAL WATER CONSUMED | 951.66 |

met by extracting groundwater from on-site bore wells, procuring water from external agencies such as DEWA, TSE from contractors’ other facilities (such as labour camps) and other groundwater supplying agencies.

There was a significant increase in water consumption reported between January and June 2018, due to the mobilisation of more contractors on-site (including the contractor for Expo 2020 Nursery), with construction work expected to have a higher water demand.



TREATED SEWAGE EFFLUENTS

In 2018, approximately 93 per cent of effluent generated at the Expo site was transported and treated at external sewage treatment facilities in Dubai, such as Jebel Ali Sewage Treatment Plant (STP), Al Aweer STP and IMDAAD STP. It is expected that a municipal source of high quality TSE will be made available for the site closer to the event date. Due to the anticipated increase in demand for TSE, a specific contractor for the Thematic Districts obtained a permit from Dubai Municipality in 2018 to install a temporary STP within its project’s premises, with a capacity of 0.2ML/day. The STP follows the Dubai Wastewater Discharge Limits and Standards set by DM. DM conducts regular inspections every three months to take samples and ensure that the facility meets the required standards. All TSE obtained from DM or from the site STP are used for specific construction works, such as dust suppression and irrigation.

SPILLAGE

All Expo site contractors are required to develop and include a Spill Response Procedure in their Environment Plan, detailing responsibilities, preventative and mitigation measures in the event of any type of on-ground spillage. This includes the training of personnel, as well as an inventory of on-site spill response equipment. Contractors must also provide a thorough evaluation and reporting of all incidents related to the spillage of hazardous chemicals, including any follow-up preventative action.

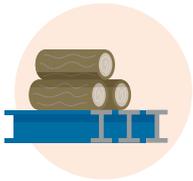
Hazardous chemicals used on-site must be stored in well-ventilated and illuminated chemical storage areas or rooms. All storage areas are provided with an impervious floor surface, a secondary containment with 110 per cent capacity, Material Safety Data Sheet (MSDS), and fire extinguishers and spill response equipment in the immediate vicinity. Spills must be dealt with in accordance with the instructions of the MSDS and the Spill Response Procedure.

In 2018, contractors reported seven spillage incidents, ranging from chemicals, diesel and hydraulic oil spillage on untreated land. Only three of these spills were recognised as serious, however all incidents were cleaned up by the respective contractors using environmental emergency response procedures and resolved according to the protocol set by the Construction Environmental Management Plan (CEMP). There was no significant impact from any of the spills recorded in 2018.

TABLE 8 Distribution of Wastewater Generation and Reuse On-site in 2018 in Megalitres

| Wastewater Type | Wastewater Generation | Wastewater Reuse/ Recycle* |
|-----------------|-----------------------|----------------------------|
| SEWAGE | 181.36 | 16.09 |
| GREY WATER | 6.17 | 6.17 |
| CONDENSATE | 0 | 0 |
| TOTAL | 187.53 | 22.26 |

* After treatment



5. Materials

Expo 2020 Overall Sustainability Targets

MATERIALS

- Conserve natural resources and preserve biodiversity at the point of extraction by selecting sustainable materials for Expo 2020 facilities. 90 per cent of materials shall be procured in accordance with the Sustainable Materials Guidelines.
- Minimise the depletion of natural resources by retaining 90 per cent of materials used in permanent construction projects designed for reuse and Legacy.
- 75 per cent of materials used for temporary construction projects to be redeployed or recycled.

The selection of sustainable material for Expo 2020 is being achieved through the implementation of the following practices, as outlined in the Expo Sustainable Materials Guidelines:

- Selection of materials with a lower embedded carbon content to reduce the embedded carbon footprint of the event.
- Choice of responsibly sourced materials to minimise the environmental impact associated with material extraction, product manufacture and transportation. This involves obtaining Environmental Product Declarations (EPDs) for primary construction materials.
- Incorporating materials with recycled content to support the diversion of waste from landfill, reduce the demand

for virgin materials, and potentially reduce embedded carbon.

By incorporating sustainable material requirements into all aspects of Expo 2020, the aim is to enhance awareness among the events designers and employees. Materials are sourced through environmentally and socially responsible suppliers, while supplier employees and those people living in proximity to material extraction sites and manufacturing facilities are also protected. Additionally, the choice of low-emission materials and products will improve the indoor environmental quality at Expo facilities, with a positive impact on occupants' health, well-being and productivity.

Between January 2015 and December 2018, Expo used 2,551,847 tonnes of material in total. The total mass of materials compliant with Expo's Sustainable Materials Guidelines was equivalent to 2,469,797 tonnes.

TABLE 9 Procurement Status of Construction Material Used for Site Work in the Thematic Districts

| Material | Obtained from Local Suppliers (Tonnes) | Recycled Content (Tonnes) | Percentage of Recycled Material | Percentage of EPDs Obtained |
|-----------|--|---------------------------|---------------------------------|-----------------------------|
| CONCRETE | 643,078 | 0 | 0 | 88 |
| STEEL | 330,755 | 10,634.58 | 3 | 100 |
| BLOCKWORK | 8,998.97 | 21,318.55 | 42 | N/A |
| PAVERS | 30 | 0 | 0 | N/A |
| BITUMEN | 7,191.39 | 0 | 0 | N/A |
| TIMBER | 4,136.04 | 0 | 0 | 100* |
| PVC | 75.58 | 49.58 | 66 | 92** |

* FSC certified **30 per cent recycled

All Expo materials sourced in 2018 were approved through one or more of the following standards (or its alternative employer-approved quality management system):

- BS EN ISO9001
- BS EN 14001
- BS 8555
- ISO 26000
- SA 8000



6. Waste

Expo 2020 Overall Sustainability Targets

WASTE

- Establish a hierarchical waste management strategy throughout the Expo 2020 site, with waste avoidance as the preferred solution and waste recovery as the last solution.
- 85 per cent of waste segregated into different waste streams, during construction, operation and decommissioning, to enable its diversion from landfill.

Successful waste management can only be accomplished when the entire waste stream is fully understood. As such, waste minimisation is best accomplished with careful planning and consideration for all anticipated waste streams. Expo 2020’s project teams have developed and implemented strategies to minimise the production of waste during the event’s design, construction and operational phases, as well as for managing waste in accordance with recognised international best practices. Project-specific KPIs and targets have been set for the segregation of construction and operational waste to enable its diversion from landfill.

For the pre-Expo phase, a Construction Waste Management Plan (CWMP) has been developed in alignment with the overall objectives and KPIs. The CWMP is an approved formal procedure to establish minimum requirements and standards for the collection, segregation, transportation and recycle/reuse/disposal of wastes including record keeping and waste tracking system. The CWMP has identified key areas, policies and regulations for targeted interventions to avoid or minimise waste generation in the first

instance, followed by control measures to minimise the quantum of waste going to a disposal site and treatment facilities, by providing guidance on reuse and recycling measures. An efficient implementation of the CWMP at site shall ensure disposal of residuals to have greatest net social and economic benefits and the least environmental impacts.

The scope of the CWMP covers waste generation from ongoing construction activities. The CWMP applies to all entities working at Expo 2020 Dubai site including Employers, Design Consultants, Supervision Consultants, Contractors and Subcontractors.

Following global best practices, all project-specific waste management at Expo 2020 is strategised into a hierarchical system of processes. Priority is given to the minimisation and/or avoidance of the production of waste (REDUCE), followed by the maximisation of waste value through support for efforts to reuse and recycle (REUSE, RECYCLE). Waste recovery (RECOVER) is the last option before waste is taken to landfill.



FIGURE 17 Expo 2020 Sustainability Waste Management Systems Hierarchy



REDUCE

Strategies for the minimisation of waste production has been considered across all phases of the work from design through construction, and into operational decisions.

DESIGN PHASE

- Design using prefabrication options, standardisation and modular design concepts
- Functional dimensions to minimise cuts and reduce waste generation
- Design components to market-standard specifications to minimise custom manufacturing
- Identification of products with reduced packaging requirements or with stewardship schemes in place to optimise packing efficiencies and gain additional unit volume

CONSTRUCTION PHASE

- Sequential programme works to avoid damage to completed surfaces, reducing or eliminating the need for re-work
- Provision of proper material staging/storage areas to help eliminate breakage/damage and reduce waste generation

OPERATIONAL PHASE

- Development of food procurement, storage and preparation regimes to minimise food waste
- Specification of reusable plates, cups and cutlery where appropriate for significant reductions in waste



RECYCLE

The diversion of waste through recycling is the most commonly implemented aspect of the Expo 2020 waste hierarchy. This includes:

Sufficient facilities for the collection and storage of recyclable materials, as well as signage to encourage awareness and avoid improper sorting

- Provision of central sorting and storage areas at a facility or neighbourhood scale, regardless of whether sorting is undertaken by the building user or by a facilities management operator
- Area design that accounts for potential impacts from odour, noise and vehicle movements
- Management equipment and strategies, such as recycling chutes, compactors or balers

DESIGN PHASE

- For end-of-life disassembly, avoiding the use of composite products which reduce the need for processing prior to recycling
- Avoiding coatings where possible or selecting coatings that do not preclude recycling

CONSTRUCTION PHASE

- Provision of clearly labelled waste segregation storage areas and collaboration with a certified waste and recycling haulier
- Appointment of a construction waste manager and implementation of a robust worker education programme to ensure construction waste management is successful

OPERATIONAL PHASE

- Procurement strategy for disposable items targeting recyclable and/or biodegradable plates, cups and cutlery
- Preference for biodegradable, compostable products
- Identification of waste management companies with appropriate facilities to process compostable wastes



REUSE

Expo 2020 has established a robust culture of material reuse throughout event planning and construction processes, taking into account reasonable effort and costs. This strategy has many positive impacts on both design and construction, such as:

- Balancing cut and fill across the project maximises the opportunity to reuse excavated materials
- Demolition products such as crushed concrete are incorporated into the project design when product is of suitable quality and its usage is compliant with building codes
- Salvaged materials are incorporated where possible to reduce the demand for new or raw materials
- Temporary items should, to a practicable extent, be procured on lease or through buyback schemes



RECOVER

In 2018 and following the partnership agreement, Expo initiated the collaboration with Dulsco for a waste recovery strategy.

TABLE 10 Total Waste Generated for Various Waste Streams in 2018

| Hazardous Waste Stream | Tonnes |
|------------------------|--------|
| OIL BASED | 0.00 |
| WATER BASED | 0.66 |
| SOLID | 32.76 |
| OTHERS | 0.00 |

88.01%

of waste recycled or reused during construction at the Expo site

11.99%

of waste disposed at landfill during construction at the Expo site

FIGURE 18 Total Waste Generated for Waste Streams During Construction at the Expo Site in 2018

| | Generated (T) | Recycled/Reused (T) | Disposed at Landfill (T) | Total Percentage |
|---------------------|------------------|---------------------|--------------------------|------------------|
| CONCRETE | 50,033 | 49,774 | 259 | 74.1% |
| GENERAL | 5,902 | 6 | 5,896 | 8.7% |
| TIMBER | 5,387 | 5,282 | 105 | 8.0% |
| ASPHALT | 2,662 | 2,338 | 324 | 3.9% |
| STEEL AND METALS | 1,723 | 1,723 | 0 | 2.6% |
| ORGANIC | 1,491 | 1 | 1,490 | 2.2% |
| PLASTIC | 217 | 194 | 22 | 0.3% |
| PAPER AND CARDBOARD | 111 | 110 | 1 | 0.2% |
| TOTAL | 67,525.57 | 59,429.79 | 8,096.40 | |

Solid waste generated on the Expo site is classified as non-hazardous or hazardous. In line with the Dubai Municipality’s Technical Guidelines and the approved Construction Waste Management Plan (CWMP), waste management practices have been implemented across the site and compliance to waste management practices is actively observed. Waste generated on-site is segregated, stored in dedicated containers and collected for disposal or recycling/reuse via Dubai Municipality-approved waste service providers. All contaminated materials are disposed of in accordance with the approved Waste Management Plans. Contaminated soils and used absorbent equipment are also treated as hazardous waste.

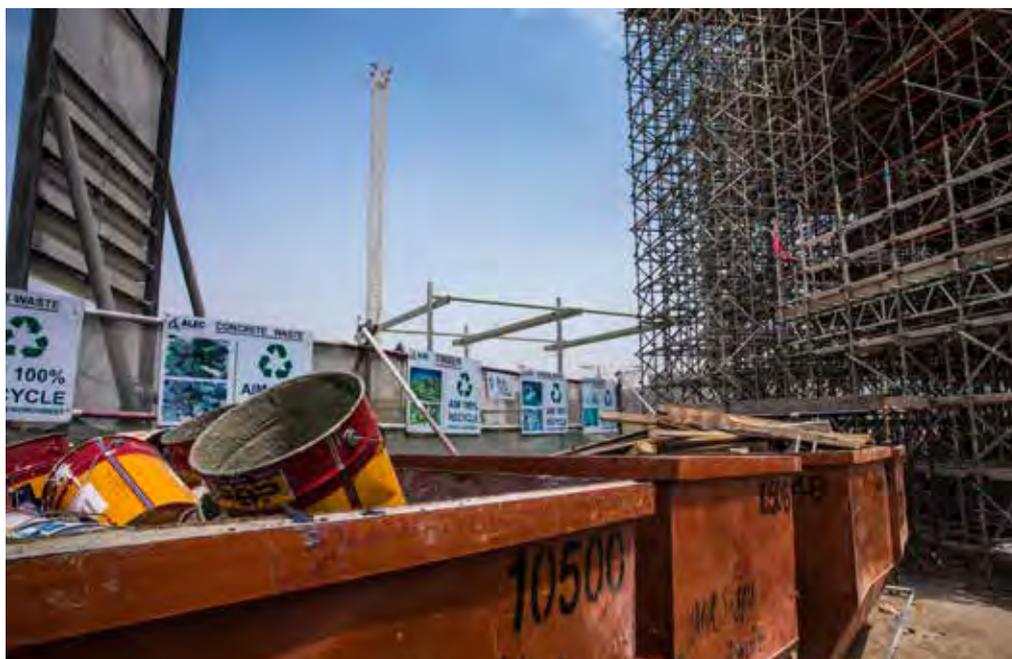
Waste records and tracking sheets (waste receipts) are kept by Expo’s various contractors, and all waste service providers must have valid waste permits. For 2018, the major categories for non-hazardous waste generated on-site were concrete waste, general waste and timber waste. Approximately 99.5 per cent of the concrete waste generated has been

either reused on site for the construction of access roads and to make cast spacers and platforms as required for construction works, or it has been stored at a local authority facility for potential recycling or reusing at a later stage.

Approximately 87.8 per cent of the asphalt waste generated on site has been reused, with the remaining quantity sent to external, municipally-owned landfill facilities for disposal. General waste and organic waste is transported off-site and disposed of at municipally-approved landfill sites. To the maximum possible extent, recyclable wastes, such as timber, plastic, paper and cardboard, steel and metals, are either reused on-site or sent to registered recyclers.

2018’s increased rates of reuse and recycling of non-hazardous waste are attributed to continuous training and awareness of waste management practices by Expo 2020’s supervision consultants and contractors. Contractors are further encouraged to ensure that 100 per cent of the concrete waste is diverted from landfills.

Continuous training and awareness of waste management practices has lead to an increased rate of reuse and recycling of non-hazardous waste.



C. INSPIRE

i. THE PEOPLE OF EXPO 2020

1. Introduction

Expo 2020 continues to set a regional precedent for workforce welfare, for both the event’s stakeholders and its partner organisations. The framework of this goal is the Worker Welfare Assurance Standard. The standard is aligned with Expo’s objective of delivering a socially sustainable event that is positioned to maintain the health, safety, welfare and the dignity of all Expo 2020 employees.

The Worker Welfare Assurance Standard also extends into the operational framework of other organisations working or affiliated with Expo 2020, including vendors, contractors and suppliers. Its guidelines proactively support and influence effective leadership and resources within these entities for successful implementation across their supply chain. In addition to a sustainable supply chain, partnering organisations must also ensure the following standards are met throughout the event’s lifecycle:

- 1 Ensure fair and free recruitment
- 2 Ensure that employees understand the terms and conditions of their employment
- 3 Treat employees equally and without discrimination
- 4 Protect and preserve the dignity of employees and do not tolerate harassment or abuse of any kind
- 5 Respect the right of employees to retain their personal documents
- 6 Pay employees’ wages and benefits on time and in full
- 7 Allow employees freedom to exercise their in-country legal rights without fear of reprisal
- 8 Provide a safe and healthy working and living environment
- 9 Provide access to grievance mechanisms and remediation
- 10 Ensure that bonded, indentured, forced, or child labour is not used



2. Expo People

Expo 2020’s workforce is made up of highly qualified personnel who represent more than 40 geographical regions. A significant portion Expo’s workforce will be its volunteers (see Case Study). As of 2018, more than 2,000 volunteers have participated and supported Expo across various events.

All Expo 2020 employees are inducted into the organisation through an Employee Integration Programme on the Expo 2020 AI Wasl intranet, an efficient employee platform for connecting, collaborating and communicating. This portal also offers easy access to internal and external news and a centralised events and training calendar, with information on Expo programmes, training events and wellness initiatives.

CASE STUDY

Expo 2020 Dubai Volunteers Programme



The role of volunteers lies at the heart of Expo 2020 Dubai. A true Expo for all, this extraordinary global event will be powered by 30,000 volunteers of all ages, nationalities and backgrounds, reflecting the rich diversity of both Expo 2020 Dubai and the UAE.

As the 'face' of Expo 2020 Dubai, volunteers will play a critical role in welcoming the world to the UAE for the region's first ever World Expo. They will assist in operations, information and communications, and provide a high-quality, immersive and memorable experience to millions of visitors. They will also provide essential guidance and support to staff, VIPs and international delegations.



"The opportunity to be involved in Expo 2020 has not only provided me with valuable learning opportunities, but also allowed me to grow personally and professionally alongside my fellow volunteers. We are united in delivering a memorable and impactful World Expo, and I'm so very excited and honoured to be a part of it."

FATIMA AHSAN, EXPO 2020 VOLUNTEER

Launched in September 2018, the Portable Recruitment Stand travels across Dubai and the UAE to make volunteering for Expo 2020 even easier. Since it was introduced, the stand has visited 14 public and private entities in Dubai.



Volunteer Brainstorming Sessions enable volunteers to be part of the Expo 2020 journey, by inviting them to share their feedback on how to improve the Volunteers Programme, as well as their ideas for the event as a whole. Held at venues across the UAE, volunteers from across the community are involved, including People of Determination, the youth, People of Wisdom (retirees), volunteering families, government employees and volunteers from previous Expos.

Four sessions were held in 2018, covering the following topics:

- Sustainability
- Family volunteering
- Government employees
- Rewards and recognition

CASE STUDY



Expo 2020 Dubai Volunteers Programme (cont.)

Monthly Regional Interview Days take place across the emirates, reaching out to communities and assisting those who are unable to travel to the Expo 2020 site in Jebel Ali. Interviews have been conducted in Abu Dhabi, Dubai, Ajman and all the way to Hatta's mountains! Through these sessions, Expo has connected with over 1,000 volunteers, all hoping to be a part of this exceptional event.



The House of Volunteers (HoV) was officially launched at the Expo 2020 site in 2018. It is a space for the volunteer community to gather, learn, network and engage as a group of like-minded people striving towards the same goal. With interviews taking place every day at HoV, over 1,000 volunteers are invited and interviewed there each month.

“Expo 2020 is a global event for everyone to learn, innovate, create and have fun by sharing ideas and working together and we are proud to include opportunities for more than 30,000 volunteers...We look forward to welcoming anyone who wants to connect with fellow volunteers from around the world and gain the experience of a lifetime.”

HE REEM AL HASHIMY, UAE MINISTER OF STATE FOR INTERNATIONAL COOPERATION AND DIRECTOR GENERAL, EXPO 2020 DUBAI

2,000

As of 2018, more than 2,000 volunteers have supported Expo across events such as Abu Dhabi Sustainability Week (ADSW), Gulf Information Technology Exhibition (GITEX) and Arabian Travel Market (ATM).

350

volunteers attended the milestone Volunteers Celebration. Twenty of them were recognised for their dedication and efforts, and the official Volunteers Programme branding and logo was launched at the event.

CASE STUDY

Emiratisation Programme

The Emiratisation Programme, a subsection of Human Resources, has a team that is dedicated to procuring UAE national talent who are confident in replicating Expo 2020’s values in the lead up to the Expo, during the event and in the future.

Their mission is to deliver an exceptional Expo with meaningful national representation, to impact the UAE’s national talent through Expo 2020’s post-event legacy and to set an example of knowledge building and transferring in mega events. In 2018, 7.6 per cent of senior management hired were from the local community.

2018 PROGRAMMES Internship Programme

This provides a learning and transfer of knowledge platform to young Emiratis. The programme is designed to benefit national undergraduate students and fresh graduates to experience working at Expo 2020. With a concrete training road map, they are able to gain industry knowledge, contribute to Expo 2020’s tangible deliverables and have the opportunity to put forward their own innovative ideas.

Programme of Inclusion

This aims to create an opportunity for the community to contribute, demonstrating Expo 2020’s intention to be one of the most inclusive World Expos ever. Through this initiative, Expo 2020 emphasises its efforts in empowering people with disabilities to be a part of the event, its teams and the journey towards delivering the most accessible Expo. The programme has been developed in coordination with the Ministry of Community Development (MOCD), which sources candidates.

Eye on Emiratisation Wave II

This initiative continues as a leaders’ toolbox to execute the main phases in fulfilling Expo 2020 Dubai’s Emiratisation Strategy – a high national presentation and legacy for the future.



3. Employment

Expo 2020 strives to welcome a diverse set of qualified employees. In 2018, Expo welcomed a total of 249 permanent staff members for the following age groups, gender and regions.

FIGURE 19 Total Number of Employees Hired by Age Group in 2018

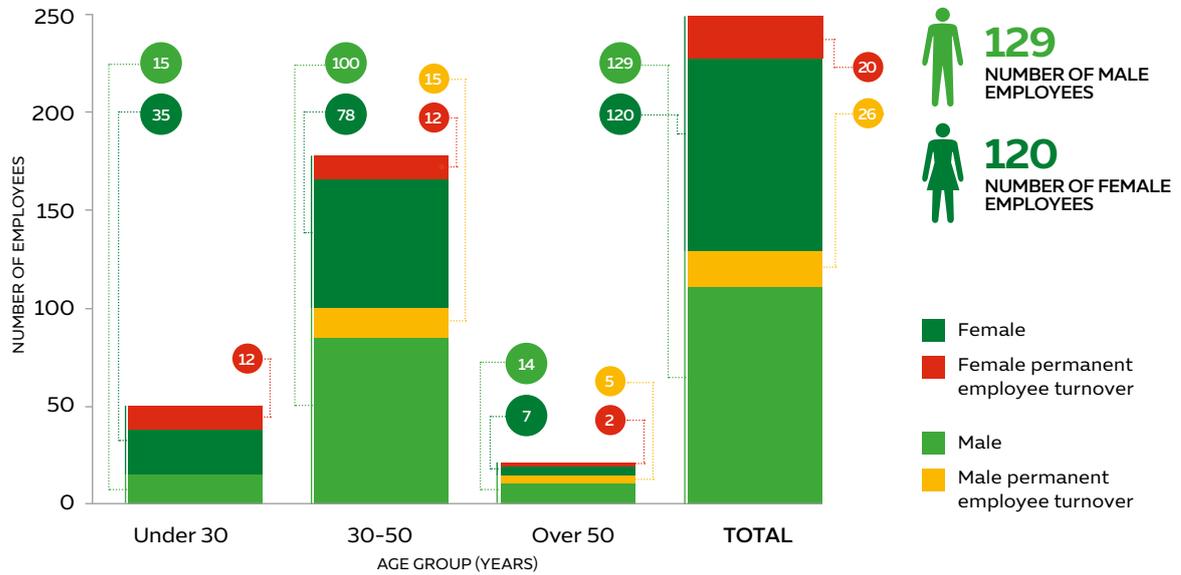


TABLE 11 Total Number of Employees by Employment Contract and Region in 2018

| Status | Africa | Asia | Europe | Middle East | North America | South America | Oceania | Total |
|--------------|-----------|-----------|-----------|-------------|---------------|---------------|-----------|------------|
| PERMANENT | 10 | 64 | 77 | 67 | 15 | 2 | 14 | 249 |
| TEMPORARY | 0 | 1 | 4 | 5 | 1 | 0 | 0 | 11 |
| SECONDMENT | 0 | 4 | 2 | 2 | 1 | 0 | 0 | 9 |
| INTERN | 0 | 4 | 4 | 29 | 1 | 0 | 3 | 41 |
| APPRENTICE | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 |
| TOTAL | 10 | 73 | 87 | 116 | 18 | 2 | 17 | 323 |

FIGURE 20 Total Number of Employees Hired by Region in 2018

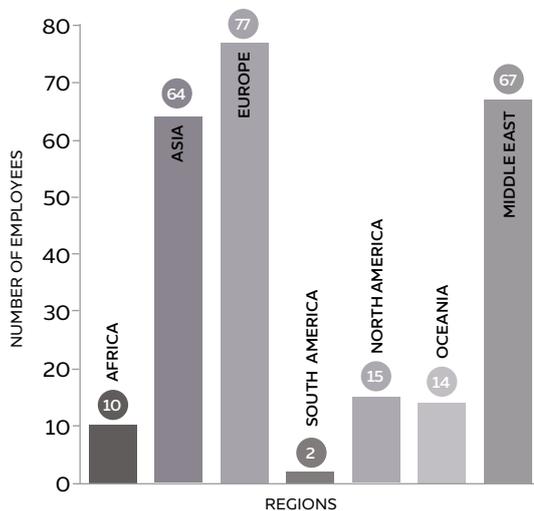
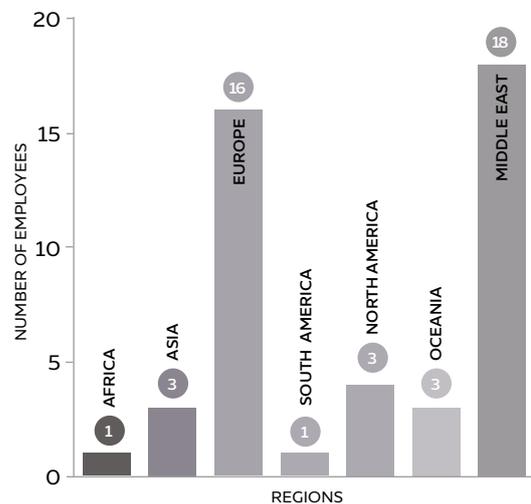


FIGURE 21 Total Permanent Employee Turnover by Region in 2018



4. Employee Benefits

All entry-level employees receive a competitive wage based on the local employment market. Twenty-one per cent of the current leadership group (defined as Senior Manager and above) are UAE nationals.

coverage, irrespective of their salary grade. Employees also receive parental leave, access to free online training and development, food and beverages on campus and access to an on-campus gym, as well as many other benefits.

According to Expo’s employment policy and internal HR framework, Expo 2020 employees enjoy a number of benefits and entitlements that are exemplary for the region. All full-time Expo employees have leading medical

Temporary employees are also given medical insurance, life insurance, disability cover and paid privilege leave. Unlike full-time staff, however, they are not eligible to an end-of-service gratuity.

TABLE 12 Expo 2020 Employee Benefits

| | |
|-------------------------------|--|
| Leave Entitlements | In addition to the basic annual leaves (sick, annual, parental and compassionate leave), Expo 2020 employees can take leave for the annual Islamic Hajj pilgrimage as well as exceptionally long leave to accompany relatives for medical treatment. |
| Medical Benefits | All employees and their dependents receive A-class international medical coverage, which is free of charge and without any deductibles and/or co-pay. This includes medical, dental, optical and maternity cover. |
| Educational Assistance | Expo 2020 provides employees with educational assistance for their eligible children studying in private UAE schools. |
| Annual Leave Ticket | All employees and their dependent families receive an annual return ticket from Dubai to their home town. Employees can also choose to receive a cash allowance instead. |

5. Parental Leave

As well as promoting gender equality through its recruitment policy, Expo 2020 facilitates the retention of qualified employees through a well-sponsored parental leave entitlement for all permanent employees. In 2018, parental leave was taken by five female employees and 20 male employees. At the end of 2018, the retention rate for parents taking parental leave was 100 per cent.

TABLE 13 Parental Leave for All Permanent Expo Employees Jan-Dec 2018

| Employees entitled to parental leave | Female | Male |
|--|---------------|--------------|
| Employees that took parental leave | 5 | 23 |
| Employees that returned to work in the reporting period after parental leave ended | 5 | 23 |
| Employees that returned to work after parental leave ended (Jan-Dec 2017) that were still employed 12 months after their return to work | 1 | 1 |
| Return to work rate | 100 per cent | 100 per cent |
| Retention rate | 100 per cent | 100 per cent |

6. Training and Development

In 2018, the average amount of training per employee was approximately 10 hours, with 474 employees attending some form of training during that year.

TABLE 14 Total Participation in Training and Average Training Hours in 2018

| Employee Category | Male | Female | Average Training Hours |
|-------------------|------|--------|------------------------|
| MANAGERIAL | 192 | 160 | 9.7 |
| NON-MANAGERIAL | 40 | 82 | 11 |
| AVERAGE HOURS | 9.3 | 10.8 | 10 |

All Expo employees have access to an online performance management and development system. This system allows employees and line managers to set out clear objectives and create a baseline so an employee can measure their own success against their line manager’s expectations. Feedback from both the employee and the line manager is shared to uncover areas of development or areas of strength and achievement. The training programmes provided included: Induction Programme, Knowledge Lab Sessions and People of Determination Awareness Training.

Delivered to new employees, the Induction Programme also helps to introduce the Expo working environment and set up newcomers within the organisation. Launched in 2016, this programme is especially useful within Expo 2020 because of the need for employees to adjust to the fast-paced nature and complexities involved in the set-up of a World Expo. It offers an exciting two-day introduction to the different departments within Expo, including a walkthrough of Expo 2020’s mission, vision and values, employer and employee rights, employment terms and conditions, and an opportunity for employees to ask questions.



CASE STUDY

Knowledge Lab

With the goal of delivering an exceptional Expo, Expo 2020 Dubai created Knowledge Lab sessions to provide opportunities for training and equipping employees up to the event's launch.

Launched in August 2018, the Knowledge Lab provides informal, one-hour learning sessions that impart valuable knowledge about the planning and execution of operational and non-operational functions within Expo, with access to key information from the operations of other local and international mega events that have taken place.

Session presentations are prepared by both internal staff and globally renowned event experts.

During 2018, three sessions transferred crucial information to staff, particularly those who had not previously worked at a mega event. The first session, attended by 58 staff, covered the role of the workforce at mega events and integrated operations.

In September 2018, 72 Expo staff attended the second session, where key topics included how partnerships are vital for success, the importance of trains, cars and fleet buses in keeping Expo moving, and a behind-the-scenes insight into the Abu Dhabi Formula 1.

Held in October 2018 and attended by 48 staff, the third session discussed in depth the role of protocol, how to keep Expo 2020 Dubai safe and secure, and the importance of engaging with international organisations and non-official participants.



7. Employee Well-being

The happiness and well-being of every employee drives the 'Yalla Expo!' strategy. A dedicated function within the Human Resources Department, its mandate is to create and sustain a healthy and positive work environment. The objective is to empower the team to make lifelong commitments to various aspects of wellness to ensure a cohesive and proactive environment in preparation for hosting an exceptional World Expo.

The team at Yalla Expo! address employee wellness through multiple levels of engagement. In essence it inspires positive connections with self, colleagues, family, friends and charities through team building events and workshops, charity and family events, ensuring the evolution from team to 'tribe'.

Programme goals include:

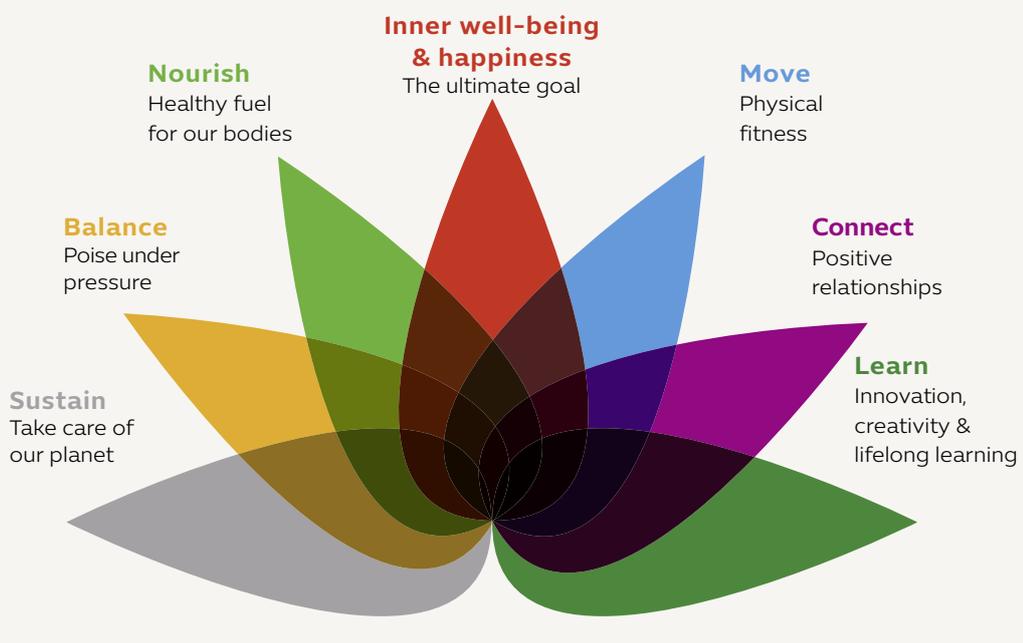
- 1 Educating and empowering employees in six areas of well-being: nutritional, physical, emotional, social, environmental and intellectual
- 2 Providing opportunities for employees to engage in 'intentional activities' that increase happiness
- 3 Helping make Expo into a 'tribe' by fostering a positive and collaborative culture through team building and social activities

The wellness strategy takes a proactive approach to tackling stress by giving employees tools and techniques to manage their stress and emotions. The team regularly provides health and fitness tips and wellness events, with sessions such as raising awareness about specific health conditions and on-site health assessments, as well as regular meditation and yoga sessions for staff to unwind. The function provides training in stress management, emotional intelligence, time management and prioritisation.

By increasing awareness about daily habits and their impact on the planet and our immediate environment, Yalla Expo! encourages and supports participation in Expo initiatives related to recycling, composting and sustainability. The team also encourages staff to make healthier eating choices by incorporating healthy snack options in the cafeteria and catering to an array of eating habits. Employees are also offered a range of nutritional meal plans at a discounted rate.

Physical fitness and a healthy work environment is promoted by providing ergonomic seating for all employees as well as an on-site gym. The wellness department also sponsors Expo teams for sports and local fitness events such

FIGURE 22 The Seven Petals of Wellness





as basketball, football, golf, cycling, diving and netball (which make up only half of the clubs that employees can participate in).

Fitness events such as the Expo Games are held annually and include two days of fun-packed events with lots of games – both physical and intellectual – to challenge and engage employees.

By encouraging giving back to the community and volunteerism, the team fosters a culture of open communication, respect, transparency and positive relationships. Examples include cleaning up Jebel Ali Sanctuary, Eid shopping with underprivileged children through Emirates NBD, and school kit packing for Syrian refugees in Jordan through Dubai Cares.

8. Employee Health

Operated by Dubai Health Authority (DHA), the Expo Emergency Centre is located on the Expo site. It provides a range of proactive health promotion services, including:

- Anti-diabetes campaigns
- Blood bank
- Training on working in the heat and other occupational health concerns

Expo has also introduced campaigns on mental health, including regular knowledge shares and other communication drives. After 2018, the focus on mental health will increase significantly with plans to provide training to leaders and managers, as well as practical training for supervisors and worker accommodation managers to identify potential signs and symptoms of mental health concerns among staff.

“Think of our programme as a ‘well-being buffet’. We don’t just focus on fitness and nutrition. Our strategy is holistic and covers seven key aspects of well-being.”

ALYA AL SHAMSI, ASSISTANT MANAGER ENGAGEMENT AND WELLNESS, EXPO 2020 DUBAI

ii. OCCUPATIONAL HEALTH & SAFETY

The vast construction site and the large team laying the groundwork for Expo 2020 is an engineering feat that requires rigorous management and due diligence when fostering partnerships and contractual agreements, so as to ensure the safety of all parties involved.

Expo 2020 Dubai has developed and implemented an integrated strategy and policy for Health, Safety, Quality and Environment (HSQE). The HSQE policy is applicable to all employees, partners and organisations involved in the delivery of Expo 2020. The HSQE policy is implemented through a risk-based approach, which delivers focused assurance activities, ensures legal compliance and strives for global best practice.

Expo 2020's HSQE Strategy is based on three core values – Care, Respect and Pride – linked to the three disciplines of Health and Safety (inclusive of Worker Welfare), Environment and Quality.



Care for oneself and others, to ensure that every person returns home in a safe and healthy condition every day. Worker health and well-being is taken just as seriously as occupational safety.



Respect for the environment, through the promotion of sustainable practices and the continuous lookout for opportunities where work can make a positive environmental impact.



Pride in work done and by striving to achieve excellence. Expo 2020's focus is on getting it right the first time to reduce defects and the need for work to be redone.

The HSQE policy and strategy is supported by six strategic pillars, which direct HSQE activities across Expo and create a positive HSQE culture and performance:

LEADERSHIP

Monthly leadership tours are conducted across the programme to encourage project cross-pollination and worker engagement.

COMMUNICATION

Topics of the month are used to raise awareness of emerging health and safety risks. In addition, the Expo Promises Campaign defines key behaviours linked to significant risks across the site.

COMPETENCY

A series of training programmes are delivered across multiple levels of the organisation, including leadership, management, supervision and front-line operatives.

ENGAGEMENT

A framework of meetings and forums operates across the programme, including quarterly Executive level meetings, monthly Programme Safety Leadership meetings (for Senior Project Directors) and monthly health and safety practitioner meetings.

REWARD AND RECOGNITION

A monthly award scheme operates for organisations and individuals that demonstrate excellence in line with Expo's HSQE values.

CONTINUAL IMPROVEMENT

A comprehensive audit programme is supported by independent quarterly reviews of health and safety policy and practice from the UK Health and Safety Executive.

A number of leading indicators have been established in relation to these strategic pillars, which are tracked on a monthly basis. All consultants and contractors working on the Expo site are expected to align their own objectives and targets with the specific Health and Safety (H&S) objectives and targets set by Expo 2020, in order to achieve the event's overall H&S goals.

At an operational level, the HSQE policy and strategy is implemented through detailed Assurance Standards, with separate documents for Health and Safety, Environment, Quality and Worker Welfare. The Assurance Standards for Health and Safety detail specific requirements related to health and safety management and the operational control of health and safety hazards and risks. The Assurance Standards for Health and Safety are included within all contracts. The Expo Health and Safety Team undertake pre-qualification of contractors tendering for work with Expo to identify potential concerns prior to contract award and to establish improvement plans.

The Assurance Standards for Health and Safety are informed by and closely aligned with Federal Law Number 8 of 1980; Ministerial Order No. 32 of 1982; Ministerial Resolution No. 1,410 of 2006; Dubai Municipality Code of Construction;

Dubai Municipality Local Order No. 178; Dubai Municipality Guidelines and Trakhees Construction Safety Regulations. In addition, international best practice, such as OHSAS 18001 (more recently ISO 45001), has been used as the management system framework within the Health and Safety Standards.

The scope of the Expo health and safety management system includes all workers involved in the delivery of Expo 2020 Dubai, including Expo's consultants and contractors (including subcontractors). The number of workers who have benefitted from the Assurance Standards for Health and Safety is due to peak at 40,000 in 2019.

1. Occupational Health Services

All Expo contractors must ensure that their workers possess a valid occupational health card for medical examinations at a Dubai Municipality approved clinic in line with frequencies prescribed in local orders 61 of 1991 and 11 of 2003. In addition, contractors must provide free-of-charge professional counselling services for workers requiring treatment for emotional, traumatic and mental illness issues.

WORKER PARTICIPATION

All Expo contractors and consultants are required to implement a range of measures to encourage worker participation and consultation in health and safety, including:

- Project health and safety leadership tours
- Site health and safety meetings
- Weekly toolbox talks
- Daily activity briefings
- Suggestion schemes

Contractors are also required to establish a Worker Welfare Committee to establish effective communications with workers, including subcontractors. The Worker Welfare Committee is required to meet at least every two months and include worker representatives selected by the workforce. Minutes of the meetings are recorded and actions followed until closure, with copies distributed to Expo.



Expo Worker Welfare Department

Expo 2020 Dubai is a community that encapsulates best employee practices and encourages positive worker engagement. Expo's Worker Welfare Department has developed a series of worker-centric initiatives to ensure the promotion, inclusion and protection of those people helping to build and deliver an exceptional World Expo event. During 2018, these included:

WORKER CONNECT

Expo Worker Connect is a free, completely anonymous mobile application designed to improve workers' awareness and quality of life while working on Expo 2020 projects. Groundwork for the app's development took place during 2018, with the app piloted in February 2019. Downloaded via the App Store (iOS) and Google Play Store (Android), it provides the following services:

- Enables workers to directly communicate any issues they might be facing to Expo management.
- Provides full anonymity, and protects and preserves their dignity.
- Gives workers the opportunity to send anonymous complaints about problems or issues they experience.
- Educates workers on their rights in the UAE, and provides information on additional protection afforded by Expo 2020.
- Offers eight different language options.
- Allows workers to receive information from the Expo Worker Welfare team about their project, work site and other useful resources.
- Permits workers to access local resources, such as their national embassy.



WORKER WELFARE COMMITTEE

Functions under the Expo 2020 Worker Welfare Standards to adopt a transparent approach to communication. This requires contractors to establish a Worker Welfare Committee, meeting bi-monthly, where representatives selected by the workforce raise issues pertaining to their welfare.

INVESTIGATION PROGRAMME

The Expo Worker Welfare Team has developed an Investigation Programme, to identify the root causes of worker welfare-related incidents. Recommendations are developed from the findings, with knowledge shared across Expo to prevent reoccurrence of incidents.

INTERVIEW PROGRAMME

Speaking directly to workers on site, the programme identifies gaps between the realities faced by workers, and the enforcement of worker welfare standards by their employers.

Expo Worker Welfare Department (Cont.)

RECRUITMENT FEE REIMBURSEMENTS

The Expo Worker Welfare Team has worked tirelessly to ensure fair and free recruitment and has secured reimbursement of recruitment fees for hundreds of workers. The team has also ensured revised salary payment terms that are advantageous to employees. The positive impact of this endeavour was seen when contractors applied the same measure for an additional 2,500 workers.

PASSPORT SAFES

The Expo Worker Welfare Team has worked with contractors to develop safe rooms within accommodation facilities where workers have access to individual combination safes. These are provided for workers to safely store their passports (and other documents) in a secure, lockable facility.

EXPO WORKER CRICKET TOURNAMENT

In October 2018, workers from Expo participated in a cricket tournament, with teams from across the Expo site and a grand finale at the Dubai International Stadium. This annual competition forms part of Expo 2020 Dubai’s commitment to advance worker welfare and participation.

WHOOOP STRAP

The WHOOP Strap is a high-tech wellness band worn on the wrist that tracks everything from heart rate variability to strain levels and sleep performance. The Worker Wellness Wearable Programme (3WP) collaborated with the Expo Worker Welfare Team and WHOOP Inc. in Boston, Massachusetts (MA), to develop a bespoke WHOOP Strap exclusively for Expo workers. Launched in 2017, this free, voluntary initiative was scaled up significantly in 2018. To date, 4,500 workers have joined the programme, receiving printouts of their wellness results via a weekly progress report.

If any potential health risks are detected, workers receive a health screening to determine the level of risk and prevent any serious health issues from developing. Where appropriate, workers may also receive suitable treatment for existing conditions.

Winners of the Expo Worker Cricket Tournament 2018.



Expo Worker Welfare Department (Cont.)

BETTER TOGETHER AWARDS

On December 11, 2018, the Worker Welfare Department hosted the inaugural Better Together Awards, celebrating the efforts of contractors and consultants who promote the health, safety, welfare and dignity of all people working on the Expo 2020 Dubai site.

Two hundred construction professionals gathered at the Address Montgomerie to celebrate best practice among the contractors and consultants helping to deliver the Expo site. In total, 125 high-quality entries were submitted across 12 categories. Trophies were given to a variety of construction professionals, ranging from workers, supervisors and project managers, to the individual who has most positively impacted worker welfare.



“When it comes to delivery, Expo 2020 has four main objectives: to get everybody home safely every day; to treat people with dignity and respect; to preserve the environment and promote sustainable solutions; and to take pride in our work by striving for excellence and getting it right the first time.”

TONY AIKENHEAD, CHIEF REAL ESTATE AND ASSURANCE OFFICER, EXPO 2020 DUBAI



2. Health and Safety Personnel Requirements

The Assurance Standards for Health and Safety include requirements for health and safety training for all employees, consultants and contractors, including leaders, managers, supervisors and operatives. Progress in completing the necessary training programmes is monitored within monthly reports submitted by all consultants and contractors. Expo has also established an on-site health and safety training facility and provides the following free-of-charge training courses to companies involved in Expo 2020:

- **Health and Safety Leadership** – a four-hour course for leaders providing an overview of key elements of Expo’s HSQE strategy
- **Construction Health and Safety** – a two-day course for project managers covering the 10 significant hazards in the Expo Promises campaign, focusing on best practice in risk management
- **Supervisor Training** – a four-hour course for supervisors focusing on the activity briefing process
- **Visual Impact Training** – one-hour modules covering Expo’s most significant health and safety risks. The training is delivered through an industrial theatre concept, acting out unsafe and safe situations, with high levels of audience participation

3. Risk Assessment and Hazard Identification

H&S in the workplace is recognised as a human right and is addressed globally through authoritative as well as inter-governmental instruments, such as the International Labour Organisation (ILO), the Organisation for Economic Cooperation and Development (OECD), and the World Health Organization (WHO). Expo 2020 recognises that achieving and maintaining the required level of H&S is through proper hazard identification, risk assessment, worker training and incident identification, as well as their effective integration into a well formulated H&S management system. The processes involved in the planning, supporting and operating of this management system is described in the sections below.

The Assurance Standards for Health and Safety require consultants and contractors to implement and maintain a health and safety plan, which includes arrangements for H&S management, including risk assessment, incident investigation and other health and safety related processes. A live document, it is periodically reviewed and updated, while the level of detail is proportionate to the scope of the project and the risks arising from construction activities. The health and safety plan is a key document and contains essential information related to the project scope, H&S objectives, and arrangements for controlling specific site risks.

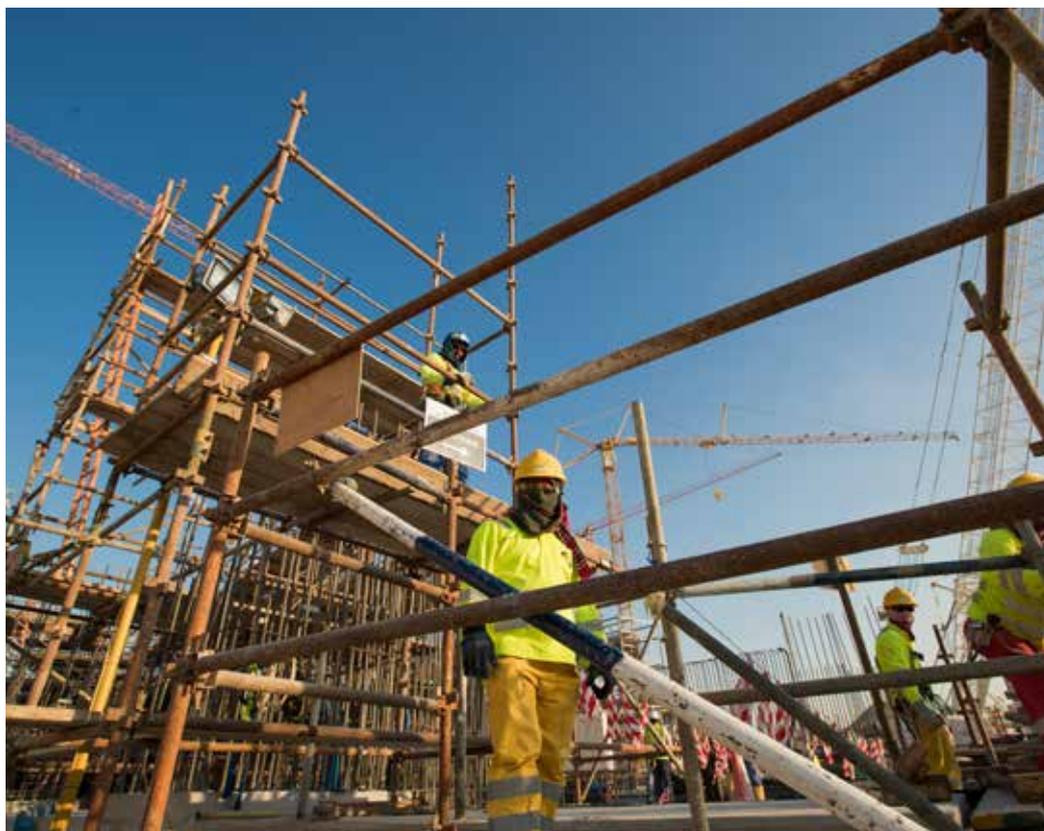
Prior to commencing their work activities, all Expo 2020 contractors issue their Health and Safety Method Statements to the supervision consultants for review and approval. This process ensures that key hazards associated with their work are identified and assessed and that safe systems are implemented.

All Expo consultants and contractors are required to use the Expo 2020 online system for reporting work-related hazards and hazardous situations. This is linked to the Expo Promises Campaign: unsafe behaviours (or 'broken promises') are reported on the Expo online system for data analysis and trending of key risk themes. All Expo consultants and contractors are also required to use the Expo 2020 online system to report incidents. The subsequent investigation process requires an initial report and investigation to be compiled by the contractor, which is then subject to review and approval by the supervision consultant and ultimately by the Programme Management Consultant (PMC) and Expo team. Incident investigations always focus on addressing the root causes of incidents

and implementing improvement actions to prevent a recurrence. Progress in implementing improvement actions is monitored following the report, including subsequent audits.

The importance of workers removing themselves from unsafe situations is covered during contractor induction training, toolbox talks and start-of-shift activity briefings. This focuses on empowering workers to stop work if they feel they are in a position of serious and imminent danger. This process is supported by Expo's supervision consultants who have the power to issue suspension of work notices, should site inspections and assessments determine that work activities are being undertaken in an unsafe manner.

Other mechanisms are also available for workers to report hazards and unsafe conditions, such as the Worker Connect smartphone application and Worker Welfare hotline, a free-phone number for Expo workers to raise grievances that they may be reluctant to raise directly with their employer.



4. Work-related Injuries

A total of 553 incidents occurred at Expo’s construction sites during 2018. No occupational health data is available for third-party projects.



A review of the historical data from incidents and observation was undertaken to identify the work-related hazards that pose a risk of high consequence injury. This was also verified by a risk profiling exercise to look ahead to upcoming activities and hazards so as to ensure their alignment. The use of mobile plant and equipment has been the main cause of high consequence injuries during the reporting period. In line with the hierarchy of controls, measures continue to focus on effective physical segregation between vehicles and equipment and other engineering measures. This is supported by effective supervision, training and information, with personal protective equipment as the last resort.

The main types of injuries reported during the reporting period included: cases of workers slipping, or tripping over construction material; workers hit by moving or falling objects; and receiving cuts through the use of construction tools. All cases were given proper medical attention and support and were followed by an incident investigation to identify the direct and root causes to prevent further occurrences.

5. Occupational Health and Safety Impacts

Expo 2020 plays a significant role in influencing health and safety

improvements across a range of different stakeholders, including government authorities, third-party developers, sponsors, partners and associated supply chains.

Under the ‘Better Together’ vision, Expo has a collaborative approach to sharing best practices. This includes extending invitations to health and safety meetings and forums, and offering free training to organisations supporting the event’s delivery. Expo has also organised executive-level events as a platform for discussing health and safety concerns and opportunities with a range of stakeholders, as well as emphasising the importance of leadership and commitment in health and safety.

Established under the Expo Higher Committee, a dedicated sub-committee focuses specifically on worker welfare and health and safety. With representation from key government authorities in Dubai, it is tasked with tackling emirate-wide issues and ensuring that Expo 2020 creates a lasting legacy for health and safety standards and performance. To this end, a series of meetings and workshops have been held with government authorities and developers in Dubai to promote wider change and overall improvements in health and safety standards and regulation.

iii. INNOVATION

During 2018, Expo 2020 Dubai launched a wide range of innovative projects and initiatives to enhance visitor experience, alongside a variety of services and solutions that will contribute to effective and sustainable operations throughout the upcoming event.

INNOVATION AND FUTURE TECHNOLOGY (IFT) DEPARTMENT

The IFT department at Expo focuses on delivering innovative digital services to all Expo stakeholders, from visitors and international participants to Expo staff. At its heart is the development of the immersive digital visitor experience that is set to make Expo 2020 Dubai the most accessible Expo ever. Along with its international partners, the IFT team is harnessing this technology to present visitors with a powerful showcase of future technology and reinforce the messages and themes of Expo 2020. Interactive content will inspire connection and be accessible through a range of digital platforms including mobile devices, kiosks and physical installations. On-site technologies will create a wide variety of

next-generation experiences, enhancing each visitor's journey and connecting them to one another.

Focusing on sustainability, the IFT team have been working with Siemens, Expo's Intelligent Infrastructure Partner, to roll out 'MindSphere' technology, which is used to manage the flow of data from thousands of sensors located across the site, generating information on energy use, water consumption and air quality. Through monitoring and controlling consumption, the objective is to improve overall energy efficiency at Expo: a 25 per cent reduction in water consumption alone is expected. In 2018, the technology was piloted at Expo 2020's head office, which led to the roll out of automated lighting and regulated irrigation within the office. As the monitoring system is implemented on a larger scale across the rest of the Expo site, it is expected to not only improve the quality of the experience for all Expo stakeholders before and during the event, but also to position District 2020 as a sustainable, smart and energy-efficient city.



“World Expos have always been about showcasing innovation on the global stage, and Expo 2020 Dubai is no exception. Innovation is in our DNA. Not only will we provide a platform for participants and partners to showcase and demonstrate innovative content, but innovation will be embedded in our site and throughout our operations to ensure an exceptional visitor experience.”

**NAJEEB MOHAMMED AL-ALI,
EXECUTIVE DIRECTOR OF THE
EXPO 2020 DUBAI BUREAU**

UAE INNOVATION MONTH

In February 2018, Expo 2020 Dubai participated in the first-ever UAE Innovation Month, a nationwide celebration supporting the UAE National Innovation Strategy and helping to create a widespread culture of innovation and to strengthen the country’s position as a global innovation hub.

Participating across a number of events, Expo 2020 Dubai reaffirmed its commitment to driving global innovation in collaboration with its Premier Partners and other entities across the UAE, and engaging with key stakeholders from government, business, academia and the general public. This included a number of initiatives led by other entities, such as the official closing ceremony of UAE Innovation Month, and an Innovation Majlis organised by the Emirates Nuclear Energy Corporation (ENEC) to discuss best practices, challenges and the future of innovation in the UAE government sector.

MEMORANDUM OF UNDERSTANDING (MOU) WITH DEWA AND SIEMENS

February also saw the signing of a Memorandum of Understanding (MoU)

“The MoU is in line with the vision of the Vice-President, Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum, to increase the share of Dubai’s total power output from clean energy sources to 75 per cent by 2050 through the Dubai Clean Energy Strategy 2050.”

SAEED MOHAMMED AL TAYER, MD AND CEO OF DEWA, EXPO’S OFFICIAL SUSTAINABLE ENERGY PARTNER

between Expo 2020 Dubai, represented by HE Reem Al Hashimy, Minister of State for International Cooperation and Director General of Dubai Expo 2020 Bureau, Dubai Electricity and Water Authority (DEWA), Expo’s Official Sustainable Energy Partner, represented by MD and CEO HE Saeed Mohammed Al Tayer, and Siemens, Expo’s Official Premier Partner for Intelligent Infrastructure and Operations, represented by President and CEO Joe Kaeser.



“This is truly a landmark project for Dubai and the world, and a great step forward in building a secure supply of sustainable energy for the region’s economic development. Green hydrogen can be a fuel of the future. It will accelerate the adoption of renewable energy in the Middle East through sector coupling, offering new use cases, such as e-mobility and other environmentally-friendly industries.”

JOE KAESER, PRESIDENT AND CEO OF SIEMENS, EXPO’S OFFICIAL PREMIER PARTNER FOR INTELLIGENT INFRASTRUCTURE AND OPERATIONS



The signing took place at the launch of the region's first solar-driven hydrogen electrolysis facility at the Mohammed bin Rashid Al Maktoum Solar Park in Dubai. The purpose of the facility is to test and showcase an integrated megawatt-scale plant, which will produce hydrogen using renewable energy from photovoltaic solar panels, store the gas and then deploy it for re-electrification, transportation or other industrial uses. Hydrogen technologies are set to accelerate renewable energy integration and deployment in the region and pave the way for the transition to a sustainable and green economy in the UAE.

DEWA and Expo 2020 Dubai intend to use fuel-cell vehicles powered by the green hydrogen generated at the Solar Park. Visitors to Expo 2020 will be able to see the key facilities at the park, while live data from the hydrogen electrolysis process will be displayed during the event.

MEET THE BUYER

In February 2018, Expo 2020 hosted a 'Meet the Buyer' session for entrepreneurs and SMEs in the security sector as part of its commitment to fostering innovation within the business community and promoting business growth. Businesses were invited to pitch their security technologies and innovations directly to the Expo team, and make a direct contribution to the delivery of a safe and secure event.

EXPO INNOVATION CUBE

Expo 2020's School Programme developed an 'Expo Innovation Cube' that invites educators and learners to explore the story of innovation, encouraging students to think creatively about inventions to inspire them to become the next generation of innovators. The team joined forces with the Dubai Institute of Design and Innovation (DIDI) to inspire youth to find creative solutions to a significant challenge for Expo 2020: queueing. The 'Expo 2020 Queueing as a Social Challenge' competition, held

as part of DIDI’s Project Design Space through an innovative after-school programme, challenged students to design an experience, product or service that facilitates cross-cultural connections between people waiting in queues. The Expo School Programme also visited schools across the UAE to engage with students and encourage them to think about the relevance of innovation in their daily lives and the impact that past Expo innovations have had on the world.

EXPO AND ETISALAT 5G NETWORK

On 10 July 2018, Expo 2020 Dubai set another benchmark for the UAE’s early adoption of innovative technology through its partnership with Etisalat, with the launch of the first major commercial 5G network in the MEASA region. Etisalat’s 5G network will provide state-of-the-art network services to Expo’s millions of visitors and will be a key component of the event’s ‘Smart Site’. In the longer term, 5G connectivity will enable District 2020 to achieve its goal of becoming one of the world’s most connected and tech-enabled destinations for working, living and relaxing.

WORKSHOPS AND INFORMATION SESSIONS

Expo 2020’s ethos is to lead by example, which saw the team organising a series of

workshops with its partners, aiming to empower Expo employees to work innovatively and implement creative solutions that would positively impact the environment at the event. Expo’s Premier Partner, SAP, facilitated in-depth ‘design thinking workshops’ that focused on generating practical innovations for themes such as security, visitor experience and sustainability. The SAP initiative challenged 20 students from the American University of Sharjah to generate ideas on how Expo 2020 could become the most sustainable World Expo ever. Similar workshops were held in collaboration with Cisco, Expo’s Network Equipment Partner, harnessing the company’s extensive expertise in delivering digitally-driven experiences for global mega events to focus and inform the creativity of participants. Premier Digital Services Partners, Accenture and Etisalat Digital, jointly presented the latest trends on ‘The Future of Business, Technology and Design’ to Expo employees, while Expo was also represented on the judging panels of an innovation competition hosted by Premier Onsite Banking Partner, Emirates NBD. These exercises and others like them helped bring together the hundreds of physical and digital services that will deliver a unique, memorable and personal experience for every Expo visitor.



3

THE LEGACY



A. EXPO 2020 LEGACY CONTRIBUTION

From the very beginning, Expo 2020 Dubai has been committed to building a legacy that is meaningful and sustainable, extending its impact and benefits beyond the UAE to the wider region and the rest of the world. Expo 2020 Dubai will create physical, economic, social and reputational legacies.

ECONOMIC LEGACY

Expo 2020 Dubai will contribute to new business generation, GDP growth and job creation across the region. Expo 2020 Dubai and its legacy will contribute to the UAE’s ongoing economic diversification, supporting growth in key industries such as travel and tourism, logistics and transport, construction and real estate, which will continue through to District 2020. After the closure of the Expo, District 2020 will be a long-term contributor to the UAE economy, as an anchor for Dubai’s developing knowledge economy and by contributing to the future of business.

SOCIAL LEGACY

Hosting Expo presents an immense opportunity to inspire, empower and involve the UAE’s youth before, during and beyond Expo 2020 Dubai. Expo 2020 Dubai will promote awareness of Expo’s subthemes of Opportunity, Mobility and Sustainability, encourage cultural exchanges and rekindle visitors’ interests

in these key drivers of the future. Expo 2020 Dubai will stimulate innovation by identifying, showcasing and celebrating innovators and breakthroughs around the world, while nurturing the next generation’s innovative spirit.

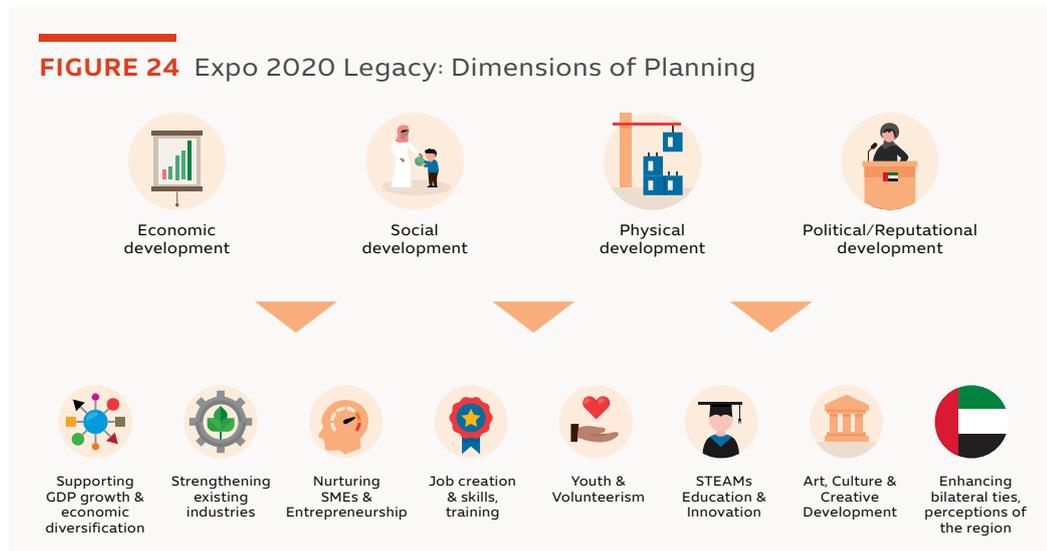
POLITICAL AND REPUTATIONAL DEVELOPMENT

Expo 2020 Dubai will raise the UAE’s international standing, with strengthened bilateral and multilateral relations. Expo 2020 Dubai will highlight the UAE’s capacity to bring the world together, promoting collaboration and cross-pollination of thoughts, cultures and ideas. As the first World Expo in MEASA, Expo 2020 Dubai will showcase the great potential of the region.

PHYSICAL LEGACY

Expo 2020 Dubai will continue to ‘connect minds’ and inspire as District 2020. From late 2021 onwards, the District will fulfil Expo’s founding vision to continue as an ecosystem to connect, create and innovate. From the start, the Expo 2020 Dubai site has been designed with its future as a city in mind. More than 80 per cent of Expo’s built environment will live on as District 2020 which embodies the future of living and working through a ‘new urban experience’. As a key part of Dubai South, Expo 2020 will help foster future growth in the area.

FIGURE 24 Expo 2020 Legacy: Dimensions of Planning





B. DISTRICT 2020 – THE FUTURE OF THE EXPO SITE

By hosting the 2020 World Expo, Dubai has the task of staging an exceptional event for six months between 2020 and 2021, as well as building a global destination that can largely be repurposed and activated once the event ends. The mission, therefore, is to build a city for the future that, through design and planning, can have the capacity to host 25 million visits.

A significant milestone on this mission was achieved in 2017 when the post-Expo site, District 2020, was unveiled at the Cityscape Global Exhibition. Creating a lasting legacy for the UAE and continuing Expo’s mission, District 2020 will be a destination to Connect, Create and Innovate. It will connect original thinkers, innovators and pioneers,

enabling them to share ideas, learn from each other and unlock their inspiration. It will boast a vibrant and inclusive community that celebrates diversity and carries the spirit of Expo 2020 Dubai for generations to come.

Located in Dubai South, near Al Maktoum International Airport, District 2020 will be easily accessed by all of the UAE’s air and sea ports. The site, which will reuse at least 80 per cent of the world-class infrastructure built by Expo 2020 Dubai, will be served by major highways and a dedicated Dubai Metro Route 2020 station. The integrated hub will offer a new urban experience, building on the legacy of Expo 2020 and facilitating the acceleration of Dubai’s sustainable development.

“District 2020 will continue to carry forward Expo 2020’s mission of connecting people – offering a new urban experience. It will be at the cutting edge of modern working and living – combining places to work, rest and explore to create an ecosystem that stimulates connections, inspires creation and drives innovation, creating value for all those who come here.”

MARJAN FARAI DOONI, CHIEF PAVILIONS AND EXHIBITIONS OFFICER, EXPO 2020 DUBAI



FEATURES PLANNED FOR DISTRICT 2020



Smart mobility options, such as smart parking, public transit apps and smart shuttle vehicles.



A gross floor area (GFA) of more than 2,500,000 sq metres.



More than 100 serviced land plots for residential, mixed, commercial and hospitality use, available for sale.

200,000 sq metres of commercial and residential space, available to rent and occupy from 2021.

- This includes 55 grade-A commercial buildings and 800 modern residential units



FEATURES PLANNED FOR DISTRICT 2020 (cont.)



A dedicated autonomous vehicle public transit route, which will link all major landmarks within the project via a four-kilometre loop.

District 2020 is zoned for up to 3,000 hotel keys.



District 2020 will contribute to the UAE Vision 2021 by supporting the growth of tourism, stimulating the development of innovative businesses and enhancing the country's international reputation as a location to do business. The community will ensure the impact of Expo 2020 Dubai extends far beyond the six-month event, contributing to a sustainable and enduring legacy.



Amenities include 10 kilometres of bike paths, five kilometres of jogging tracks, 48,900 sq metres of green parks, gardens and water features, and pedestrian walkways throughout.

ICONIC DEVELOPMENTS WITHIN DISTRICT 2020 WILL INCLUDE



DUBAI EXHIBITION CENTRE (DEC)

can be configured for all types of events, including conferences, exhibitions, summits, banquets and indoor concerts.

AL WASL PLAZA

130 metres in diameter and more than 67 metres tall, Al Wasl Plaza's domed trellis will be a canvas for panoramic projections that can be viewed from both inside and outside.



CHILDREN AND SCIENCE CENTRE

designed to push the limits of sustainable practice and technology, Expo's Sustainability Pavilion will become District 2020's Children and Science Centre, providing enriching, enjoyable experiences and engaging ways to learn for families and school students.



4

EXPO 2020 CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS



A. THE SDGs AND EXPO 2020 DUBAI OPERATIONS

THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

As the planet faces pressing social, environmental and economic challenges, unified commitments are necessary to combat these sustainability issues. Following and expanding on the Millennium Development Goals (MDGs), the United Nations (UN) Sustainable Development Goals (SDGs) present an unprecedented opportunity to define global priorities and aspirations for 2030. They address global challenges concerning poverty, inequality, climate, environmental degradation, prosperity, peace and justice. Within a framework of 17 goals and 169 targets, the SDGs seek to mobilise worldwide action among governments, civil society, and businesses to put the world on a sustainable path.

EXPO'S ALIGNMENT TO THE SDGs

Expo 2020 Dubai is committed to shining a light on the SDGs and their global aspirations. This is reflected throughout Expo, from its subthemes of Opportunity, Mobility and Sustainability, through to its pavilions, programmes and operations. Expo will be a platform to progress human ingenuity in addressing the challenges presented by the SDGs.

THE SDGs AND THE EXPO 2020 PAVILIONS

The pavilions presented under Expo's subthemes proactively engage with visitors, to enable them to become more self-aware in the role they play within society and on the planet, so as to make real strides towards solving global challenges. Specifically, the Opportunity Pavilion establishes an experience for visitors to further understand the challenges facing humanity through the lens of the SDGs, engaging with the audience to help them understand the impact they can make.

Please see Appendix for more information about Expo 2020 Dubai's alignment with the SDGs in coordination with the material GRI indicators used for this report.

The SDGs and the Global Best Practice Programme

Similarly, Expo's Global Best Practice Programme seeks to promote projects that are providing tangible solutions that are in line with the SDGs. Through the programme's aims for collaboration, creativity, sustainable impact and transference, Expo seeks to enhance the visibility of best practices for a better 2030. The programme contains five focus areas:



INCLUSIVE AND SUSTAINABLE SERVICE DELIVERY

Reliable service provision in urban, suburban and rural areas, as well as in fluid environments such as informal, nomadic, post-disaster, emergency and refugee settlements.



LIVELIHOODS AND ENTERPRISE DEVELOPMENT

Promoting alternative employment and income opportunities, women in the workplace, competitive products and services and improved market access.



RESILIENT HABITATS

Better protecting human, economic and natural assets in urban, rural and fluid environments (informal, nomadic, post-disaster, emergency and refugee settlements).



SOCIAL DEVELOPMENT

Reliable, affordable and appropriate healthcare and education systems and delivery.



WATER, FOOD AND ENERGY SECURITY

Smarter consumption and resource management to better meet increasing water, food and energy requirements for a growing global population.

The SDGs and Expo 2020 Dubai Operations

Examples of Expo 2020 initiatives that are aligned to the SDGs and their respective targets*

Goal 3

An on-site emergency centre, operated by Dubai Health Authority (DHA). This provides proactive health promotion services for all Expo workers, such as anti-diabetes campaigns, blood banks, mental health and occupational training for working in the heat.

Goal 4

Engaging with students on the impact of innovation through the Expo School Programme. Expo's Innovation Cube invites educators and learners to come up with creative solutions for queuing during Expo, designing a system that encourages cross-cultural connections between people in-line.

Goal 5

49% of employees hired in 2018 were female.

Goal 6

Addressing irrigation needs and developing methods to minimise water loss through evaporation through a water efficiency programme. Expo also has initiatives for water conservation and consumption. Expo project teams aim to understand ecological systems such as groundwater, with processes to protect and restore this within the Expo site.

Goal 7

Engaging with UAE schools on sustainability issues through the Sustainability Champions Competition. A collaboration with MOCCA and MOE, winning schools were awarded photovoltaic panels worth up to AED 500,000 for their campus.

Goal 8

A proactive approach to inclusiveness, aligned with the UAE's National Policy for Empowering People with Special Needs. An employee programme helps staff understand the experiences of People of Determination.

Goal 9

A dedicated department for Innovation and Future Technology explores technological advancements in infrastructure and digital systems to create sustainable and efficient solutions for the Expo site that will last as a legacy for the wider UAE community.





Goal 10

Expo's Worker Welfare Assurance Standard mandates a fair and free recruitment process, and takes a strong stance against discrimination. This also extends to Expo's supply chain whereby partnering organisations must adhere to the same standards in employee equality.

Goal 13

Expo developed a unique methodology for calculating GHG Emissions Inventory for mega events. This takes into account the multi-year and multi-operational nature of the event's total emissions impact.

Goal 12

A waste management target to divert 85% of waste from landfill (by weight). In 2018, 88% of waste was recycled/reused and diverted from landfill.

Goal 14

A dedicated Spill Response Procedure, with extensive processes to deal with hazardous chemicals to mitigate water contamination, and preserve the UAE's scarce water resources.

Goal 16

Expo 2020 HSQE Policy and the Environment Assurance Standards mandate sound environmental management to comply with applicable environmental laws and regulations. No incidents of non-compliance were recorded in 2018.

Goal 15

A dedicated ecosystems management process to conserve and protect biodiversity and ecology within the Expo construction site. Expo's ecosystem conservation targets mandate no harm to any fauna or flora.

Goal 17

Expo's World Majlis provides a platform to welcome diverse voices across cultures, sectors and generations to explore topics under the subthemes of sustainability, mobility and opportunity. It acts as an incubator for meaningful connections between people and ideas.

*These initiatives do not cover the entire scope of Expo's activities towards the SDGs.



APPENDIX

| SDG | GRI Indicator | Indicator Description | SDG | GRI Indicator | Indicator Description | |
|-----|---------------|--|-----|---------------|--|--|
| 3 | 305-1: | Direct (Scope 1) GHG emissions | 10 | 102-3: | Information on employees and other workers | |
| | 305-2: | Energy indirect (Scope 2) GHG emissions | | 401-1: | New employee hires and employee turnover | |
| | 305-3: | Other indirect (Scope 3) GHG emissions | | 404-3: | Percentage of employees receiving regular performance and career development reviews | |
| | 306-1: | Water discharge by quality and destination | | | | |
| | 306-2: | Waste by type and disposal method | | 12 | 301-1: | Materials used by weight or volume |
| | 306-3: | Significant spills | | | 301-2: | Recycled input materials used |
| | 403-2: | Hazard identification, risk assessment and incident investigation | | | 302-1: | Energy consumption within the organisation |
| | 403-3: | Occupational health services | | | 302-4: | Reduction of energy consumption |
| | | | | | 303-1: | Interactions with water as a shared resource |
| 4 | 404-1: | Average hours of training per year per employee | | | | |
| 6 | 401-1: | New employee hires and employee turnover | 13 | 302-1: | Energy consumption within the organisation | |
| | 401-3: | Parental leave | | 302-4: | Reduction of energy consumption | |
| | 404-1: | Average hours of training per year per employee | | 305-1: | Direct (Scope 1) GHG emissions | |
| | 404-3: | Percentage of employees receiving regular performance and career development reviews | | 305-2: | Energy indirect (Scope 2) GHG emissions | |
| | 406-1: | Incidents of discrimination and corrective actions taken | | 305-3: | Other indirect (Scope 3) GHG emissions | |
| 6 | 303-1: | Interactions with water as a shared resource | 14 | 305-5: | Reduction of GHG emissions | |
| | 303-3: | Water withdrawal | | 306-3: | Significant spills | |
| | 306-1: | Water discharge by quality and destination | | | | |
| | 306-2: | Waste by type and disposal method | | | | |
| | 306-3: | Significant spills | | | | |
| 7 | 302-1: | Energy consumption within the organisation | 15 | 305-2: | Energy indirect (Scope 2) GHG emissions | |
| | 302-4: | Reduction of energy consumption | | 305-3: | Other indirect (Scope 3) GHG emissions | |
| 8 | 201-1: | Direct economic value generated and distributed | 16 | 305-5: | Reduction of GHG emissions | |
| | 301-1: | Materials used by weight or volume | | 307-1: | Non-compliance with environmental laws and regulations | |
| | 301-2: | Recycled input materials used | | 408-1: | Operations and suppliers at significant risk for incidents of child labour | |
| | 302-1: | Energy consumption within the organisation | | | | |
| | 302-4: | Reduction of energy consumption | | | | |
| | 303-1: | Interactions with water as a shared resource | | | | |
| | 303-3: | Water withdrawal | | | | |
| | 404-1: | Average hours of training per year per employee | | | | |
| | 404-2: | Programmes for upgrading employee skills and transition assistance programmes | | | | |
| | | | | | | |
| 9 | 201-1: | Direct economic value generated and distributed | 17 | | N/A | |

Alignment Relevance
■ LOW ■ MEDIUM ■ HIGH

Relevance ranking methodology: Identifying the correlated aligned relevance rank per goal is done by mapping the material GRI KPIs to the targets associated with each SDG. A percentage is obtained by identifying how many targets are covered through the mapping exercise against the total number of targets within a goal. Low relevance indicates 1-30% alignment, Medium relevance indicates 31-60% alignment, and High relevance indicates over 61% alignment. I.e. Goal 13 has 5 targets, and the material GRI KPIs align with three targets, thus indicating a 60% alignment (medium).

METHODOLOGY

This Sustainability Report presents the first steps in aligning Expo's material GRI indicators to SDG target disclosures. Utilising the publication developed by GRI and the UN Global Compact, 'An Analysis of the Goals and Targets', the methodology in the publication illustrates how the SDGs target disclosures can be aligned with GRI indicators. By identifying the links between Expo's material GRI indicators with the SDGs target disclosure, this report was able to map the number of goals and targets it is aligned with.

Although Expo covers Goal 17 and is highly aligned with the targets, the methodology does not include disclosure linkages with GRI indicators. It is also worth noting that the SDGs alignment specifically pertains to the 2018 Sustainability Report and Expo's material topics. Furthermore, this SDGs mapping exercise is a high-level activity and does not reflect the full extent of Expo's overall alignment with the SDGs.

5

GRI CONTENT INDEX AND TOPIC BOUNDARIES



For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for disclosures 102-40 to 102-49 align with appropriate sections in the body of the report.



For the GRI Content Index Service, GRI Services reviewed that the GRI content index is clearly presented and the references for all disclosures align with the appropriate sections in the body of the report.

A. GRI CONTENT INDEX

| GRI Standard Disclosure/Description | Page |
|---|----------------|
| GENERAL DISCLOSURES | |
| GRI 101 Foundation 2016 | |
| GRI 102 General Disclosures 2016 | |
| 102-1 Name of the organisation | 10 |
| 102-2 Activities, brands, products, and services | 12-14 |
| 102-3 Location of headquarters | 18 |
| 102-4 Location of operations | 18 |
| 102-5 Ownership and legal form | 24-27 |
| 102-6 Markets served | 18, 23, 29 |
| 102-7 Scale of the organisation | 18, 40, 76 |
| 102-8 Information on employees and other workers | 72-74, 76 |
| 102-9 Supply chain | 32-38 |
| 102-10 Significant changes to the organisation and its supply chain <i>No significant changes occurred to the organisation and its supply chain</i> | Content Index |
| 102-11 Precautionary principle or approach <i>Expo 2020 is applying the precautionary approach in its environmental activities</i> | Content Index |
| 102-12 External initiatives | 15, 52 |
| 102-13 Membership of associations <i>Expo 2020 is not a member of any associations</i> | Content Index |
| 102-14 Statement from senior decision-maker | 6-7 |
| 102-16 Values, principles, standards and norms of behaviour | 14 |
| 102-18 Governance structure | 24-27 |
| 102-40 List of stakeholder groups | 29-30 |
| 102-41 Collective bargaining agreements <i>There are no collective bargaining agreements in the UAE</i> | Content Index |
| 102-42 Identifying and selecting stakeholders | 29-30 |
| 102-43 Approach to stakeholder engagement | 29-31 |
| 102-44 Key topics and concerns raised | 30-31 |
| 102-45 Entities included in the consolidated financial statements <i>No entities are included</i> | Content Index |
| 102-46 Defining report content and topic boundaries | 10, 30-31, 110 |
| 102-47 List of material topics | 31 |
| 102-48 Restatements of information <i>This is Expo 2020's first report</i> | Content Index |
| 102-49 Changes in reporting <i>This is Expo 2020's first report</i> | Content Index |
| 102-50 Reporting period | 10 |
| 102-51 Date of most recent report <i>This is Expo 2020's first report</i> | Content Index |
| 102-52 Reporting cycle | 10 |
| 102-53 Contact point for questions regarding the report | 10 |
| 102-54 Claims of reporting in accordance with the GRI Standards <i>This report has been prepared in accordance with the GRI Standards: Core option</i> | 10 |
| 102-55 GRI content index | 105-109 |
| 102-56 External assurance <i>This is Expo 2020's first report. No external assurance occurred</i> | Content Index |

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| 103-1 Explanation of the material topic and its boundary | 61-62 |
| 103-2 The management approach and its components | 61-62 |
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| GRI 305 Emissions 2016 | |
| 305-1 Direct (Scope 1) GHG emissions | 53 |
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| 305-5 Reduction of GHG emissions | 53, 56 |
| Effluents & Waste | |
| GRI 103 Management Approach 2016 | |
| 103-1 Explanation of the material topic and its boundary | 68-71 |
| 103-2 The management approach and its components | 68-71 |
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| GRI 306 Effluents & Waste 2016 | |
| 306-1 Water discharge by quality and destination | 65-66 |
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| 103-2 The management approach and its components | 51 |
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| GRI 307 Environmental Compliance 2016 | |
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| <i>Expo 2020 Dubai complies with all relevant environmental regulations set forth by the UAE Federal Government and Dubai Municipality. During 2018, the organisation has not been in violation of any environmental regulations nor has it received any complaints relating to environmental matters</i> | |
| Supplier Environmental Assessment | |
| GRI 103 Management Approach 2016 | |
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| Occupational Health & Safety Cont. | |
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| 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationship | 89 |
| 403-8 Workers covered by an occupational health and safety management system | 83 |
| 403-9 Work-related injuries | 89 |
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| 103-1 Explanation of the material topic and its boundary | 72 |
| 103-2 The management approach and its components | 72 |
| 103-3 Evaluation of the management approach | 72 |
| GRI 406 Non Discrimination 2016 | |
| 406-1 Incidents of discrimination and corrective actions taken <i>Zero incidents of non-discrimination have been reported during the reporting period</i> | Content Index |
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| GRI 103 Management Approach 2016 | |
| 103-1 Explanation of the material topic and its boundary | 72 |
| 103-2 The management approach and its components | 72 |
| 103-3 Evaluation of the management approach | 72 |
| GRI 408 Child Labour 2016 | |
| 408-1 Operations and suppliers at significant risk for incidents of child labour <i>No incidents of child labour have been reported in 2018</i> | Content Index |
| Human Rights Assessment | |
| GRI 103 Management Approach 2016 | |
| 103-1 Explanation of the material topic and its boundary | 33 |
| 103-2 The management approach and its components | 33 |
| 103-3 Evaluation of the management approach | 33 |
| GRI 412 Human Rights Assessment 2016 | |
| 412-1 Operations that have been subject to human rights reviews or impact assessments clauses or that underwent human <i>There were no rights abuse incidents reported in 2018</i> | Content Index |
| 412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening | 33 |
| Local Communities | |
| GRI 103 Management Approach 2016 | |
| 103-1 Explanation of the material topic and its boundary | 40-41 |
| 103-2 The management approach and its components | 40-41 |
| 103-3 Evaluation of the management approach | 40-41 |
| GRI 413 Local Communities 2016 | |
| 413-2 Operations with significant actual and potential negative impacts on local communities <i>There has been no negative impact to the local community as a result of the event planning and construction activities of Expo 2020. There were no rights abuse incidents reported in 2018</i> | Content Index |
| Socio-economic Compliance | |
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B. BOUNDARIES

Boundary definitions: in accordance with GRI Standards, boundaries refer to the place where impact has occurred and Expo’s involvement with these impacts.

This Sustainability Report defines the space-based boundaries as:

- **On-site:** the geographic spatial boundaries where the event will occur. This does not include Expo Village and Dubai Exhibition Centre (DEC)
- **Off-site:** activities which do not take place within Expo’s geographic spatial boundaries

In addition to this, Expo also includes temporal boundaries, dividing its operation into three time-related phases.

The boundaries of this Sustainability Report falls under the pre-event phase, unless stated otherwise:

- **Pre-event phase:** the preparation period before the event
- **Event phase:** the six-month duration of the event
- **Legacy phase:** the period after the event

| Material Topics | Material Within the Organisation | Relevant Stakeholders | | | | | | | | Site Boundary |
|-----------------------------------|----------------------------------|----------------------------|--------------------|-----------------------------|---------------|---|----------|----------------------------|------------------------|---------------------|
| | Expo 2020 LLC and its employees | International Participants | Vendors/ Suppliers | Local Community/ Volunteers | Civil Society | Construction Consultants & Contractors/ Workers | Partners | Youth & Schools Programmes | Government Authorities | |
| ECONOMIC | | | | | | | | | | |
| Economic Performance | ● | ● | ● | ● | ● | ● | ● | | ● | On-site Off-site |
| Market Presence | ● | | | ● | | | | | | On-site |
| Innovation | ● | ● | ● | ● | | ● | ● | ● | ● | On-site Off-site |
| ENVIRONMENTAL | | | | | | | | | | |
| Energy | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Water | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Emissions | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Effluents & Waste | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Materials | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Environmental Compliance | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Supplier Environmental Assessment | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| SOCIAL | | | | | | | | | | |
| Employment | ● | | | ● | | | | | | On-site |
| Occupational health and safety | ● | ● | ● | | | ● | ● | | ● | On-site |
| Training and education | ● | | | | | | | | | On-site |
| Local community | ● | | ● | ● | ● | | ● | ● | ● | On-site |
| Socio-economic compliance | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Non discrimination | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Human rights assessment | ● | ● | ● | | ● | ● | ● | | ● | On-site |
| Child labour | ● | ● | ● | | ● | ● | ● | | ● | On-site |

C. ACRONYMS AND ABBREVIATIONS

| | | | |
|------------------------|--|----------------|---|
| AASHTO | American Association of State Highway and Transportation Officials | EPR | Environmental Performance Report |
| ACI | American Concrete Institute | FTE | Full-time Employees |
| ADSW | Abu Dhabi Sustainability Week | GDP | Gross Domestic Product |
| AED | Arab Emirates Dirham | GFA | Gross Floor Area |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers | GGBS | Ground-granulated Blast-furnace Slag |
| ASTM | American Society for Testing and Materials | GHG | Greenhouse Gas |
| BAU | Business As Usual | GITEX | Gulf Information Technology Exhibition |
| BES 6001 | Framework Standard for Responsible Sourcing | GMO | Genetically Modified Organism |
| BIE | Bureau International des Expositions | GRI | Global Reporting Initiative |
| BS 8500 | British Standard for specifying and producing concrete | GVA | Gross Value Added |
| BS EN ISO 14001 | Internationally-recognised Environmental Management System (EMS) standard | H&S | Health and Safety |
| BS EN ISO 9001 | Internationally-recognised Quality Management System (QMS) standard | HE | His or Her Excellency |
| BSI | British Standard Institution | HH | His Highness |
| BS OHAS 18001 | Occupational Health and Safety Assessment Series, British Standard for Occupational Health and Safety Management Systems | HSQE | Health, Safety, Quality and Environment |
| CCA | Crushed Concrete Aggregate | IFT | Innovation and Future Technology |
| CDM | Clean Development Mechanism | IPM | International Participants Meeting |
| CEEQUAL | Civil Engineering Environmental Quality Assessment and Award Scheme | ISO | International Organisation for Standardisation |
| CEMP | Construction Environmental Management Plan | IUCN | International Union for Conservation of Nature |
| CEO | Chief Executive Officer | KPI | Key Performance Indicator |
| CH₄ | Methane | LEED | Leadership in Energy and Environmental Design |
| CoC | Chain of Custody | LLC | Limited Liability Company |
| CO₂ | Carbon dioxide | MD | Managing Director |
| CO₂e | Carbon dioxide equivalent | MEASA | Middle East, Africa and South Asia |
| CWMP | Construction Waste Management Plan | ML | Megalitres |
| DACC | Dubai Aviation City Corporation | MOCCA | Ministry of Climate Change and Environment |
| DEC | Dubai Exhibition Centre | MOCD | Ministry of Community Development |
| DED | Department of Economic Development | MOE | Ministry of Education |
| DEWA | Dubai Electricity and Water Authority | MoU | Memorandum of Understanding |
| DG | Director General | MSDS | Material Safety Data Sheet |
| DHA | Dubai Healthy Authority | NRCS | Natural Resources Conservation Section |
| DIDI | Dubai Institute of Design and Innovation | NAMA | Nationally Appropriate Mitigation Action |
| DM | Dubai Municipality | PAS | Publicly Available Specification |
| DTCM | Department of Tourism and Commerce Marketing | PEFC | Programme for the Endorsement of Forest Certification |
| EAD | Environment Agency – Abu Dhabi | PJSC | Public Joint Stock Company |
| ECVM | European Council of Vinyl Manufacturers | PMC | Programme Management Consultant |
| EF | Emission Factors | PV | Photovoltaic |
| EMAS | Eco-Management and Audit Scheme | PVC | Polyvinyl chloride |
| ENEC | Emirates Nuclear Energy Corporation | RICS | Royal Institution of Chartered Surveyors |
| ENOC | Emirates National Oil Company | RTA | Roads and Transport Authority |
| EPA | United States Environmental Protection Agency | SDGs | Sustainable Development Goals |
| EPD | Environmental Product Declaration | SME | Small to Medium Enterprise |
| | | STP | Sewage Treatment Plant |
| | | TSE | Treated Sewage Effluent |
| | | UAE | United Arab Emirates |
| | | USD | United States Dollar |
| | | UPS | United Parcel Service |
| | | VCM | Vinyl Chloride Monomer |
| | | VIP | Very Important Person |
| | | WBCSD | World Business Council for Sustainable Development |
| | | WRI | World Resources Institute |

