INNOVATION MINISTERIAL

CHAPEL HILL, NORTH CAROLINA

G20 INNOVATION MINISTERIAL STATEMENT

We, Ministers of the G20 who assembled in Chapel Hill, recognize that emerging technologies have the potential to unlock prosperity, enhance productivity, and expand opportunity for all our peoples. These technologies will strengthen long-term growth and development across our economies when deployed in a secure and reliable manner. Realizing their benefits will require policies that intentionally promote innovation throughout the technology development lifecycle, successful adoption of Artificial Intelligence (AI) across public services, and government action to equip all our peoples with the skills needed to understand and use emerging technologies. Such policies can be supported by sector-specific, risk-based approaches to the deployment of technology where appropriate, taking into account national circumstances and different levels of development, consistent with applicable legal frameworks, and with respect for fundamental freedoms. We call on members to develop their own policies and preserve national sovereignty in the governance of emerging technologies, while allowing for engagement in international discussions.

Pillar 1: Pro-Innovation Policy Frameworks

Innovation is the defining driver of prosperity and transformational development. We affirm that emerging technology policy frameworks should promote human-centric innovation while accelerating scientific and technological advancement and enabling the broad and trustworthy adoption of these technologies necessary to maximize the benefits for all our peoples. Outdated or inflexible regulatory approaches can unintentionally restrict innovation. Policy frameworks that are well-designed, proportionate, and adaptable can encourage innovation and support the adoption of emerging technologies across sectors. To unlock the full benefits of emerging technology for society and the economy, governments should design policy frameworks that intentionally promote innovation and support secure and trustworthy development, deployment, and human-centric adoption.

We have drawn lessons from how mature technologies have evolved under past policy frameworks to identify crosscutting technology policy principles which distinctly map to the science and technologies development lifecycle, from foundational research and early-stage development through commercialization and deployment. These robust policy principles, implemented in a flexible manner, provide a foundation for the development of adaptable policy frameworks designed to maximize the benefits of current and future technologies, while protecting our peoples from risks.

The Carolina Principles for Emerging Technologies enable G20 members to intentionally promote innovation and unlock the benefits of emerging technology by:

I. **Advancing discovery and strengthening technology development** by investing in foundational research to unlock breakthroughs, catalyzing private investment and entrepreneurship, removing bottlenecks that delay research and development, and strengthening domestic technological capabilities;

II. **Accelerating commercialization** by promoting secure real-world testing and validation and strengthening pathways from development to market; and

III. **Enabling technology adoption** by applying existing sector-specific regulatory approaches to govern the use of emerging technologies where appropriate, focusing any new regulation on novel technology considerations that existing frameworks cannot address, and supporting flexible policymaking practices.

We aim to build our own sovereign policy frameworks informed by ***The Carolina Principles for Emerging Technologies*** to drive productivity growth, strengthen national competitiveness, and improve quality of life for our peoples.

Pillar 2: Technology for Opportunity and Prosperity

We recognize that secure and trustworthy AI has significant potential to raise living standards and improve the quality, efficiency, and accessibility of public services across our economies, thereby benefiting all our peoples. We acknowledge the G20's previous work on AI, including the G20 AI Principles. Public sector adoption of AI, consistent with applicable legal frameworks and domestic circumstances, can help deliver better outcomes in areas such as healthcare, education, transportation, disaster and emergency management, public administration, and other essential services.

Across public services, AI is beginning to deliver practical benefits for our peoples by accelerating service delivery and improving service quality. In order to effectively and securely scale AI solutions across the public sector, we aim to identify and pilot high-value use cases, develop metrics tailored to individual use cases that assess pilot results, as appropriate under national circumstances, and implement the enabling conditions that support secure and trustworthy AI adoption.

We recognize that evaluating the outcomes of AI pilots can help us identify which use cases deliver the greatest benefits for all our peoples and inform evidence-based decisions on whether and how to prioritize investments and allocate resources to scale AI. We aim to strengthen our ability to evaluate the value and impact of AI pilots and track the performance of applications as they move from experimentation toward broader implementation.

We recognize that successful, trustworthy public sector adoption also depends on enabling conditions, including high-quality data used in accordance with applicable legal frameworks and with respect to privacy and data protection, secure digital and network infrastructure, high performance computing, innovation-friendly procurement practices, adaptable policy frameworks, skilled and informed public sector workforces, implementation capacity, and transparent institutional accountability. We aim to strengthen these enabling conditions across our respective governments to scale interoperable, secure, and trustworthy AI applications, including through international cooperation where applicable.

We will pursue practical measures to develop and procure AI technology, customize applications, encourage responsible experimentation, and effectively deploy and scale secure and trustworthy AI applications across public services, translating successful pilots into enhancements in public service delivery for the benefit of our peoples. We will also pursue practical measures to promote digital literacy among our peoples to maximize the benefits of AI-driven public services.

Pillar 3: Skilled Technical Workforce Development

The greatest asset of any nation is its people. In the age of AI, we stand firm in our commitment to invest in all our peoples.

The rapid advancement of AI and other emerging technologies will have implications for the workforce, driving demand for new skills and abilities across industries. With effective policies, applicable legal frameworks, investments, and support, emerging technologies can create opportunities for workers, innovators, and students preparing to enter the global labor market. AI serves as a powerful tool for augmentation, unlocking new levels of creativity, economic opportunity, and productivity that allow workers not just to adapt, but to thrive and lead in the 21st-century economy.

We recognize that skilled technical workforce development is essential for the G20 and our peoples to realize the full potential of emerging technology. AI has the potential to allow the rich human capital of our countries to reach new heights, but only if our peoples are equipped to seize the opportunity. Through partnerships between the public sector, the private sector, research institutions, and educational institutions, we will ensure that our peoples develop the in-demand skills needed to succeed in an AI-powered job market. We will work to build resilient future workforces by preparing workers for AI-driven transitions. By prioritizing the growth and prosperity of our workers, we will ensure that the benefits of innovation are widely shared, strengthening our economies and securing a prosperous future.

We seek to:

Support upskilling, reskilling, and lifelong learning for all our peoples so they can successfully adopt emerging technologies and benefit from new economic opportunities and job creation.

Build strong career pathways by modernizing and expanding effective workforce development models, including technical education, apprenticeships, work-based learning, and other pathways that connect individuals to high-value careers and innovation opportunities.

Empower the next generation to reap the benefits of AI and emerging technologies by providing them with the resources and education necessary to navigate the digital environment, investing in age-appropriate AI education, training, and competitions, and strengthening AI literacy for educators.

In order to support workers, innovators, and students in developing the skills needed to benefit from the job opportunities created by AI innovation, we will seek to advance ***The G20 AI Prosperity Objectives*** and utilize ***The AI Prosperity Compact*** through voluntary partnerships with our respective private sector companies and educational and research institutions, as well as through voluntary international cooperation, voluntary knowledge sharing, and strengthening capacity development. We recognize that developing a skilled technical workforce is essential for the G20 to realize the full potential of emerging technology, unlock economic growth, and ensure high-quality jobs for all our peoples.

Pillar 4: Intellectual Property Policies for Artificial Intelligence

We recognize that intellectual property (IP) frameworks can support innovators, rightsholders, and creators while preserving opportunities for AI development and deployment, helping to sustain the investment necessary for continued AI progress and the production of creative works and inventions by humans. As AI technologies continue to evolve, moreover, we recognize the importance of continuing to study how existing IP frameworks apply to this rapidly developing technology to enable human-centric innovation and growth for all our peoples.

We recognize the significant role that IP frameworks play in incentivizing innovation for the benefit of society for all our peoples, including to support technological development and the dissemination of knowledge. We encourage G20 members to support building capacity, including for developing countries, to develop and administer IP frameworks. We further recognize that AI can serve as a powerful tool to enhance human ingenuity and our fundamental understanding of the inventive process. IP law and policy should continue to closely accompany the role of AI in innovation.

We recognize the essential role that copyright protections play in safeguarding and supporting the creative works of authors, artists, innovators, and other rightsholders. We also acknowledge that the interaction between copyright law and AI technologies presents complex legal and policy questions across jurisdictions. We further recognize that domestic and international legal frameworks and doctrines, such as prior and express consent and applicable limitations and exceptions to copyright, have played a critical role in balancing the interests of creators and innovators in some members' jurisdictions, and that their application to AI-related activities remains appropriately resolved through each member's established legal processes.

We recognize the importance of robust IP protection and trade secret protections in fostering innovation, incentivizing research and development, and maintaining competitive markets worldwide while ensuring an appropriate balance with other rights for the benefit of all our peoples. We recognize the importance of enforcing intellectual property rules and trade secret protections and ensuring fair and appropriate remuneration and enabling remedies against misappropriation in accordance with applicable legal frameworks.

Pillar 5: AI for Standards and Standards for AI

We recognize that standards can unleash innovation, support technical interoperability, and enhance economic growth and development when they foster open, fair, non-discriminatory, and transparent market competition. We affirm that technical standards and regulations should provide investment certainty and regulatory predictability, drive sustained economic growth, and avoid creating unnecessary obstacles to international trade. We recognize the important role of open, transparent, and inclusive development of standards in supporting Micro, Small and Medium-size Enterprises' ability to participate in international trade.

We recognize that AI can be a powerful tool for policymakers to streamline international trade, simplify regulatory processes and reduce unnecessary non-tariff barriers and support alignment between trading partners. AI's reasoning capability combined with high-performance scientific computing can improve the way standards are compared between trading partners.

We recognize that such AI-enabled methods for various sectors have the potential to minimize duplicative testing and market-specific modifications; compare safety, performance, simulation, and testing data; and assist compliance analysis. We recognize that AI is a transformative technology that can lead the world to an abundant future of prosperity for all. We recognize that market competition alongside standards can help the development of secure and trustworthy AI models. We affirm that consumers will determine which AI models best meet their needs through free market competition.

We encourage all G20 members to promote access to secure and trustworthy AI models to enable innovation, advance measurement science for AI, and enhance international cooperation in using AI.

Pillar 6: Industrial Innovation and Investment in Supply Chains

We recognize that industrial supply chains are increasingly complex and interconnected, and that resilient, diversified supply chains support global productivity and are a cornerstone of long-term economic growth and stability, job creation, and security. Systemic vulnerabilities in these supply chains should be addressed through international collaboration.

We seek to improve transparency and sharing information on a voluntary basis and through data free flow with trust, including to ensure data protection and privacy, while respecting applicable domestic as well as international legal frameworks to support more resilient supply chains, and through enhanced access to relevant non-sensitive data on global production capacity to enable accurate risk assessments and real-time disruption monitoring.

We seek to build more resilient and diversified supply chains through public and private investment, modernized manufacturing, and the adoption of AI for improved logistics monitoring and risk management. We seek to strengthen and diversify supply chains in sectors of strategic importance by expanding manufacturing capacity and incentivizing supply chain innovation. We recognize that secure and reliable digital infrastructure is fundamental to supply chain resilience and industrial innovation.

We seek to identify and address unnecessary market access barriers, including overly burdensome permitting processes, technology transfer requirements not on a voluntary basis, unnecessary data localization mandates, policies and practices that may affect fair market competition, and regulatory impediments that constrain supply chain innovation, investment, and resilience, while respecting applicable legal frameworks and with respect to privacy and data protection.

We will actively engage the private sector, which plays a critical role in driving supply chain resilience through investment in critical infrastructure, innovation, training, upskilling and reskilling, and diverse sourcing.