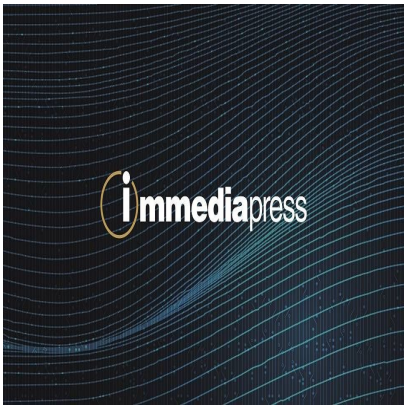

The Kingâ??s Foundation and FormationQ Launch â??Harmonious Urban Growthâ?• Programme to Help Cities Plan Sustainable Expansion Using Quantum Optimisation

Descrizione

COMUNICATO STAMPA â?? CONTENUTO PROMOZIONALE

LONDON and AUSTIN, Texas, May 11, 2026 /PRNewswire/ â?? The Kingâ??s Foundation and FormationQ today announced a new partnership to showcase how towns and cities across the Commonwealth can grow sustainably using quantum technology.

The partnership, entitled Harmonious Urban Growth: A Health-Optimised Expansion Framework Using Quantum Methods, is a three-year programme designed to help cities grow sustainably while improving the health of people and the planet. The initiative will incorporate advanced computational modelling, including quantum optimisation enabled by trapped-ion systems from IonQ, to explore new methods for planning complex urban systems and sustainable town planning.

Today, around 1.3 billion people live in unplanned settlements, and that number is expected to grow by well over one billion more in the next 30 years. When urban expansion occurs without planning frameworks, infrastructure and public services can struggle to keep up with population growth, creating long-term challenges for mobility, public health, and environmental resilience. Early planning helps cities become more livable, walkable and sustainable. In many of the places growing most rapidly, professional planning resources are limited, yet the need to organise urban expansion has never been greater.

The Harmonious Urban Growth programme builds on The Kingâ??s Foundationâ??s Rapid Planning Toolkit, a practical methodology developed with Commonwealth partners following the Declaration on Sustainable Urbanisation (
CHOGM 2022
). The Toolkit enables mayors, planning authorities and built-environment professionals to establish clear frameworks guiding responsible expansion before informal settlement patterns become difficult to reverse.

The Toolkit was piloted in Bo, Sierra Leone, where it helped local authorities and community stakeholders avoid development in flood-prone wetlands while identifying walkable areas and infrastructure corridors for future expansion.

The three-year programme will be supported by UK urban planning consultants Space Syntax, who will bring their knowledge on cities, mapping, and data to the initiative. Working alongside The Kingâ??s Foundation and FormationQ, they will apply digital modelling techniques to the toolkit process, harnessing the power of IonQâ??s quantum technologies to develop new platforms that can support our understanding of the complexity of cities.

Ben Bolgar, Executive Director for Projects at The Kingâ??s Foundation, said:

â??We are excited to partner with FormationQ to explore how our Rapid Planning Toolkit can help communities grow sustainably across the world. We hope that the work of the Projects Team at The Kingâ??s Foundation will impact more communities positively as a result.â?•

Through the partnership, FormationQ will contribute advanced computational and optimisation capabilities, leveraging the IonQ quantum platform, to allow planners to explore large numbers of potential spatial configurations across interconnected systems including water networks, ecological corridors, transportation infrastructure, neighbourhood centres and block structures.

Urban planning across these layers involves complex combinatorial decisions. Advanced optimisation techniques, including quantum approaches, can help analyse these interactions more efficiently and generate alternative spatial frameworks that balance walkability, environmental resilience, infrastructure efficiency and economic accessibility.

Nada Hosking, Founder and CEO of FormationQ, said:

â??Rapid urbanisation is one of the most complex systems challenges of the 21st century. Cities must balance environmental resilience, infrastructure capacity, economic opportunity and human wellbeing simultaneously. Advances in computational modelling, including quantum optimisation techniques, offer new ways to explore these complex interactions and support better planning decisions.â?•

The computational modelling informs a participatory planning process in which planners, local authorities and community representatives review spatial options and shape a preferred framework. Proposed plans can then be tested directly on site, with streets, squares and public spaces physically marked on the ground and digitally mapped to guide early development.

By combining quantum computing, participatory planning and field testing, the Harmonious Urban Growth programme aims to create a scalable framework for guiding sustainable city expansion in rapidly urbanising regions. The collaboration between The Kingâ??s Foundation and FormationQ reflects a shared commitment to supporting resilient communities and responsible stewardship of the built environment.

Notes to Editors

About The Kingâ??s Foundation

The Kingâ??s Foundation was founded by King CHarles III and was first formed in 1990. The charityâ??s core mission is to build sustainable communities and transform lives.

Inspired by the values of His Majesty, the Foundation builds and supports communities where people, places and the planet can coexist in harmony. The Foundationâ??s Projects Team works both domestically and internationally across stakeholder and community engagement, masterplanning, and community regeneration. Over 35 years, the team has developed plans for hundreds of thousands of homes in walkable communities and revitalised a range of historic buildings. In addition to its UK presence, the Foundation delivers projects in over a dozen sites worldwide.

The Kingâ??s Foundation is headquartered at its flagship regeneration project, Dumfries House in Ayrshire, Scotland, and acts as custodian of other historic Royal sites including Highgrove Gardens and The Castle of Mey. The charity also manages educational programmes and cultural events in London at The Kingâ??s School for Traditional Arts, The Garrison Chapel and Trinity Buoy Wharf.

For more information, please visit www.kings-foundation.org / or email media@kings-foundation.org.

About FormationQ

FormationQ is the enablement layer for global quantum adoption. The company builds the institutional pathways and collaborative structures that allow quantum technologies to move from frontier research into real-world use. Working with leading institutions and technology partners, FormationQ operates and supports programmes that advance talent development, application formation, and ecosystem coordination in ways that can be governed, trusted, and sustained over time.

About IonQ

IonQ, Inc. [NYSE: IONQ] is the worldâ??s leading quantum platform and merchant supplier â?? delivering integrated quantum solutions across computing, networking, sensing, and security. IonQâ??s newest generation of quantum computers, the IonQ Tempo, is the latest in a line of cutting-edge systems that have been helping customers and partners including Amazon Web Services, NVIDIA, and Astrazeneca achieve 20x performance results and accelerate innovation in drug discovery, materials science, financial modeling, logistics, cybersecurity, and defense. In 2025, the company achieved 99.99% two-qubit gate fidelity, setting a world record in quantum computing performance.

Headquartered in College Park, Maryland, IonQ has operations in California, Colorado, Massachusetts, Tennessee, Washington, Italy, South Korea, Sweden, Switzerland, Canada, and the United Kingdom. Our quantum computing services are available through all major cloud providers, while we also meet the needs of networking and sensing customers across land, sea, air, and space. IonQ is making quantum platforms more accessible and impactful than ever before. Learn more at IonQ.com.

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