IBM Recommendations for the European Union-United States Technology and Trade Council

1: Establish a framework for a transatlantic research partnership.

An ambitious research partnership will ensure tangible cooperation, reciprocal access to programs and procurement, and the creation of key technologies such as semiconductors, cloud computing, and quantum computing are deployed where they have the highest return. The framework should be underpinned by a set of agreed commitments, protocols, and deliverables such as:

1. Non-discrimination in access to research funding and procurement markets in emerging technologies.
While we fully support each side's legitimate goal to develop its own research and technology capabilities, we urge the EU and the U.S. to maintain mutual participation in funding schemes and an inclusive and reciprocal approach in research fields such as quantum technologies and semiconductors:

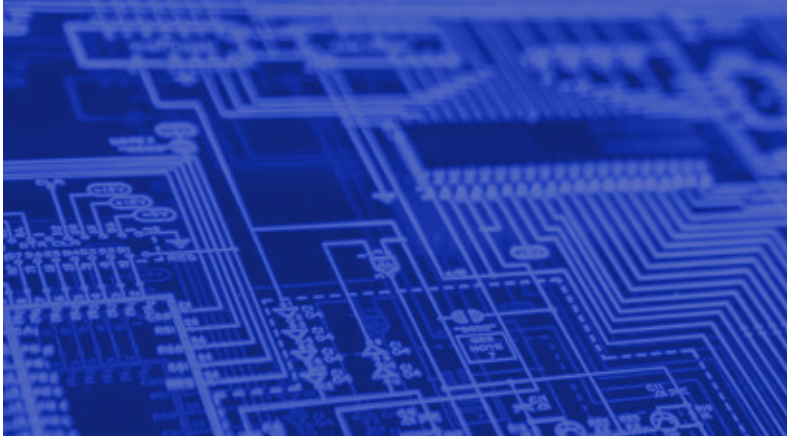
- For example, Quantum Computing is a strategically important field but one where there are many technical hurdles to overcome, and where neither the U.S. nor the EU can afford the time to build completely independent technology stacks. We believe there are several areas where the EU and U.S. could work together in this area, including applications & ecosystem development; developing error correction approaches necessary to manage larger numbers of q-bits; developing architectures for quantum and classical High Performance Computing to work together, as well as system components for building large quantum computers, such as the necessary cryogenic cooling systems, where European companies are already important players.
- Both sides should also ensure reciprocal access to their technology procurement markets (for example in cloud services) based on shared values and standards, such as open architectures and technology choice.

2. Multi-stakeholder research collaboration in key technology areas.
Both sides should establish mechanisms to promote cooperation between researchers, laboratories, academia, industry and governments, together with support from public-private partnerships, in order to accelerate research breakthroughs, prototyping and ambitious scaling of innovation.

On semiconductors, such multi-stakeholder collaboration should promote next-generation semiconductor advances: beyond regularly sharing information and identifying gaps in the supply chains, EU-U.S. collaboration could help both sides create complementarity and mutual synergies to boost R&D equipment and facilities, design and manufacturing capabilities (including prototyping to speed up "lab to fab" processes), and technological know-how to fuel leading-edge semiconductor breakthroughs, such as the Vertical-Transport Nanosheet Field Effect Transistor (VTFET), and accelerate their introduction into consumer and industrial applications more quickly. Finally, both the EU and U.S. should include like-minded allies, such as Japan, into these collaboration mechanisms.

3. Common protocols that ensure the safe and secure sharing of research data.
Emerging data privacy and security technologies, such as anonymization, tokenization and blockchain, should be leveraged to the fullest extent possible to facilitate the exchange of sensitive data – such as health and medical data – in a safe, secure, and trusted manner, to accelerate data-driven innovations.

4. Future workforce, STEM education andother training programs.
The EU and the U.S. should focus on enabling the development of skills and necessary know-how for future technology developments in semiconductors, quantum or AI. This could for example include exchange programs for EU and U.S. researchers (where expertise is rare such as in semiconductors and where both sides could partner with universities and vocational colleges to attract new talent and build a pipeline of future skilled workers), as well as reskilling programs for under-served communities, notably those with high unemployment post-Covid or with lack of access to higher education.



2: Launch an 'emerging tech' trade pact.

The TTC should promote an open, rules-based international economic order that supports democratic values. The EU and the U.S. should propose concrete measures to enhance international economic and security cooperation, specifically aiming at agreeing on common trade protocols around the development and use of emerging technologies. This "pact" should be a key deliverable of the TTC and include:

1. A Standards Cooperation Mechanism for emerging technologies.

In recent years, some countries have increasingly enforced their activity in international standards organizations. This creates challenges and may in some instances result in concerns around certain values being included in standardization proposals. The U.S. and the EU should share common strategic approaches and must act as like-minded partners who operate on the same set of shared values. More specifically, IBM recommends such mechanism to focus on:

- Seeking a common approach to human-centric, risk-based AI regulation and standards, building on the work done by experts such as the European Commission's High-Level Expert Group and NIST's ongoing efforts to develop an AI Risk Management Framework. Such common approach should be based on principles of accountability, transparency, fairness and security.
- Developing a joint approach to strenghten EU and U.S. leadership in international standardization bodies and ensure that transatlantic interests and values are reflected in the development of standards. The U.S. and the EU should seek to closely align this approach with other like-minded countries, including Canada, Japan, the UK, and Australia.
- Allowing for equal access to EU and U.S. standardization systems without discrimination. Both should look back at a long history of trusted collaboration on standardization. For decades, U.S. and EU companies, with their respective subsidiaries and affiliates, have proven to be trusted and responsible participants on all levels including decision-making. These mutual bonds should be strengthened and excluding respective stakeholders from participation in decision-making committees should be avoided.
- Establishing a regular industry consultation process on standardization priorities.

2. Intensify Export Control cooperation in advanced technologies.

Existing multilateral export control regimes have not kept pace with the changing geopolitical landscape. The U.S. and and EU should lead an effort to strengthen and refocus existing export control regimes to address dual-use technology transfers that support the growth of military of non-democratic countries. Priority should be given to strengthening multilateral controls in key emerging technology areas, including quantum computing, AI, advanced robotics, semiconductor technology, and facial recognition technology.

However, given the limitations of consensus-based multilateral regimes like Wassenaar, the U.S. and EU should work with other like-minded allies (e.g. the UK, Japan, Australia, Canada) to establish alternative export control regimes. For example, the Australia Group could serve as a model for a more informal and flexible approach to export control coordination.

3. A Foreign Direct Investment (FDI) review consultation mechanism.
The U.S. and EU should seek to establish a consultation and information-sharing process regarding national security reviews of inbound foreign investment. This would create a shared understanding of the national security risks posed by investments from strategic rivals in emerging technology, critical infrastructure, and essential industry sectors. Such a mechanism would also allow for the parties to notify each other when a proposed transaction is, or in the view of a party, should be subject to a national security review. Lastly, it would allow parties to provide input to the reviewer on how the transaction could affect their national security interests, including the impact on affiliates of the target company in their respective jurisdictions.

4. Coordinated supply chain security policies.
The COVID-19 crisis has brought about an important discussion of global supply chain vulnerabilities across all industry sectors. This is particularly true for the ICT sector. The U.S. and EU should spearhead collaboration to identify critical vulnerabilities and develop regulatory and policy actions to address gaps and improve security and resilience in the supply chain. This approach could include a common certification mechanism and an assurance-based model with industry-led cybersecurity standards and requirements, drawing on recommendations by the Cyberspace Solarium Commission, as well as the Charter of Trust's baseline security requirements in the digital supply chain.