Saudi Arabia
Centre for the
Fourth Industrial
Revolution



Annual Report 2025

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01 Leadership Messages

Setting the Direction

Institutions are defined not by what they build, but by why they exist. We recognize that leadership is about setting direction, aligning stakeholders, and inspiring coordinated action. National priorities, societal trust, and sustainable impact all depend on leadership that defines a clear, shared direction.



Chairman's Statement

H.E. Dr. Munir M. Eldesouki

President of King Abdulaziz City for Science & Technology and Chairman of the Board of C4IR Saudi Arabia

When scientist Omar Yaghi received the Nobel Prize for Chemistry in 2025, he spoke about crystalline materials, formed by connecting metal ions to organic molecules. He described this work as a science capable of reimagining matter itself and inspiring future generations.

The strength of these materials lies not in their individual components, but in the bonds between them. Similarly, progress today depends on connections rather than isolated initiatives.

Setting Direction

AI, quantum computing, and biotechnology are converging faster, presenting extraordinary opportunities and challenges. Meeting these demands requires leadership that sees the whole system, acts with foresight, and strengthens the ties between people, institutions, and technologies. In the Kingdom, we are setting direction through coordinated, forward-looking strategies.

We have aligned national research, innovation, and digital institutions with global networks, recognizing that converging technologies cannot be governed, developed, or scaled in isolation. Capturing the promise of convergence while managing its risks requires institutions that not only innovate at home but also engage abroad.

Connecting Saudi Insights to the Global Agenda

C4IR Saudi Arabia plays a central role in this ecosystem, as a connector and enabler. It translates global insights into local initiatives, promotes public-private collaboration, and provides a platform for responsible technology adoption. In 2025, initiatives such as World Quantum Day and the 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology brought Saudi expertise to the world. Our affiliation with the World Economic Forum empowers us to leverage its network, anticipate trends, and influence the social and ethical implications of advanced technologies.

Just as Yaghi's crystals gain strength from the bonds between molecules, Saudi Arabia's greatest breakthroughs will come from connections across institutions, sectors, and societies. Moving forward, we will continue to nurture these connections and inspire visionary, future-focused strategies.



Managing Director's Statement

Dr. Basma AlBuhairan

Managing Director, C4IR Saudi Arabia

From Aspiration to Achievement

By 2025, becoming a global technology hub was no longer a distant idea but a reality for the Kingdom.

The launch of our national AI champ, HUMAIN, signaled a shift from aspiration to institutional commitment.

On the opening day of a major industry gathering, more than USD 14.9 billion in AI and technology investments were announced, alongside significant data center commitments.

The Kingdom also began to define itself beyond technology. Tourism reached a record 122 million visitors, suggesting that economic diversification was translating into lived experience, and we hosted the world's first hydrogen-powered racing championship, drawing global attention to our leadership in clean energy innovation.

Strengthening Our Role

These developments have sharpened the focus on C4IR Saudi Arabia's role as the national platform for Fourth Industrial Revolution (4IR) technologies. Our purpose has never been more relevant.

Throughout the year, we demonstrated thought leadership through publications that shaped debate, forums that convened decision-makers, and large-scale events that translated ideas into coordinated action. Step by step, we are helping build the foundations for the Fourth Industrial Revolution to deliver lasting impact. Our global affiliation with the World Economic Forum (Forum) further supports these efforts, anchoring our work within an international network of expertise.

Alignment and Capability

The Riyadh Centre for Cyber Economics is another Forum affiliate, focusing on the economic implications of cybersecurity rather than its purely technical dimensions. Together, as Forum affiliates, we operate within an integrated ecosystem that links global expertise with local implementation, strengthens national capabilities, and informs forward-looking public policy.

Momentum and Impact

Our Annual Report highlights a year of momentum and purpose, offering insight into our milestones and how we have directed strategy and partnerships toward meaningful progress. The aspiration to become a global technology hub is now a reality for the Kingdom, and we are proud to be part of this transformation.

02 Advancing the Fourth Industrial Revolution in Saudi Arabia

About fifteen years ago, the world first heard of the Fourth Industrial Revolution. In the decades that followed, it began to redefine how value is created, how industries compete, and how growth is led. The Kingdom is now entering a new era. Our National Industrial Strategy consolidates 20 national strategies, over 800 investments, and 12 industrial sectors. At the heart of this push are AI, digital, and communications bodies. Through this unified approach, we are entering a new era of innovation.

2.1 About C4IR Saudi Arabia

Our story began in 2020, when we were established by Royal Decree with the mission of accelerating the adoption of Industry 4.0 and frontier technologies in national development. In just a few years, we have evolved into a trusted partner in the Fourth Industrial Revolution (4IR). As we've grown, so has our purpose. As the world shifts, we continue partnering with our stakeholders to realize our national ambitions.

Our Vision

We are a world-class 4IR do-think-tank advancing the benefits of the Fourth Industrial Revolution in Saudi Arabia through the development and implementation of practical, adaptive protocols for the governance of advanced and Industry 4.0 technologies.

Our Impact in 2025

This was a year of impact! We turned ideas into action, pioneering projects, nurturing talent, and sharing insights that have influenced the future of Industry 4.0. We have strived to lead with solutions that matter and partnerships that deliver.

2025 Impact

6 Projects	**350+** SME participants	**2** Partnership agreements
2 Centre events	**12** Centre publications	**12** Contributions to publications
5 Co-publications with the Forum	**22** National meetings	**9** Regional and global meetings
44 Virtual meetings	**11** Webinars	**9** World Economic Forum meetings
5 Global World Economic Forum meetings	**10+** Media interviews and podcasts	**7** Fellowships and internships
28 M+ Social media reach	**5** Forum communities	

Our Core Functions

As the Kingdom's national platform for Industry 4.0 and frontier technologies, we function as an:



Accelerator

- Driving the adoption of best practices by industry or government at scale.
- Regulatory and strategic frameworks, use-cases.



Experimenter

- Demonstrating the value of innovative ideas in the national context.
- Sandboxes, pilots.



Amplifier

- Showcase the country's technology.
- leadership and achievements.
- Blogs, media, social media platforms, events.

2.2

Operational Model and Governance



About King Abdulaziz City for Science and Technology

Saudi Arabia's premier national lab and innovation hub, King Abdulaziz City for Science and Technology (KACST), fuels the country's research and development ecosystem. By hosting the Centre at its Riyadh headquarters, KACST provides infrastructure and connections to the broader innovation ecosystem. It links shared learning to policy, ensuring that initiatives are aligned with national priorities.

Meet Our Board of Directors and Board Executive Committee

The Centre is governed by a multistakeholder board of experienced leaders, whose diverse expertise keeps our strategies both adaptive and impactful. Our Board reviews progress, supports new initiatives, and evaluates outcomes.

The Board Executive Committee, operating under the Board's authority, ensures projects align with the Centre's vision and provides focused oversight and strategic guidance.

Board of Directors



Dr. Hosam Rowaihy
Head of Decision Support Unit, MEP



Dr. Meshari Almeshari
Deputy Director for National Information Center, SDAIA



Mr. Meshal AlMashari
Executive Head of Aramco Digital Strategy, Investment & Growth, Aramco



Prof. David Keyes
Senior Associate to the President for Strategic Projects, KAUST



Jeremy Jurgens
Managing Director and Head of C4IR Network, WEF



H.E. Dr. Munir Eldesouki
President, KACST
Chairman



Eng. Jameel A. AlGhamdi
CEO, NIDLP



Eng. Mohammad Alrobayan
Deputy Minister for Technology, MCIT



Howard Wu
Executive Director of International Investments and Manufacturing, NEOM



Omar Najjar
Deputy CEO, Misk Foundation

Board Executive Committee



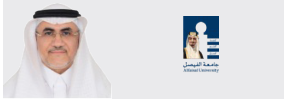
H.H. Prince Sultan bin Khalid AlSaud
CEO, SIDF



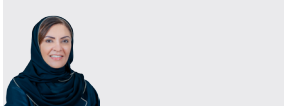
Haitham AlFaraj
CTO, stc



Dr. Fowzia AlAmro
VP of Research and Innovation, PNU



Dr. Mohammed Anan
Dean of the College of Engineering and Advanced Computing, Alfaisal University



Dr. Basma AlBuhairan
Managing Director, C4IR Saudi Arabia
Board Secretary



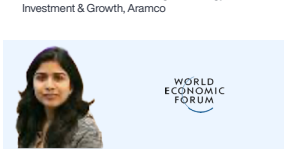
H.E. Dr. Munir Eldesouki
President, KACST
Chairman



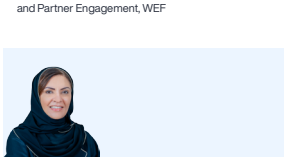
Eng. Jameel A. AlGhamdi
CEO, NIDLP



Mr. Meshal AlMashari
Executive Head of Aramco Digital Strategy, Investment & Growth, Aramco



Manju George
Head of Strategic Impact & Integration, CFTI Network and Partner Engagement, WEF



Dr. Basma AlBuhairan
Managing Director, C4IR Saudi Arabia
Board Secretary

C4IR Saudi Arabia at a Glance

5

Years since Founding.



Riyadh, Saudi Arabia
Headquarters.

WORLD ECONOMIC FORUM

Affiliate Centre of the World Economic Forum and Centre for Frontier Technologies and Innovation Network.

KACST
مدينة الملك عبدالعزيز للعلوم والتقنية

Hosted by KACST.



The Centre is governed by a Board of Directors and a Board Executive Committee.



Functions as an:
Accelerator, Experimenter, and Amplifier of advanced and 4IR Technologies.

Centre's projects support Vision 2030's 3 pillars

A Thriving Economy

Quantum Economy
Stimulate high-tech investment and research, as well as localization.

Critical Minerals
Strengthens industrial competitiveness.

1

An Ambitious Nation

Synthetic Media for Education
Elevates digital literacy and a trusted information ecosystem.

Smart Cities
Promote innovation and digitization in urban infrastructure.

2

Vibrant Society

P2P Sandbox for SMES
Enable border entrepreneurship, inclusive access to tech.

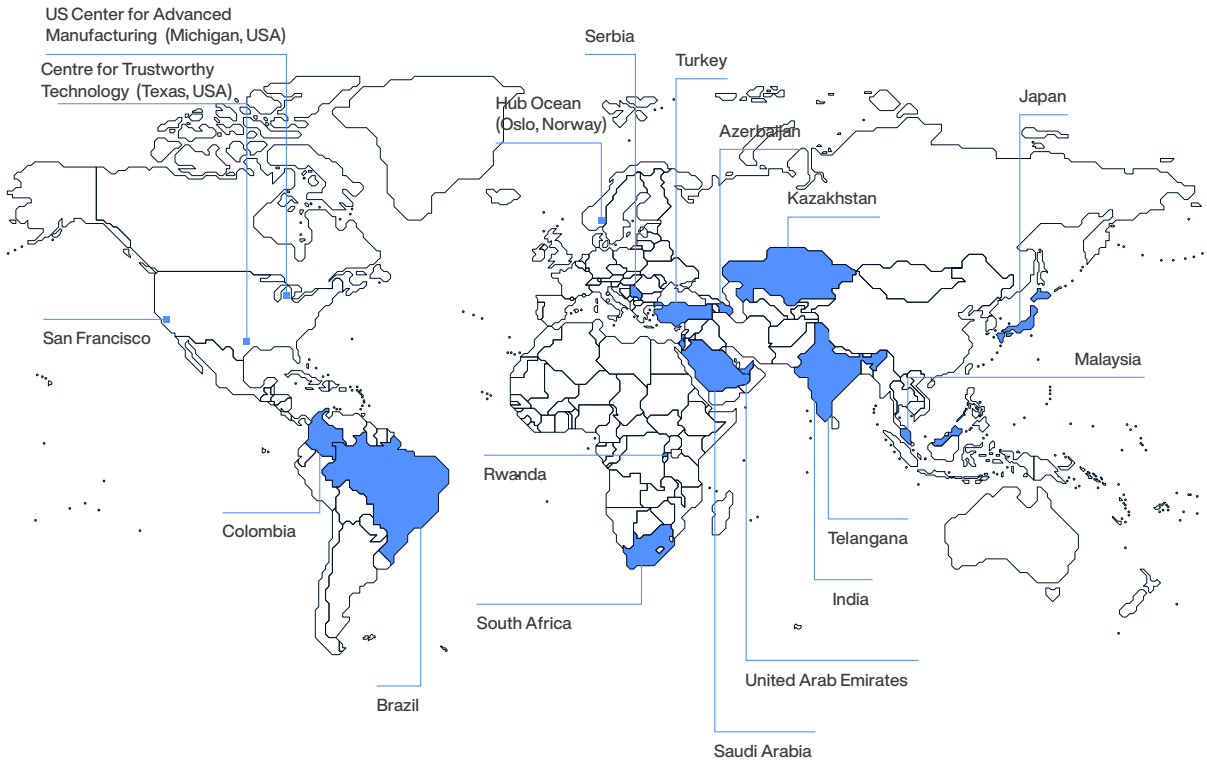
AVIATE
Future mobility ecosystems.

3

We help shift reactive technology adoption to proactive technology leadership. Together with our stakeholders, we turn 4IR governance from ideas into actionable frameworks that create impact and value.

03 | Global Affiliation and World Economic Forum Network

How can we manage the speed, scale, and complexity of our interconnected world? Disruption is no longer confined to individual industries or countries, because a single innovation can disrupt entire systems. For over half a century, the World Economic Forum has addressed such challenges. As a catalyst for collaboration and meaningful connections among its Centres, partners, and stakeholders, the Forum has generated impact through historic initiatives, industry breakthroughs, and solutions to improve the state of the world.



The Centre for Frontier Technologies and Innovation Network across continents.
Source: weforum.org

C4IR Saudi Arabia is an affiliate of the World Economic Forum and one of its C4IR Network Centres across continents. Global reach and credibility rely on networks like the Forum. Its convening power enables our work to move beyond theory, leading to real-world pilots and cross-border cooperation. The Forum launched the Centre for Frontier Technologies and Innovation Network in 2017, as a global platform to lead the technology agenda through public-private partnerships. The Network draws on the Forum's vision and strategy.

3.1

Message from Jeremy Jurgens, Managing Director & Head of the Forum's Centre for Frontier Technologies and Innovation and the Centre for Cybersecurity



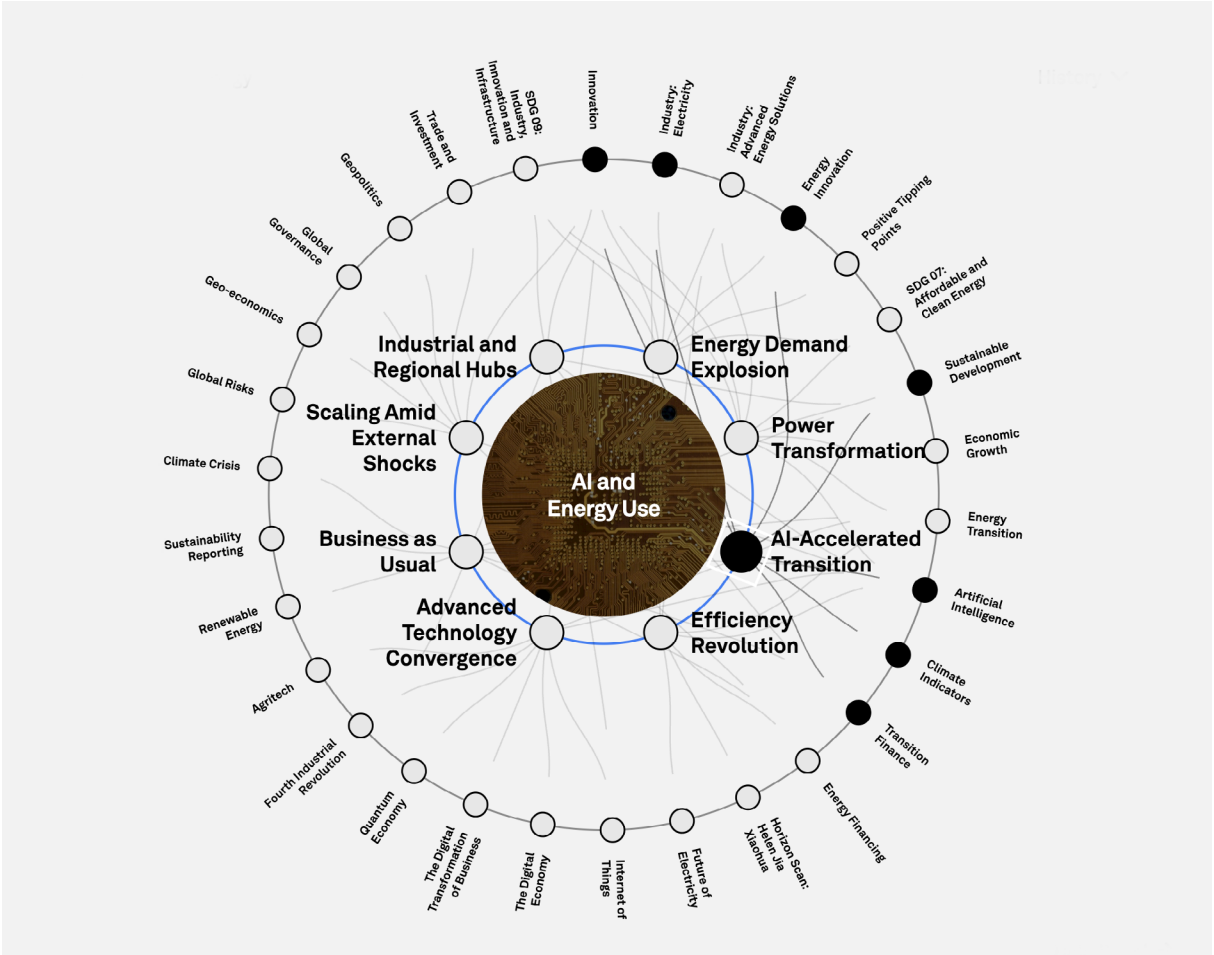
In 2025, the Centres for the Fourth Industrial Revolution Network continued to show how collaboration can turn technology into a driver of inclusive and sustainable growth. Across the Middle East, Saudi Arabia advanced its National Data and Artificial Intelligence Strategy, launched a national data center program to strengthen AI and cloud infrastructure, and forged new partnerships at LEAP 2025 that reinforced its leadership in digital transformation.

Within this momentum, C4IR Saudi Arabia has been a key contributor to the Network's mission, advancing initiatives in quantum technologies, autonomous systems, and SME digital transformation. Its work has supported Saudi Vision 2030 while contributing practical insights across the Network. These initiatives reflect our shared commitment to ensuring that innovation remains human-centered and drives shared progress and opportunity worldwide.



04 From Global Insights to Projects

The World Economic Forum convenes voices across the globe to tackle issues from climate resilience to digital trust. Coordination, shared practice, stress-testing ideas, and translating insight into execution are how projects are designed. At C4IR Saudi Arabia, we carry this model forward.



The Forum's Strategic Intelligence maps are used in projects and across research areas.
Source: weforum.org (2025)

4.1
Projects

Our projects are informed by a Theory of Change framework, which begins with discovery and an understanding of local needs before moving to what successful innovation demands: experimentation, feedback loops, and responsiveness to real-world needs.

4.1.1
Peer-to-Peer Sandbox

SMEs vary significantly by sector, size, and level of digital maturity. In Saudi Arabia, small enterprises are defined as those with 6–49 employees or a revenue of SAR 3–40 million, while medium enterprises have 50–249 employees or a revenue of SAR 40–200 million. SMEs are vital to economies, yet they continue to face an abundance of obstacles.

How do we overcome these obstacles? The launch of the prototype Peer-to-Peer platform for SMEs at the 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology provides a collaborative pathway and a controlled environment for low-cost experimentation.



Source: Modernizing Small and Medium Enterprises in Saudi Arabia (2023, June)

Situation Analysis

SMEs in the Kingdom have long faced limited access to Industry 4.0 technologies and collaboration opportunities, as well as minimal policy guidance. Many also lack digital skills. As a result, they struggle to scale, attract investment, and engage with partners. Our strategy is part of a wider set of initiatives underway in the Kingdom to overcome these obstacles.

Objectives

- Scalable SME platform and functional platform
- Expand the network of local and regional SMEs
- Upskilling, reskilling, and sustainability initiatives

2025 Achievements

The delivery of the Peer-to-Peer Sandbox has set a new benchmark for SMEs. Since its inception, over 350 SMEs have participated, and in 2025, over 100 professionals have joined. The impact of the Sandbox was captured through a case study and a co-branded World Economic Forum publication that served as a roadmap for investment, regulation, and skills development, supported by a stakeholder survey, a webinar, and an interactive workshop. This success reflects strong cross-sector collaboration—government providing direction and funding, the private sector contributing technology and mentorship, and academia advancing research and partnerships.

Publications

How Peer-to-Peer Learning Can Help SMEs Embrace Digital Transformation
A practical, collaborative approach that helps small and medium-sized enterprises (SMEs) navigate digital transformation.





4.1.2
Critical Minerals

In 2024, the estimated value of the Kingdom's mineral reserves rose from USD 1.3 trillion to USD 2.5 trillion, strengthening mining as a third pillar of the Saudi economy and a driver of economic diversification and energy transition. Our untapped mineral resource includes at least 48 minerals across more than 5,300 sites.

We launched the Critical Minerals Project as part of the Securing Minerals for the Energy Transition (SMET) initiative, bringing together more than 50 public and private-sector stakeholders to improve decision-making, support innovation, and adopt Industry 4.0 technologies across the mining value chain.



Situation Analysis

The project catalyzed a community to analyze the systemic challenges, structural gaps, and opportunities. Before this initiative, mining made limited use of Industry 4.0 technologies, had fragmented infrastructure, and invested little in deep tech. Collaboration between government, academia, and industry was informal, with few avenues for coordinated innovation. Regulatory shortfalls in data, licensing, and localization further slowed momentum.

Objectives

- Advance the adoption of Industry 4.0 technologies for mineral supply chains
- Develop a Mining Innovation Assessment Framework

2025 Achievements

We achieved four key milestones. First, a Critical Minerals Community was established to enable coordinated engagement among public- and private-sector stakeholders. Second, a comprehensive case study was undertaken, using data from national and international startups and innovators, yielding insights into technology maturity, market readiness, and ecosystem gaps. Third, these insights were used to refine and strengthen the Mining Innovation Assessment Framework, which will be published in the first half of 2026. Finally, the framework was presented to participants during the project's multi-stakeholder workshop, an important step toward implementation and pilot deployment.

Saudi Arabia:
A Major Mining Hub

Lithium
(EVs)
Electric Vehicles

Cobalt
Renewables
& Aerospace

Nickel
Digital Infrastructure /
Battery Storage

Silicon (Solar)
Solar Panels
& Renewables

Copper
Renewable Energy /
Power Grids

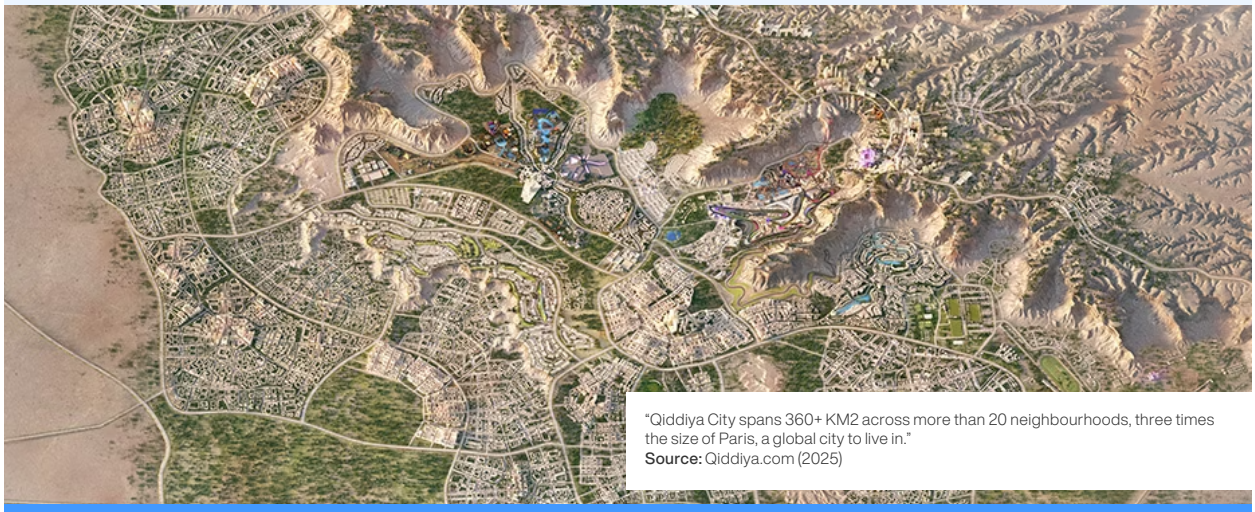
Rare Earths
Digital, EVs, Electronics

Sourced: Al Majalla, How Saudi Arabia is redefining the global mining map, (2025, September).



4.1.3
Smart Cities

Cities like Qiddiya and the Red Sea Development are meant to redefine mobility, sustainability, and urban living. But what does it take to build cities of the future? As cities face increasing pressure to provide smarter, more sustainable services within limited budgets, traditional low-cost procurement approaches are no longer adequate. In partnership with the Centre for Urban Transformation and the Connected Places Catapult, we designed a digital self-assessment tool based on the G20 Global Smart Cities Alliance's Innovation-Friendly Procurement Model Policy to help cities benchmark their procurement practices.



"Qiddiya City spans 360+ KM2 across more than 20 neighbourhoods, three times the size of Paris, a global city to live in."
Source: Qiddiya.com (2025)

Situation Analysis

Cities lacked the necessary tools to assess their smart city procurement against global best practices. Municipal efforts were often siloed, with limited collaboration between cities, industries, and communities. Local governments had few meaningful avenues to share their progress or learn from international peers. On the ground, municipal teams needed training, resources, and frameworks.

Objectives

- Guide procurement professionals to adopt purpose-driven procurement
- Develop a digital self-assessment tool to enable innovation-friendly procurement

2025 Achievements

The Smart Cities initiative assessed urban development challenges through the Innovation-Friendly Procurement Model Policy and its relevance to the Kingdom. The digital self-assessment tool will enable municipal teams to evaluate procurement practices, benchmark them against international standards, and apply targeted recommendations to close gaps, strengthen innovation, and maximize long-term value.

Publications

Unlocking Smart Cities Innovation: A Procurement-Driven Approach

The report introduces the G20 Smart Cities Alliance's Innovation-Friendly Procurement Model and digital self-assessment tool, providing city leaders with practical guidance to benchmark practices, identify gaps, and take action.



"Allocating just 5% of cities' contract budgets to innovation-friendly approaches could generate over $300 billion annually."

Source: weforum.org, *How cities can flex their purchasing power to stimulate innovation* (2024, April).

Four Saudi cities ranked in the 'Smart Cities Index' in 2023

Kingdom aims for 10 Saudi cities in top 50 global rankings



Part of the Global Smart City Forum (Photo Credit: SPA)

Source: Economy Saudi Arabia, Four Saudi Cities ranked in the Smart Cities Index in 2023 (2023, April)

"In Jubail Industrial City, we see technology as more than just a tool; we view it as a catalyst for sustainable urban development. By incorporating sustainability standards into our procurement processes, we adopt innovative solutions that lessen environmental impact, maximize resource efficiency, and enhance the quality of life for our residents."

Amer Shafiq Amer,
Business Solutions Director,
Royal Commission of Jubail and Yanbu



4.1.4

Synthetic Media in Education

Across the world, traditional learning models are struggling to equip students with the skills needed for a digitized world, while widening the gap between educators and students. Can AI and synthetic media help close this gap? Early results indicate they can.

Starting in 2025, AI became part of the curriculum in Saudi Arabian schools. Our project examines how this technology can extend learning beyond traditional classroom boundaries.



Situation Analysis

The Ministry of Education is actively incorporating AI into education to ensure its advantages reach society. Synthetic media, such as AI-generated teacher assistants, personalized lessons, adaptive content, and video lessons, are now being used to enhance teaching. Though still in early adoption, challenges such as infrastructure and digital skills gaps persist, underpinning the need for investment, policy development, and training.

Objectives

- Develop a framework for genAI and synthetic media integration in K-12
- Align global educational materials with local context

2025 Achievements

Several milestones defined our journey. First, we developed a framework to explore pathways for integrating generative AI into classrooms. Next, we built a community of stakeholders through workshops, regular dialogue, and feedback. Working with the Ministry of Education, we conducted interviews with 14 experts and a nationwide survey of 44,920 teachers. The AI in the classroom framework is scheduled to be launched in the first half of 2026. Lessons from the project were also shared through blogs to support the Kingdom's focus on advancing education.

"The projected market for AI-driven educational tools will grow from $2.5 billion in 2022 to $6 billion by the end of 2025, demonstrating the increasing reliance on technology in schools."

Source: Arab News, *How AI is transforming education but potentially impacting childhood development* (2025, February)

AI's Impact On Saudi Education

AI In Education

- Personalizes learning for diverse student needs.
- Frees educators from administrative tasks.

AI Platforms

- Alef Education and Classera use real-time analytics to customize content.
- Studies show these platforms drive significant student performance gains.

Educator And Student Insights

- AI tools boost study efficiency when used thoughtfully.
- AI advances Vision 2030 through personalized learning.

Inclusivity And Accessibility

- Speech-to-text and adaptive interfaces support students with disabilities.
- Interactive, gamified platforms enhance motivation and engagement.

Challenges

- Limited Arabic-language resources reduce AI effectiveness locally.
- Developing language-specific algorithms is crucial for cultural relevance.

Role Of Educators

- AI shifts teaching roles to mentorship and personalized support.

Source: Arab News, Saudi Arabia to introduce AI education at all grade levels starting this year (2025, July)



4.1.5
The Quantum Economy Project

Quantum technologies, promising ultra-fast computing and secure communication, present new ways to understand the world. It's no surprise that global investment in quantum now exceeds USD 40 billion. The World Economic Forum's Quantum Economy Blueprint is a global framework to support countries in developing national quantum strategies. Saudi Arabia was the first country to pioneer the Blueprint. Led by C4IR Saudi Arabia and its partners, the "Towards Saudi Arabia's Quantum-Enabled Future: Piloting the World Economic Forum's Quantum Economic Blueprint," publication will influence the Kingdom's national quantum strategy and bridge global expertise with the local ecosystem.



Situation Analysis

Established in 2024, the C4IR Quantum Economy project brought together four workstreams to form a community of practice and produce the Quantum Economy Landscape Report. Previously, quantum-related activities in the Kingdom were fragmented.

Our project has helped establish a unified approach to connect stakeholders, drive innovation, and develop long-term capabilities.

Objectives

- Develop a national quantum roadmap
- Cultivate collaborative frameworks and knowledge sharing within the quantum technology stakeholder community
- Promote the importance of quantum technologies to the public and decision-makers

2025 Achievements

We advanced the quantum agenda through sustained engagement, publishing a report that assessed capabilities, value chains, commercialization, governance, and cybersecurity, and proposing a roadmap for a national quantum strategy. Through workshops, webinars, blogs, and awareness campaigns, including World Quantum Day and media outreach, we built capacity and positioned Saudi Arabia as proactive in the quantum economy.

Publications

Towards Saudi Arabia's Quantum-Enabled Future: Piloting the World Economic Forum's Quantum Economy Blueprint

This proposed roadmap outlines how to prepare for quantum in the Kingdom, aligned with Vision 2030 priorities through national platforms, workshops, and World Quantum Day initiatives.



The Quantum Global Ecosystem

1,695
Companies

102
Use cases

19%
Increase in public investments for start-ups compared to private investments in 2024

"Working alongside the Centre and KACST throughout 2025, I served as a contributing editor on a report that lays the groundwork for a national quantum technologies economy. The project brought together a remarkable group of institutions across the Kingdom, and the spirit of collaboration was one of its greatest strengths. Completing this report is an important milestone for Saudi Arabia's emerging quantum ecosystem, and I'm proud to have played a part in advancing this shared vision."

Prof. Tristan Farrow,
NEOM Education, Research, and Innovation Sector

Manufacturing & Supply Chain
No notable quantum initiatives identified.



Chemistry & Materials
- SABIC R&D platform.
- Academic involvement from KAUST, Ummul AlQura University (UQU), and Imam Abdulrahman Bin Faisal University (IAU) in quantum materials and chemistry research.

Healthcare & Pharma
Quantasphere.

Energy & Sustainability
- Aramco agreement with Pascal for a 200-qubit system.
- Aramco and IBM innovation hub.
- Active academic research at KFUPM.

Communication
- KAUST and KACST quantum random number generator (QRNG).
- Saudi Quantum Network (SQN) Alliance to pilot quantum communication infrastructure.
- SIMAQ engaged in quantum-enabled communication and sensing technologies.

Source: Towards Saudi Arabia's Quantum-Enabled Future Piloting the World Economic Forum's Quantum Economy Blueprint (2025, November)

4.1.6
AVIATE Saudi Arabia

Although Advanced Air Mobility (AAM) emerged in the late 2010s as a vision for air travel beyond traditional methods, flying cars still face numerous challenges before becoming a reality in cities worldwide. To overcome these obstacles, Saudi Arabia, through the World Economic Forum's AVIATE initiative, is turning early AAM concepts into actionable strategies.

Through workshops, interviews, and locally tailored use cases, the project is laying the groundwork for the safe and efficient integration of these technologies into Saudi skies.



Situation Analysis

The Kingdom's AAM development has progressed beyond awareness and early pilots to where scalable deployment has become feasible. Our project provided alignment, knowledge exchange, and shared planning. While the AAM ecosystem has generated substantial operational knowledge, insights remain scattered across organizations.

By establishing a neutral collaboration model, we encouraged structured knowledge sharing and aligned commercial objectives with national priorities.

Objectives

- Support the development of national frameworks for AMM.
- Support use-cases from pilots to scaled operations.
- Increase public and stakeholder awareness.

2025 Achievements

We co-published a white paper with the World Economic Forum, translating early implementation experiences into a clear and practical collaboration model. In parallel, we documented early AAM use cases across the Kingdom, from medical drone logistics to energy-sector surveying and environmental monitoring, highlighting Saudi Arabia's growing momentum in AAM deployment.

$9.9 billion
Global AAM market value (2024)

projected to reach
$77.03 billion
by 2033 (CAGR 23.6%)

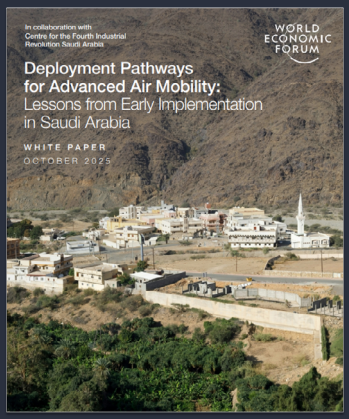
Economic potential for Saudi Arabia is up to
$38 billion
by 2040 across infrastructure

Source: Deployment Pathways for Advanced Air Mobility: Lessons from Early Implementation in Saudi Arabia (2025, October)

Publications

Deployment Pathways for Advanced Air Mobility: Lessons from Early Implementation in Saudi Arabia

Assessed early pilots and stakeholder insights to identify practical pathways, models, and systemic enablers for scaling Advanced Air Mobility (AAM) from concept to real-world deployment in support of Vision 2030.



"We were delighted to take part in the C4IR AAM program, which provided an invaluable platform to collaborate with stakeholders and regulators. The initiative enabled us to advance the national AAM agenda and explore how drone technology can be further leveraged for vital, high-impact applications nationwide. Working with the Centre has been a catalyst for driving real progress in advanced air mobility nationwide."

Mohamad Mashnouk,
Senior Business Developer
FalconViz



05 | Building Future Capabilities

5.1
World Economic Forum Fellowships

Two Centre professionals, Dr. Waleed Gowharji and Laila Alqahtani, took their expertise to Geneva, spending part of their Fellowships at the Forum's headquarters, working on international projects and collaborating with industry leaders. They returned to the Kingdom with the expertise to strengthen national strategies. Dr. Waleed Gowharji began his fellowship in 2024, focusing on Autonomous Air Mobility, developing frameworks that aligned global innovation with Saudi priorities. Upon his return to the Centre in 2025, he was appointed as General Manager of Projects and Initiatives.

Laila Alqahtani undertook a one-year Fellowship with the World Economic Forum (Aug 2025–Aug 2026), working with the Quantum Economy Network and the Global Coalition for Digital Safety while maintaining her role at the Centre. She has led a publication on



Saudi Arabia's pilot of the WEF Quantum Economy Blueprint, contributed to global discussions on quantum governance, and shared insights from the Centre's Synthetic Media in Education project to address AI–user risks.

5.2
Seconded Fellowship Program

This Program brings talent from partner organizations to the Centre, immersing them in the broader C4IR Network and putting their industry expertise to use. In 2025, we hosted a Fellow from a leading telecommunications company, who gained experience in technology governance, learning about the tools and systems shaping it.



"I joined the Centre from Telecoms, where the focus had been on service delivery and customer-facing projects. The Centre was completely different. While the pace was just as fast, the work was broader, more strategic, and tied to national innovation.

During my Fellowship, I was immersed in projects such as Peer-to-Peer Sandbox, AVIATE, and the Quantum Economy. I led stakeholder workshops and webinars, contributed to publications, and supported major events like World Quantum Day and the 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology. Tight deadlines and the workload pushed me to sharpen my project management and problem-solving skills. Beyond that, I gained a deep understanding of the challenges we face in the Kingdom, and I tapped into a global network, the World Economic Forum, which was very rewarding."

Maha Walid Alkanhal
Fellow

5.3
Internship Program

For students and young professionals, our training programs align training pathways with labour-market demands. In 2025, we directly contributed to our national programs by training three interns.

“When I first walked into the premises of the Centre, I wasn’t entirely sure what to expect. This internship was part of my master’s program and approved for academic credit. It was closely tied to my studies in computational science, high-performance computing, and quantum technology. I knew the internship would push me, but I didn’t know how.

The Quantum Economy project was perfect. I worked on a Quantum publication with the team, contributing to chapters on the Quantum Ecosystem, Value Chain, and Supply Chain, while also supporting workshops and webinars. Each deadline taught me something new. By the end of the internship, I felt more confident. I had learned how to take the ideas from my university work and put them into practice in the real world.”

Amnah Samarin
Intern

"World Economic Forum data projects that **60%** of employees will need to change work to adapt to accelerating technologies by 2030."
Dr. Reem Taibah, 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology

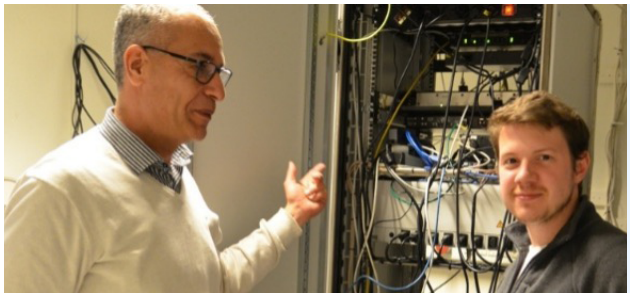
5.4
Ecosystem Workshops and Quantum Training

“There are few better places in the world to explore the path toward unlocking opportunities of frontier technologies than in the Kingdom of Saudi Arabia.”

Børge Brende
President and CEO of the World Economic Forum, 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology

In 2025, we held eight project workshops, bringing together experts, partners, and innovators. The goal was simple: advance our projects and build a community that could collaborate, share knowledge, and create impact.

Our work further extended into the quantum domain. In partnership with the Saudi Quantum Computing Association, we launched the Quantum Nexus Series, designed to train the next generation of quantum talent. Over the course of nine webinars, **six hundred** participants joined the journey. Quantum mechanics, metrology, sensing, computing, cryptography, and quantum biology were amongst the topics.

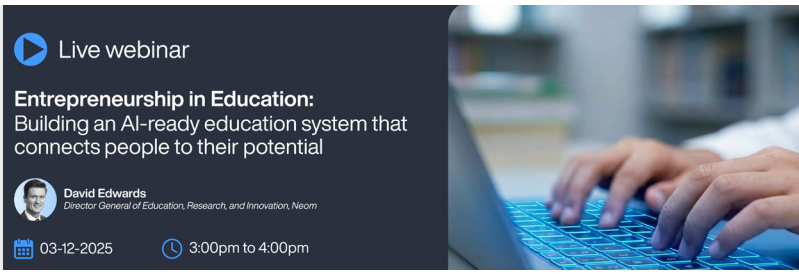


Mohamed Bourennane (left), Professor of Quantum Information and Quantum Optics at Stockholm University, was a guest lecturer on quantum mechanics during the webinar series.
Source: Stockholm University, Department of Physics

Webinars that looked more closely at the ground, at how Industry 4.0 and frontier technologies are impacting sectors included:

Entrepreneurship in Education: Building an AI-Ready System

Generative AI is a platform that connects learners to skills and opportunities, helping build capability. We focused on an ecosystem for AI in education and designing paths for personalized learning journeys.



AVIATE Saudi

In this webinar, we introduced AVIATE Saudi Arabia and walked through our project publication, sharing early use cases, examining the system enablers making them possible, and highlighting the community-led collaboration model to scale AAM nationwide.



Our workshops, webinars, and training programs have equipped our trainees, team members, and stakeholders to turn their talents into results. Each session connected knowledge to action, moving concepts from ideation to practice.

5.5
Operations and Support Training

The Operations and Support team made strides in operational maturity, governance and employee experience. They activated policies, delivered trainings, launched a recruitment portal with a 90% success rate, and ran several employee engagement initiatives. Additionally, the team managed vendor negotiations and logistics for World Quantum Day 2025 and the 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology supporting speakers and delegates.



C4IR Saudi Arabia team members

06 | Visibility and Thought Leadership

Insights developed through training and local knowledge-sharing initiatives directly inform our participation in World Economic Forum meetings. Through these engagements, we exchange expertise, co-develop recommendations, and test Industry 4.0 practice. Each engagement exposes gaps as well as leverage points. Our participation in these Forums increases our ability to influence the Industry 4.0 agenda.

6.1
World Economic Forum and International Meetings

9
Forum meetings

9
Regional and international meetings

World Economic Forum Annual Meeting 2025

Each January, Davos hosts the Annual Meeting of the World Economic Forum to address global priorities. In 2025, the Centre highlighted developments in Industry 4.0, while our presence in the Global Collaboration Village showcased Saudi Arabia's expanding role as a technology leader.

During the meeting, our program featured metaverse sessions on innovation and advanced manufacturing, panel discussions on industrial cities, Advanced Air Mobility, and women in technology leadership, as well as public sessions.



H.E. Khalid bin Mohammed Al-Salem, President of the Royal Commission for Jubail and Yanbu (Centre)

~3,000
Delegates

130+
Countries represented

350+
Heads of State and government, plus ministers





Global Technology Governance Retreat (GTR)

The retreat brought together C4IR Centres and leaders from across sectors. Discussions covered Industry 4.0 technologies, global economic challenges, geopolitical tensions, and sustainable human and environmental well-being.

At the C4IR Network Meeting, Centres and Network leadership reviewed progress in 2025. During the meeting, we presented our achievements across governance, capacity-building, project delivery, thought leadership, communications, and stakeholder engagement. Additional sessions examined topics including Improving Lives with Drones and Brain–Computer Interfaces.





430+
Technology leaders

80+
Dynamic sessions

17
C4IR Centres

6th International Smart Factory Summit 2025

At the Summit, we shared insights from Saudi Arabia's Smart Factory Hub, which bridges innovation, workforce development, and industrial transformation. The importance of international collaboration in empowering SMEs, closing the digital divide, and enabling scalable innovation was a theme. During the meeting, we presented our **Smart Factory Hub** and **Advanced Manufacturing Center.**



150+
Participants

50+
Speakers

16th Annual Meeting of the New Champions (AMNC)

The meeting, held in China, demonstrated the rise of new ventures and the evolving nature of entrepreneurship. Discussions examined regional developments, emerging technologies, and supply chain shifts across China and Asia.

The Centre participated in sessions including UpLink Ecosystem Dinner, Who Will Lead the Bioeconomy?, Where Quantum Meets Energy, Tech-Powered Cities, and an UpLink Interview on the quantum ecosystem and opportunities for youth and startups.

Saudi startups Wakecap, AIxplain, and Stake were recognized by the Forum for contributions to safety, AI accessibility, and global investment, highlighting the Kingdom's ability to nurture high-potential tech ventures.





1,700
Participants

90
Countries

~900
Business leaders

~200
Sessions

World Economic Forum Annual Meeting of the Global Future Councils and Cybersecurity

In 2025, for the first time, cybersecurity leaders joined thought leaders in Dubai for a special session of the Meeting, focusing on challenges in the Intelligent Age and safeguarding the benefits of digital systems.

In a unique co-convening, the Annual Meeting of the Global Future Councils was held alongside the Annual Meeting on Cybersecurity to examine how emerging technologies, such as AI and quantum computing, are redefining global risks. Participants identified key dimensions and trends to guide future industrial policy development.



700+
Experts and cybersecurity leaders

93
Countries

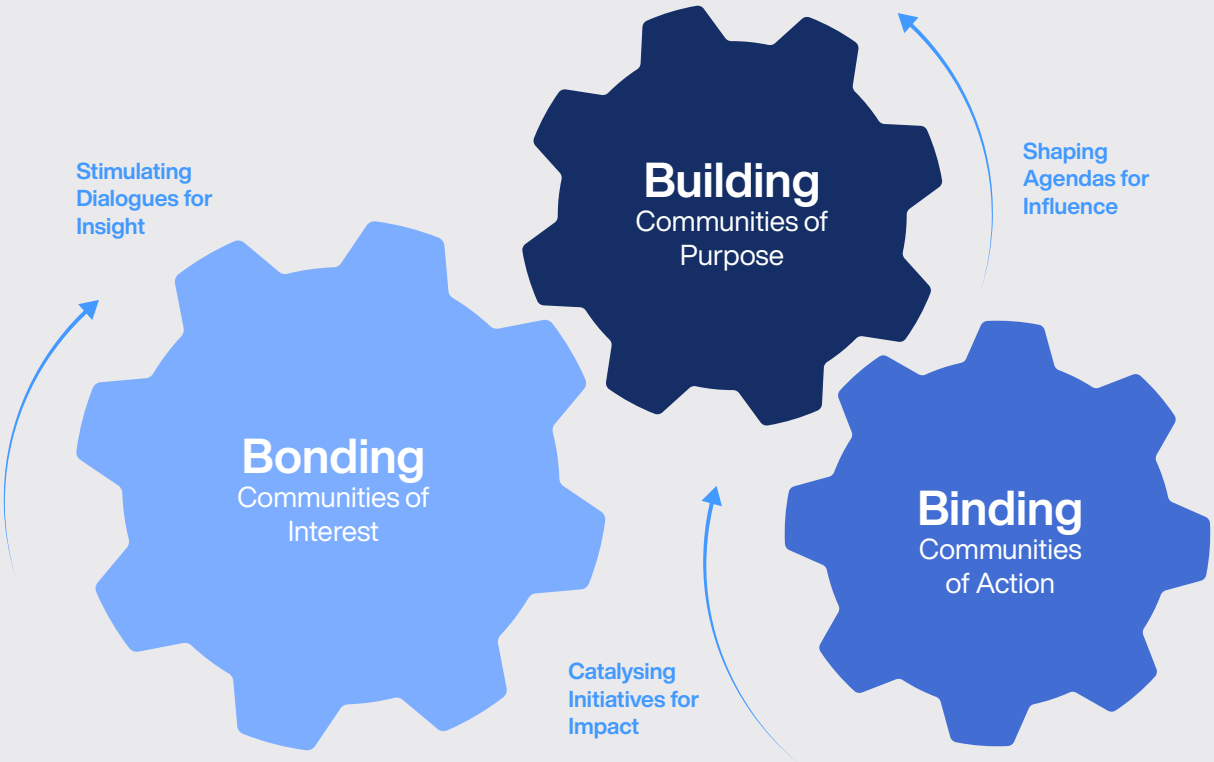
Towards Digital Transformation & Industry 4.0

In Doha, we participated in workshops at this event, sharing how SMEs can compete globally, how Gulf products can gain a competitive edge, and how Saudi industrial capacity can increase. Together, participants examined frontier tech and its impact on factories.



6.2
Engagement with World Economic Forum Communities

Participation in Forum meetings allows us to share Saudi initiatives and expertise. Beyond these moments, engagement continues year-round through the Forum's communities. Here we engage with the latest research, foresight, and expert insights. We move beyond keeping pace with the Fourth Industrial Revolution to actively defining its path.



HOW?
High-level, trust-based interaction

WHO?
Multistakeholder communities

WHY?
Global-Regional-Industry transformation processes

Source: World Economic Forum Institutional Brochure, *Interaction, the source of our value creation*

In 2025, we were active in the following communities, reviewing, and contributing to shared initiatives.



AVIATE: Advanced Air Mobility

AVIATE is about preparing for the future of flight. Through the Forum's efforts to strengthen public–private partnerships, it brings together governments, industry leaders, and innovators to explore how policy, technology, and real-world practice intersect. At its core, AVIATE examines the regulatory, technological, and societal questions arising from the growing use of unmanned aircraft to ensure that innovation advances responsibly and effectively.



AI Governance Alliance

The Alliance does more than set standards for AI use; it emphasizes safe, inclusive, and ethical adoption. We contributed through workshops and publications, including a white paper series. Through the Next Frontier of Operations initiative, we analyzed the impact of frontier technologies on manufacturing, producing reports on AI Agents, Physical AI, and Quantum Technologies, and held workshops where we shared lessons from the Kingdom's industrial sectors.



Roshn has signed a three-year agreement with the World Economic Forum, in partnership with the Centre for Urban Transformation.
Source: roshn.sa (2025)

Centre for Urban Transformation

This Centre focuses on making cities work for both people and the planet, addressing rapid urbanization, economic growth, and climate-positive development. Through advisory roles, we helped enhance the Kingdom's global reputation for SME empowerment. We co-published and contributed to publications.



Bioeconomy Initiative

The Forum's flagship initiative on bioeconomy adopted an ecosystem-first approach to deliver economic, societal, and sustainability benefits. We participated in a series of community meetings on scaling the bioeconomy, building public trust, and amplifying the promise of bio-innovation, and contributed to publications.



Quantum Economy Network

This Network builds the foundations for fair, measured growth, preparing industries, governments, and academia for the changes quantum technologies will bring. We served the Quantum in Finance, Manufacturing, and Oil & Gas committees and reviewed several publications.



Session from the Council's Annual Meeting held in Dubai in 2025
Source: weforum.org (2025)

The Global Future Council on the Future of Advanced Manufacturing and Future Value Chains

The Centre has been an active member of the Council since 2023, which assesses technologies, societal shifts, and geopolitical changes to understand what will influence value chains. Since joining the Council, the Centre has contributed to publications, workshops, and sessions.

$4.8 trillion, projected value of the AI market by 2033

Source: Building Communities for Impact: Lessons from the Centres for the Fourth Industrial Revolution India and Saudi Arabia, Briefing Paper (October 2025)

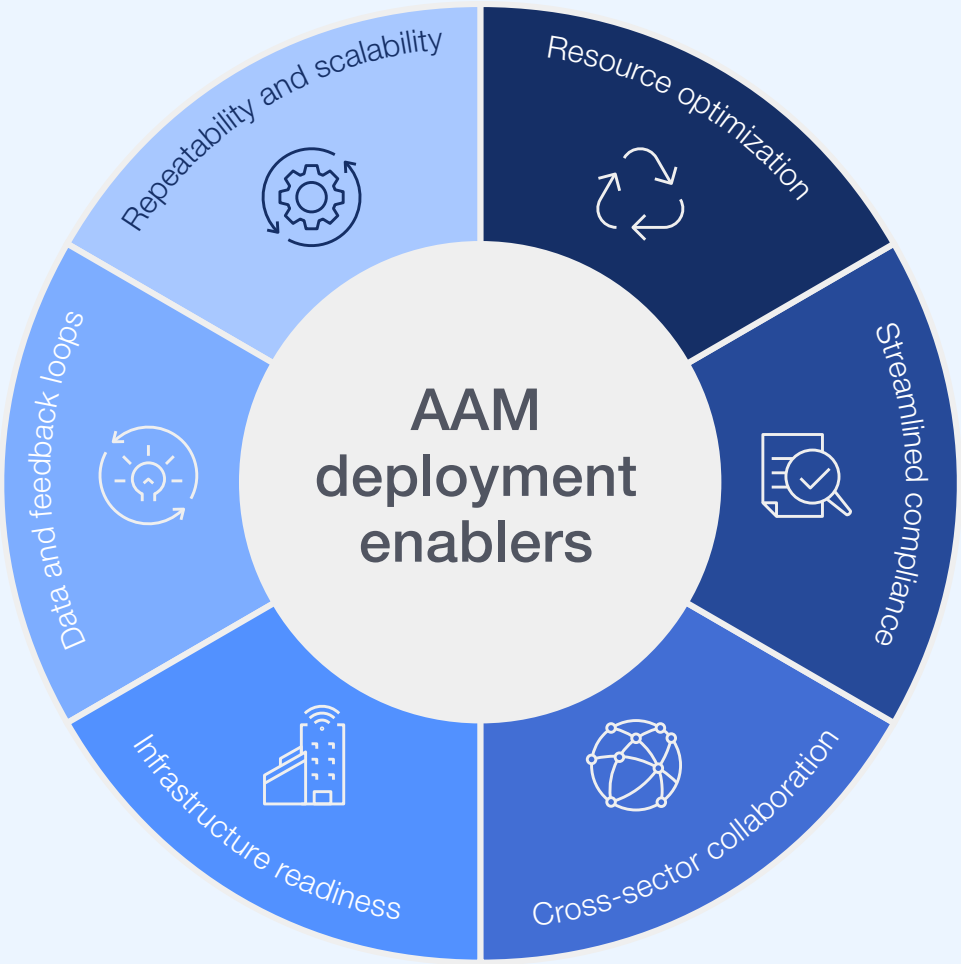
07 Global and Local Thought Leadership

From industrial innovation to bioeconomy and digital transformation, the Kingdom contributes to both industry knowledge and governance frameworks. In 2025, we collaborated with the Forum's Centres and Communities to produce knowledge artifacts and deepen our role as a thought leader. This enabled a two-way exchange of knowledge, allowing us to share expertise and learn from global perspectives.

12
Centre publications

5
Co-published with the Forum

12
Contributions to World Economic Forum publications



Six interdependent operational enablers to achieve effective Advanced Air Mobility (AAM) deployment
Source: C4IR Saudi Arabia

7.1

Centre Publications

Many of these publications have been co-produced with our stakeholders, reflecting shared priorities. Key themes include Vision 2030 alignment, industrial and digital transformation, SME enablement, quantum readiness, Edge AI, and telecommunications innovation. Through our newsletters, we keep our community connected, with timely updates and links to the global Fourth Industrial Revolution network.

1



Annual Report 2024

2



World Quantum Day Event Report

3



3rd Saudi Forum for the Fourth Industrial Revolution 2025 Event Report

4



How Peer-to-Peer Learning Can Help SMEs Embrace Digital Transformation

5



Towards Saudi Arabia's Quantum-Enabled Future: Piloting the World Economic Forum's Quantum Economy Blueprint

6



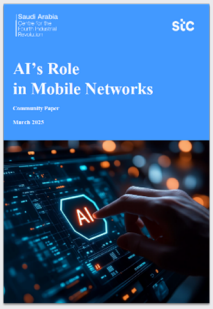
Unlocking Smart Cities Innovation: A Procurement-Driven Approach

7



Edge AI: Shaping the Future of Industrial Automation and Innovation in Saudi Arabia

8



AI's Role in Mobile Networks

9



Newsletter Q1 2025

10



Newsletter Q2 2025

11



Newsletter Q3 2025

12



Newsletter Q4 2025

7.2

Co-Published with the World Economic Forum

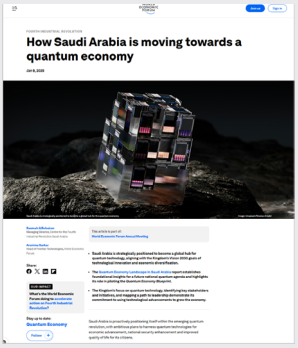
These publications show that we are not just adopting advanced technologies but contributing to how they impact systems and sectors. Our perspectives have helped inform policy, standards, and implementation models across smart cities, advanced air mobility, climate adaptation, quantum economy development, and digital upskilling.

1



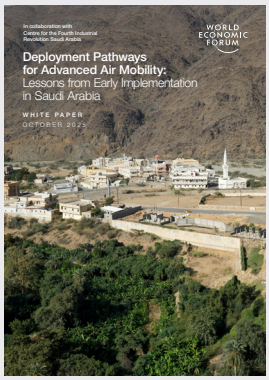
Building Communities for Impact: Lessons from the Centres for the Fourth Industrial Revolution, India and Saudi Arabia

2



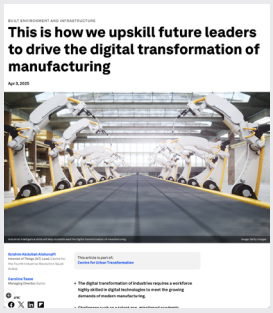
How Saudi Arabia is Moving Toward a Quantum Economy

3



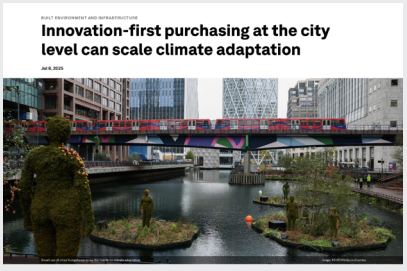
Deployment Pathways for Advanced Air Mobility: Lessons from Early Implementation in Saudi Arabia

4



This is How We Upskill Future Leaders to Drive the Digital Transformation of Manufacturing

5



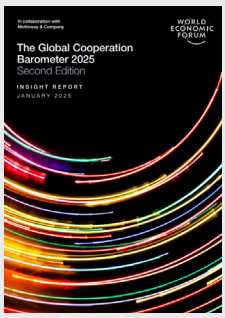
Innovation-First Purchasing at the City Level Can Scale Climate Adaptation

7.3

Contributions to World Economic Forum Publications

We engaged in forward-looking discussions on Industry 4.0. Our contributions cover topics such as artificial intelligence, quantum technologies, resilient supply chains, bioeconomy, and inclusive growth. We emphasized strategic foresight and the real-world impact of technology.

1



Global Cooperation Barometer 2025

2



Blueprint for Economies of Intelligence: Achieving Growth through Inclusive AI

3



Industries in the Intelligent Age – White Paper Series

4



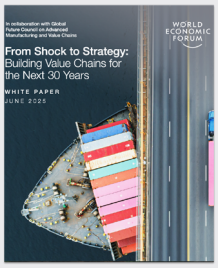
Frontier Technologies in Industrial Operations: The Rise of AI Agents

5



Physical AI: Powering the New Age of Industrial Operations

6



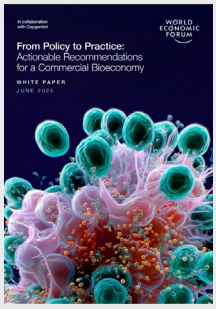
From Shock to Strategy: Building Value Chains for the Next 30 Years

7



Quantum Technologies: Key Opportunities for Advanced Manufacturing and Supply Chains

8



From Policy to Practice: Actionable Recommendations for a Commercial Bioeconomy

9



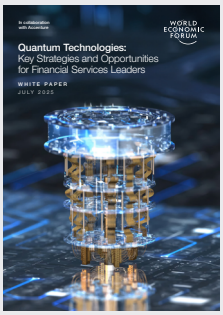
Next Generation Bio-Innovation: Delivering Commercial Value

10



Embracing the Quantum Economy: A Pathway for Business Leaders

11



Quantum Technologies: Key Opportunities and Strategies for Financial Services Leaders

12



Quantum Technologies: Strategic Imperatives for Health and Healthcare Leaders

08 Convening for Impact: C4IR Saudi Arabia Events

Because no single individual, institution, or nation can solve global challenges alone, the Centre convenes major Fourth Industrial Revolution gatherings to bring together local and global voices. Our events position the Kingdom as a convening hub, where the complexities of advanced technologies are examined and shaped with intent.



8.1
World Quantum Day 2025

“The future is not a distant dream but being coded in KACST laboratories, debated in NEOM innovation hubs, tested in garage startups, and with academic institutions such as KSU turning the theoretical into breakthroughs.”

Dr. Talal AlSedairy
Senior Vice President, Research and Development, King Abdulaziz City for Science and Technology (KACST)

Source: World Quantum Day 2025



In 2025, World Quantum Day coincided with the UN’s International Year of Quantum, marking 100 years since the birth of quantum mechanics. Saudi Arabia joined global celebrations on 14 April with an event hosted by the Centre and KACST.

Under the theme Discovering Quantum Possibilities: A Day of Inspiration and Exploration, the event explored quantum technologies and their applications in healthcare, cybersecurity, computing, education, and communications, emphasizing governance, education, and investment strategies.

Interactive installations and workshops by the Saudi Society for Quantum Computing introduced key concepts, including entanglement swapping and its applications. The day concluded with the UpLink Quantum for Society Challenge, which selected 10 innovators from 100 participants and connected them with partners and resources to accelerate the impact of their quantum solutions.





Top 10 innovators exploring Dirriyah

Quantum UpLink for Society Challenge

As part of the World Quantum Day 2025 celebrations, the top Innovators of the UpLink Challenge, a global initiative hosted on the UpLink platform, were recognized. The challenge sought early-stage quantum technology solutions aligned with the UN Sustainable Development Goals (SDGs).

SDG impact areas





8.2

3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology

“Saudi Arabia is willing to bet on the future rather than be comfortable with the legacy.”

H.E. Bandar AlKhorayef
Minister of Industry and Mineral Resources

Source: 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology



Following the successful 2021 and 2023 editions, the Forum convened in Riyadh to address technological innovation, human-centered regulation, ethical adoption, and scalable governance. The Forum served as the Centre’s main event, providing a platform to discuss advances in transformative and converging technologies. The theme, “Global Frontiers of Tech,” emphasized the rapid growth and impact of innovations such as artificial intelligence, robotics, advanced manufacturing, and digital connectivity.

The Forum also featured major announcements and the release of new publications.



In Numbers

Scale

2 Days

3 Publications

26 Sessions

8 Agreements announced

Attendance

4 Excellencies

80+ Speakers

2,000 Registrants

8 Sponsors

Social Media Impressions

83 Million

Announcements

PeerLink Launch

Introduction of a new collaborative platform to accelerate SME digital transformation, announced by H.E. Bandar Alkhorayef (center), H.E. Dr. Munir Eldesouki (left), and Jeremy Jurgens (right).





Quantum Economy Network Meeting

The World Economic Forum's Quantum Economy Network (QEN), launched in September 2021, held its second annual meeting on the sidelines of the 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology. The meeting convened around **50 experts** and thought leaders from across the global quantum ecosystem. A key theme was the collective responsibility to advance quantum technologies while managing risks and fostering global collaboration.

Sessions covered **Quantum and AI:** Accelerating Discovery and Insight; Quantum Application Hub: Industry Deep Dives; Quantum Economy Blueprint: Crafting National and Global Strategies; Security and Guardrails in the Quantum Economy; and Scaling Quantum: Infrastructure, Data Centers, and the Path to Quantum Advantage. The meeting also marked the launch of the **Quantum for Manufacturing whitepaper.**

It concluded with a community dinner at the UNESCO World Heritage Site of Diriyah, a reminder that progress in the quantum economy is built not only on technology, but on trust and collaboration.



09 National Ecosystem Participation

As convenor, we initiate forums and collaborative events. By participating in national meetings, we align on ecosystem priorities and increase our visibility as the national 4IR platform. Over the year we participated in 22 national meetings.

SHAPE MENA 2025

"Young people are not just users of technology; they are creators, innovators, and future policymakers."

Source: World Economic Forum, "5 Pathways Towards an Optimistic Future, According to Today's Youth" (August 2025)

The World Economic Forum's Global Shapers initiative empowers the next generation of leaders. This year, Khobar welcomed the Kingdom's Shapers, and the Centre participated in "Meet the Leader," discussing authentic leadership.



500 Local hubs

200 Shapers

40 Countries

LEAP 2025, 11 February

"LEAP 2025 is a defining moment because when the Kingdom works, the region works, and the whole world works."

HE Eng. Abdullah Alswaha, the Saudi Minister of Communications and Information Technology (MCIT) at LEAP 2025

At LEAP, the Centre highlighted its role as an ecosystem builder and 4IR technology enabler. We presented the Centre's core functions and cross-sector initiatives and moderated a session exploring the shift from traditional smart cities to next-generation cognitive cities.



215K Attendees

900+ Startups

1,800 Global tech companies

Tech Night for Emerging Technology in Manufacturing

We organized this event with the Ministry of Industry and Mineral Resources and King Abdulaziz City for Science and Technology for entrepreneurs. Attendees learned how specialized technologies, such as 3D printing, can transform their businesses.



KPMG Public Sector Excellence Forum

“Excellence in the public sector is not just an end goal, but an ongoing process that requires a clear vision, effective collaboration, and shared commitment.”

Abdullah Al Fozan, CEO, Excellence Forum (2025)

The Forum brought together leaders to discuss best practices, policy innovation, and the future of public-sector delivery. In “Balancing Present Delivery with Future-Ready Human Capital,” we asked: how can governments prepare their workforces for the challenges ahead?

By 2030, nearly 59% of the global workforce will require reskilling or upskilling, and around 40% of skills will be entirely new or transformed. Creating a future-ready workforce will demand experimentation and continuous learning.



Sci Health Hackathon at King Saud University

We were delighted to support a scientific research hackathon at King Saud University, bringing together students, health experts, and 19 public and private entities.

Participants tackled challenges in smart healthcare, IoT for chronic disease management, AI-driven prediction, accessible care, cybersecurity, and big data analytics. Winning teams received cash awards, along with incubation, accelerator support, and development opportunities.



Launch of the Advanced Manufacturing and Production Center

The launch of the Center marked a major step in unifying national modernization efforts, bringing smart manufacturing and data-driven production under one umbrella. We participated in the launch and will continue to serve as a strategic partner.



Future of Semiconductors Forum 2025

Hosted by KAUST in collaboration with KACST and NEOM, the event focused on semiconductors and related technologies. We delivered a keynote on semiconductors, highlighting their vital role in the quantum era, and introduced the Centre’s Quantum Economy Project.



10 Media and Public Impact

2025 has been a year defined by purpose, collaboration, and progress. We've shared this journey across social media, television interviews, newspapers, magazines, documentaries, buzz videos, and podcasts. Concepts that may have seemed complex, from quantum science to the frontiers of global technology, were brought to our communities, and we were encouraged by their active participation.

10.1 Media Highlights

Engagement on social media was strong; we reached more than **28 million people**, published more than **10 articles**, and conducted several media interviews.

10.1.1 Social Media Campaigns

We sustained momentum with the following campaigns:

World Quantum Day 2025

The campaign achieved over **6 million** impressions across social media channels, running from March through April. It featured Forum participants and provided information to raise awareness of quantum science.



The 3rd Saudi Forum for 4IR 2025: Frontiers of Global Technology

Over **83 million** impressions were generated, increasing awareness of our flagship Forum event, which ran from September to October. We highlighted support from partners and shared expert insights.







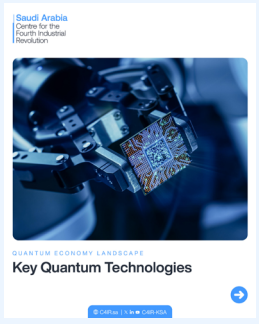




Quantum Economy Campaign

Launched in December 2025, this campaign translated the Quantum Economy Landscape Report into accessible, engaging social media content, highlighting quantum fundamentals, research, and strategic partnerships.





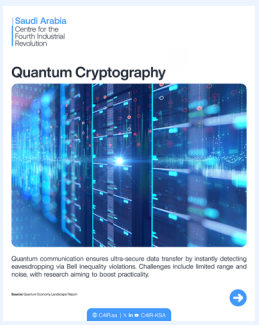


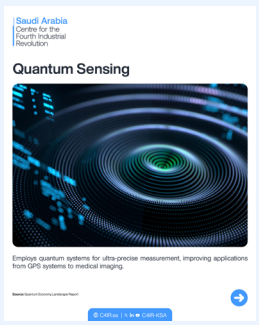


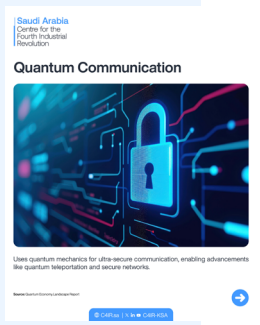












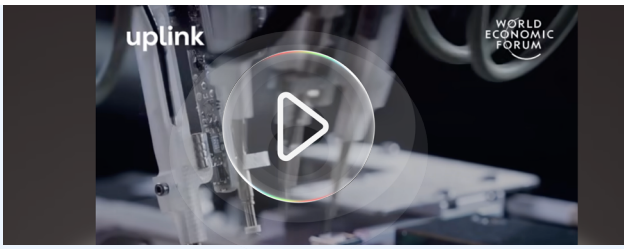
10.1.2
Videos



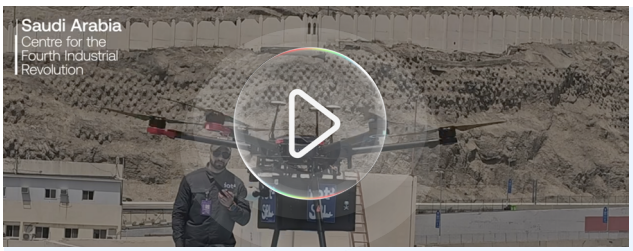
Sustainable Concrete

King Abdulaziz City for Science and Technology developed a new type of concrete using natural and recycled materials, such as date seeds and coffee husks. This concrete provides up to 40% greater compressive strength than traditional alternatives.

Saudi Arabia was the first country to join the World Economic Forum's global quantum documentary project, launched during the UN's International Year of Quantum. Filming of Saudi participation took place in Riyadh on World Quantum Day 2025, featuring national leaders, scientists, and institutions. Early footage premiered at the 3rd Saudi Forum for 4IR 2025.



Quantum Documentary Project



Deployment Pathways for Advanced Air Mobility

We promoted the white paper Deployment Pathways for Advanced Air Mobility, which outlines the transition of autonomous vehicles from concept to implementation. Unmanned Air Vehicles (UAVs) demonstrated the benefits and potential of advanced air mobility.

Together, these initiatives made 2025 a year of significant impact and visibility by connecting messages about complex technologies and individual achievements with public engagement and national pride.

11 The Road Ahead

Visibility signals presence, and value delivers purpose. There is a clear intent to ensure that our work is not only seen but also meaningful, benefiting the communities we serve.

Our priorities for 2026:

Innovation Leadership | **Strategic Positioning** | **Collaborative Ecosystem** | **Capacity Building**

The past year was defined not by what we achieved alone, but by what we made possible together. Our projects, partnerships, and events have established a foundation for 2026.

The Centre will implement a focused portfolio of four projects, each designed to test new ideas, apply evidence-based methods, and deliver measurable impact across technological and societal domains.

In the first quarter of the year, we will host a national event that brings together policymakers, innovators, and researchers. Through this convening, each group will gain unique value from the relationships formed, the knowledge exchanged, and the actions carried forward into practice.

We will continue developing talent through fellowships, internships, and practical training, ensuring participants gain both technical skills and real-world experience. Partnerships with stakeholders and the co-creation of knowledge artefacts will further strengthen learning and collaboration, forging a continuous path from dialogue to delivery.

As the Kingdom advances in giga-projects, mobility, and biotechnology, and grows as a global innovation hub, we must maintain perspective. As Roy Amara observed, “We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.”

This reminds us that our work requires a long-term approach. In 2026, we will continue partnering with our stakeholders to ensure that applied knowledge delivers measurable and lasting results.



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