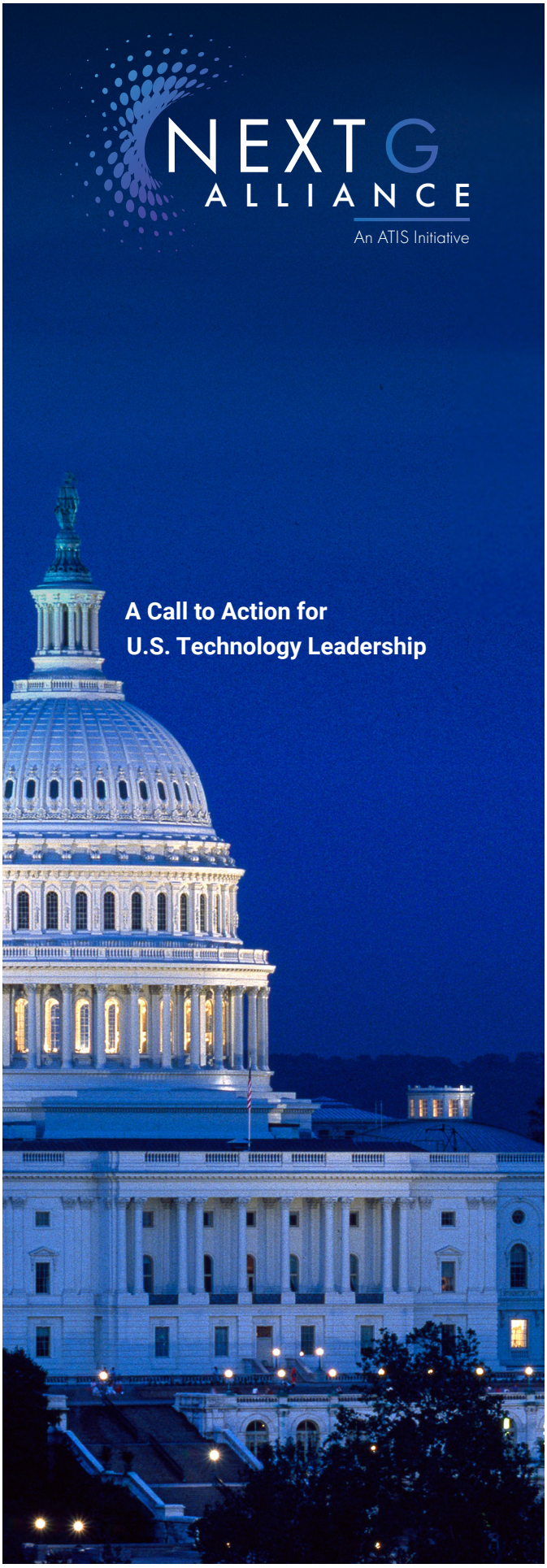


6G — The Next Frontier of Innovation and Investment

Technology has become the epicenter of global competition and economic growth. 6G — the next generation of mobile technology — will define the international economic landscape for 2030 and beyond. 6G will be much more than a technology progression — it represents a unique opportunity to advance innovation breakthroughs that will reshape almost every industry and area of society.

NOW IS THE TIME for government, industry, and academia to partner in making 2030 the North American decade of innovation, economic leadership, and societal advancement. The United States needs a strategy and commitment to investing in 6G today – *we cannot afford to leave 6G leadership to others*.

The Global Landscape

Other regions of the globe have already launched ambitious partnerships between the public and private sectors to advance leadership aspirations in 6G development. **China** is investing heavily in bringing together government, universities, and industry to promote 6G R&D and advance China's objectives to dominate international standardization of the next generation of mobile technology. The **European Commission** has already committed the equivalent of nearly $1 Billion for 6G research. **Japan** has committed $2 Billion to encourage industrial R&D. And other countries including **Korea**, **Finland**, the **U.K.**, **Brazil**, **Germany**, and the **Netherlands** have announced similar plans to advance 6G leadership in their respective countries.

The Bigger Picture

6G leadership represents much more than a technology outcome. The innovation that will be driven by the race for 6G leadership over the next decade will unleash economic growth and once-in-a-generation societal benefits. 6G is the first generation of mobile technology that places improvement to the *quality of life*, bridging the digital divide, and sustainability at the earliest stages of its development. 6G will deliver the next generation of technical capabilities, such as digital twins, holographic services, multi-sensory applications, ultra-HD positioning, and network-enabled robotics. These, in turn, are poised to reshape virtually every area of our economy enabling innovative solutions in areas such access to virtualized healthcare, smart agriculture, distance learning, and advanced public safety through autonomous work and transportation solutions. A coordinated, national strategy for investment in next generation solutions can simultaneously deliver 6G breakthrough developments across many industry sectors that will be determinative of the nation's economic and national security interests in the next decade and beyond.

North America's 6G Blueprint

Following the release of **ATIS'** 6G Call to Action, the **Next G Alliance** was launched in late 2020 to advance North America's goals for 6G global leadership. Representing a collaboration of North American industry, government, and academic institutions, the Next G Alliance has grown to over 100 members and close to 1,000 experts and has published several key findings that will define the roadmap to 6G, including a collective view of 6G research priorities. The Next G Alliance has established itself as the preeminent organization promoting North American leadership in 6G and is active in international 6G collaboration.

The Time is Now for a Bold New Approach

The next critical step is to create the Public-Private Partnership needed to fuel deep investments in 6G R&D and position North America as the unparalleled leader in 6G. The U.S. has traditionally invested in delivering funding to the scientific community for foundational research. However, there exists an urgent need for a complementary 6G strategy, built to deliver commercialized outcomes and rapid innovation in the marketplace. The Next G Alliance is dedicated to partnership between government, industry, and the research community to establish North America as epicenter of 6G R&D today in order to ensure North America innovation and economic leadership in the future. Key to this partnership is a deep commitment from government and the private sector to invest at the scale necessary to deliver North American 6G leadership. The Next G Alliance brings together not only the collective partners and stakeholders, but also the vertical industry relationships and future users of 6G mobile technologies. This is the winning formula for delivering the innovation that will resonate not only in the North American marketplace, but across the global 6G market.

Partnering for Leadership: Policy Recommendations

Urgent Action from Policymakers is needed to change the game.

First, *Congress and the Administration should fully fund existing and promote new legislative actions for 6G that will reinforce the United States' traditional position as the leader in wireless technology innovation.* The CHIPS and Science Act created a blueprint for NSF to move our best-in-the-world wireless research into the marketplace. However, to date the NSF Directorate for Technology, Innovation and Partnerships has not been fully funded as envisioned by the Act. Likewise, NSF, NIST, Commerce, and State need new funding and authorities to promote the deployment of new technologies and applications — including, private cellular networks, satellite/NTN, and Open RAN — in which North America has a vital interest. In short, the U.S. needs a strategic commitment to 6G investment that can compete with those already being executed by our economic competitors. The *Next G Alliance 6G Research Priorities* provides policymakers with a roadmap of the most critical areas of investment for driving U.S. leadership.

Second, *Congress and the Administration must partner with industry and academia to execute on a strategy of U.S. 6G leadership.* The Next G Alliance has created the North American venue for partnership and we urge policymakers to work with us in achieving this critical goal. Governments in other parts of the world are already coordinating industry efforts.

Unlike other some other regions, the U.S. model must be based on the principals of democracy and open markets that define North American values. A coordinated strategy based on these principles is essential to demonstrating the region's intent to compete with the rest of the world in technologies that will drive economic and national security in the next decade and beyond.

We urge you to join the members of the Next G Alliance in supporting this urgent Call-To-Action to drive North American leadership in 6G and are eager to work with you to achieve this goal essential to U.S. economic security.

Please reach out to Nicole Butler at nbutler@atis.org or 202-434-8855 if you have any questions or would like to discuss this issue further. Thank you for your time and consideration.