

Saudi Arabia
Centre for the
Fourth Industrial
Revolution



**World
Quantum Day**
اليوم العالمي للكم

World Quantum Day 2026

“Shaping the Quantum Workforce”

Wrap-Up Report

September 2026

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01

At a Glance World Quantum Day 2026

For the third consecutive year, the Centre for the Fourth Industrial Revolution Saudi Arabia organised World Quantum Day 2026 under the theme **Shaping the Quantum Workforce**, in partnership with King Abdulaziz City for Science and Technology, King Salman Science Oasis, and the Institute for Advanced Studies and Cooperation.

The 2026 event brought together two complementary tracks across the year, creating a journey from **discovery to dialogue and from learning to action**. **The Quantum Journey Exhibition**, held from 7 to 16 April at King Salman Science Oasis, brought quantum science closer to students and the wider public through interactive learning, hands-on experiences, demonstrations, and immersive engagement. Designed to make a complex field more tangible and relatable, the Exhibition encouraged visitors to explore quantum concepts and their relevance to the technologies shaping the future.

The Quantum Forum, held on 30 August, built on this foundation by bringing together national and international experts from government, academia, industry, and the wider quantum community.

The Forum moved the conversation towards the capabilities needed to translate quantum potential into progress, exploring workforce development, research, investment, organisational readiness, and applications across key sectors.

Together, the two tracks created a continuum from **building curiosity and understanding to exploring capability, collaboration, and practical application**, reflecting the growing range of knowledge, talent, and partnerships needed to develop a quantum economy.

| Objectives

Inspire the next generation

Demystify quantum science for students, provide opportunities to explore the field, and encourage future STEM education and career pathways.

Build quantum literacy

Equip students and visitors with a foundational understanding of quantum principles and their potential applications.

Connect the quantum community

Strengthen connections between established experts, young researchers, students, and the wider quantum community.

Key Highlights

| The Quantum Journey Exhibition

1,700+

Visitors

900

Students

40

Schools

52

Student Volunteers

10

Interactive Zones

| The Quantum Forum

100+

Attendees

6

Panels

26

Speakers

3

Announcements

| Media, Digital and Ecosystem Impact

1.25M+

Social Media Impressions

1.51M+

Social Media Reach

120+

Social Media Posts

22

Media Mentions

3

Partners

8

Sponsors



02

World Quantum Day 2026

From awareness to workforce development

World Quantum Day is celebrated globally on 14 April, reflecting the first three digits, 4.14, of Planck's Constant, the fundamental constant governing quantum physics.

As quantum science and technology advance, their potential impact is extending across healthcare, logistics, cybersecurity, materials, and economic planning. World Quantum Day provides an opportunity to build understanding and prepare for the changes ahead.

Since the Centre's first World Quantum Day edition, the focus has grown from introducing quantum computing, communication, and cryptography to supporting early-stage innovators and, today, developing the workforce needed for the quantum era, with greater attention to research collaboration and sector applications.

A Continuum of Progress

● In 2024

C4IR Saudi Arabia hosted the first officially listed Saudi edition on the global World Quantum Day platform, establishing national participation. The edition brought together panel discussions, a seminar, and technical sessions spanning quantum computing, communication, and cryptography, alongside student-focused activities designed to spark early interest in the field. This first edition created the partnerships and format on which later editions would build.

● In 2025

building on the awareness established in 2024, engagement aligned with the UNESCO International Year of Quantum, marking 100 years of quantum science. The focus expanded through expert discussions, workshops led by national scientific societies, and engagement with early-stage innovators. Recognition of the Top 10 innovators from the UpLink Quantum for Society Challenge, selected from 100 participants, connected them with partners to advance their technologies, extending the edition's reach into tangible innovation support.

● In 2026

the focus expanded towards **shaping the quantum workforce**, with greater attention to research, practical applications, and the capabilities needed to take the field forward. **The Quantum Journey Exhibition** offered students and the wider public a 10-zone exploration of quantum concepts and applications through interactive and immersive learning, while **the Quantum Forum** brought experts together to discuss talent, research, investment, organisational preparation, and applications across key sectors.

03 | The Quantum Forum

Bringing the ecosystem together

Held on **30 August 2026** at **King Salman Science Oasis in Riyadh**, the Quantum Forum marked the second track of World Quantum Day 2026.

With **100+ attendees**, the Forum brought together 26 national and international experts from government, academia, and industry to examine the development of Saudi Arabia's quantum economy and the workforce needed to support it.

The Forum opened with remarks from **Dr. Talal AlSedairy, Chairman of the Centre for the Fourth Industrial Revolution Saudi Arabia and Senior Vice President for Research and Development at King Abdulaziz City for Science and Technology**, who emphasised that building a quantum economy will require more than technology. Scientists, engineers, entrepreneurs, and leaders will all play a role in developing the capabilities needed to identify and pursue opportunities in quantum.



“Curiosity isn't enough. Those young people need somewhere to take it, a place to learn, a job that puts it to use, and an economy with room for what they can do.”

Dr. Talal AlSedairy

Chairman of C4IR Saudi Arabia, Senior Vice President for Research and Development at King Abdulaziz City for Science and Technology

The programme then moved from the foundations of a quantum economy into research, organisational readiness, and sector-specific applications.



Forum Panels

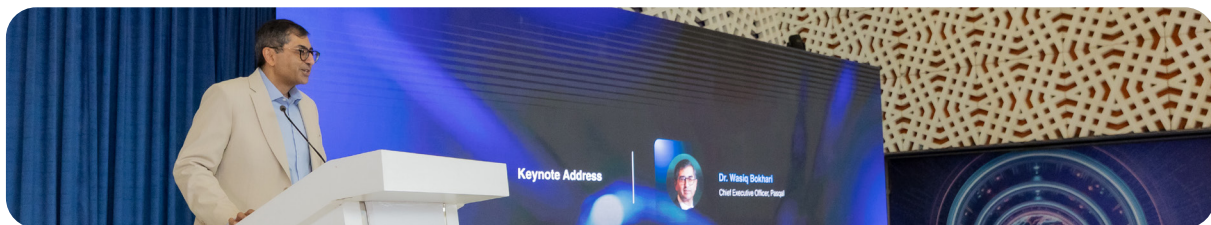
01 | Design a Quantum Economy: Science, Talent, and Capital

A quantum economy depends on scientific capability, skilled talent, investment, and the institutional foundations needed to support long-term development.



02 | Keynote Address

Translating quantum capabilities into practical applications requires the right talent, strategic partnerships, and a strong ecosystem to support the advancement of the quantum economy.



03 | Building the Saudi Quantum Era: From Research to Applications

Growing quantum capabilities are creating pathways from research to practical applications, supported by national efforts, international collaboration, and stronger connections between discovery and use.



04 | Fireside Chat: Are You Quantum Ready?

For organisations preparing for the quantum era, readiness starts with understanding what can be done today. The conversation explored strategic preparation and practical steps organisations can take ahead of wider adoption.



05 | From Risk to Resilience: Quantum Technologies for the Financial Sector

The financial sector is examining how quantum technologies could affect security, resilience, risk management, and future opportunities.



06 | How Quantum Technology is Transforming Healthcare: Real-World Use Cases

Potential applications in drug discovery, diagnostics, medical technologies, and data security are opening new areas for exploration across healthcare.



07 | Optimizing Energy-Intensive Manufacturing: A Shift in Industrial Operations

Quantum technologies could create new possibilities for optimisation across energy-intensive industries, with potential applications that support more efficient industrial operations.



From Dialogue to Action

The Forum extended beyond discussion through a number of concrete announcements and initiatives.

Two Research Collaboration Agreements were announced involving the National Centre for Quantum Technologies at King Abdulaziz City for Science and Technology.

The first established collaboration between [King Abdulaziz City for Science and Technology](#) and [Imperial College London](#) to strengthen cooperation in quantum research.

The second brought together [King Abdulaziz City for Science and Technology](#) and [Pasqal](#) to support the development of quantum capabilities in Saudi Arabia.

The Forum also introduced the [Arabic Dictionary for Quantum](#), supporting wider access to quantum terminology and knowledge in Arabic.

Together, these outcomes reflected the wider direction of World Quantum Day 2026: developing capabilities, strengthening collaboration, improving access to knowledge, and creating pathways from research towards practical value.

04 | The Quantum Journey Exhibition

Held from **7 to 16 April 2026** at **King Salman Science Oasis in Riyadh**, the Quantum Journey Exhibition, organised in partnership with **King Abdulaziz City for Science and Technology, King Salman Science Oasis, and the Institute for Advanced Studies and Cooperation**, introduced quantum concepts through films, guided visuals, demonstrations, immersive activities, and interactive tools.

Designed primarily for students and young learners, the Exhibition linked foundational ideas in quantum science to real-world applications and potential education and career pathways.



“Invest in your strengths. Whether your interest lies in biology, chemistry, physics, or computer science, the future belongs to interdisciplinary fields and to people who can connect different areas of knowledge.”

Dr. Saad AlOwayyed

Quantum Economy Project Lead, C4IR Saudi Arabia; General Manager, Quantum Technologies and Advanced Computing Institute, King Abdulaziz City for Science and Technology

The Exhibition sought to make a complex field more approachable. Rather than presenting quantum science as an abstract subject, it encouraged visitors to learn through interaction, observation, and discovery.

An Interactive Learning Journey

Across **10 interactive zones**, visitors explored quantum science through films, live demonstrations, immersive activities, and interactive tools. The learning path covered foundational concepts including probability, duality, entanglement, superconductivity, and quantum computing, while linking these ideas to communications, cybersecurity, advanced computing, and other applications.

Visitors also engaged directly with student guides and AI-enabled learning tools, making complex topics more relatable and easier to understand. By linking quantum science with everyday technologies and future fields of study, the Exhibition encouraged visitors to consider its relevance to their own interests and aspirations.

The **52 student volunteers** played an important role throughout the Exhibition, supporting visitors and helping translate complex concepts into engaging and accessible interactions.



Creating Early Awareness

The Exhibition highlighted the importance of introducing quantum concepts early, particularly as the future quantum workforce will require interest and capability across a broad range of disciplines.

Its role extended beyond introducing scientific concepts. By connecting quantum technology with education, careers, and familiar areas of interest, the Exhibition helped open a conversation with the next generation about where quantum could lead.

Visitors' Reflections

"Before visiting the exhibition, I never realised how connected quantum science is to everyday life. Through the explanations and demonstrations, I came to see that quantum concepts are present in many of the technologies and experiences that surround us every day."

"What stood out most was how the exhibition made complex ideas easy to understand. The interactive experiences and explanations helped turn a subject that seemed difficult into something engaging and accessible."

Exhibition Visitors

Continuing the Journey

The momentum created through the Exhibition continued into the second track of World Quantum Day 2026.

After introducing quantum fundamentals to students, families, and innovators, the Forum addressed the next set of questions: what capabilities, partnerships, and applications are needed to build readiness for the quantum era?



05

Extending the Conversation

The World Quantum Day 2026 programme continued beyond the Exhibition and Forum, connecting the conversations around workforce development and ecosystem readiness to practical work under the [Quantum Economy Project](#).

On **31 August 2026**, the Centre organised the **Quantum Readiness Accelerator Workshop** at King Salman Science Oasis in Riyadh.

Building on the themes explored at the Forum, the workshop brought together expert groups across **finance, energy, telecommunications, and health** to explore a practical question:

Where can quantum technologies create real value for Saudi Arabia?

The workshop focused on priority applications, their potential impact, and what it will take to move from opportunity to adoption.

Participants explored potential business challenges that quantum technologies could address, considered relevant applications and use cases, assessed their potential value in the Saudi context, and discussed the capabilities, investment, partnerships, and enabling conditions that may be required for future adoption.



The workshop also contributes to the development of the **Quantum Technologies Adoption Readiness Report**, extending the World Quantum Day conversation from awareness and ecosystem engagement towards sector-specific readiness.

Continuing through dialogue

The wider programme also supported continued knowledge exchange through the **Quantum Nexus** podcast series.

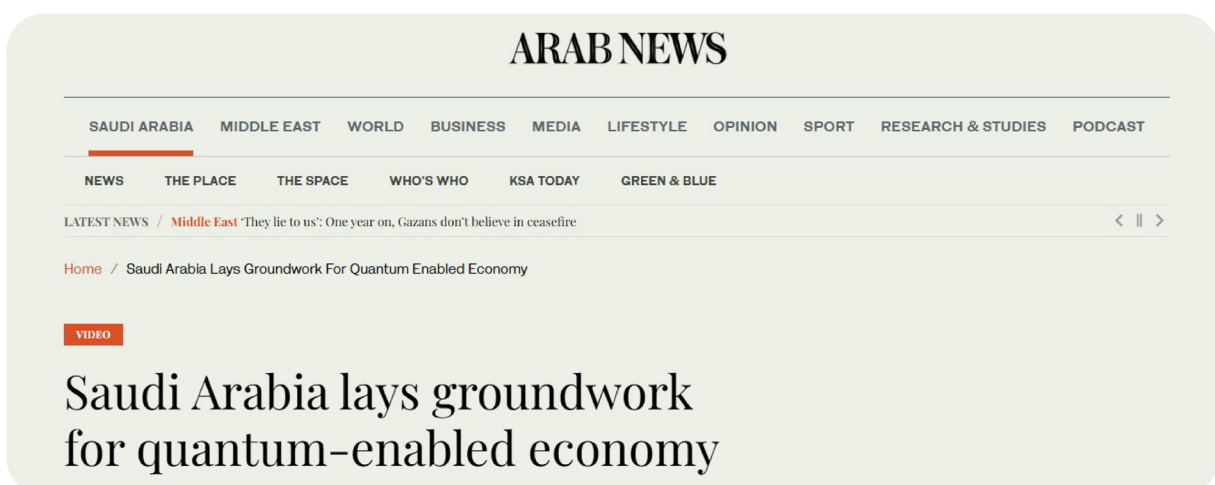
How to Be Quantum Ready? featured Steve Suarez, hosted by Dr. Reem Taibah, Project Lead at C4IR Saudi Arabia, exploring what quantum readiness means for nations and enterprises, and how organisations can define, measure, and act on a readiness strategy.

The Qubit Landscape, featuring Professor Daniel Loss, hosted by Dr. Reem Taibah, Project Lead at C4IR Saudi Arabia, examined different approaches to building quantum computers, the engineering challenges involved in scaling them, and how to distinguish meaningful progress from hype.

Together, these efforts extended the conversation beyond the World Quantum Day programme itself, supporting a broader focus on understanding quantum technologies, identifying where they may create value, and preparing for their adoption.

Featured Interview

An **Arab News** interview brought the Forum's themes into a wider public conversation. **Dr. Saad AlOwayyed**, Quantum Economy Project Lead, Centre for the Fourth Industrial Revolution Saudi Arabia, and **Laila Alqahtani**, Project Fellow, Centre for the Fourth Industrial Revolution Saudi Arabia, shared perspectives on the Kingdom's progress and priorities in developing a more structured and commercially viable quantum ecosystem.



06

Recognition and Acknowledgements

Speakers and Moderators



Dr. Talal AlSedairy

Chairman, Centre for the Fourth Industrial Revolution Saudi Arabia; Senior Vice President for Research and Development, King Abdulaziz City for Science and Technology



Amal AlShareef

Acting Managing Director, Centre for the Fourth Industrial Revolution Saudi Arabia



Dr. Wasiq Bokhari

Chief Executive Officer of Pasqal



Prof. David Keyes

Professor of Applied Mathematics and Computational Sciences, Computer Science and Mechanical Engineering, King Abdullah University of Science and Technology



Prof. Daniel Loss

Chair Professor and Director of the Interdisciplinary Research Center for Advanced Quantum Computing, King Fahd University of Petroleum and Minerals



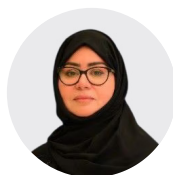
Larry Stack

Chief Commercial Officer, Quantinuum



Dr. Reem Taibah

Business Development Director, PASQAL



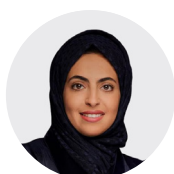
Prof. Ibtesam Badhrees

Senior Researcher, King Abdulaziz City for Science and Technology



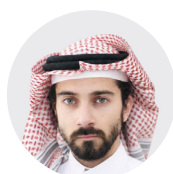
Florent Verthuy

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Dr. Mai Alzaydi

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Hani AlHemsi

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Prof. Mark Johnson

Head of Quantum Brain Research, Imperial College London



Steve Suarez

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Alina Timofeeva

Managing Partner, Tamayouz
Business Solutions

| Partners



| Sponsors



| Acknowledgements

The Centre for the Fourth Industrial Revolution Saudi Arabia extends its gratitude to the speakers, moderators, participants, attendees, partners, sponsors, educators, students, and volunteers whose contributions supported World Quantum Day 2026.

The Quantum Journey Exhibition and Quantum Forum formed two connected parts of the same workforce-building agenda, moving from early public awareness and learning to ecosystem dialogue, research collaboration, sector readiness, and practical pathways towards a quantum economy.

The programme demonstrated that preparing for the quantum era is not solely a question of technological development. It is equally a question of **people, knowledge, partnerships, and readiness to act early.**

The work continues through the Quantum Economy Project and the wider ecosystem developing around quantum technologies in Saudi Arabia.

From awareness to capability, from dialogue to readiness.

Saudi Arabia

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