

Pre-University Education Higher Education Research, Development, and Innovation Community Development Global Initiatives

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## ANNUAL REPORT





Established in 1995 through the vision of His Highness Sheikh Hamad bin Khalifa Al Thani, the Father Amir, and Her Highness Sheikha Moza bint Nasser, Qatar Foundation (QF) was born of the belief that a sustainable future for Qatar and the Arab world must be forged by homegrown talent. Over the quarter of a century since, QF has been investing in Qatar's greatest resource – people – every day, giving them the tools and the opportunity to play their part in shaping the future. Through its unique ecosystem of knowledge – spanning pre-university and higher education; research, development, and innovation; and community development – QF provides platforms that enable and empower people of all ages, cultures, and backgrounds to learn, create, innovate, and contribute to building a stronger Qatar and a better world.



## Providing the opportunity to make a difference

As we mark our 25th anniversary at QF, I am truly proud of the path we've traveled. We have built together an environment that produces knowledge, generates ideas, and nurtures talent. A platform for global dialogue. A laboratory for discovering solutions to the world's challenges.

However, the real value of QF will always lie in the significant impact we've made on people's lives. These past 25 years have been shaped by the students and communities we've served. Their hunger for learning, their disregard for perceived limits, and their constant pursuit of new horizons.

Together we have cultivated the kind of relentless optimism needed to confront challenges, big and small. Focusing our efforts on the pursuit of knowledge; in advancing human, social, and economic development through education; and in serving as a custodian of the language and heritage of the Arab world.

We owe this pioneering spirit to Qatar. It is Qatar that makes QF special, and unique. We will never lose sight of this.

As we turn to what the next stage of QF's journey holds, we do so with a clear compass: providing opportunity for everyone to find their calling, create, and empower others on their way to making a difference as citizens of this earth.

These are long-term pursuits, and at QF we are in it for the long haul.

Her Excellency Sheikha Hind bint Hamad Al Thani

Vice Chairperson and CEO, Qatar Foundation

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## **Qatar Foundation Boards**

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**His Highness Sheikh Hamad Bin Khalifa Al Thani** The Father Amir and Founder of Qatar Foundation' **His Highness Sheikh Tamim Bin Hamad Al Thani** The Amir of Qatar



Her Highness Sheikha Moza bint Nasser Chairperson of Qatar Foundation





WE BELIEVE IN TRUSTING TODAY'S CHILDREN. BY EXPOSING THEM TO EXPERIENCES AND QUESTS AS A WAY OF LEARNING, WE AIM TO FUEL CHILDREN'S INDEPENDENCE, EMPATHY, CURIOSITY, AND CREATIVITY."

## **Pre-University Education**



## Setting The Tone For A Learning Journey

On the journey along the path of education, the first steps are vital. It is at this point that a young learner starts to discover the value of knowledge, exploration, and discovery; the joy of being creative; the new perspectives on the world that developing the skills of critical thinking and problemsolving open up. It is where a love of learning that lasts a lifetime takes root.

For Qatar Foundation (QF), everything starts with education, which is why it has created a unique model of learning that stretches from pre-school level to postgraduate study. And within this model, everything starts with Pre-University Education (PUE) – where the foundations for lifelong, life-wide learning are laid, and where school students are provided with a meaningful, personalized, intellectually stimulating education experience, recognizing and celebrating the fact that every child is an individual, with their own personality, strengths, talents, interests, and way of learning. This approach to education has been central to QF ever since its establishment. Its ecosystem of education began with a single school: Qatar Academy Doha (QAD), which opened its doors in 1996 as the first element of QF's disruption of Qatar's educational landscape. Blending highquality education with a focus on Arabic language and cultural heritage for the first time, the Qatar Academy model has expanded to the point where it now spans five schools across Qatar, all with distinct identities but a collective ethos.

Over the decades since, they have been joined by a range of specialized QF schools. Together, this portfolio of educational institutions have an academic focus that reflects the diversity of Qatar's community, and the importance of catering to the different needs of different students, cultivating the skills essential for them to thrive throughout their learning journey and throughout their lives, and offering realworld learning experiences – from science,

**"OUR GOAL IS TO EQUIP HIGH SCHOOL STUDENTS WITH THE SKILLS, TOOLS, AND KNOWLEDGE TO PROPOSE PURPOSE-LED SOLUTIONS TO GLOBAL ISSUES."** 

research, and innovation to citizenship, service, and humanitarianism – that empower them to recognize what they can bring to their societies.

And just as it helps young lives to grow, PUE continues to grow itself.

### **Progressive and purposeful**

Quality education has many hallmarks. Inclusivity and accessibility are among them. And QF's investment in quality education has been driven by ensuring that it is open, relevant, and beneficial to everyone.

QF has established schools that nurture the skills of students with special considerations who require tailored support, and that specialize in STEM education. In February 2019, this commitment to providing education that pinpoints and meets the needs of every child was again epitomized with the launch of Academyati – a progressive school that is the first of its kind in Qatar, and whose globally unique learning model takes the concept of personalized education into a new dimension.

With an equal emphasis on children's academic and personal development, Academyati provides tailored, creative, and nurturing learning experiences that appreciate the uniqueness of each its students. When they enter Academyati, every child receives a personal learning plan designed to nurture their growth, harness their interests, and let their creativity flow, with multi-age groups replacing traditional age- or gradedictated class structures. The result is a fluid, non-classroom school environment where learners learn at their own pace, alongside children who may be older or younger than them.

Academyati, which welcomed its first students at the start of the 2019-20 academic year, provides children with experiences and quests – open-ended activities that challenge them to solve problems, all rooted in real-world relevance – rather than a traditional subject-based approach. Currently enrolling pre-schoolage children, the school – showcased to an international audience during QF's November 2019 participation in the Paris Peace Forum global governance summit – will ultimately cover the full spectrum



of K-12 education. As its director Maryam Alhajri explains, its goal is to reimagine the way learning happens.



### 4,378 Qatari students are enrolled in QF schools

"Academyati stands for 'Innovation in Learning'," she said. "We believe in trusting today's children. By exposing them to experiences and quests as a way of learning, we aim to fuel children's independence, empathy, curiosity, and creativity. "We believe our philosophy, and our teaching and learning elements, are going to change the future of education."

In November 2019, education's future was placed in focus at QF as PUE hosted the world's first progressive schools summit, attended by founders and leaders of international schools and institutions that take a new and disruptive approach to learning.

The LEAPS Summit explored how teaching and learning methods can be re-energized to support children's creativity, curiosity, self-development, and future prospects. It will take place biennially, with its first edition seeing the launch of Qatar Spotlight – an initiative developed by PUE in partnership with HundrED, a not-for-profit organization that identifies and shares innovations in K-12 education, through which members of Qatar's educational sector will submit innovative education ideas. The 10 most impactful and scalable submissions will be shared with a global network of educators.

### Bringing heritage to life

2019 also saw Doha's historic Tariq Bin Ziad School being brought under the PUE umbrella, reflecting the evolution and expansion of QF's commitment to ensuring Arabic cultural identity and values are intrinsic into the international-class schooling it provides.

The school has a long, proud tradition of graduating leaders, and – through a bilingual Primary Years Programme that follows the International Baccalaureate curriculum, augmented by additional elements built around enduring importance of Qatari heritage – this tradition is set to continue as a QF school. Its activities and educational pathways are designed to bring cultural heritage to life, through an academic focus that extends beyond the classroom and into community life. "Tariq Bin Ziad School has a unique vision, and will increase the diversity and variety of schools in Qatar," said Maha Al Romaihi, the school's director.

"It will be an exemplar of how to deliver a high-quality, bilingual, international education in the context of Qatari heritage, and of an educational focus that emphasizes the importance of building a strong Muslim, Arabic, and Qatari student identity through Qatari heritage programs and national programs in world-class facilities."

The expansion of QF's PUE portfolio has also seen the establishment of Qatar Academy for Science and Technology (QAST), where the first students to experience its accelerated STEM-focused curriculum and develop the theoretical and practical skills required for science, research, and innovation are already making their mark.

Since QAST opened at the start of the 2018-19 academic year, its students have proposed solutions to regional climate issues to Ovais Sarmad, Deputy Executive Secretary of the United Nations Framework Convention in Climate Change; worked

## EDI Forum Celebrates Cultural Heritage Education

A celebration of how Qatari cultural heritage and identity are at the core of the learning experience offered within the nation's schools was held in April 2019 by the Education Development Institute (EDI), part of PUE.

Attended by Her Excellency Sheikha Hind bint Hamad Al Thani, Vice Chairperson and CEO of Qatar Foundation, the Education Forum on Heritage and Identity was organized by EDI in collaboration with the Qatar National Committee for Education, Culture and Science, under the Ministry of Education and Higher Education; UNESCO; and the Ministry of Culture and Sports.

It also provided an opportunity for teachers to share and showcase learning activities that support the teaching of cultural heritage in Qatar's schools – reflecting EDI's role in steering the professional development of educators, the improvement of curricula, and the building of educational leadership capacity in Qatar.

> with experts from QF member Hamad Bin Khalifa University and Qatar University to develop their ideas for tackling antibiotic resistance; and developed their own workshops for Doha Learning Days, Qatar's first experiential learning festival, organized by QF initiative the World Innovation Summit for Education.

As Dr. Gregory Moncada, the school's director, says: "At QAST, students become innovators and problem-solvers by acquiring the knowledge and skills needed to resolve some of Qatar's greatest challenges."

6,235 students of 57 nationalities are enrolled at QF's schools and the Academic Bridge Program in the 2019–20 academic year





### **Milestones and successes**

As PUE broadens the educational value it brings to Qatar through the establishment and addition of new schools, milestones and moments to savor have been celebrated by those which have been part of the QF story for longer.

Ten years of academic success and nurturing young leaders were marked at Qatar Academy Al Khor (QAK) in November 2018, with Her Excellency Sheikha Hind bint Hamad Al Thani, Vice Chairperson and CEO of Qatar Foundation, attending a



ceremony to commemorate the landmark in the school's life, where staff members who have been there since the beginning were honored.

"Our young people are passionate about pursuing knowledge," said Aisha Al-Megbali, Director of QAK. "They have an incredible ability to adapt and respond to changes with a self-generated methodology, coupled with the support of their families and Qatar Academy Al Khor, their second home."

## QF's schools and its Academic Bridge Program have graduated 4,761 students

Six years on from holding its first classes, Qatar Academy Sidra (QAS) graduated its first students in August 2018, with the names of three students – Karim Emara, Thurriya Al Mulla, and Afnan Farah – being inked into its history as they achieved International Baccalaureate Diploma Programme scores that outstripped the global average.

"The journey undertaken to complete this qualification will ensure that our first three alumni will make a significant difference in the world," said Kim Green, Director of QAS.

Two innovative QAD students took center stage at the 2019 edition of the Intel International Science and Engineering Fair (ISEF) – the world's largest pre-university science competition – in the US city of Phoenix. Sama Nabil Ayoub and Khadija Ahmed Elmagarmid secured their place in the contest by designing a device that enhances communication between autistic children and their parents, which ranked among the winners at National Scientific Research Week, an annual celebration of the scientific talent that exists within Qatar's schools, organized by the Ministry of Education and Higher Education and QF member Qatar National Research Fund.

At Intel ISEF, Ayoub and Elmagarmid's application saw them win an award from global technology education program Oracle Academy, while also being placed fourth in the international science fair's Systems Software category – where the two QAD students were competing against 1,800 students from 80 countries. Their achievement played a key role in Qatar's Intel ISEF team delivering the best performance in its history.

There were also achievements for PUE's schools themselves, as Qatar Academy Msheireb (QAM), Qatar Academy Al Wakra (QAW), and QAK were all awarded Primary Years Program International Baccalaureate (IB) Authorization. QAW additionally received IB Authorization for its Middle Years Program, while QAM secured membership of the Council of International Schools.

### A role in raising awareness

As well as fostering academic excellence, QF schools also have a wider role within Qatar's community – and, through the ethos of these institutions and the values and behaviors demonstrated by their students and educators, a message to send to that community.

Renad Academy has one such message. A groundbreaking specialized school

### QUALITY EDUCATION FUTURE-PROOFS OUR CHILDREN BY EMPOWERING THEM TO BE ENGAGED, ACTIVE, PRODUCTIVE MEMBERS OF SOCIETY, READY FOR WHATEVER LIFE HOLDS."

established by QF to help children with Autism, Renad has also become central to advancing understanding and awareness of Autism throughout Qatar since it opened in 2017.

For the last three years, a key element of this community role has been the annual Renad-organized World Autism Awareness Day event, where families are invited to enjoy a series of activities that, for all the fun they offer, also have a serious side: helping to break down the stigmas that often surround Autism and influence public perceptions of the condition.

World Autism Awareness Day was proposed by Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, in 2007, and adopted without a vote by the UN General Assembly. The first World Autism Awareness Day was marked the following year.

Speaking about the 2019 World Autism Awareness Day event – held at Al Shaqab in Education City, and part of a month-long series of Autism-friendly public activities organized by Renad – Sherri Miller, Director of Renad Academy, said: "We aim to promote and enhance awareness, acceptance, and understanding of Autism among the wider community.

"Through this celebration, we want to demonstrate that while Autism may be

a permanent condition, treatment and therapy leads to improvements."

Meanwhile, through its summer and winter Mukhayamna camps, PUE provided children across Qatar with access to expert-led STEM and recreational programs. The month-long camps, held under the banner 'Where Learning Is Fun', nurture a love of science and math among children, and collectively attract between 350-400 attendees.

#### The voice of youth

One of the defining characteristics of students within QF schools is their determination to lend their voice to global conversations, tackle the world's most pressing issues head-on, and generate their own solutions.

This mindset has helped to make Qatar a gathering-point for aspiring young leaders from around the world, including through the work of THIMUN Qatar, formed in 2011 as a joint project between Qatar Academy and the THIMUN Foundation. Now operating under PUE, THIMUN Qatar supports regional efforts to develop Model United Nations programs and events for young people, cultivating dialogue, debate, cross-cultural understanding, and active engagement in addressing the problems faced by societies worldwide.

### **QF Students Show Their Math Skills On The Global Stage**

In late 2019, 12 students from QF schools whose ability to tackle math has stood out travelled to South Korea to represent Qatar in the World Mathematics Team Championship (WMTC).

For the first time, students from various QF schools were eligible to apply, with young learners from Qatar Academy Doha (QAD), Qatar Academy Al Khor, and Qatar Academy for Science and Technology joining the trip. The competition in Incheon saw 700 students from 16 countries participate.

Two of the Qatar students received special honors, with QAD grade 12 student Oroni Hasan receiving a bronze medal, placing her in the top 30 percent of contestants; and Jassim Al Thani, a QAD grade 9 student, receiving a merit award that placed him in the top 40 percent.

> In January 2019, 1,800 students from 64 local and international schools came together in Doha for the eighth annual THIMUN Qatar conference, under the theme of 'Peace, Justice, and Strong Institutions'. Participants had the opportunity to play the role of diplomats and ambassadors through sessions that replicated UN events.



QF schools have 1,300+ staff and faculty

THIMUN Qatar also hosted the region's largest student-driven leadership summit - the Qatar Leadership Conference 2019 - where 900 high school students from



16 countries converged to develop their capabilities as drivers of change, build new networks of knowledge, and elevate the role of youth in steering the future.

"Our goal is to equip high school students with the skills, tools, and knowledge to propose purpose-led solutions to global issues," said Fatima El Mahdi, Head of THIMUN Qatar. "These young people are our future, and, as the largest Model United Nations conference in the Middle East – which continues to grow every year – we are proud to be at the forefront of education in diplomacy and international relations."

The global awareness of students from QF schools was also illustrated by their role in a sit-down climate change protest at Qatar Foundation in September 2019, as they lent



### iSTEMed Camp empowers students to solve real-world issues

Students, educators, and school leaders from Qatar and beyond participated in the annual iSTEMed Camp at QF – organized by PUE's Education Development Institute – in March 2019.

STEMed explores how educators can empower students to find solutions to real-world problems through science, technology, engineering, and math (STEM). The three-day event, sponsored by ExxonMobil Qatar, featured more than 60 presenters and 50-plus sessions for educators from Early Years to Grade 12, with sessions also enabling the community to participate in STEM activities.

> their voice to calls for world leaders to take urgent action to combat the greatest threat our planet faces.

Among them was Joud Al Issa, 11, a QAD student, who said: "I am protesting because I believe the damage we are doing to the planet will affect future generations, and I hope our grandchildren can see the world as it used to be. Humans are the cause of this damage, so they should always be the solution – it is the responsibility of all of us."

### **Education that empowers**

As August 2019 ushered in a new academic year – one in which more than 6,000 students are embarking on and continuing their learning journey within QF schools – an encapsulation of what pre-university education at QF represents was provided.

It came in the words of Buthaina Ali Al-Nuaimi, President of Pre-University Education, QF, speaking at the fourth



annual PUE Forum. "To us, quality education reaches far beyond merely focusing on literacy, delivering content, providing excellent facilities, and producing impressive exam results," she said.

"Quality education future-proofs our children by empowering them to be engaged, active, productive members of society, ready for whatever life holds. It embraces and celebrates their differences, and inspires them by challenging them. It places as much emphasis on their personal and cognitive development as their academic skills.

"It recognizes that within every child lies potential – and devotes itself to ensuring that their potential is realized."

Qatar Academy Doha





Awsaj Academy



### 2001

Academic

Bridge

Program

Leadership

2005

Qatar

Academy

How QF's

**Evolved** 

**Pre-University** 

**Education Has** 



2008

Qatar Academy Al Khor



Qatar Academy Al Wakra

2011



### 2012

Qatar Academy Sidra



Qatar Academy Msheireb

2014







2016

Renad

Academy

2018

Qatar Academy for Science and Technology



2019

Tariq Bin Ziad School



2019

Academyati









AT CONVOCATION, THE TALENTED, DEDICATED, AND AMBITIOUS YOUNG **PEOPLE THAT QATAR FOUNDATION** IS PROUD TO HAVE CALLED OUR STUDENTS STEP OUT OF ONE PHASE OF THEIR LIVES AND INTO THE NEXT."



## Higher **Education**

Higher Education

# Unique Experiences,

**Endless Opportunities** 

Multinational, multicultural, multidisciplinary, and multidimensional, Qatar Foundation's (QF) Education City is an environment of learning like no other.

It is where branch campuses of some of the world's leading universities stand alongside QF's homegrown institute of higher learning, Hamad Bin Khalifa University (HBKU), and more than 3,000 students from almost half the countries in the world learn within the lecture theatre, the workshop, and the laboratory - but also learn from, and about, each other beyond the classic academic setting, sharing their stories and experiences, and broadening their understanding and worldview.

QF built its pioneering model of higher education to maximize the academic expertise and learning experience it could offer students in fields that are vital to the future of Qatar, while being relevant to the world and to the path young people

Higher Education

want to carve for themselves within it through top-ranked programs whose focus stretches from engineering, medicine, art, and media to global affairs, energy and the environment, Islamic studies, cultural heritage, and business.

Every degree a student at one of eight QF's international partner universities earns is the equivalent of that gained by a student at its home campus. And at HBKU - which continues to expand its academic offer and its international reputation as a researchfocused, innovation-based, entrepreneurial university - six specialized colleges provide 35 programs that hone the skills required to equip future leaders with real-world problem-solving skills that shape solutions capable of creating global benefit.

A central element of what sets Education City apart is the proximity of these universities to each other. QF students have an opportunity that does not exist anywhere

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else in the world – to cross-register for courses at different universities just yards apart, allowing them to customize their learning experience, and widen the scope of their knowledge and their goals. Academic and research collaborations are easy to form and capable of generating greater impact because of the closeness of institutions and their students, faculty, and researchers. And the possibilities for the exchange of knowledge and cultural understanding that Education City offers its student body, and those that teach them, are endless.

Dynamic, diverse, dedicated to nurturing excellence, and continually disrupting the concept of what a university campus can be, the higher education landscape at QF is a true world of learning – where the world comes to learn.

#### **Shared celebration**

Every year, the meaning and purpose of QF's investment in education is embodied by a group of young people who – having strived to learn, grow, discover, innovate, and succeed for several years – reach the crowning moment of their time at Education City: the moment where they graduate, and take the step from one stage of their journey to the next. In 2019, QF's annual Convocation ceremony – which, since 2008, has been a platform to collectively celebrate the achievements of graduating students from HBKU and QF's partner universities – honored 786 graduates, the highest number in the history of QF. The Class of 2019 join a growing global network of QF alumni that now has more than 5,800 members.

At Convocation 2019, which was attended by His Highness Sheikh Tamim bin Hamad Al Thani, the Amir of Qatar, and Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, they gathered to look back on their time and accomplishments at Education City, while also turning their gaze toward the future. The significance of the occasion, and how it represents more than a graduation ceremony, was illustrated by Her Excellency Sheikha Hind bint Hamad Al Thani, Vice Chairperson and CEO of Qatar Foundation.

"For our Class of 2019 graduates, Convocation is many things: a personal and shared celebration, a source of pride, and a time to reflect on their achievements and experiences at Education City," said Her Excellency Sheikha Hind. "It is a culmination – but it is also a beginning.

"At Convocation, the talented, dedicated, and ambitious young people that Qatar



Foundation is proud to have called our students step out of one phase of their lives and into the next. A future that holds challenges and possibilities awaits them, but wherever their path leads, they will travel it empowered with the knowledge that they are as well-equipped to create, innovate, contribute, and thrive as any set of graduates in the world."

Just as May signifies culmination, September represents commencement – the commencement of learning, and life, at Education City for a new wave of students who will ultimately take to the Convocation stage.

And the 2019-20 academic year began with almost 3,300 new and returning students

#### Higher Education

– a student body six per cent larger than in 2018/19, with 60 per cent of students being female – enrolled in the nine universities at QF, and ready not just for an education, but for an experience that will equip them to address the needs of Qatar and make their mark on the global stage.

### **Pushing boundaries**

For HBKU, the 2019 graduation period was one of firsts, and of starts.

Its 173 graduates from 43 countries included the first cohort of graduates from seven programs within three of its colleges: postgraduate programs in digital humanities and societies; women, society, and development, and genomics and precision medicine; doctoral programs in computer science and engineering, sustainable energy, and biological and biomedical sciences; and the university's first undergraduate program, its Bachelor of Science in Computer Engineering.

Its fifth graduation ceremony also saw Dr. Ahmad M. Hasnah, President of HBKU, announce the launch of eight new, multidisciplinary graduate degrees across all six of the university's colleges – including the Master of Public Policy within HBKU's newly-inaugurated College of Public Policy.

"The new degrees are an organic extension of HBKU's vision to offer an integrated and cutting-edge learning experience," said Nasser Al-Binali, Head of Enrollment at HBKU.

"The university's mandate is to graduate a highly-capable stream of individuals, but, even more importantly, it seeks to begin addressing today the needs of tomorrow."

HBKU's goal of pushing boundaries was reflected through a new agreement with edX, the non-profit online learning platform founded by Harvard University and Massachusetts Institute of Technology. It makes the QF member the first Middle East university to provide interdisciplinary courses – available to millions of students around the world - through edX, with the initial two being 'Solar Energy in Hot Desert Climates' and a professional certificate program in 'Sustainability and Major Sports Events', designed in partnership with sports and events expertise hub the Josoor Institute.

"As an ever-evolving sector, education has, in recent years, taken on new forms that go beyond the limitations of the conventional classroom setting," said Dr. Hasnah. "Our edX offerings are a manifestation of the university's lifelong commitment to innovate academic approaches that transcend geographical boundaries."

Through a collaboration with IBM, announced at the Qatar IT Conference and Exhibition 2019, HBKU students will now feel the benefit of the IBM Skills Academy, giving them the opportunity to gain new and vital digital skills in areas such as cloud computing, data science, analytics, blockchain, Artificial Intelligence, and cybersecurity – improving their career prospects while expanding their capacity for entrepreneurship.

As part of HBKU's commitment to providing high-quality education in areas of innovation, and its dedication to taking evidence-based approaches to problemsolving, the university organized its first Qatar International Cybersecurity Contest in October 2019, HBKU brought together 130 academics, experts, and students from over 30 countries to analyze current cyber threats and vulnerabilities, and identify ways of tackling them. Competitions run by HBKU colleges challenged participants to look at cyberspace through the lens of ethics and morality; detect fake news; take part in ethical hacking activities; present arguments in an international court simulation; and focus on the importance of keeping genetic data safe.

Meanwhile, reflecting the fundamental role of HBKU, the university launched the HBKU Innovation Center, a pioneering initiative designed to foster entrepreneurship and creativity, and focused on a number of key challenges. It aims to serve as a platform for connecting and sharing ideas, people, resources, and expertise – providing a single dedicated space for collaboration.

The center officially initiated the first

## International acclaim for HBKU student's diabetes research

Research into diabetes led to a student at Hamad Bin Khalifa University's College of Health and Life Sciences being recognized by the International Society for Stem Cell Research (ISSCR).

Bushra Memon, who is pursuing a Ph.D in Biological and Biomedical Sciences, discovered an alternative source of insulinsecreting cells that could be used to treat diabetes. Her work led to her receiving the ISSCR Abstract Merit Award during the society's 2019 conference in Los Angeles.

> cycle of its Idea Development Grant in August 2018, with 14 teams moving to the final stage in order to develop their proof of concept further. The second cycle, initiated in March 2019, saw 10 teams being awarded.

### **Empowering and engaging**

Within QF partner university Northwestern University in Qatar (NU-Q) stands a museum that is both unique and interactive: the Media Majlis, the first of its kind in the region, and the first university museum in Qatar.

Designed to be an active and empowering space where people can engage with content and programs focusing on communication, journalism, and media in the Arab world, as well as contributing to global conversations about the constantly changing face of media, the museum will



host two exhibitions each year, with its first exploring how a century of film history has shaped, and been shaped, by notions of Arab identity.

The Media Majlis was officially dedicated in a May 2019 ceremony by Her Highness Sheikha Moza bint Nasser. It features digital capacity-creating exhibitions in which visitors can participate through interactive commentary and engagement, with digital and physical content allowing the exploration of stories from multiple perspectives.

"The Media Majlis aims to foster public understanding of journalism and communication, and their role in shaping public opinion and shaping the image of the Middle East to the rest of the world," said Everette E. Dennis, Dean of NU-Q.

NU-Q is also now home to the Media



### I WOULD NEVER HAVE BEEN ABLE TO MAKE IT THIS FAR IF IT WASN'T FOR QF AND QATAR MAKING IT POSSIBLE TO GET THIS KIND OF **EDUCATION HERE, SO THAT WE COULD ALL**

**ACHIEVE OUR POTENTIAL."** 

Innovation Lab (MIL), where innovative ideas are being blended with theory and technology, with the aim of developing original concepts and solutions that address challenges in the media world.

Launched in fall 2018, the MIL resulted from an NU-Q exploration of how students. faculty, and staff could use the university's new building as a platform for innovation. Each year, it will address a specific media-focused theme through a series of workshops, lectures, and activities, the first theme being 'Virtual and Augmented Reality in Storytelling in Media'.

### **Global perspective**

The contribution of QF partner university Georgetown University in Qatar (GU-Q) to raising Qatar's global profile as a hub of new knowledge and original thought was celebrated in April 2019 at an event that commemorated the publication of over 100 books by its faculty and staff since its establishment in 2005.

Attended by Her Highness Sheikha Moza bint Nasser, 'GU-Q 100: A Celebration of Knowledge' lauded the wealth of research that the university has produced in the field of humanities and social sciences, with the event coinciding with the 100th anniversary of the Edmund A. Walsh School of Foreign

Service (SFS) at Georgetown University. And, as the school's dean, Joel Hellman, said: "One hundred years ago, SFS took on the mission to foster peace and stability through education rooted in a global perspective.

"I'm proud to see the continuation of that Georgetown tradition in this celebration of GU-Q's contributions to multidisciplinary scholarship in Qatar, and around the world."

GU-Q's dedication to discovery and dialogue was again evidenced by the formation of the Cyber Security Research Group, a joint initiative with the Community College of Qatar. The group will bring together Qatarbased cybersecurity experts to develop research projects focusing on addressing cyber issues that are of the greatest relevance to Qatar and the region, while also hosting international cybersecurity leaders to discuss cyber concerns and how they can be tackled across different sectors.

### Leading change

A milestone was reached at Texas A&M University at Qatar (TAMUQ) in 2019, as the QF partner university celebrated the achievements of its latest batch of graduates.



## Leaping hurdles – and breaking down barriers

In more ways than one, Northwestern University in Qatar student Mariam Farid has no problem clearing obstacles.

She is the first female Qatari athlete to wear the hijab during competition, which has led to her taking a role in breaking down stereotypes surrounding Arab women. And in 2019, having acted as an ambassador for the IAAF World Athletics Championship in Doha, she rose to the occasion in the competition itself, setting a new personal best in the 400m hurdles.

> The university graduated its 1,000th engineer at its annual commencement ceremony, where Class of 2019 electrical engineering graduate Saeed Binnoora told her classmates and fellow graduates: "Tonight, we realize the greatest reason why we are here: that we are on a humanitarian mission.

"It is not about the grid, or the bridge, or the catalyst, or the pump, but much grander. We are over 1,000 graduates from Texas A&M University at Qatar leading positive change."

TAMUQ's capacity to drive such change has been supported by its Center for Teaching and Learning being awarded a Fulbright grant to develop an innovative new approach to the way students learn and tutors teach – the first of its kind for an educational institution in Qatar. The award comes under the Fulbright



Specialist Program administered by the US Department of State, which pairs top US academics and professionals with overseas institutions to develop capacity-building projects.

And innovation was at the core of a technology developed by TAMUQ researchers that could help Qatar process natural gas while reducing its carbon footprint. Developed in Qatar by a TAMUQ research team in collaboration with colleagues at Texas A&M University's main campus in the US, the CARGEN reactor is designed to turn methane and CO2 into syngas, which can be used to make vital chemicals for Qatar's gas-processing industries; and carbon nanotubes, which can help to manufacture computers and other materials – all through a process that, because it can be driven by electric or solar power, removes the need to burn fuel and leads to lower emissions.

#### **Research with impact**

Fresh perspectives on breast cancer therapy – which could lead to better treatment for the disease, with fewer sideeffects - were provided in November 2018 by a research team at Carnegie Mellon University in Qatar (CMU-Q).

A project by Ihab Younis, an Assistant Professor of Biological Sciences at the QF partner university, and Ettaib El Marabti, a 2017 graduate of its Biological Sciences program, discovered that a cellular mechanism called "splicing" that does not work properly in cancer cells could actually be used to kill those cells while leaving healthy ones intact.

"Carnegie Mellon as an institution is built on the belief that research should have an impact on people's lives," said Michael Trick, Dean of CMU-Q. "Ihab and Ettaib's research could have important implications in the treatment of breast cancer, as well as other types of cancers."

Two CMU-Q researchers created a digital 3-D mathematical model to predict how human tissue responds to the physical stresses of pregnancy, which could open the way for a new tool to be developed that allows miscarriage or pre-term delivery risks to be measured and forecast. "If we can use mathematics to provide a tool for doctors to better predict, and perhaps mitigate, pre-term births, that would be very gratifying," said Dr. Hasan Demirkopan, Associate Professor of Mathematics at CMU-Q, who conducted the project with post-doctoral researcher Heiko Topel.

And a CMU-Q alumna's passion for protecting the environment led to her being named as one of the five finalists for the UN Young Champions of the Earth competition - designed to unlock ideas and empower leaders in the field of conservation and the environment - for the West Asia region. Dina Altarawneh's idea for reducing singleuse plastics in Qatar's grocery stories is to establish a zero-waste, bulk grocery store that would be the first of its kind in the Middle East, leading to the Class of 2019 biological sciences graduate being selected for the UN competition.

#### **Commemorating a milestone**

Virginia Commonwealth University School of the Arts in Qatar (VCUarts Qatar) has a relationship with QF that stretches back to 1998. And its growth, and the impact it has made on the art and design landscape in Qatar, was chronicled in a new book as the QF partner university celebrated two decades years at Education City.

Cultivating the Arts commemorated the university's 20th year in Qatar, and was dedicated to the alumni who have passed through its corridors and programs, and the faculty and staff who have been at center of its longevity. It detailed how the university evolved from its early days at Shaqab College of Design Arts, to VCU Qatar College of Design Arts, and then becoming a branch campus of Virginia Commonwealth University in 2002, when its first degrees were awarded.

Speaking at the book launch, Dr. Donald Baker, Executive Dean of VCUarts Qatar, said: "VCUarts Qatar has been a steady source of innovation and alternative ways of looking at the world and at ourselves."

A new piece of VCUarts Qatar history was made in March 2019 when four of its alumni – Hadeer Omar, Noha Fouad, Wajiha Pervez, and Yasmeen Suleiman – became the first former students to cochair the university's annual international

## Mental health study sees GU-Q student secure fellowship

A Georgetown University in Qatar student became one of only two non-practicing journalists to be awarded the Rosalynn Carter Fellowship for Mental Health Journalism, which promotes accurate reporting and greater understanding of mental health issues.

Asma Al-Jehani – who is also the first Qatari student to be selected – was introduced to the Carter Center fellowship through QF initiative the World Innovation Summit for Health, as she worked on a project studying the mental health of migrant workers in Qatar.

> design conference, Tasmeem Doha, which hosted three days of workshops, talks, and exhibitions by artists and designers from the region and around the world.

Held under the theme of 'Hekayat, meaning 'stories', the experience of creating the conference was, in Omar's words, "amazing". "We were the first graduates to take on such a thing," she said. "It was an experience and a challenge at the same time. We are incredibly proud of how far we've come."

### Matching with the best

For the doctors of the future, one of the pivotal moments in their career is Match Day – when medical students throughout the world aim to win coveted places on the world's top medical residency programs.

The caliber of the new generation of healthcare professionals whose skills are



honed at QF partner university Weill Cornell Medicine-Qatar (WCM-Q) was illuminated in April 2019, when its final-year medical students matched with programs at some of the world's top university hospitals.

The elite US institutions where WCM-Q graduates are now undergoing their residencies include Johns Hopkins Medicine, Case Western/University Hospital Cleveland, Duke University Medical Center, and NewYork-Presbyterian/Weill Cornell Medical Center, with others enhancing Qatar's healthcare expertise at Hamad Medical Corporation. And WCM-Q Class of 2019 member Said Alnajjer said: "I would never have been able to make it this far if it wasn't for QF and Qatar making it possible to get this kind of education here, so that we could all achieve our potential."

In the sphere of biomedical research, WCM-Q discovered new metabolites – the product of the chemical reaction that keeps people alive – that could explain why some obese people develop type 2 diabetes while others do not; contributed to an international research project into neurodegenerative disease by analyzing how desert toxins could play a part in the onset of conditions such as Alzheimer's and Parkinson's disease; and seeing its Qatarbased study which uncovered links between genetic variations and a range of conditions - including heart disease and cancer – being built on by an international team of scientists, leading to a detailed genetic map of human proteins.

Meanwhile, through a research agreement between WCM-Q and US biotechnology company Moderna, a new cholesterolcontrolling drug will be developed, with the potential to radically improve treatment for type 2 diabetes and cardiovascular disease.

### Focus on heritage

As Qatar seeks to both preserve and promote its cultural heritage – and position itself, regionally and globally, as a premier cultural hub – a QF partner university is playing a vital role.

UCL Qatar's close and longstanding links with Qatar Museums, the nation's leading cultural authority, were intensified in October 2018 through a partnership that will create a new legal framework for Qatar's cultural heritage. Drawing on expertise from organizations such as UNESCO, it will modernize heritage laws dating back to 1980 and bring them into line with internationally-recognized standards, so the socio-economic benefit of Qatar's history and treasures can be maximized.

Areas of focus for the partnership include how privately-owned museums can be established in Qatar, and Sam Evans, Director of UCL Qatar, said: "UCL was invited to Qatar by QF to develop cultural heritage programs that help to realize the tangible and intangible value of the country's investment in arts and culture. Qatar Museums has been a pivotal partner for UCL in this task, and we're incredibly proud to be working with them yet again on such an important national initiative."

Just as QF's partner universities bring benefit to Qatar, being in Qatar benefits them – as HEC Paris can testify. In November 2019, the French business school's International Executive MBA (EMBA) program was ranked No.1 in the world by the Financial Times (FT) – and the achievements of HEC Paris in Qatar's students helped to make this possible.

When the program was placed sixth in the FT's 2018 rankings, only its Paris-based track was taken into consideration. In 2019, it was assessed as one program, taking the results of its Doha cohort into account as it came top of the FT table.

"The achievements of our Doha cohort are a direct result of an excellent partnership between QF and our main campus in Paris," said HEC Paris in Qatar marketing director Michael Lefante. "From supporting our growth, helping us to expand our academic programs, to encouraging us to develop locally-inspired business modules, QF has helped our campus in Qatar exceed its expectations."





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WE WANT PEOPLE TO RECOGNIZE QSTP AS A HUB OF INNOVATION, AND REALIZE THAT QATAR IS THE PREMIER DESTINATION FOR THEM TO MAKE THE IMPACT THEY AIM TO ACHIEVE."

## Research, Development and Innovation



## Shaping the Future, Building a Legacy

"Research, development, and innovation in Qatar is a journey, and it is a journey as important as any that Qatar will ever undertake."

Those were the words of Dr. Richard O'Kennedy, Vice President of Research, Development and Innovation at Qatar Foundation, at 'Catalyzing The Future', an October 2019 celebration of the 10th anniversary of Qatar Science & Technology Park (QSTP) that also emphasized how making a nationwide commitment to advancing research and innovation can create an enduring legacy for Qatar.

They also reflected how, for Qatar to achieve its economic and social development goals, a continuing focus on research, development, and innovation (RDI) is essential – because of its capacity to underpin the nation's sustainability, selfsufficiency, and resilience, and to reinforce its global competitiveness. The RDI environment that Qatar Foundation (QF) has built over the past decade-anda-half ensures Qatar now has a platform to take its efforts in this field to a new level, and into a new phase. From research and technology development centers to a wide spectrum of funding programs, the infrastructure that opens the way for discoveries and breakthroughs to happen is now established. Technology entrepreneurs, innovators, and businesses are being supported to develop innovative solutions that address challenges faced by Qatar and the world. Some of the leading international names in industry and technology are developing their products and services at QSTP, alongside the startups launched by aspiring tech entrepreneurs from across the Arab world.

Science, technology, and innovation are intrinsic to QF's schools and universities, with students who establish tech ventures while at university having the opportunity

QATAR CAN LEAD BY EXAMPLE AND SHOW THE REST OF THE WORLD HOW TO SEAMLESSLY EMBRACE AN AI + X FUTURE, WHERE ALMOST EVERY ACTIVITY OF IMPORTANCE WILL BE TOUCHED BY AI."

to advance them at QSTP soon after they graduate. The juxtaposition of academia and RDI within QF provides students with practical real-world science and research experience while pursuing their degrees, enabling them to view RDI as a viable career choice and expanding Qatar's human capacity in this pivotal area.

By creating a value chain that spans the full spectrum of RDI – from ideas to commercialized products – and a vibrant research culture that brings together local, regional, and international researchers and innovators, QF has laid the foundations for Qatar to future-proof itself, to open up new economic avenues and opportunities for job creation, and to compete in the next great global race: the race for minds, and for talent.

### **Dedicated to innovation**

Since its establishment in 2009, QSTP has become an international hub for applied research and technology innovation, incubation, and entrepreneurship, supporting the commercialization of technologies that are ready to make an impact in the marketplace.

As a Free Zone, a business park, and an innovation community, QSTP is home to entities dedicated to develop new high-tech products and services designed to meet both local and global challenges. Over its 10-year lifespan, 108 companies from 17 countries have operated at QSTP, with its current portfolio of companies ranging from Qatari organizations such as the Gulf Organization for Research & Development, Qatar Mobiity Innovation Centre, and Meeza, to multinationals like Cisco, Microsoft, and Conoco Phillips.

Within its Incubation Center – a 12-month program that helps Qatar-based startups develop their products, expand their customer base, and explore funding opportunities – 20 nascent companies and 66 entrepreneurs have so far been supported in navigating the early stages of the path to tech success. Through its acceleration programs, innovators are provided with training, mentorship, and real-world insight into developing and launching tech ventures, while more than 1,000 people have benefited from its innovation mindset learning pathways.

QSTP – which will offer USD 50 million to support startups over the next five years - also provides funding opportunities for small-to-medium enterprises and startups that are developing products and services relevant to Qatar's needs, and for tech founders and entrepreneurs taking the first steps on their journey.

### Food security in focus

As self-sufficiency in terms of food supplies becomes an increasing area of focus for Qatar, 2019 saw Qatar National Research Fund and the Ministry of Municipality and Environment launch the first cycle of a joint food security funding call.

It will invest in research projects that primarily focus on local food production, and aims to encourage the development of food security solutions that are suited to Qatar's climate and support the creation of a sustainable national food system for the country.



### In 2019, QNRF-funded research featured in 1,103 scientific publications

Collectively, this places QSTP at the core of Qatar's RDI ecosystem. 'Catalyzing The Future' provided an opportunity both to reflect on the impact it has already made, and the role it will now play in accelerating Qatar's business RDI sector and attracting more tech companies and talent to the nation. "We want people to recognize QSTP as a hub of innovation, and realize that Qatar is the premier destination for them to make the impact they aim to achieve," Dr. O'Kennedy told the event.



At 'Catalyzing The Future', His Excellency Dr. Khalid bin Mohammed Al Attiyah, Minister of State for Defense Affairs, who chairs the Qatar Research, Development and Innovation Council – a national body charged with developing a nationwide strategy for RDI – emphasized how Qatar's goal is to be ranked among the world's most advanced innovation economies.

Speaking about the importance of the National Strategy for Research, Development and Innovation 2030, he said: "With this strategy, we are honored to provide our country with a new national legacy towards 2030; a legacy that befits its ambition, protects its national interests, and reinforces its position and global leadership.

"A new legacy for an ambitious homeland, under the banner of our Amir, that is



focused on research, development, and innovation."

## Putting entrepreneurship to the test

QSTP's growing reputation as a regional tech innovation hub was illustrated in January 2019 when it staged the second edition of the Arab Innovation Academy (AIA) – the largest entrepreneurship program in the region, where budding tech entrepreneurs see their skills tested to the limit as they are challenged to create a new startup from scratch in just 10 days.



### Over 17,000 genomes have been sequenced by Qatar Genome Programme

A collaboration with the European Innovation Academy (EIA), the AIA is an accelerated form of experiential learning that places participants into a 'real-life' marketplace scenario as they develop and launch their ventures. From more than 900 applicants, 160 were selected for its second edition, with more than 30 nationalities being represented by the participants, speakers, and mentors.

First place in AIA 2019 went to the Salamat-e team, who created a mobile app that acts as a 'health passport, with second-placed team Fly Stories developing a platform that offers children an interactive reading experience. Ideas produced during the 10-day innovation 'boot camp' focused on topics ranging from reusing industrial waste to simplifying the search for blood donors. "At the Arab Innovation Academy, students develop the skills and confidence needed to develop startups from scratch, and learn to create unique value in the world of entrepreneurship and innovation," said Alar Kolk, President of EIA.

"This unique, world-changing program is only possible through the vision and leadership of Qatar Foundation and QSTP. Our collaboration promises to empower young people to further the development of essential skills needed to transform the long-term prospects of the region."

Meanwhile, 14 of the most promising tech startups from across the MENA region participated in the third edition of the MENA Dojo program in Kuwait, through QSTP's partnership with global venture capital firm 500 Startups.

The MENA Dojo is a regional spin-off of the 500 Startups Series A Accelerator Programme, and provides startups that have already secured investment and are now looking to scale up their operation with intensive one-to-one training and mentorship. Those participating in its latest edition included two Qatari startups that have previously benefited from QSTP's programs: ADGS, a suite of products that use Artificial Intelligence (AI), behavioral biometrics, and emergent behavior, and MaktApp, an AI-driven platform that streamlines online payments.

"Innovation is essential to the development of any economy, and QSTP is honored to collaborate with 500 Startups to provide promising, innovative entrepreneurs with the support that will enable them to become important contributors to the economic growth and diversification of the MENA region," said Yosouf Abdulrahman Al-Salehi, Executive Director of QSTP.

WE CAN SAY THAT SIDRA MEDICINE IS PERHAPS ONE OF THE MOST AMBITIOUS AND FAR-REACHING PROJECTS IN QATAR OVER THE PAST TWO DECADES."

#### Leading by example

For QF member Hamad Bin Khalifa University's (HBKU) research institutes, 2018/19 also saw new ground broken in the fields of Artificial Intelligence (AI), health, energy, and the environment.

## 80 patents have been granted through research and innovation activities driven by QF

Al is a branch of technology that is set to have an influence and an impact on every aspect of our lives, workplaces, and societies in the years to come. One of the key questions facing every nation is how they prepare themselves to face, adapt to, and maximize the benefits of, an Al future.

Qatar is now well-positioned to do this thanks to a blueprint produced by Qatar Computing Research Institute (QCRI), which, in October 2019, was accepted as the country's national AI strategy – the first to be developed through a collaboration between the nation's government and a research institute.

Since being established in 2010, QCRI has been a pioneer in the use of AI within computing research, helping to elevate Qatar's profile as a hub of technology innovation. The national AI strategy which has resulted from its blueprint is built on six pillars: Talent, Data Access, Employment, Wealth Creation, Embracing an AI + X Future, and Thought Leadership in AI Ethics.

Dr. Ahmed K. Elmagarmid, Executive Director of QCRI, said this strategy can help to place Qatar among the world's AI leaders, saying: "Qatar can lead by example and show the rest of the world how to seamlessly embrace an AI + X future, where almost every activity of importance will be touched by AI."

In September 2018, QCRI launched the Qatar Center for Artificial Intelligence, established to develop and promote the use of cutting-edge AI solutions for the good of society. Its key areas of focus are to make the study of AI an integral part of educational curricula; attract leading AI talent to Qatar; establish a research and policy center in Qatar to coordinate AI programs and initiatives; incentivize local businesses and government entities to embrace homegrown AI solutions; and



promote the use of AI as a means of alleviating poverty and improving living standards.

### **Autism discoveries**

In the sphere of biomedical science, the findings of a six-year study on the prevalence of Autism Spectrum Disorder (ASD) – the first of its kind to be conducted in Qatar and the Gulf region – were released by HBKU's Qatar Biomedical Research Institute (QBRI in June 2019. Conducted by the institute's Neurological Disorders Research Center, its aim was to pinpoint how common ASD is among families in Qatar, and establish an Autism database and disease registry. Its outcomes revealed that the prevalence of ASD in Qatar was one in 87 children, enabling the study to estimate that about 4,800 people in Qatar have the condition. The findings have enabled the creation of Qatar's first Autism registry, using the data of 1,300 people with ASD, which will be made available to researchers whose focus includes neurological disorders; while the data is also designed to support policymakers with healthcare planning in the context of Autism.

QBRI and the Harvard Stem Cell Institute also signed a collaborative five-year research and training agreement, including technical training and research in stem cell biology with the goal of working toward developing viable treatments for diabetes. Meanwhile, QBRI launched its Interdisciplinary Research Programs, designed to be a catalyst for crossdisciplinary research across the institute's three research centers, which focus on diabetes, cancer, and neurological disorders.

HBKU's Qatar Environment and Energy Research Institute (QEERI) brought together researchers, engineers, technology producers, project developers, and local authorities in the solar energy field to launch the QEERI Solar Consortium.

### Qatar Biobank has 96 active research collaborations and 18 outreach programs

The program is designed to develop a common focus on the testing of solarbased devices and systems within the desert environment of Qatar, and consequently accelerate the development of these technologies and the use of solar energy in Qatar – with the knowledge these efforts create having potential benefit for other countries.

Through a collaboration with Qatar Electricity and Water Company, launched in 2018, QEERI is now developing an advanced Multi Effect Distillation plant that can test ideas for reducing energy consumption and improve the energy efficiency of water desalination technologies. And as QEERI works with local farmers to develop and implement a renewable power system for commercial farming, the institute installed a solar energy system on farms that are part of the pilot phase and assessed the water quality of their wells.

#### **Active contribution**

Personalized, precision medicine – the provision of treatment tailored to the needs and characteristics of individuals – is a primary area of focus for Qatar's RDI efforts, reflecting the fact that the country's biggest health issues need customized medical solutions.

Developing such solutions demands data, and this is what Qatar Biobank – part of QF RDI – has provided through its unique medical research initiative that collects health information and biological samples from members of Qatar's population, supporting researchers to enhance their understanding of the drivers of disease.

In March 2019, it screened its 20,000th participant, a milestone that Dr. Asmaa Al Thani, Board Vice Chairperson of Qatar Biobank and Chairperson of Qatar Genome Programme Committee, described as moving Qatar "one step closer" to making preventative medicine a reality.

"The success of the medical research at Qatar Biobank, and ultimately the realization of precision medicine, depends on how actively the people of Qatar contribute to our program," she said. "I thank everyone who has so far registered for Qatar Biobank, and encourage everyone to join us in improving the efficiency of the country's healthcare, which is an important national duty."

Through a research and development agreement between QF member Qatar Genome Programme (QGP) – a project generating genome sequencing and molecular data about the Qatari population, helping to chart a path toward personalized medical care - and Genomics England, signed in April 2019, the door has been opened for Qatar and the UK to collaborate

## Clearing the way for tech entrepreneurs

A new funding initiative launched by Qatar Foundation Research, Development and Innovation in 2019 is set to support technology ventures in overcoming potential barriers to progress.

Aimed at Qatar-based SMEs or startups that are developing new tech products and services, the Innovation Coupon is a fund that helps them meeting the costs of solving a specific issue or problem. Its first beneficiary was ADGS, with the Innovation Coupon supporting the company in developing STROKK: a cybersecurity product that adds an organic layer of security to systems and renders stolen passwords useless to hackers by learning the typing characteristics of the genuine user.

"The development of the Innovation Coupon highlights our commitment to fostering local product innovation and supporting the development of SMEs in Qatar," said Dr. Richard O'Kennedy, Vice President of Research, Development and Innovation at Qatar Foundation.

> on genomics research that can advance precision medicine within, and beyond, the two countries. "This agreement will see our two projects benefiting from a strategic alliance and the pooling of research talent and resources from both nations," said Dr. Al Thani.

### **Meeting needs**

QF's investment in biomedical research indicates its commitment to helping to transform healthcare in Qatar – a commitment that, in November 2018, was



also illustrated at the official opening of a groundbreaking addition to Qatar's health landscape.

Sidra Medicine, a world-leading women's and children's hospital and center for crucial medical research and education, was inaugurated by Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, who, in a speech at the celebration of its opening, said: "We can say that Sidra Medicine is perhaps one of the most ambitious and far-reaching projects in Qatar over the past two decades. "It has rapidly achieved positive impacts beyond national borders. It has become a regional destination of medical tourism for patients from the region and beyond."

Home to more than 4,000 clinical and support staff of over 85 nationalities, and offering more than 50 services, Sidra Medicine has met the growing need for specialist children's and maternity care in Qatar by offering services previously unavailable within the country – and, in many cases, across the entire region.

Its range of technology includes intraoperative MRIs and robotics-assisted surgical systems, helping the hospital's experts – including some of the world's best practitioners in their fields – treat complex and challenging conditions. Sidra also has a significant focus on biomedical and clinical research designed to improve patient care, including a collaboration with QGP and the gathering of data to develop a better understanding of childhood diabetes in Qatar. And it offers medical education and continuous professional development opportunities of the highest caliber to healthcare professionals.

Just weeks before its inauguration, Sidra Medicine carried out Qatar's first successful separation of conjoined twins. Since then, its teams have conducted the hospital's first live-donor renal transplants; carried out the first pediatric endoscopic cauterization brain surgery procedure in Qatar, treating a condition that could have left a baby girl with severe disabilities or even proved fatal; and saved the life of a baby boy born with multiple life-threatening malformations.

Sidra Medicine has also launched the Middle East's first specialized pediatric robotic surgery program, a state-of-the-art sleep laboratory, a fibroid removal program, a pediatric trauma program, and advanced maternal-fetal medicine services that include non-invasive prenatal testing – all within a year of being inaugurated.

#### **Empowering innovators**

On the stage of Stars of Science – QF's innovation-focused 'edutainment reality' TV show – many young Arab innovators have experienced some of the most special moments in their lives. In November 2018, the show had a special moment of its own.

The celebrations to mark the 10th anniversary of Stars of Science brought together 51 alumni from its first 10 seasons, to talk about their experiences, their inventions, and how appearing on the show has propelled them along their tech innovation journey.

Established to empower young Arab men and women to be the drivers of scientific and technological innovation in the Arab world, Stars of Science now has an alumni network that spans 131 people in 18 countries, who have collectively raised more than USD 14 million for their ventures while founding businesses, creating jobs, and inspiring others to follow in their footsteps. Khalid Aboujassoum, who in 2012 became the show's first Qatari winner, is among them, and he summed up the essence of the show by saying: "Stars of Science truly embodies Qatar Foundation's commitment to its vision of unlocking human potential."

The winner of Stars of Science's landmark Season 10 was Palestinian neurosurgeon Walid Albanna, whose smart wearable retina camera increases the quality of aftercare for patients who have suffered a stroke. Having won over the expert jury and won out in the public vote, Albanna said: "To all the kids out there with heads full of dazzling ideas for how to improve lives across the world,

### QNRF and TAMUQ launch STEM Hub

The task of nurturing a new generation of scientists and researchers in Qatar was boosted in 2019 by the opening of the STEM Hub, a collaboration between QF member Qatar National Research Fund and QF partner university Texas A&M University at Qatar.

The facility includes cutting-edge technology and specialized learning modules – including mentoring by experienced researchers - that help students learn STEM (science, technology, engineering, and math) skills in a creative way, while also being a platform for them to exchange scientific ideas, work on projects, and find out about how they can pursue careers in science, research, and innovation.



## **QCRI's research saw 6 patents granted and 1 commercialized in 2019**

please remember that your ideas matter, and are definitely worth exploring."

Meanwhile, Season 11 saw Stars of Science's first double-elimination, its first baby – contestant Nuha Abu Yousef, a Jordanian doctor, gave birth during her progress to the Grand Final – and Youssef El Azouzi become the latest to wear the crown of the Arab world's best innovator.

The Moroccan doctor developed the Flow Modulator Stent, designed to help patients



with congestive heart failure by ensuring efficient blood flow through the heart. "To be given the opportunity to save lives is a blessing," he said after his victory was announced.

"My family supported me and my idea from the very beginning, and my mother even became my project's very first investor. They, and Stars of Science, believed in me – and they have changed my life."

## **Inside QSTP:**

the facts and figures behind Qatar's tech innovation hub



**23 QATARI** tech startups incubated



produced and commercialized



**OVER 1,000 PEOPLE** have benefited from QSTP's innovation programs

#### 54 -55

## **OVER QAR4.3 BILLION**

invested in RDI activities by international companies registered at QSTP

## **115 INVESTMENTS IN REGIONAL COMPANIES**



**OVER 50 COMPANIES** including 20 international companies are currently based at QSTP



**OVER 5,000 PEOPLE** have worked at QSTP-based companies since 2008



QSTP covers an area larger than **125 SOCCER PITCHES** 

through partnership with 500 Startups

Research, Development and Innovation

## **31 INNOVATIVE PRODUCTS**





READING IS AN INTEGRAL ELEMENT OF NURTURING A SOCIETY OF LEADERS – EQUIPPED WITH KNOWLEDGE, BROAD AND OPEN MINDSETS, AND POSITIVE VALUES, AND EMPOWERED TO MAKE LEARNING A CONSTANT PART OF THEIR LIVES."

## Community Development



# **Opportunity and Empowerment**

The strength and vibrancy of a nation finds a mirror in its people – in their health and activeness, their creativity and desire to seek out knowledge, the way they embrace sustainability as an intrinsic element of their lives, and their capacity to interact with people from their own and other culture.

Providing opportunities for Qatar's population to live their lives in this way is vital to Qatar Foundation (QF), which is why community development stands at the core of the organization's mission. Shaped by the needs of society, the activities, events, and initiatives that QF makes possible in this area are designed to provide a platform for social engagement, empowerment, and personal growth – strengthening community and cultural bonds, and helping to nurture a nation of active citizens.

The spectrum of QF's community development efforts runs wide. They aim to preserve and promote the culture of Qatar and the Arabic language; encourage people to adopt healthy, active lifestyles; recognize the importance of sustainability and how they can weave it into their lives; unlock their creative ability and engage with arts and culture; and recognize the importance of dialogue and interaction. And they have a central focus on youth empowerment, offering young people opportunities to explore their talent, broaden their aspirations, channel their energy, and learn new skills that will serve them well on their path into the future.

Through its own community development initiatives, and those it operates in partnership with stakeholders and local organizations, QF aims to foster a society that is strong in both body and mind. As an open and inclusive organization, it recognizes the social value that flows from people of different ages, backgrounds, and cultures, and with different interests, coming together for enjoyment, discovery,

SPORT HAS THE CAPACITY NOT JUST TO EXCITE, BUT TO INSPIRE, UNIFY, TRANSFORM HORIZONS, AND BRING TOGETHER PEOPLE OF ALL AGES, CULTURES, AND BACKGROUNDS, WHICH IS WHY ITS IMPACT STRETCHES FAR BEYOND THE SPORTING ARENA."

sport and physical activity, and the acquisition of knowledge.

QF is a focal point for community life in Qatar – from horse-riding to careerbuilding, from sporting tournaments and activities that promote health and wellbeing to debate learning and sustainability education, from cultural heritage to art and music. By bringing all of these elements together through a cohesive, extensive focus on community development, QF is playing a pivotal role in shaping a healthier, more creative, more active, and more socially-aware population in Qatar.

### A culture of reading

When QF established its National Reading Campaign, it created momentum in encouraging young people in Qatar to appreciate the value of picking up a book, and what it can bring to their lives. In 2019, this momentum was built upon with the unveiling of Qatar Reads.

Developed through a partnership between QF and the Ministry of Culture and Sports, Qatar Reads is an initiative designed to create a culture of reading across the nation in an innovative, interactive, and inclusive way. Through connecting with different audiences in specifically-tailored ways, the aim of Qatar Reads is to encourage and inspire the community of Qatar to recognize the world of knowledge and discovery that reading opens up, and how, by firing imagination and exploration, it can widen people's perspectives and horizons.

As it evolves, Qatar Reads will reach out to people with varying needs, lifestyles, and characteristics – from young children and their families to teenagers, university students, and teachers – with specialized programs, initiatives, and channels being used to achieve the goal of inspiring a love of reading that is Qatar-wide. Its innovative concepts include the Family Reading Program, which looks to make reading a fun and exciting habit for children and promote it as a family activity, where parents reading with their sons and daughters becomes part of everyday home life.

"Reading is an integral element of nurturing a society of leaders – equipped with knowledge, broad and open mindsets, and positive values, and empowered to make learning a constant part of their lives," said Machaille Hassan Al-Naimi, President of Community Development, QF.

"It prompts a desire for exploration and discovery, qualities that are valuable in life and vital for the future of Qatar and the generation who will shape that future.





## 123,000+ people participated in QGBC events and programs in 2019

"Qatar Reads is the natural, innovative next step for the movement initially represented by QF's National Reading Campaign. It will drive engagement with reading in new ways, and have a new audience scope, but its overarching purpose will be the same – to raise awareness of the value of reading, not only for intellectual stimulation, but for discovery and enjoyment."

### **Driving positive change**

The way in which QF's community development initiatives continuously grow and evolve is also illustrated by its Akhlaquna Award – recognizing and celebrating young people whose projects reflect exemplary moral character, while also aiming to be a driver of positive behavioral change within society.

First announced by Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, in 2017, Akhlaquna reflects QF's commitment to inspiring young people, and all members of society, to be active, thoughtful, and compassionate citizens who improve the lives of others through the example they set. The projects it rewards reflect the timeless and universal values exhibited by the Prophet Muhammad (PBUH) that have relevance in every society and culture. But through its outreach efforts to people from all walks of life, Akhlaquna also seeks to emphasize the interconnectivity between knowledge and morality and encourage them to make its core moral values – mercy, honesty, generosity, and tolerance – a central part of their lives.

## Qatar Diabetes Association registered 2,825 new patients in 2019

The winner of Akhlaquna's Cycle 2 was revealed at QF's Convocation 2019 ceremony, with the award going to Nawal Al-Kurbi, Almazun Al-Marri, and Amal Al-Gherainig, and their mobile app Mobsron. Providing people who are blind and visually impaired with a tool to help them order food, review ingredients, and compare prices, the idea for Mobsron stemmed from its creators' belief that every person has the right to live a dignified, independent life and to have equal opportunities to participate in, and contribute to, society.

The benefit that Akhlaquna brings to young people who feel their ideas can help spread positive values throughout their community was summed up by Al-Gherainig, who said: "It has given me the confidence to follow my beliefs – without hesitation – and to challenge myself."

Urging other youth in Qatar to recognize how they can be society's difference-makers, she advised: "Work on an idea and implement it – because working hard is the best way to make a positive impact on the community."

#### **Inspiring through art**

QF is dedicated to providing opportunities for all members of Qatar's society to explore, engage with, and be inspired by art – because of art's capacity to open up avenues of knowledge, creativity, and discovery, invoke curiosity, challenge people to think critically, and broaden perspectives, worldviews, and understanding.

This commitment to art was reflected in December 2019 with the unveiling of the Seeroo fi al Ardh – the final work of the late, world-renowned artist M F Husain – at Education City. Part of a wide-ranging project undertaken by the artist to chronicle the journey of human civilization through the lens of the Arab region's history, the Seeroo fi al Ardh could not be finished before Husain passed away. Now QF has ensured his artistic vision will live on, and be open to all.

Housed within a permanent building at Education City, the Seeroo fi al Ardh comprises the flying machines of Abbas Ibn Firnas and Leonardo da Vinci, glass horses, and vintage cars, which move to music selected by Husain and stand against a backdrop of a giant mosaic depicting horses, paying tribute to Qatar's equine heritage and the late artist's love of the animals. It reflects how first nature, then machines, advanced the ambitions of people throughout the Arab region, and how – even before the European Renaissance - the Arab world experienced an age of enlightenment, innovation, and experimentation.

At the installation's opening ceremony, Husain's daughter-in-law Najma Husain told guests the Seeroo fi al Ardh was his

### A platform for dialogue

Experts from the fields of sport, media, entrepreneurship, and international politics shared their experiences and perspectives with members of Qatar's community during 2018/19 through QF's Education City Speaker Series.

Focused on key themes that affect global society, the Education City Speaker Series is a platform for people across Qatar to hear from, and interact with, thought-leaders on a range of topics, reflecting QF's belief in the power of dialogue, discourse, and the exchange of ideas and opinions.

Guests who spoke at QF during the ongoing series of public talks included His Excellency António Guterres and Amina Mohammed, respectively Secretary General and Deputy Secretary-General of the United Nations; Ibtihaj Muhammad, a member of the US fencing team and the first Muslim-American female athlete to win an Olympic media; 60 Minutes journalist Magalie Laguerre-Wilkinson; film-maker, futurist, and philosopher Jason Silva; and fashion entrepreneur Dame Natalie Massenet.

> "dream project", adding: "M F Husain walked the earth teaching us to appreciate life. He said 'See the form, the contours, and the colors through unbiased, unconditional eyes. If you do that, this world will be a better place'."

Meanwhile, in addition to its Art Trail program – guided tours that showcase artwork across Education City to the public, inspiring cultural appreciation and creativity within Qatar's community – QF's ongoing cultural collaboration with Qatar Museums saw two segments of the Berlin Wall unveiled in its Humanitarium building, home to QF partner university Georgetown University in Qatar, and Qatar National Convention Centre.

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In October 2019, QF member Mathaf: Arab Museum of Modern Art began its four-month hosting of El Anatsui: Triumphant Scale, an exhibition encompassing every medium used by El Anatsui – regarded by many as Africa's most prominent living artist – across his 50-year career. The largest-ever exhibition of his work, it was organized through a collaboration between Qatar Museums, Mathaf, Kunstmuseum Bern and Guggenheim Bilbao, with exhibits ranging from drawing, sketches, and prints to sculptures made of wood, ceramics, and even bottle caps.

### **Open environment**

QF's role as a community hub was epitomized in March 2019 when it hosted

an 11-day celebration of the foods and the cultures of the world: the Qatar International Food Festival (QIFF), organized by Qatar National Tourism Council.

As a strategic partner of QIFF, QF staged the festival's 10th edition at Oxygen Park – an open space for physical activity, relaxation, and engagement with nature within Education City – where tens of thousands of visitors enjoyed the cuisine on offer at around 170 booths and food trucks, as well as masterclasses with chefs from around the world, nutrition workshops for children, and a range of other activities.

## In 2019, 892 horses and 196 riders competed for Al Shaqab

The hosting of QIFF reflects QF's efforts to promote Education City as an open, welcoming destination and an experience for all members of Qatar's community, and visitors to the country, to enjoy – as, in December 2019, did the inaugural youth football festival of the Supreme Committee for Delivery & Legacy's (SC) Generation Amazing program.

Held over five days at Oxygen Park, with QF as a strategic partner, the footballfocused festival brought together 140 young leaders from 24 countries who, through the game, have been inspired to implement social change in their communities. Celebrating social inclusion and promoting gender equality, it featured football for development workshops, activities led by youth ambassadors, cultural performances, and events with top names from the football world – including a Legend's Game and talks by Dutch football legend Johan Neeskens and former England international Michael Owen.

### **Empowering and unifying**

QF's belief in the power of sport to inspire and unite people also showed as it welcomed Chinese football club Dalian Professional FC's under-14 team to Education City through a partnership with the Wanda Group, an official global partner of world football's governing body FIFA.

During the week-long tour, the 22 aspiring footballers from China, and 18 young people from QF's sport and community program, had the chance to be flag-bearers at the FIFA Club World Cup Qatar 2019<sup>™</sup>. The Dalian Professional FC side also played three friendly matches against teams from QF, Qatar Academy Doha, and Aspire Academy, and trained at QF's facilities.

Through QF's partnership with Wanda, six young members of QF's sport and community programs – including its Ability-Friendly Sports Program, which provides sporting opportunities for children as young as three years who are on the autism spectrum – also had the unforgettable experience of being FIFA Flag Bearers at the two semi-finals of the FIFA Women's World Cup France 2019<sup>TM</sup>.

"Sport has the capacity not just to excite, but to inspire, unify, transform horizons, and bring together people of all ages, cultures, and backgrounds, which is why its impact stretches far beyond the sporting arena," said Mohammed Fakhroo, Executive Director of Outreach and Institutional Advancement, QF. "We look forward to continuing to work closely with the Wanda Group to support youth development and engagement in Qatar."



Inspiration through sport also came from four of the leading names in the US basketball world when they visited QF in September 2018, with the stars from the National Basketball Association – who visited Doha at the invitation of the SC – holding a masterclass for schoolchildren at Education City, pass on tips to students, and take on Qatar's national basketball team in a friendly match.

### In 2019, Qatar Philharmonic Orchestra had:

45 collaborations with international artists

### 7 collaborations with regional artists

## 11 collaborations with local artists

And, in February and March 2019, QF's world-class equestrian center Al Shaqab was the venue for two showcases of equine excellence. It staged the opening stage of the Longines Global Champions Tour 2019, followed by the pinnacle of Al Shaqab's equestrian calendar, CHI AL SHAQAB 2019, a three-day international competition featuring the best in showjumping, dressage, and para dressage. "The Arab world has a very rich equine heritage and, though events such as this, Al Shaqab preserves and perpetuates this aspect of Qatari culture," said Khalifa Al Attiyah, Executive Director of Al Shaqab.

Through these and other sport-centered events and initiatives, QF continues to demonstrate its support for the FIFA World Cup Qatar 2022<sup>™</sup>, Qatar's sporting ambitions, and the importance it places on empowering people to enjoy sport, be active, and live healthily.

### Identifying future goals

Falling under QF's overarching community development scope are a range of centers and entities, all with their own identity and purpose, but unified in their commitment to educating, empowering, and energizing people and in their contribution to QF's mission to build a strong, active Qatari society.

They include Qatar Career Development Center (QCDC), which aims to help Qatar's youth identify and achieve their education and career goals. In July 2018, QCDC through a partnership with Qatar-based children's entertainment city KidzMonda Doha - launched a first-of-its-kind Career Awareness Center to familiarize children and young people with career guidance concepts, and steer them toward career paths that match their interests and skills. The establishment of the edutainment citybased center was followed in October 2019 by the opening of the Career Development Center – a recreational education center supporting career planning for young people – through QCDC's partnership with KidZania Doha.

2019 also saw QCDC complete the first edition of its 'My Career – My Future' program for high school students; its





'Career Academy', which provided insight into an array of potential career tracks; and its Career Readiness Program, providing career guidance services for students with mild-to-moderate learning challenges.

## 7,011 people participated in QBG's educational programs in 2019

Under QF's community development pillar, education, training, and professional guidance is also the focus of Qatar Nanny Training Academy (QNTA), which enables Arabic-speaking Muslim nannies to become qualified childcare providers, and supports them in teaching and promoting Islamic values within the home. In 2019, QNTA – whose training program focuses on cultural traditions while also including specialized courses in all aspects of childcare – welcomed its seventh batch of nannies, comprising 45 trainees.

#### Landmark occasions

The international reach and impact of QF member QatarDebate – Qatar's national debating organization, helping to shape global citizens and thought-leaders through debate learning while also promoting use of the Arabic language – was extended as it organized the first US Universities Arabic Debating Championship, which took place at Harvard University in October 2019 and featured 23 teams.

According to Dr. Hayat Abdullah Marafi, Executive Director of QatarDebate: "The championship marks a new beginning for spreading the Arabic language as a global language of communication".

It was not the only milestone to be celebrated by QatarDebate during 2019, as, in January, it held the inaugural European Universities Arabic Debating Championship in the Austrian capital of Vienna, with 20 teams from 15 European nations participating.

The year also saw a landmark occasion for Qatar Philharmonic Orchestra, a QF member, as it marked its 10th anniversary in February with a gala concert at Qatar National Convention Centre, featuring renowned conductor Dmitrij Kitajenko as Conductor of Honor for a program almost identical to the orchestra's first-ever performance.

"Qatar Philharmonic Orchestra started as an ambitious musical project designed to bring music appreciation to Qatari audiences," said Kurt Meister, the orchestra's executive director. "It has since grown into a world-class orchestra, featuring some of the best musicians from throughout the globe. We have toured internationally and brought our fusion of Arabic and Western cultural expression to Qatar, the region, and the rest of the world – through music."

Exemplifying this, in October 2019 the orchestra took center stage at the United Nations General Assembly in New York for the 2019 UN Day Concert. Marking the anniversary of the Charter of the United Nations, the 2019 UN Day was organized by the Permanent Mission of the State of Qatar to the UN in collaboration with the Department of Global Communications, and featured composers, singers, and musicians from Qatar.

Just as Qatar Philharmonic Orchestra inspires people throughout Qatar and the

### Sustainability on the move

The Education City Tram – a pioneering sustainable transport system – was launched by QF in December 2019, bringing a new form of environmentally-friendly travel to Qatar.

The electrically-powered tram system, which uses a groundbreaking form of battery-charging technology, is designed to make QF a more sustainable, interconnected, and accessible environment, providing a mode of travel that aims to reduce vehicle use and emissions in and around Education City. It is also designed to educate people about the importance of sustainable transport.

Once fully opened, the 11.5km, 24-station network – which is open to the public - will provide a seamless link within and between Education City's North and South campuses, via a fleet of 19 state-of-the-art Avenio trams.

> Arab world to enjoy and create music, and appreciate how it buildings bridges of cultural understanding, so fellow QF member Qatar Music Academy adopts this ethos as it continues to nurture the nation's next generation of musical talent. Providing promising young musicians with a music education program built around both practice and theory, it incorporates both an Arab and a Western classical music curriculum, with its students regularly performing alongside established musicians in high-profile settings in Qatar.

#### Promoting sustainable living

QF is a driver, leader, and unifier of Qatarwide efforts to advance sustainability, a vital



aspect of realizing Qatar's economic and social goals. Sustainability runs through every facet of QF's mission, as it stands at the forefront of supporting the nation's sustainable development, and empowering its community to adopt sustainable lifestyles and habits.

Through its community outreach and research efforts, and by providing sustainability education and training, leadership, and opportunities for collaboration, Qatar Green Building Council (QGBC) has a key role in cultivating a greener nation. In fall 2018 and 2019, the QF member organized two editions of Qatar Sustainability Week, aimed at fostering a sustainable culture in Qatar by engaging people and organizations across the country to recognize its importance through hundreds of activities.

Qatar Sustainability Week is a platform for organizations in Qatar to showcase their innovative solutions to environmental challenges facing Qatar and the region, and to organize eco-friendly, awareness-raising initiatives – from beach cleaning to not using plastic bottles and bags. More than 70,000 people participated across the third and fourth editions of the initiative.

### **Education City Mosque**

# **119 participants completed Arabic language programs**

## 6,000 Ramadan and Eid festival visitors

## 2,003 children enrolled in learning programs

### **200** tours conducted

### **600** volunteers

Meanwhile, more than 90 organizations – the highest number so far – participated in QGBC's seventh annual No Paper Day in 2019. The nationwide campaign aims to encourage schools, businesses, and other institutions to adopt environmentallyfriendly practices and reduce their paper, plastic, and metal consumption as well as their e-waste levels.

Also playing its part in enhancing environmental sustainability in Qatar is QF member Qur'anic Botanic Garden (QBG), which conserves and exhibits the plants mentioned in the Holy Qur'an, the Hadith, and the Sunnah, and explains their enduring importance and relevance to modern society. By encouraging people to appreciate nature, it aims to inspire people to respect, and take care of, their environment.

In 2019, QBG took a prominent role in the International Horticultural Exhibition 'Expo 2019' in the Chinese capital of Beijing, as part of a pavilion hosted by Qatar. Its display, titled 'Under the Shade of the Sidra Tree', symbolized Qatar's heritage while also carrying a sustainability message for a global audience.

"We participate in international exhibitions related to horticulture and environmental sustainability to encourage the community to preserve the environment and revive Islamic cultural heritage," said Fatima Saleh Al-Khulaifi, Manager of QBG. "It also extends a bridge across the world and promotes social responsibility toward the environment."

### **Tackling diabetes**

Diabetes remains one of Qatar's greatest health challenges, and for 25 years Qatar Diabetes Association (QDA), a QF member, has been supporting those with the condition, and their families; promoting diabetes awareness and prevention by encouraging the adoption of healthy lifestyles; enhancing the capacity of healthcare providers to deliver diabetes

## Youth make their voices heard

Through a collaboration between Doha Forum and QF, the Doha Forum Youth Edition – the first two editions of which were held in November 2018 and 2019 – has provided hundreds of young people with a platform to join the conversation about key issues confronting our world.

Centered around dialogue, diplomacy, and diversity, the Doha Forum Youth Edition is designed to nurture leadership and advocacy skills among youth, with debates being steered by young leaders in a range of fields. It is held ahead of the wider Doha Forum, which takes place each December in Qatar.

At the second edition of the Doha Forum Youth Edition, held at Education City, discussions focused on climate change, education in conflict zones, and uprooting radicalism, and highlighted the importance of education in tackling the greatest challenges the world faces.

> education; and running community outreach programs that include diabetes prevention camps.

In 2019, this portfolio of programs was expanded as the first Al Tahadi Diabetes Girls Camp was held, specifically targeted at girls aged 12-15 who have Type 1 diabetes. Including educational, sport, cultural, and leisure activities, the three-day camp saw QDA experts, dietitians, and educators help participants develop their understanding of self-care and diabetes management.

Explaining how QDA's camps aim to empower young people with diabetes and give them the educational and moral support that helps them control the



condition, Dr. Abdullah Al Hamaq, Executive Director of QDA, said: "We want them to understand the importance of their role in society and encourage them to engage with others, as well as to develop their personalities. The programs of the camps combine sport and fun, together with education and support, and provide them with the tools they need to live happy, healthy, balanced lives."

Cherishing and preserving the past, addressing the needs of the present, and helping to shape Qatar's future, QF's community development efforts continue to educate, empower, and open up opportunities for people to grow and a nation's society to thrive.



IN A WORLD INCREASINGLY DEFINED BY THE TECHNOLOGY AROUND US, WE'VE WORKED CLOSELY WITH OUR PARTNERS TO PRESENT A PROGRAM THAT PLACES THE HUMAN ELEMENT AT THE FOREFRONT OF EVERY LEARNING EXPERIENCE."

## Global Initiatives



## Making a World of Difference

As Qatar Foundation's (QF) vision and mission have evolved and expanded, so has the scope of its efforts. Its contribution to Qatar and its people is built on areas that drive positive change for a sustainable future: quality education, the advancement of innovation, and strengthening the fabric of society through inclusivity, opportunity, exposure to knowledge, and empowerment.

These cornerstones of human and social progress also guide QF's global view. As well as supporting Qatar to realize its developmental vision, QF aims to benefit the world, through initiatives designed to help build a healthier, more engaged, more open-minded, and more unified global society; shape the future of education; and foster a deeper, wider understanding of the Arab world and the Arabic language.

From delivering projects to influencing policy, from providing platforms for the multinational exchange of ideas to enabling dialogue and debate on the world's key **Global Initiatives** 

issues, and from producing globallyrelevant research to offering opportunities for learning and discovery, QF's global initiatives connect nations, identify solutions to challenges, catalyze new thinking, and forge bonds of cross-cultural understanding.

QF has a national soul. But it also has an international outlook – and the capacity to bring the world together, with the aim of making the world better.

### **Reference point**

In the context of education, the world came together at QF in November 2019 for the WISE Summit 2019 – with the goal being to explore how the future of learning can be reimagined.

As QF's global education think-tank, the World Innovation Summit for Education (WISE) is a worldwide community of partners, thought-leaders, and changemakers, whose collective impetus is to advance quality education and emphasize its role in empowering individuals and societies. In the 10 years since its establishment, WISE has become a global reference point for discussing, identifying, and sharing new approaches to education.

More than 3,200 educators, decisionmakers, and experts, representing 100-plus countries – a record attendance - attended the latest edition of the WISE Summit, held under the theme UnLearn, ReLearn: What It Means To Be Human. It offered them the opportunity to consider, debate, and define what a 'good' education really means, how education can nurture the whole person, and how to foster lifelong learning.

Doha Debates has partnered with: The United Nations

TED Vox Media Shared Studios Fortify Rights NowThis Doha Forum eNCA

During the two-day conference, more than 150 sessions and debates centered on topics such as topics whether schools should teach students to be happy, if neuroscience makes children smarter, whether students care about what they learn, and if school grading systems have had their day.

Speaking at the opening of the summit, Dr. Armen Sarkissian, President of the Republic of Armenia, said: "I believe education should have one important function – to find talent.

"Every child is born with some talent, and, as educators, your job is to nurture it. Secondly, you must remember that not everyone has the same privileges as you – many are deprived of basic rights such as education. And finally, I want to tell the youth to believe in themselves."

The opening ceremony saw Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, present Larry Rosenstock, CEO of High Tech High – a US network of schools built around the principles of equity, personalized learning, authentic work, and collaborative design – with the 2019 WISE Prize for Education, the first award of its kind to recognize outstanding individual or team contributions to education.

### Interactive learning

In the immediate build-up to the summit, WISE hosted a community-wide celebration of education, Doha Learning Days – Qatar's first experiential learning festival.

QF's Education City was the setting for a sixday program, involving more than 50 local and international partners, that gave people throughout Qatar the chance to participate in interactive learning activities and experiences designed to show how education is fundamental to the growth of individuals and the strength and vibrancy of societies.



"In a world increasingly defined by the technology around us, we've worked closely with our partners to present a program that places the human element at the forefront of every learning experience," said Dr. Ameena Hussain, Director of Programs & Content, WISE, as Doha Learning Days opened.

"Whether it be students working collaboratively to tackle questions around the climate crisis, families coming together to explore issues of wellbeing and mental health through play, or just interacting with members of the community through art, music, or simple conversation, Doha Learning Days aims to bring us all together in an exciting exploration of learning."

Over the course of Doha Learning Days – which was sponsored by Exxon Mobil

 visitors explored coding and Artificial Intelligence in Learning Labs; participated in sessions blending science and creativity; interacted with Qatar's young female change-makers in speed-mentoring sessions; and enjoyed a wellbeing and community activities space with a focus on both physical fitness and personal growth. Activities specifically for children with special needs and their families – including coding and computer literacy, wellbeing through body movement, and workshops on inclusive learning, care, and accessibility – were also provided.

Beyond Qatar, New York and Paris were the latest cities to host WISE@ events – regional forums that take WISE's goal of exchanging education knowledge and experiences into the heart of its global community.

### WISH SEES ITSELF AS PROVIDING A SOLID PLATFORM THAT ENABLES THE MEETING OF GLOBAL EXPERTS AND STAKEHOLDERS TO DISCUSS KEY HEALTHCARE ISSUES."

Gathering together education thinkers, practitioners, and innovators, WISE@ events feature expert panels tackling educational challenges and solutions, informal discussions about education trends, interactive learning experiences, and insight into transformative education projects.

Held in September 2018, WISE@NY focused on 'Learning Revolutions: Creating Educational Environments for Empowerment and Inclusion, with WISE@ Paris – which took place in February 2019 under the patronage of Emmanuel Macron, President of France – exploring the learning societies of tomorrow, with topics including ways of rethinking K-12 education, empowering teachers and education leaders, education's role in preparing children for work, and how to cultivate global citizenship.

#### Healthcare community

Building a healthier world through global collaboration is the goal of the World Innovation Summit for Health (WISH), a QF initiative that has created an international healthcare community united in its dedication to addressing today's most pressing health challenges.

By convening and collaborating with health experts and decision-makers from around the world, creating and disseminating ideas, practices, and research designed to help improve healthcare systems, and showcasing health-focused innovations that can have a direct and positive impact on communities, WISH is instrumental in enabling vital global conversations about global healthcare, and turning these conversations into societal benefit.

In November 2018, almost 2,200 healthcare experts, innovators and entrepreneurs, health ministers, and policymakers, lent their voices to these conversations at the 2018 edition of the WISH Summit in Doha, the largest to date. Its opening ceremony reflected Qatar's commitment to healthcare innovation and the advancement of precision medicine, as Her Highness Sheikha Moza bint Nasser was presented with the first 'Q-chip', highlighting the progress made by QF's Qatar Genome Programme and Qatar Biobank in developing the first gene array based on data from thousands of Qatari genomes.

The summit drove home the message that collaboration across borders and disciplines, and sharing innovative solutions that address the world's most serious medical issues, gives change the best chance of happening. Summing up this message in a film screened at the opening ceremony, Jimmy Carter, the 39th President of the US and a Nobel Laureate, said: "With political will, action, and commitment, we can help make a difference in people's lives.

### WISH develops groundbreaking emergency healthcare manual

For the first time, an Arabic version of a vital guide for emergency healthcare teams who treat children suffering from blast injuries has been published – thanks to QF's World Innovation Summit for Health (WISH).

The Paediatric Blast Injury Field Manual was originally published in 2019 by UK-based charity Save The Children, with its Arabic equivalent subsequently being commissioned and printed by WISH with the support of the Translation and Interpreting Institute, part of QF's Hamad Bin Khalifa University.

It is the first-ever Arabic field manual specifically designed to support healthcare workers who treat children injured by explosions in conflict zones and post-conflict areas. WISH's longstanding collaboration with Save The Children has seen the charity distribute the manual in Yemen, Syria, Iraq, and Libya.

> "We simply cannot stand idly by while others suffer. A healthier world is within our grasp, but we can succeed only if we are determined in our efforts."

> Summit topics included eye health, data science and Artificial Intelligence, anxiety and depression, the provision of healthcare in remote areas, and how healthcare systems can make long-term plans. Among its speakers were Mary Robinson, former President of Ireland, who focused on the impact of climate change on global health, and legendary Olympic swimmer Michael Phelps, who spoke candidly about anxiety, depression, and his own battles with mental health issues during his career.



During the summit's closing ceremony, WISH and the World Health Organization announced a global database of Chief Nursing Officers, which will become a digital communications platform for these officers to share ideas and concerns with each other, wherever they are in the world.

### **Embracing active lifestyles**

Health checks, physical and mental wellness activities, free events promoting the value of healthy living, and an airborne guest all formed part of the inaugural Doha Healthcare Week, organized by WISH in collaboration with Qatar's Ministry of Public Health and QF, in November 2018.

### IN PERSON AND DIGITALLY, OUR DEBATES ARE A POSITIVE STEP TOWARD REAL SOLUTIONS ACROSS THE REGION AND THE WORLD."

Unfolding over seven days immediately before the WISH 2018 Summit, and attended by more than 10,000 people, the festival's 54 activities raised awareness of health resources in Qatar and encouraged the local community to embrace healthy, active lifestyles. Supported by 18 local and international partners, it also welcomed the Flying Eye Hospital, a converted cargo plane and fully-functioning medical facility operated by global eye health charity Orbis, which flies all over the world providing medical treatment to those in need.

Topics that Doha Debates has focused on are:

Artificial Intelligence Global Refugee Crisis Globalization Water Security Capitalism Loss of Trust

To help enhance Qatar's healthcare expertise, workshops during Doha Healthcare Week provided specialized training for ophthalmologists, nursing leadership training, and guidance for caregivers of people with diabetes.

### Dialogue and understanding

Shining a spotlight on issues that stand at the intersection of religious and medical ethics, WISH and the Vatican's Pontifical Academy for Life (PAL) held a joint Rome symposium in December 2019 as a platform for inter-faith dialogue and fostering broader understanding of healthcare's ethical dilemmas in healthcare.

'Religious and Medical Ethics: Palliative Care and the Mental Health of the Elderly' saw experts on ethics, medicine, Islam, Christianity, and Judaism gather at the Vatican to highlight gaps in modern scholarship on palliative care, and investigate ways of tackling ethical challenges surrounding palliative care and religious bioethics from the perspective of healthcare practitioners whose spiritual backgrounds differ.

Speaking at the symposium, Sultana Afdhal, CEO of WISH, said: "WISH sees itself as providing a solid platform that enables the meeting of global experts and stakeholders to discuss key healthcare issues.

"We hope to initiate a conversation that has the genuine potential to benefit humanity as a whole, regardless of individual beliefs."

## QF announces '50 percent female' panel pledge

QF's belief in inclusivity, equality of opportunity, and enabling the widest possible range of perspectives to be brought to crucial issues and challenges was illustrated by its regionallygroundbreaking March 2019 pledge to ensure women will make up at least half the panel speakers at all its conferences and events.

The pledge will take effect from the start of 2020 across the organization, building on the efforts QF has made over more than two decades in ensuring everyone can play their part in advancing local and global society – without gender, background, or culture standing in their way.

Announcing the pledge, Her Excellency Sheikha Hind bint Hamad Al Thani, Vice Chairperson and CEO of Qatar Foundation, said: "By committing to having at least 50 percent female representation on all our conference and event panels from 2020 onward, we aim to further emphasize Qatar Foundation's role as a leader and driver of inclusivity and positive social change, nationally and regionally – and the necessity of both men and women being part of making this happen."

> The symposium saw WISH announce three commitments to improving the implementation of palliative care in Qatar: the development of religious and medical ethics training sessions for healthcare workers,; targeted workshops; and, with PAL, the production of a practical publication that helps healthcare workers better understand the needs of people with faith who are receiving palliative care.

### Unlocking solutions

A new dimension on global dialogue is now being provided to the world by QF, through the relaunched Doha Debates – bringing

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fresh voices and viewpoints to topics and themes that shape our world.

Six years after the last airing of the original Doha Debates, the QF production returned in February 2019 with its inaugural live event, showcasing its innovative new concept and its goal of unlocking solutions to global challenges through diverse, rigorous, and honest debate.

Doha Debates' approach includes live debates, digital videos, a TV series, blogs, podcasts, and majlis-style conversations designed to bridge differences, build consensus, and tackle urgent global issues through discourse and the exchange of perspectives. It retains the essence and traditions that characterized Doha Debates from its inception in 2004, while also representing how the series has evolved to spark the imagination and participation of people around the world.

### The OSRA research grant launched by DIFI and QNRF supports projects focused on:

### Family cohesion, marriage, and divorce Family wellbeing Parenthood and parenting Family social policy

Its debut event at Qatar National Library saw speakers from Qatar and abroad share and debate suggestions for alleviating the global refugee crisis. Further debates have since focused on whether Artificial Intelligence's benefits outweigh its risks; the arguments surrounding globalization; water scarcity; capitalism; and loss of trust in institutions.

As well as taking place in Qatar, Doha Debates' live events have been held in Edinburgh and Cape Town, and at the Paris Peace Forum 2019. Each debate sees an international audience have the opportunity to suggest their own ideas and solutions, before the live audience vote on those proposed by the debate participants.

"Doha Debates was never just a talk show," said Amjad Atallah, managing director of

Doha Debates. "It's a showcase for all the passions and dramatic confrontations of the Middle East and the world.

"We have to find solutions, personal and global, to the failed economics and politics facing every one of us, in every part of the globe. And that search for solutions has to include global voices, representing everyone affected by these challenges. In person and digitally, our debates are a positive step toward real solutions across the region and the world."

In February 2019, Doha Debates also hosted a series of talks, in partnership with TED, during the TED Salon 'Up for Debate' in New York City. Speakers in the US city were joined by five groups of people from Qatar, Rwanda, Afghanistan, the US, and Mexico, who shared their views in real time via walk-in shopping containers equipped with audiovisual devices, known as Portals - another example of how Doha Debates is combining the Arab tradition of discourse with innovation and technology to inspire a new generation of change-makers.

### Supporting families

Through its research, its role in influencing policy, and its capacity to create international networks of knowledge, QF member Doha International Family Institute (DIFI) is integral to ensuring a cornerstone of Arab society – the family unit – remains robust, cohesive, and equipped to deal with the challenges that modern life presents.

Reflecting the importance of strong families to the fabric of society, DIFI was established with the aim of expanding the knowledge base on Arab families, and contribute to developing a framework that educates and supports them. Through research, it advances family policies and programs; through its advocacy role, it is a leading



voice in emphasizing how families within Qatar, the Arab world, and internationally need to be supported; and as a unifier of international efforts to strengthen families, it is a platform for sharing knowledge and best practice in this field.

In 2018, DIFI initiated and funded a book on Arab family studies, with contributions from 28 scholars, to help bridge gaps in global knowledge in this area; and unveiled its Civil Society Statement on Parenting, later presented at the United Nations Headquarters in New York as DIFI hosted a 'Doha Briefing' panel at the 57th Session of the Commission for Social Development.

"The Civil Society Statement on Parenting originated from DIFI's belief that parental

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education is the cornerstone for promoting the wellbeing of individuals, families, and communities – a view which is supported by scientific evidence," said Dr. Sharifa Al-Emadi, Executive Director of DIFI, which has special consultative status with the United Nations Economic and Social Council.

During 2019, DIFI brought together experts, policymakers, service providers, and leading organizations in Qatar for a research forum on Family Wellbeing, focusing on the wellbeing of families living with autism, and work-family balance. Meanwhile, its 'Family Policies and Sustainable Development' seminar in Paris illustrated DIFI's commitment to ensuring family-related topics are high on the agenda of those who drive global policy. And a series of family policy recommendations for the Arab region emerged from DIFI's 'Child Wellbeing in Qatar' symposium in Doha. Held in collaboration with Qatar's Ministry of Administrative Development, Labour and Social Affairs and UNICEF, it explored policy ideas and solutions to complex issues affecting children and their families. The symposium was followed by DIFI's Arab Family Forum on Marriage, where the findings of the QF member's research reports on 'The State of Marriage in the Arab World' and 'Marital Education Programs in the Arab World' were discussed.

### **Building connections**

For 10 years, Qatar Foundation International (QFI) has been building and nurturing a global, diverse community of learners and educators, and equipping young people with the skills necessary to thrive in the 21st Century through enabling them to explore the Arabic language and connect with the societies and cultures of the Arab world.



### DIFI has 16 research projects and 3 policy projects

Established in 2009, QFI partners with primary and secondary schools, universities, multilateral entities, and philanthropic organizations to run programs in three core areas: Arabic language education, Arab Societies and Culture, and Connected Communities. In student-centered learning environments, it provides students with opportunities to learn Arabic; develops educational resources that deepen understanding of Arab culture; supports the professional development of those who teach Arabic and subjects relating to the Arab world; and brings students and teachers together to hone the global competencies that will make them future-ready.

QFI's reach now extends to the US, Canada, the UK, Germany, and Brazil, as well as Qatar. And its expansion and achievements in education and cultural connectivity over the decade since its establishment were celebrated in Washington D.C. in December 2019, at an anniversary event attended by 300 teachers, students, administrators, and staff who are part of QFI's community of learners.

The most recent chapters in QFI's story have seen it start working with two new US schools supported by its grants: Success Academy Charter School in Minnesota, which serves many Somali refugee families, and Irving Elementary School in Montana, the first school in the northwestern American state to be supported by QFI.

The QF member also unveiled its Classrooms Connections grants, providing funding for secondary schools with Arabic programs to connect virtually with peers in the Arab world, and to travel to Qatar and other Arabic-speaking countries; and developed a Virtual Exchange Toolkit, partnering with Participate.com to create a virtual exchange professional development site offering free courses to educators.

And QFI's partnership with educationfocused video content provider ProjectExplorer and production firm Intuitive Content led to the creation of a new educational TV series, Crash Test World, which premiered in Brooklyn, New York, in 2019. The innovative show uses

### HBKU Press launches new titles and secures international awards

A QF-based publishing house that provides a local and international platform for literature, discovery, and learning, Hamad Bin Khalifa University Press (HBKU Press) is contributing to a vibrant culture of literacy and scholarship in Qatar and the Middle East.

Its works are showcased at some of the world's top book fairs, with 2019 seeing HBKU Press exhibit at the London Book Fair for the second successive year and the Paris Book Fair for the first time. And during 2018/19, new titles published by HBKU Press included the English translation of After Coffee, the 2014 Sheikh Zayed Book Award winner; best-selling Afghan-American author Khaled Hosseini's fourth book, Sea Prayer, in Arabic; and Journeys On A Football Carpet by Qatar-born journalist and author Matthias Krug, the inside story of the nation's six-decade footballing journey.

On the awards front, four of HBKU Press' titles were named winners in the 2019 International Book Awards – which draw over 2,000 entries from across the world – with others reaching the finals, while its children's title A Recipe For Home, by Ghenwa Yehia, claimed first place in the cultural diversity category at the 2018 Purple Dragonfly Book Awards. Meanwhile, HBKU Press' open access-focused academic platform QScience.com unveiled new research on the negative effects of mental health stigma in Qatar, and on Body Mass Index trends among the nation's adolescents.

> media to help prepare young people to be global citizens by challenging them to tackle challenges such as sustainability and food security.

> "QFI has been committed to supporting educators and students by creating opportunities to engage with the Arab world,

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in a time when it is most vital and necessary," said Omran Al Kuwari, CEO of QFI.

"By acknowledging and appreciating a diversity of identities, beliefs, and history through connecting communities, we can continue to challenge prevailing negative stereotypes and narratives."



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