Promoting Innovation Worldwide

Comments of the Information Technology Industry Council in Response to the Public Consultation on the Update of the Brazilian Strategy for Digital Transformation

The Information Technology Industry Council (ITI) is the premier global advocate for technology, representing the world’s most innovative companies. Founded in 1916, ITI is an international trade association with a team of professionals on four continents. We promote public policies and industry standards that advance competition and innovation worldwide. Most of ITI’s members service the global market built over decades in which technology is developed, made, and service customers across all levels of government and the full range of global industry sectors, such as financial services, healthcare, and energy.

Our membership includes 80 high-tech and tech-enabled companies, including wireless and wireline network equipment providers, computer hardware and software companies, internet and digital service providers, mobile computing and communications device manufacturers, consumer electronics companies, payment networks and network security providers. Our members invest, operate, and deliver goods and services in the Brazilian market, driving innovation across all sectors of the economy.

We strongly support the Brazilian government’s goal of enabling digital transformation by promoting the full potential of digital technologies to increase productivity, competitiveness, income and employment levels, and appreciate this opportunity to again provide comments in response to the present consultation. In that spirit, we offer the below narrative input as a complement to our response to the public questionnaire issued by the Ministry of Science, Technology, and Innovation (MCTI), which we have submitted alongside these comments. We look forward to continuing working with the MCTI and the entire Brazilian government to advance the goals of digital transformation, focusing particular on the value of policies that expand ICT infrastructure and enable innovation through greater access to the full range of ICT goods and services.

1. Enabling Axes

*Infrastructure and Access to Information and Communication Technologies (ICTs)*

Telecommunications infrastructure is a critical building block for a country’s meaningful participation in the global economy. Considering the socio-economic benefits of connectivity, ITI supports the vision of the Brazilian government that a central pillar in any strategy for digital transformation must be to foster infrastructure development. The COVID-19 pandemic highlighted the need for reliable internet access, as populations depended on the internet for school, work, entertainment, and communication with friends and family during isolation. However, the pandemic also aggravated the digital divide, forcing governments worldwide to confront the realities of disparate access to technology and connectivity and take action to address inequities. For this reason, ITI supports the use of public funds, such as the Fund for Universal Access to Telecommunications Services (FUST), to ensure broadband connectivity across the entire Brazilian territory, including in remote farming areas, which might otherwise not be economically feasible to connect in a country as vast as Brazil.
Similarly, ITI supports public policies and investments in telecommunications infrastructure that not only promote high-speed broadband development but also guarantee a flexible regulatory framework, allowing providers to frequently innovate to offer new services and applications on their networks. To achieve this, ITI suggests that the Brazilian government increase engagement with research and development centers in the definition and adoption of international standards and radiofrequency bands, as well as adopt global, industry-led, consensus based technical standards in policies pertaining to ICT infrastructure.

Certain import tariffs also serve as obstacles to further expansion of broadband connections throughout Brazil. ITI applauds Brazil’s reduction of the Import Tax on capital goods (BK) and information technology and telecommunications, which recognizes that society advances with greater access to technology. ITI recommends that the Brazilian government continue progress toward the elimination of such barriers to trade and investment, which limit infrastructure expansion. To that end, industry would see significant benefit to Brazil’s accession to the World Trade Organization (WTO) Information Technology Agreement (ITA), which would lower the cost of ICT goods and services, increase Brazil’s competitiveness as a supply chain hub, and increase Brazilian GDP by as much as a full percentage point.\(^1\) Complementing such action, we encourage Brazil to incorporate strong digital trade commitments as a fixture of its bilateral, regional, and multilateral trade engagement. In addition to facilitating trade in ICT goods in services, such provisions provide noteworthy business certainty to firms across all sectors that do business in Brazil. Finally, we urge the Brazilian government to ease customs clearance restraints, including through the modernization of Brazil’s de minimis regulation, which at present hinders the positive role that e-commerce plays in supporting Brazil’s small businesses and creators.

Finally, as Brazil contemplates broader tax reform, the government should take care to do so in a way that encourages continued investments in innovation and infrastructure, embraces longstanding international tax principles such as simplicity and certainty, and reflects the digitalization of the broader economy. This is especially critical as Brazil and 140 other jurisdictions endeavor to finalize details of the OECD/G20 Inclusive Framework’s Two-Pillar Approach to address the tax challenges arising from the digitalization of the global economy.

**Research, Development, and Innovation**

The increasingly technology-driven nature of the economy augments the urgency for Brazilian policymakers to implement policies to boost digital transformation and improve market competitiveness. As Brazil looks to implement new approaches to digital policy, ITI supports policies that promote research, development, and innovation in strategic industries that would foster the country’s digital transformation. We see the benefits from implementing incentives to internet-enabled technologies, along with increasing access to broadband internet service, that allow innovators to build and/or expand IT-enabled enterprises. In line with above recommendations to ensure ready access to the broadest range of global ICT goods and services, we strongly encourage the Brazilian government to ensure that any incentives intended to broaden digital transformation comport with Brazil’s WTO obligations, avoid damaging data localization mandates, and do not seek to confer advantage to domestic companies at the expense of Brazilian innovation and of the societal

\(^1\) See Assessing How Brazil Would Benefit From Joining the ITA
https://itif.org/publications/2019/03/25/assessing-how-brazil-would-benefit-joining-ita
and economic benefits spurred by the use of technology products and services that leverage global supply chains.

Building on comments above, more than ever, it is crucial that Brazil become an active participant in international standards development organizations. International, voluntary, industry-driven standards have for many years informed policymakers’ development of interoperable technical regulatory requirements for goods, while associated international conformity assessment guidelines have offered industry with a clear avenue to demonstrate regulatory compliance. Such standards not only generate efficiencies of scale and can speed the development and distribution of new innovations, but they can also provide the basis for beneficial technical regulations that are neither discriminatory nor unnecessarily restrictive. In line with WTO principles, international standards should be developed through open, impartial, and transparent procedures that afford an opportunity for consensus among all interested parties. The adoption of such standards – that is, ensuring the transparent and predictable reliance on international standards to demonstrate conformance with regulatory requirements – enhances the ease of doing business in Brazil and fosters the digital transformation process, as it enables interoperability and quality of ICT products and services across markets while ensuring that policymakers have the necessary tools to provide strong safety, security, consumer, and environmental protections. Conversely, regulatory reliance on either market-specific standards or a limited subset of international standards can increasingly lead to regulatory divergence and market fragmentation in the form of new non-tariff barriers to trade.

Confidence in the Digital Environment

ITI praises the Brazilian government’s long-term vision and growing focus on fostering a data-driven digital economy and its commitment to the implementation of good regulatory practices. To these ends, ITI would like to underscore that a careful identification by policymakers of the questions and challenges posed by emerging digital technologies and the digitization of the economy, informed by robust stakeholder engagement and evidence-based analysis, is a critical component to ensuring that regulations, policies, and incentives implemented to address said challenges promote Brazil’s development and protect its citizens’ rights and well-being. It would be premature to apply new regulations in the absence of evidence-based assessment that existing policies and regulations are insufficient to achieve the government’s public policy goals.

ITI cautions the Brazilian government against replicating and expanding pre-existing offline legislation into the digital ecosystem without specific consideration of the different types of business models that might be present, the need for greater agility and flexibility in response to diverse architectures and services, and the role these new technologies can play in empowering users. The absence of such consideration can lead to policy decisions that impair innovation and users’ ability to use state-of-the-art technology and new security capabilities. We therefore strongly encourage the Brazilian government to ensure adherence to good, transparent, non-discriminatory regulatory practices in any novel regulatory approaches to technology, including through robust stakeholder consultation and appropriate cost-benefit and risk assessment.

Education and Professional Training

ITI agrees that creating a workforce for the future must be a focus of the Brazilian government if it is to realize the goals of the Brazilian Strategy for Digital Transformation. As noted in the E-Digital analysis, the COVID-19 pandemic underscored the clear need for the government to provide support
for low-income students and educational institutions. ITI supports the government's intention to use public funds to procure computers and other technological resources to ensure students can carry out school activities.

Additionally, there are several relevant areas to Brazil's Digital Transformation where the skills shortage may be particularly acute, such as cybersecurity and Internet of Things (IoT) investment and development. To address this challenge, Brazilian policymakers should promote greater engagement between the private sector and educational institutions to ensure a supply of skilled labor that corresponds to the needs of digital companies in the long term, applying concepts such as lifelong learning and vocational education. The Brazilian government should implement a formal multi-stakeholder channel to develop integrated and strategic approaches focused on establishing talent pipelines to achieve results at scale. ITI and its members would welcome the opportunity to share international best practices in training young labor forces and implementing reskilling programs for mid-or late-career individuals, as well as those that are designed to promote the inclusion of underrepresented groups.

**International Dimension**

ITI supports Brazil's goal to become a leader in global digital-related forums and increase the number of competitive Brazilian companies in the international market. To that end, as noted above, Brazil should prioritize the expanded acceptance of high-standard digital trade and e-commerce commitments, including data-related commitments, such as those enabling the free flow of data across borders. As a regional power, such efforts would inform Brazil’s efforts to become a global leader in digital trade and facilitation of e-commerce through both its domestic policies and international trade engagement. Similarly, ITI supports Brazil in implementing measures to facilitate trade, such as simplifying and harmonizing import requirements and processes, and promoting digital trade and good regulatory practices. In this regard, we welcome the entry into force of the U.S.-Brazil Protocol on Transparency and Trade Rules, finalized under the auspices of the bilateral Agreement on Trade and Economic Cooperation (ATEC). Similar, future efforts should prioritize digital trade rules. Finally, ITI strongly supports the continuance of multistakeholder governance of the internet to avoid heavy-handed regulation of the internet and jeopardize global progress, particularly for emerging economies.

In contrast to certain implications stemming from the E-Digital analysis on Data Governance, ITI would like to underscore that privacy, trust, and security are of paramount concern to our member companies. Protecting customers' personal data and their privacy, along with providing robust security, are essential to earning citizens' trust in the global technology marketplace. Moreover, privacy is critical to our members' success, is a key component of our businesses, and impacts industry’s ability to grow and innovate in a future with advances in the IoT, Big Data, and beyond. Consequently, ITI and its members have been advocating for robust, globally interoperable solutions
to security, privacy, and data protection.\textsuperscript{2,3,4,5} Such solutions are essential to supporting innovation, job creation, and economic growth in the digital age, while preserving both individual rights and the free flow of data.

2. Digital Transformation Axes

Data-driven Economy

ITI supports the Brazilian government's goal of making the Brazilian economy more competitive and digitized. As noted in the E-Digital analysis report, data centers are an important piece of infrastructure relevant to the digital transformation, as they are key for fostering the growth of the digital economy. However, while we agree with the strategic importance of data centers and "big data" analytical tools to enhance Brazil's digital transformation, we urge Brazil to pursue non-discriminatory approaches to incentivize data center development in Brazil and not require data to be stored or processed in Brazil.

Cross-border data flows are critically important to the global economy and is a core function of the internet. Any measures requiring that data be stored, processed, or handled within national borders can have serious, harmful, and unintended consequences to economies and citizens alike, which is why ITI is supportive of non-discriminatory incentives, such as tax breaks, to foster the growth of data centers in Brazil. We believe that adopting global best practices and increasing incentives would support the creation of more data centers based on a market-driven demand. We, however, strongly advise against policies that mandate the localization of data, which limit investment and can threaten data security and protection.

A World of Connected Devices

The IoT continues to accelerate demand in the private and public sectors for a cutting-edge workforce specialized in science, technology, engineering, and mathematics (STEM). It is clear that IoT requires an abundance of specialized engineers, data scientists, software developers, and cybersecurity experts in order to flourish. As previously recommended by ITI, the Brazilian government should partner with the private sector to address the skilled labor challenge and ensure all students have access to STEM and computer science education.

Expanding STEM opportunities is a responsibility shared by policymakers and civil society. Our member companies invest heavily in educational programs and have partnerships with higher education institutions to train students and workers for the jobs of today and the future.

\textsuperscript{2} See IoT Security Policy Principles: https://www.itic.org/dotAsset/d9c7be68-d2d4-42de-aaea-e91fc526b717.pdf
\textsuperscript{3} See ITI Policy Principles for Cybersecurity Certification: https://www.itic.org/policy/Flowchart-ITIPolicyPrinciplesforCyberCertification.pdf
these commitments, there is still a shortage of STEM workers available in Brazil, which may be more acute as the volume of IoT devices and connected services grows.

ITI recommends that the Brazilian government put in place and build on existing programs to prepare, train, and retrain workers to ensure they have the skills companies will require to drive investment, development, and breakthroughs in IoT. Examples include developing partnership and grant programs between local governments and leaders, employers and tech innovators, and workforce leaders and training providers to provide necessary technology skills, including using nontraditional training options like “coding bootcamps” and high-quality, fast-track online courses and certifications.

We agree Brazil should promote appropriate skills alignment and advance education and research programs in STEM, computer science, and career and technical education, which are essential for preparing Brazil’s workforce for the jobs of tomorrow and the growing demand IoT will put on the pool of workers with these high-demand skill sets.

**New Business Models**

The COVID-19 pandemic has led to an increase in e-commerce and reliance on technology goods and services worldwide, accelerating developments that were already well underway prior to 2020. In a recent report, the Organisation for Economic Co-operation and Development (OECD) found that e-commerce orders increased 50 percent in Europe, 70 percent in the Asia-Pacific region, and 120 percent in the United States year-on-year, providing firms – most notably small and medium-sized enterprises (SMEs) – access to customers across existing and new markets during this particularly challenging period. More broadly, access to telecommunications networks, cloud processing, and digital communication is helping businesses maintain key operations and communicate with employees and clients while adhering to physical distancing requirements. Indeed, one survey found that throughout the pandemic, digitalization and automation accelerated across 85 percent of companies. Digital services, have also been critical to the development of vaccines, therapeutics, and other products that are essential to ending the pandemic, as well as the delivery of healthcare.

As a sector, we strongly support free and undistorted competition and transparency as key to promoting innovation and consumer welfare. Similarly, while ITI fully supports policy development aimed at ensuring the safe and effective delivery of technology goods and services, it is important to acknowledge the extent to which existing laws apply to entities doing business online. Creating unnecessary and sometimes overlapping regulations might lead to barriers to digital trade and hinder Brazil’s digital transformation. Our business community is committed to addressing any challenges arising from digitalization in Brazil and globally, including through targeted and non-discriminatory regulations. Because of our diverse membership, we recognize the many equities at stake when considering digital platform regulation and the imperative of preserving a safe, open, and competitive online ecosystem. Our engagement in these policy discussions centers primarily on recognizing the role digital platforms and services play in driving innovation and growth in the economy, and ensuring the preservation of key procedural and substantive protections for all parties involved, as well as non-discriminatory treatment of companies globally, regardless of where they

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are headquartered. Any potential rules should also be narrowly targeted at addressing identified concerns and consider the different types of providers of digital services.

Finally, the effects of any regulatory action taken by a national regulator have the potential to go beyond that country and its consumers, reaching all other markets served by online service providers/digital platforms. The online services marketplace is global, with competitive services traversing national boundaries that do not have the same characteristics as traditional telecommunications and broadcast services. ITI understands that disregarding the global and dynamic nature of the digital environment can be a significant barrier for the development of new business models in Brazil. The open architecture of that environment continues to enable SMEs to compete globally and has opened doors for new innovative digital platforms and business models that are continuously evolving to meet the consumers’ expectations and desires. Accordingly, ITI supports the strategic actions listed in the form that seek to promote and stimulate digital platforms, which enable business model innovation while provide countless benefits and convenience to their users.