



Knowledge  
Summit 2019

THE PILLARS OF THIS YEAR'S  
**KNOWLEDGE SUMMIT** ARE:



Sustainable Cities



Climate Change



Knowledge and Data

The Path to Sustainable Development

# Knowledge Summit 2019

*For the sixth consecutive year, Mohammed bin Rashid Al Maktoum Knowledge Foundation (MBRF) is organizing the Knowledge Summit with the participation and attendance of hundreds of international and local personalities and various institutions interested in knowledge, innovation, environment and sustainable development as well as general sciences.*

Under the patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai and the directives of H.H. Sheikh Ahmed bin Mohammed bin Rashid Al Maktoum, Chairman of MBRF, the sixth annual Knowledge Summit is set to take place on November 19-20, 2019 under the theme "Knowledge: The Path to Sustainable Development" at the Dubai World

Trade Centre.

The Sustainable Development Goals (SDGs) – also known as the 2030 Agenda – are a set of 17 development goals which were adopted by the United Nations (UN) General Assembly in 2015. They articulate a global vision and a call for action to eradicate poverty, to protect the planet and ensure that all people enjoy peace and prosperity by 2030.



Renewable Energy



Poverty and Hunger



Eco Degredation



Water Poverty



Tourism



Waste Management



Space





Hamdan bin Mohammed and Ahmed bin Mohammed during the opening of the Knowledge Summit 2018.

The SDGs were approved by all 193 UN member states. The 17 goals are divided into four main themes – environmental, social, economic, and partnerships – and include 169 targets and 233 indicators.

The Knowledge Summit offers a worldwide knowledge platform bringing together specialists and decision makers from around the globe to exchange expertise, best practices and solutions to address the difficulties confronting sustainable development.

Sessions at the Knowledge Summit 2019 cover broad themes in the field of sustainable development, most notably energy and global partnership, as well as health and water, women empowerment, sustainable education, gender equality and building healthy communities. The Summit showcases several countries' plans to benefit from renewable energy sources, build resource-based economies, achieve high productivity through diversification,

and adoption of innovation as a means to build sustainable cities and combat climate change.

The Knowledge Summit highlights several models and various success stories in sustainable development in an effort

to identify and address key challenges facing different people around the world and what is impeding progress in SDG implementation.

Furthermore, some government agencies in Dubai will be displaying their experience and achievements in the field.

## KNOWLEDGE SUMMIT

2014



EMPOWERING  
FUTURE  
GENERATIONS

2015



THE WAY TO  
INNOVATION

2016



KNOWLEDGE...  
PRESENT AND  
FUTURE

# 2014 – 2018

## Knowledge Summits

*This year's edition of the Knowledge Summit augments the previous five summits that focused on innovative, forward-looking scientific and cultural spaces for the future. The primary aim of the summits was to sensitize communities and individuals on the importance of owning and localizing knowledge to build sustainable societies.*

The first edition of the Knowledge Summit held in December 2014 under the theme “Empowering Future Generations”. It examined the knowledge, educational and rehabilitation issues experienced by Arab countries and identified the reasons that motivate young people to pursue science and the production and localization of knowledge.

The second edition was held on December 7-9, 2015 under the theme “The Way to Innovation”. It focused on innovation in education and information

technology and coincided with the declaration of 2015 as the year of innovation in the UAE.

“Knowledge... Present and Future” was the theme of the third edition of the Knowledge Summit, which was held on December 5-7, 2016. It discussed the future of certain sectors which are considered vital to the development of countries, such as reading which forms the core of the knowledge industry; besides other sectors including medicine, technology, media and education.

The fourth edition of the Summit was launched in 2017 under the theme “The Fourth Industrial Revolution.” In its sessions, the participants discussed in detail the concept and importance of the Fourth Industrial Revolution, the history of industrial revolutions and their role in changing human lives for the better. It emphasized supporting the growth and development of knowledge societies by highlighting the first, second and third industrial revolutions and reviewing the details of the Fourth Industrial Revolution, called the “Digital Revolution” that was launched at the turn of the century.

The 2018 Summit, under the theme “Youth and the Future of Knowledge Economy”, sought to keep pace with the UAE's 2021 vision to build a competitive economy based on investment in knowledge, supportive of the concepts of innovation and creativity, and employ advanced technology to promote human welfare and prosperity, to establish a distinguished generation of entrepreneurs within a stimulating environment. It also focused on the role of youth in shaping the future of the Arab region and the world.

### THEMES SINCE ITS INCEPTION

2017



FOURTH INDUSTRIAL REVOLUTION

2018



YOUTH AND THE FUTURE OF THE KNOWLEDGE ECONOMY

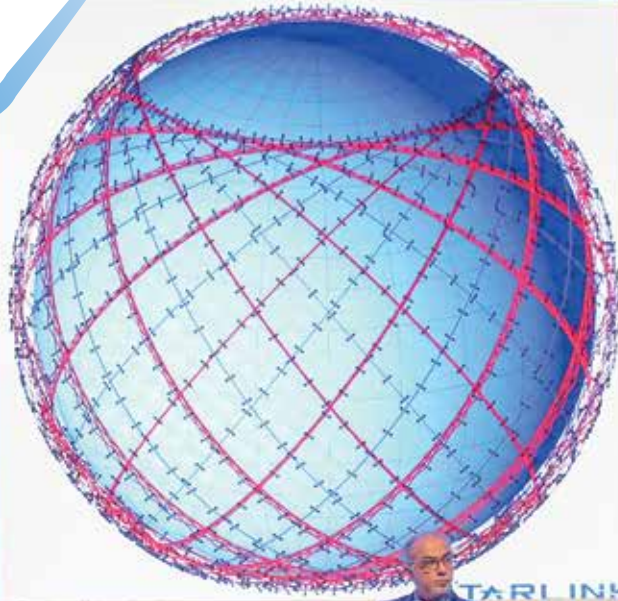
2019



THE PATH TO SUSTAINABLE DEVELOPMENT



**A low-cost satellite-based broadband network capable of delivering internet access to the entire globe by a constellation of satellites in low-earth orbit to provide high speed cable-like internet to every corner of the planet.**



## Global Knowledge Index

*This Summit reviews the results of the Global Knowledge Index 2019 in partnership with the United Nations Development Programme (UNDP). It is aimed at providing model and objective tools to monitor the state of knowledge in various countries of the world, with the participation of a large number of governments, institutions and international bodies. The index supports governments and stakeholders to evaluate the performance of development plans in various fields. The index included 134 countries in its 2018 edition, while in 2019 it evolved to include more.*

The index monitors the state of knowledge of the world and the opportunities and challenges it produces according to seven sectoral indicators: pre-university education, technical and vocational education and training, higher education, research, development and innovation, Information and Communication Technology, economy, and the general enabling environment index.

### Future of Knowledge Foresight Report

MBRF and UNDP are gearing up to launch the 2019 Future of Knowledge Foresight Report – which is part of the Knowledge Project – in collaboration with PricewaterhouseCoopers (PwC) as an extension of the Global Knowledge Index.

This report is the first of its kind in the world. It establishes a connection between knowledge and future technologies. It documents results from 40 countries around the world that have developed their skillsets in technology sectors, and have made advancements in building knowledge-based societies and economies.

### Knowledge Project

The “Global Knowledge Index” and “Future of Knowledge Foresight Report” are the outputs of the Knowledge Project as tools for change and are widely used in policy discussions. The Knowledge Project aims to promote knowledge-based societies and policies as transformative means for sustainable development.

The project contributes to promoting effective dialogue and raising awareness of the importance of knowledge and knowledge-based policies for sustainable development. Among its most prominent outputs include The Arab Knowledge Report 2009: Towards Productive Intercommunication for Knowledge; The Arab Knowledge Report 2010-2011: Preparing Future Generations for the Knowledge Society; The Arab Knowledge Report 2014: Youth and Localization of Knowledge; Arab Knowledge Index 2015; Launching of the Knowledge4All portal; Arab Knowledge Index 2016; Arab Reading Index 2016; Launching of the Knowledge4All Mobile App; Global Knowledge Index 2017; Knowledge and the Fourth Industrial Revolution 2018; Global Knowledge Index 2018; The Future of Knowledge: A Foresight Report 2018.





# Mohammed bin Rashid Al Maktoum Knowledge Award

*Under the patronage of His Highness Sheikh Ahmed bin Mohammed bin Rashid Al Maktoum, Chairman of the Board of Trustees of the Mohammed bin Rashid Al Maktoum Knowledge Award (MBRKA), the Knowledge Summit 2019 is set to host the Award's sixth edition to honor individuals and organizations that have had significant accomplishments in producing and disseminating knowledge.*

This year's edition of the Award witnessed significant turnout from around the world. Submissions focused on development and innovation, developing academic and scientific research institutions, communication technology, medicine, and training human resources.

His Excellency Jamal bin Huwareb, MBRF's CEO and Vice-Chairman of the Board of Trustees of MBRKA, said: "The Mohammed bin Rashid Al Maktoum Knowledge Award has successfully established a prominent position for itself among international awards for supporting and stimulating knowledge. It bears the name of an inspiring and visionary Arab leader, His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai."

"Over the past five years, the Award has shed light on the achievements of creative and innovative people, highlighting important projects that have helped improving communities for the better, enhancing the value of knowledge and its role in sustainable development. We are confident that the upcoming edition of the Award will bring more innovators into the limelight," he added.

## Winners from 2014 to 2018

### 2018

In 2018, the MBRKA went to the Magdi Yacoub Heart Foundation; an Egyptian charity NGO founded to establish a world-class medical center in Egypt dedicated to cardiovascular surgery, treatment and research, the Institute of International Education (IIE); a non-profit global education organization with 18 offices worldwide seeking to advance scholarship and promote cultural understanding, the Saudi Digital Library (SDL), which has the largest collection of digital resources



in the Arab World, and the Amersi Foundation, which supports causes and charities for education and youth empowerment.

### 2017

The 2017 edition saw the MiSK Foundation win the prize. MiSK is a non-profit organization devoted to promoting education and leadership among young Saudis. Japanese scientist Hiroshi Komiyama also won for his contributions in innovation, developing educational institutions, and scientific research. Another winner was Wendy Kopp; Founder of Teach for America and current CEO and Co-Founder of Teach for All. The Teach for America initiative has been ensuring, for the past 25 years, that American children of all backgrounds receive the education they deserve.

### 2016

In 2016, the Mohammed bin Rashid Al Maktoum Knowledge Award was given to Melinda Gates, Co-Chair of the Bill & Melinda Gates Foundation,

for her role in expanding education opportunities and access to information technology, the Abu Dhabi Future Energy Company (Masdar), for its achievements in commercially viable renewable energy projects, and the Arab Thought Foundation for its efforts to strengthen the UAE's cultural identity and reinforce its openness to other cultures.

### 2015

In 2015 the winners were National Geographic, one of the leading channels disseminating knowledge in the world, Hiroshi Ishiguro, Professor at Osaka University in Japan and author of over 300 research papers on robotics, and Ahmed Alshugairi, presenter of the 'Khawatir' television programme, popular influencer, and one of the 500 most influential persons in the Arab World.

### 2014

In 2014, Tim Berners-Lee, the inventor of the World Wide Web, and Jimmy Wales, co-founder of Wikipedia, took home the Award.





# ADVOCATES OF SUSTAINABLE DEVELOPMENT

The annual Knowledge Summit is rooting the role of Dubai, in particular, and the UAE in general, in the fields of knowledge, innovation, artificial intelligence and digital technology. It also shows the state's efforts in ambitious initiatives and strategies, reflecting its vision to achieve success after another. No wonder this year's edition emphasizes the UAE's adoption of a smart knowledge policy that achieves happiness and well-being for various members of society. With more than 100 experts and readers from around the world attending the Knowledge Summit 2018, *Flashes* highlights the biographies of a selected group of speakers:

## ÓLAFUR RAGNAR GRÍMSSON

Ólafur Ragnar Grímsson is the fifth President of Iceland, having served since 1996. He was unopposed in 2000, re-elected for a third term in 2004, re-elected unopposed for a fourth term in 2008 and re-elected for a record fifth term in 2012.

As part of the left-wing People's Alliance, Ólafur was a Member of Althing (Iceland's national Parliament) for Reykjavík from 1978 to 1983. During this time, he was Chairman of the People's Alliance parliamentary group from 1980 to 1983. Subsequently, he was Chairman of the People's Alliance executive committee from 1983 to 1987. From 1983 to 1985 he was editor of a newspaper, *Þjóðviljinn*.

From 1987 to 1995, he was Leader of the People's Alliance. During this time, he served as Minister of Finance from 1988 to 1991 and as a Member of Althing for Reykjanes from 1991 to 1996.

He is the first president to use the authorisation given in the 26th Article of the Icelandic Constitution to put a law from Alþingi into a referendum. He did that on June 2, 2004 to a law about the mass media.



## H.E JUAN CARLOS VARELA RODRIGUEZ

### Former President of the Republic of Panama

Juan Carlos Varela Rodriguez has more than 20 years of extensive experience in the politics; he was President of the Republic of Panama, Prime Minister of the Republic of Panama, Minister of Foreign Affairs and President of Panameñista Party.

As president, he was focused on seeking greater equity and social justice for his country. He also fought corruption and supported the recovery of more than USD 500 million which belonged to the country. Additionally, he created Panamanian history with 2 milestones: establishing diplomatic relations with the People's Republic of China and attaining the largest financing in the country's history through its relationship with Japan for the construction of Metro Line 3.

Focused on Higher Technical Education, Juan Carlos inaugurated the first Higher Technical Institute of Panama. On February 2017, he launched the "Falcon Policy" which focuses on a strategic approach to the UAE as a gateway to the Middle East.



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## HELEN CLARK

Helen Clark was the Prime Minister of New Zealand for three successive terms from 1999 to 2008. She was the second woman to serve as Prime Minister of New Zealand, and the first to win through a general election. Throughout her 28-year-political career in which she served as Prime Minister and Member of Parliament, Clark engaged widely in policy development and advocacy across the international, economic, social, environmental, and cultural spheres. She advocated strongly for a comprehensive program on sustainability for New Zealand and for tackling the challenges of climate change.

In April 2009, Clark became Administrator of the United Nations Development Programme. She was the first woman to lead the organization, and served two terms there. At the same time, she was Chair of the United Nations Development Group, a committee consisting of all UN funds, programmes, agencies, and departments working on development issues. She completed her tenure in April 2017





## MAJID AL MUALLA

Sheikh Majid Al Mualla is Emirates' Divisional Senior Vice President (DSVP), International Affairs. In his role, Sheikh Majid drives the airline's government, industry, public policy, regulatory, environment and international affairs agenda. He also leads teams that represent Emirates in government negotiations and air services talks as well as various aviation industry bodies of which Emirates is a member. Sheikh Majid previously held the position of Divisional Senior Vice President, Commercial Operations Centre, overseeing the commercial development and long-term strategies of Emirates' business across the Gulf, Middle East, Iran and West Asia.

During his career with Emirates, Sheikh Majid worked in several senior managerial positions covering the Gulf and Middle East, UAE, West Asia and Indian Ocean. He also held country management positions in key markets for Emirates such as Lebanon, Bangladesh and district management positions in the Kingdom of Saudi Arabia and the UK.

Sheikh Majid joined Emirates as a management trainee in 1996 after graduation from the Embry-Riddle Aeronautical University in the United States.



## HJAYCEELYN M. QUINTANA

Ambassador Hjayceelyn M. Quintana has served in several diplomatic missions in various capitals

of the world including Beijing, Washington, Dublin, Muscat, and now Abu Dhabi.

She held the position of Assistant Secretary in the Department of Foreign Affairs in Manila including the Office of United Nations, Office of Asian and Pacific Affairs, and Office of Middle East and Africa.

She worked as an information officer at the Center for International Trade Expositions and Missions of the Department of Trade and Industry and a Presidential Staff Officer in the Office of the President of the Philippines.

Hjayceelyn graduated with a B.A. in Political Science at the University of the Philippines. She also holds an M.A. in International Studies from the University of the Philippines and an M.A. in International Public Policy from the School of Advanced International Studies from Washington's Johns Hopkins University.

## MOHAMMED NASSER AL AHBABI

Dr. Al Ahababi is the Director General of the UAE Space Agency and played a key role in its establishment. He leads a team of 60 people. Nationally, Dr. Al Ahababi played a key role in the establishment and management of strategic projects such as leading a Centre of Excellence (CoE) in the Defense sector and the National Space Science and Technology Center (NSSTC) at the UAE University (UAEU). In addition, Dr. Al Ahababi managed the military aspects of the Al Yah MilSatCom.

Dr. Al Ahababi is currently the President of the Board of Trustees for the UAE University's NSSTC. He sits on the boards of the UAE University, the Al Yah Satellite Communications Company (Yahsat), the Global Aerospace Logistics Company, the TRA's ICT Fund, the Arab Union for Astronomy and Space Sciences. He is also on the advisory board of

## JASON POMEROY

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Professor Jason Pomeroy is an award winning architect, academic and TV personality at the forefront of the sustainable built environment agenda. He has designed energy efficient houses in Malaysia and Singapore with electricity generated by solar panels and rainwater collected from the roof.

He gained his degrees from Canterbury School of Architecture, the University of Cambridge, and a PhD from the University of Westminster. He teaches at James Cook University and University of Nottingham in the United Kingdom. He is the founder of the Singapore-based interdisciplinary design and research firm Pomeroy Studio and Pomeroy Academy; a sustainable education provider.

Prof. Jason has authored several books such as *Pod Off Grid: Explorations in Low Energy Waterborne Communities* (2016), *The Skycourt and Skygarden: Greening the Urban Habitat* (2014) and *Idea House: Future Tropical Living Today* (2011). He also raises awareness through television series such as *City Redesign*.



the International Space University (ISU) in France and on the Board of Trustees of the Regional Centres for Space Science and Technology Education for Western Asia affiliated to the United Nations.

Regionally, Dr. Al Ahabbi helped establish the Arab Space Cooperation Group, which was formed in the UAE in 2019 by 11 Arab countries. Internationally, he was elected to serve as the Vice President for Global Membership Development of the International Astronautical Federation (IAF) in 2018. He is one of the 15 Most Influential Personalities in Space Exploration in 2018 and one of the top 50 Arab Power List in Gulf Business in 2018 and 2019.

Dr. Al Ahabbi holds a PhD in Communications and a Master's degree in Optical Communications Engineering from Southampton, UK. He also holds a Bachelor's degree in Electronic Engineering from the University of California, USA. Additionally, he has completed several specialized courses in military and civilian fields.





## HAJIME INOUE

Dr. Hajime Inoue started his professional career as pediatric resident in Tokyo. He then served as a field officer in rural Philippines while working for the Maternal and Child Health Program. After postgraduate study in public health specializing in global health, he joined the Japanese Ministry of Health, Labor and Welfare (MHLW) where he acquired a wide variety of technical experience in public health including hospital management, health insurance, pharmaceutical regulation, infectious disease control, and others.

Before taking on his current position, Dr. Inoue worked as the Director of Infectious Disease Control at the MHLW and as the Special Representative for the Antimicrobial Resistance in the office of the WHO Director General. He also worked as a Senior Advisor to the WHO Director-General, and served as a member of the governing bodies of WHO, the Global Fund, UNAIDS, and IARC.



## HAROLD GOODWIN

For 20 years now, Dr. Harold Goodwin has been a leader in developing responsible tourism theory and practice. As a leading academic and teacher, he worked as a consultant and researcher for the UN World Tourism Organization, UK's DFID, the EU, World Bank, Deloitte & Touche, International Finance Corporation, the Aga Khan Development Network and International Trade Centre and a host of tour operators. He retired in 2016 from Manchester Metropolitan University where he remained an Emeritus Professor.

Dr. Goodwin worked in four continents with local communities, their governments and the inbound and outbound tourism industry to realize the ambition of using tourism to make better places for people to live in and to visit, balancing competitive advantage, growth and sustainability.

He is the responsible tourism adviser to the World Travel Market and Chair of the World Responsible Tourism Awards. His latest book is Responsible Tourism.