TECHNET

THE VOICE OF THE
INNOVATION ECONOMY

2022

FEDERAL POLICY PRINCIPLES

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Federal Policy Agenda

TechNet champions a comprehensive, pro-innovation agenda that enables companies and entrepreneurs to create jobs and economic opportunities for people across the country; empowers American workers and students with the skills and knowledge to seize those opportunities and prosper; promotes the development of life-enhancing technologies; enhances our national security, global competitiveness, economic leadership, and technological superiority; and promotes freedom, unity, and equity.

The COVID-19 pandemic has underscored the need for a strong technology and innovation sector to improve business operations, sustain government operations, create jobs, facilitate education and healthcare services, and thereby fuel economic growth. TechNet's member companies powered America during these unprecedented times. As we look to the future, tech will serve as a catalyst for the nation's sustained recovery.

TechNet proactively advocates for policies that: enable inclusive job growth, empower the workforce of tomorrow, ensure our global competitiveness, and promote digital trust.

To view TechNet's Federal Policy Principles online, go to technet.org.

Enable Inclusive Job Growth

- Safely Reopen America and Spur Our Economic Recovery
- Immigration
- Inclusion, Diversity, and Racial Justice
- Research and Development
- Venture Capital and Startups

Empower the Workforce of Tomorrow

- Education and Workforce Development
- Expanding Internet Connectivity and Promoting a Healthy Internet Ecosystem
- Gig Economy and Future of Work

Ensure Global Competitiveness

- Tax
- Trade
- IP/Patent Reform
- Environmental Sustainability, Climate Change, and Advanced Energy Technology
- Artificial Intelligence and Machine Learning
- The Future of Transportation and Mobility
- Trusted Technologies

Promote Digital Trust

- Cybersecurity
- Privacy
- Data Security
- Health Care and Telehealth
- Modernizing Government Technology
- Financial Technology

Enable Inclusive Job Growth

Enabling inclusive job growth is critical for the immediate recovery and future growth of the American economy; but to unleash this potential, we must address the systemic problems laid bare by the COVID-19 crisis. Safely reopening the economy, fixing our broken immigration system, expanding broadband, advancing diversity, inclusion, and racial justice, investing in research and development, and fostering a robust startup ecosystem are all keys to success that Congress and the Administration must confront. The technology sector is prepared to invest in innovation, grow businesses, and hire workers, but these issues remain impediments to success.

I. Safely Reopen America and Spur Our Economic Recovery

TechNet's members have powered America during COVID-19 by producing personal protective equipment and ventilators, helping scientists to discover drug treatments and research vaccines, reducing barriers to telework options, connecting students and teachers, enabling food delivery, providing emergency transportation, and facilitating contact tracing. As the country has gained more control over the pandemic, TechNet's members have worked to spur our economic recovery and help Americans safely return to work, school, and an open society. TechNet believes:

• The top priority of the Administration and the Congress must continue to be getting the pandemic under control and eradicating COVID-19 as a public health crisis.

• Vaccinations, nationwide testing, and contact tracing, coupled with mask wearing and social distancing, are critical steps toward the nation's economic recovery.

• Long-standing systemic health inequities have disproportionately placed certain racial and ethnic minority groups at increased risk of getting sick and dying from COVID-19. The federal government should continue to identify and work to remove these barriers so that all Americans have access to both vaccinations and treatment for COVID-19 exposure. TechNet believes these health disparities are directly tied to other social and economic inequities which should be addressed by lawmakers. TechNet's principles on diversity, inclusion, and racial justice can be found on page 10.

• The consistent, reliable, and transparent release of data is key to protecting public health and spurring our economic recovery. Data communicated from and to public health officials should include both leading data, such as early warning data, to identify areas of outbreak and potential spread, and lagging data, such as hospitalization rates and ICU capacity, so that health officials and policymakers can continue to focus on preparedness, containment, targeted responses, and mitigation.

• Given the technology industry's experience using innovation to address health challenges, sustain business operations, and protect jobs during the pandemic, the Administration should consult top experts from the private sector on how to operate more safely and build a stronger public health system for the future.

• COVID-19 has laid bare the digital divide and the barriers faced by too many Americans who have had to transition crucial aspects of life online. The economic recession spurred Congress to address the critical need for a massive federal investment designed to catalyze U.S. innovation. The Administration should swiftly implement these historic federal investments in broadband, 5G, other emerging technologies, and digital literacy and skills training programs, as well as job training for the installation of these technologies, to support the American recovery and cement our global competitiveness for the future.

• Supporting innovation and growth of third-party delivery services remains critical to providing increased earning opportunities for drivers and delivery workers, supporting restaurants, retail stores, and small businesses, and ensuring the equitable delivery of goods and services during our economic recovery.

• Federal regulators should encourage the expansion of virtual care and ensure access to safe and secure telehealth and digital health technologies, especially in areas with limited access to health care providers.

• When considering employment rights and obligations in the future, legislators should keep in mind the impact of remote working; office-specific health and safety standards, for instance, may not be easily applied to virtual, home-based working.

II. Immigration

Throughout America's history, immigrants have been a source of strength for our country and helped drive the economic growth that has made us the most prosperous and innovative country on the planet. TechNet believes that immigrant innovators, entrepreneurs, and workers are a valued part of our economy and workforce who make important contributions to our nation and communities every day. For example, no less than 43 percent of Fortune 500 companies were founded or co-founded by an immigrant or the child of an immigrant, and that figure rises to 57 percent among the Fortune 500 Top 35. Federal inaction on immigration reform has harmed the American economy by stifling innovation and stunting job growth. TechNet urges Congress and the Administration to work together to pass key aspects of comprehensive immigration reform in the 117th Congress, including proposals that have garnered widespread support from both the business community and the American public. TechNet believes:

• Congress and the Administration should work together to provide all Dreamers, including the 700,000 individuals covered by the Deferred Action for Childhood Arrivals (DACA) policy, a pathway to citizenship. Providing Dreamers with permanent legal protections benefits families, communities, businesses, and the nation's economy.

• Congress and the Administration should work together to provide protections for "documented Dreamers," the children of parents who live in the U.S. with legal status. Due to long wait times that high-skilled workers face to obtain a green card, the children of these workers could "age" out at 21. Like undocumented Dreamers, many of them have grown up in the U.S. and consider America their home, but could face deportation without clear protections.

• Millions of immigrants have been serving as essential workers on the frontlines of the COVID-19 response and will continue to contribute to our nation's long-term economic recovery. These essential workers should be provided certainty over their future with expedited pathways to permanent residence, as should legal high-skilled non-immigrants stuck in decades-long green card backlogs, among others.

• Only Congress can provide substantive, permanent reform to high-skilled immigration policy.

• Numerical levels and categories for high-skilled non-immigrant and immigrant visas need to be increased by Congress. The modernization of these employment-based programs should be responsive to economic need and, where appropriate, include mechanisms to make adjustments based on transparent, predictable, and objective standards.

• TechNet recognizes the importance of immigration policies that keep families together, and as such, family visa determinations should be considered alongside and in conjunction with employment-based visa determinations.

• Spouses and children should not be counted against the cap of high-skilled immigrant visa applicants. There should not be a marriage or family penalty. Similarly, spouses of H-1B visa holders should be permitted to work while they wait for their green cards; more than 100,000 spouses have been given the right to work this way, thereby contributing to the American economy and paying taxes. Non-immigrant spousal visa applications should be processed expeditiously.

• Per-country green card caps should be eliminated.

• Congress should address employment-based backlogs by recapturing previously unused green cards, making them available to individuals seeking a green card today. Recapture would ensure that green cards Congress allocated in previous years would be issued. This simple change would not increase immigration or authorize new green cards, but rather ensure that all green cards originally intended by Congress are used and not permanently lost.

• Legislation should include provisions that ensure H-1B job training fees are used effectively, match the supply of H-1B visas to demand, and reduce the backlog of employment-based green cards.

• Federal immigration legislation, regulations, policies, and adjudications should facilitate, not restrict, the movement of high-skilled workers and entrepreneurs starting a new company.

• Policies that encourage entrepreneurs from around the world to start to grow companies and jobs in the U.S.

• The nation's employers are in the best position to identify which skilled workers are necessary and qualified for permanent employment opportunities in the U.S.

• The U.S. should ensure Americans are receiving opportunities to gain the skills and training necessary to secure jobs in areas where there is a demand for high-skilled workers. However, the U.S. workforce currently lacks the technical knowledge and skills to fill available high-tech positions. A 2019 American Action Forum study estimates the talent shortage of workers with a post-secondary degree will result in more than 9 million job vacancies and $1.2 trillion in lost production over the next decade. While education can help narrow this skills gap in the long-term, the tech industry, and the U.S. economy as a whole, would benefit from employing high-skilled immigrants to fill these open job positions in the short-term and increase U.S. productivity.

• Congress, not an unelected decision-making or advisory body, should establish the appropriate levels of high-skilled immigration and the scope and contours of high-skilled employment and visa classifications.

• A science, technology, engineering, and math (STEM) visa for foreign students who have earned Master's degrees or above from U.S. colleges and universities promotes economic growth by ensuring that talented innovators educated and trained in the U.S. can become citizens and create jobs here. TechNet opposes executive actions to restrict foreign students from learning in the United States because it would have a negative impact on our nation's economy, interrupt the educational attainment of international students, and place a burden on institutions of higher education.

• TechNet recognizes the importance to the American economy of STEM in general, and the Optional Practical Training (OPT) and STEM OPT programs, in particular. Companies of every size, in every industry and geography, depend on workers trained in STEM fields to succeed. But American companies are struggling with a sustained scarcity of STEM-trained workers resulting in an inability to fill STEM jobs and causing persistent vacancies. TechNet strongly supports the OPT and STEM OPT programs and will vigorously defend them against any attempts at elimination.

• Given the contributions refugees make to our economy and society, TechNet supports efforts by federal, state, and local governments to ensure the U.S. continues its proud tradition of welcoming refugees in our communities, particularly from Afghanistan, given the conclusion of U.S. military operations there.

• TechNet opposes the implementation of travel bans to restrict legal immigration from countries for religious or ethnic reasons. Enhanced vetting and information gathering on particular individuals spending time in certain countries is a more appropriate and strategic way to protect national security.

III. Inclusion, Diversity, and Racial Justice

The technology industry is committed to promoting an inclusive workforce and nation that reflects the diversity of our customers and people. To ensure that our economy remains robust and innovative, we support education, workforce development, and immigration policies that empower the best and brightest people to continue making important contributions to our nation and communities. TechNet opposes all forms of discrimination on the basis of nationality, race, religion, age, disability, sexual orientation, or gender identity.

• TechNet believes Black lives matter and stands in solidarity with Black Americans and peaceful protestors working to focus attention on the issue of systemic racism and inequities.

• TechNet believes Congress and the Administration should work together to craft a bipartisan, comprehensive policing reform bill to address systemic racism and inequities in the Administration of Justice nationwide.

• TechNet urges Congress to work together with the private sector to remove institutional barriers to opportunity and move more swiftly toward full equality in our civic life and in our economy for all Americans.

• TechNet believes the right to vote is fundamental, and that every citizen should have free, fair, and safe access to the ballot box.

• TechNet strongly condemns language ascribing race, ethnicity, or other cultural or national identifiers to public health issues and matters of science and medicine.

• TechNet believes systemic inequities exist in American society. TechNet supports both private sector and public policy solutions that help close race-based opportunity gaps beginning with six key areas: education, employment, health, finance, including access to capital for entrepreneurs, housing, and the Administration of Justice. Systemic inequalities in these six areas perpetuate broader inequalities in our society, hold back individual and business success, undermine family stability, and hinder economic growth.

• TechNet applauds the 2020 Supreme Court decision ruling on Title VII of the *Civil Rights Act*, which prohibits discrimination against LGTBQ+ workers, and urges Congress to pass legislation achieving full equality under the law for LGBTQ+ Americans.
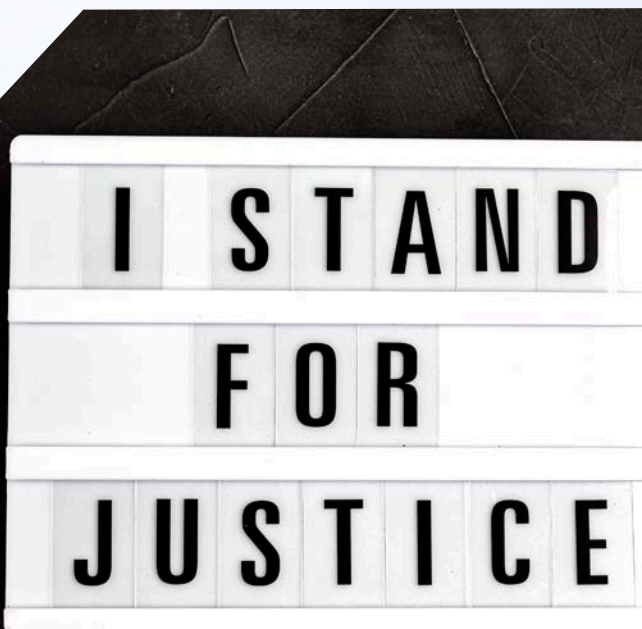
• TechNet supports promoting a highly qualified, more diverse workforce by ensuring historically Black colleges and universities (HBCUs), predominantly Black institutions (PBIs), Hispanic serving institutions (HSIs), and Tribal Colleges and Universities have the appropriate federal support to offer their students sufficient opportunities in the STEM disciplines, or science, technology, engineering, and math. TechNet also believes the private sector has an important role to play in both supporting and focusing their recruitment efforts on these institutions.

• TechNet supports policies and programs that focus on engaging and providing opportunities for underrepresented communities, namely students and workers, by cultivating skills in STEM and computer science.

• TechNet encourages the National Science Foundation to more equitably allocate funding for research with a focus on early childhood and to support research on the factors that encourage or discourage girls to engage in STEM activities, including computer science. TechNet also supports increased funding for programs that help girls learn computer science.

• TechNet supports legislation that improves corporate governance by increasing transparency of the racial, ethnic, and gender composition of their boards of directors, nominees for the boards of directors, and executive officers. TechNet also supports the public disclosure of any plan to promote racial, ethnic, and gender diversity among these groups.

• TechNet supports diversity, equity, and inclusion training throughout the American workforce.

IV. Research and Development

It is important that federal tax and budget policy renew investments in private sector research and development (R&D) to ignite innovation and create jobs, especially as the United States emerges from the COVID-19 pandemic and focuses on economic recovery and cementing our global competitiveness. TechNet supports:

• Establishing a national Technology Directorate to lead investment and research in artificial intelligence and machine learning in: 5G and future generation telecommunications; high performance and quantum computing; robotics, automation, and advanced manufacturing, including for semiconductors; and more.

• Designating regional technology hubs to award federal funding for comprehensive investment initiatives that position regions across the country to be global centers for the research, development, and manufacturing of key technologies.

• Allowing high-growth startups to access up to $25 million in net operating loss (NOL) carryforwards and R&D credits, providing fast and efficient capital availability to support companies through the downturn that will be offset over time through higher tax payments once they become profitable.

• Additional R&D credits for private sector R&D undertaken to fight COVID-19 and bolster public health preparedness for the future.

• Preserve and avoid lapses in the ability to deduct R&D expenses in the year incurred.

• Improving the 2017 tax law's base erosion and anti-abuse tax (BEAT) provision by allowing the add-back of the R&D Tax Credit for regular tax purposes. Current law requires that, beginning in 2026, regular tax liability be reduced by the R&D Tax Credit, which could result in many innovative companies effectively losing all or a substantial portion of their R&D credits.

• Policies that encourage the repatriation of U.S. intellectual property to spur U.S.-based R&D and innovation that grows the economy.

• The expansion of the R&D Tax Credit to all businesses to offset payroll taxes and spur innovation and investment.

• Allowing businesses to monetize certain tax credits to provide flexibility when needed.

• Policies that allow companies to manage balance sheets through share repurchases, which allow a return of excess cash to investors after making necessary investments in people, research, and development.

V. Venture Capital and Startups

Startups, including venture-backed startups, are disproportionately responsible for the innovations that drive economic growth and job creation in the U.S. In fact, startups are responsible for almost all of the net new U.S. jobs created since 1997. During the COVID-19 pandemic, startups have proved critical to the U.S. economy's capacity to respond to and recover from the crisis, including creating vaccines, allowing companies to continue operating, delivering essential services, and keeping the world connected.

The venture capital business model is based on investors taking risks and making investments in early to later-stage startups, in order to accelerate innovation and the startups' growth. These long-term capital investments provide young companies with the time and resources they need to build products, develop new ideas, hire personnel, and expand, and have fueled extraordinary innovation in the U.S. for decades. TechNet advances a policy agenda that supports the U.S. innovation ecosystem, which includes venture capital firms and startups, whose success will determine the country's future competitiveness, as well as our capacity to recover from the COVID-19 pandemic and prepare for future public health threats.

⊙ Access to Capital and Markets

Startups thrive when they have access to capital and markets and operate within a balanced regulatory regime that promotes innovation. Startups across America have been impacted by a sudden cash liquidity crisis and have struggled to survive the turbulent economic conditions brought about by the COVID-19 pandemic in part because they typically operate in a loss position for several years, deliberately choosing instead to invest heavily in growth activities such as research and hiring and necessarily generating tax assets in a bid to develop long-term value. While many small businesses and startups faced challenges in weathering the COVID-19 pandemic, the economic crisis also ushered in a period of "creative destruction," and hundreds of new ideas and businesses have arisen. As we enter into a period of economic recovery and growth, federal policymakers can improve the capital allocation process for both existing and new startups through targeted reforms to regulations and tax laws. TechNet supports:

• Federal policies that reduce unnecessary barriers for private companies opting to go public.

• Federal policies that promote competition and reduce unnecessary barriers to mergers and acquisitions.

• Efforts by federal agencies to appropriately enforce long-standing consumer protection law.

• Federal Policies that promote labor-market flexibility and dynamism.

• Federal policies that create "venture exchanges."

• Tax policies that promote growth and innovation and do not hamper long-term investment.

• Policies that promote startup businesses by not increasing taxes on entrepreneurial investment activities.

• Targeted tax reforms that allow startups to bring forward the value of their tax assets, providing fast and efficient capital availability to support companies.

• Current tax treatment of the Qualified Small Business Stock (QSBS).

• The permanent exclusion of federal and state capital gains taxes on investments in startup businesses that are held for more than five years.

• Innovative tax credits that can apply to other tax requirements beyond corporate income tax obligations.

• Policies that encourage equity sharing for employees of startups that incentivize risk throughout the various stages of a firms' growth.

• Ensuring that tax policies affecting the gig and sharing economy help promote economic opportunities, provide clarity, do not impose significant administrative burdens for job creators, and also recognize the unique differences that exist among the business models of innovators operating in this growing segment of the economy.

• Efforts to open insurance markets to competition.

• Mandatory reviews of the impact(s) of new federal regulation on startup companies and new business creation.

• International trade agreements that reduce market access barriers for digitally delivered goods and services, promote the free flow of data across borders, contain "safe-harbors" against intermediary liability, and include strong protections for intellectual property.

• Access to federal, state, and local infrastructure, transportation, services, and resources.

⊙ Access to Innovation

Public policy should help startups and small businesses move projects efficiently from the idea phase to the new business phase. Additionally, the federal government should adopt public policies that encourage small businesses to adopt technologies to grow and scale. TechNet supports:

• Federal efforts to create regional technology hubs where federal resources could catalyze regional innovation and opportunity.

• The exploration of new ownership models, including co-ownership between inventors and universities. The creation of a National Innovation Foundation — modeled after the National Science Foundation — to focus on innovation and technology commercialization.

• Patent policies that level the playing field to promote innovation in all sectors of the economy and minimize frivolous litigation. TechNet's principles on intellectual property and patent reform can be found on page 29.

• The review, expansion, and creation of government funds devoted to helping small businesses go digital.

• The streamlining of modernization of existing programs like the U.S. Small Business Administration's State Trade Expansion Program (STEP) grants to help small businesses globalize their digital presence.

• Procurement reform at the local, state, and federal levels that acknowledges the evolving technology landscape and enables governments to purchase and utilize innovative and secure products on a technology-neutral basis.

⊙ Access to Talent

TechNet supports efforts to grow and strengthen America's talent pipeline by ensuring equitable access to digital skills training across occupations; encouraging and supporting American students to pursue STEM fields, particularly computer science education; and reforming our immigration policies to attract global talent.

The modern American workforce requires a flexible employment environment which allows workers to find opportunities that best match their skills, interests, and availability.

• TechNet opposes efforts to eliminate or severely restrict this essential flexibility, including restrictions on the use of independent contractor and consultant classifications, inflexible overtime rules, and the indiscriminate expansion of collective bargaining rules.

• Promoting more stock ownership opportunities for workers at startups by allowing them to defer the tax associated with the exercise of their personal equity until they sell the underlying shares and thus have the cash to pay the tax, instead of taxing these options upon vesting.

• TechNet supports efforts to develop new avenues and "safe-harbors" that empower companies to provide benefits to workers without impacting classification outcomes.

• TechNet's principles on education and workforce development can be found on page 18.

TechNet supports efforts to grow and strengthen America's talent pipeline by ensuring equitable access to digital skills training across occupations; encouraging and supporting American students to pursue STEM fields, particularly computer science education; and reforming our immigration policies to attract global talent.

The modern American workforce requires a flexible employment environment that allows workers to find opportunities that best match their skills, interests, and availability.

• Consistent short- and long-term funding for science, technology, engineering, and math (STEM) and computer science courses.

• Strong standards and rigorous assessments to better evaluate what and how students are learning. Programs that ensure principles of computer science, computational thinking, and STEM skills are integrated in other areas of K-12 instruction.

• Effective professional development and new teacher training programs to train high-quality STEM and computer science teachers.

• Policies and programs that focus on providing STEM education and career opportunities for female and minority students.

• Consistent funding and investment for the STEM programs and STEM infrastructure at HBCUs, PBIs, HSIs, and Tribal Colleges and Universities.

• School and public/private programs, such as robotics clubs, which emphasize hands-on, inquiry-based learning to inspire the next generation of innovators.

• TechNet's principles on education can be found on page 18.

The world's most talented innovators and entrepreneurs should be able to stay in the U.S. and contribute to the economy, rather than be forced out to start competitor businesses in competitor nations. To that end, TechNet supports comprehensive immigration reform and our principles on immigration can be found on page 7. In short, TechNet supports:

• Federal immigration legislation, rules and regulations, policies, and adjudications that facilitate, not restrict, the movement of high-skilled workers and entrepreneurs starting a new company.

• Policies that encourage entrepreneurs from around the world to grow companies and jobs in the United States.

• Numerical levels and categories for high-skilled non-immigrant and immigrant visas that are responsive to economic need and, where appropriate, include mechanisms to fluctuate based on transparent, predictable, and objective standards.

• The removal of per-country green card caps.

• A STEM visa for foreign students attending U.S. universities and colleges who have earned Master's degrees or above.

• The Optional Practical Training (OPT) and STEM OPT programs, in particular. Companies of every size, in every industry and geography, depend on workers trained in STEM fields to succeed. But American companies are struggling with a sustained scarcity of STEM-trained workers resulting in an inability to fill STEM jobs and causing persistent vacancies. TechNet strongly supports the OPT and STEM OPT programs and will vigorously defend them against any attempts at elimination.

Empower the Workforce of Tomorrow

Empowering the workforce of tomorrow will fuel the American recovery if we meet the moment before us by addressing trends and changes in the workforce. First, the U.S. is losing its competitive edge because of its lack of focus on strengthening America's talent pipeline, not only because of our broken immigration system, but also because not enough American workers have access to digital skills training and not enough American students pursue STEM fields. Second, the transition to virtual life is here to stay, and we need to ensure that students, workers, and innovators have the connectivity and digital resources to harness their full potential; similarly, educational institutions and small businesses must be incentivized and supported to develop and expand the capacity for remote and digital learning and working. Third, new technologies offer workers flexibility and opportunity in the future of work if it is not stifled by overly burdensome regulations.
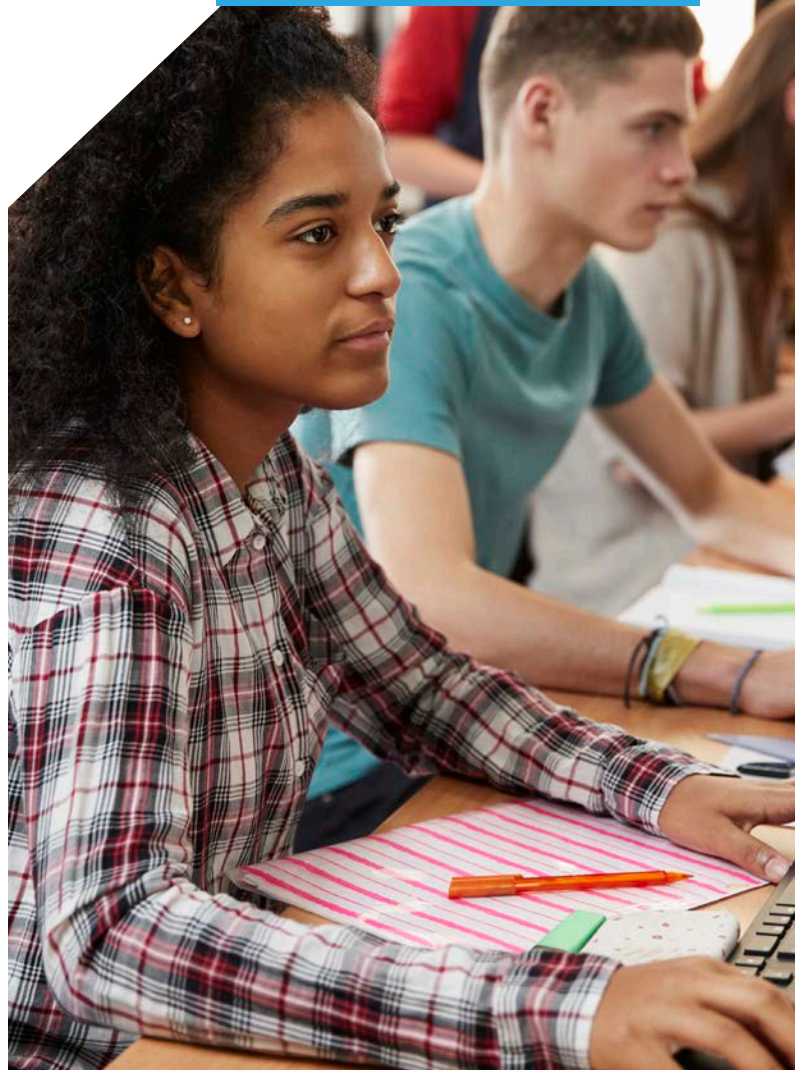
VI. Education and Workforce Development

The U.S. is losing its competitive edge compared to countries like China due to its lack of focus on science, technology, engineering, and math (STEM) education. American companies throughout the entire tech ecosystem consistently face talent shortages. TechNet supports efforts to grow and strengthen America's talent pipeline by: ensuring equitable access to digitaʟ skills training across occupations; encouraging and supporting American students to pursue STEM fields, particularly computer science education; and retooling our immigration policies to attract global talent. TechNet advocates for greater federal investments in education and the workforce to help all American students and workers succeed in a global, interconnected, and technology-driven economy. In particular, TechNet supports:

• At least $250 million in dedicated annual federal funding to promote computer science and STEM education.

• Including or expanding computer science offerings in high schools and allowing qualified computer science courses to fulfill a core high school graduation requirement.

• Robust and sustained efforts to train and recruit more high-quality STEM and computer science teachers through effective professional development and teacher training programs.

• Promotion of the K-12 Computer Science Framework developed by the Association for Computing Machinery, Code.org, the Computer Science Teachers Association, the Cyber Innovation Center, and the National Math and Science Initiative in collaboration with states, school districts, and the computer science education community.

• Policies that encourage the use of digital content and technology, including access to high-speed wireless broadband and connectivity in the classroom, to provide

individualized learning experiences, improve educational outcomes, and teach valuable workforce skills.

• Ensuring that student data is protected, while also providing parents, teachers, and students the ability to access educational tools to promote innovation and technology in the classroom.

• Policies and programs that increase internet adoption at home and digital literacy so that students can complete their assignments and so individuals of all ages can access online training for skilled jobs.

• Education and training in digital ethics and data privacy for STEM researchers from undergraduate through graduate education.

• TechNet supports promoting a highly qualified, more diverse workforce by ensuring historically Black colleges and universities (HBCUs), predominantly Black institutions (PBIs), Hispanic serving institutions (HSIs), and Tribal Colleges and Universities have the appropriate federal support to offer their students sufficient opportunities in the STEM disciplines, or science, technology, engineering, and math. TechNet also believes the private sector has an important role to play in both supporting and focusing their recruitment efforts on these institutions.

• Increased public/private partnerships with HBCUs, PBIs, HSIs, and Tribal Colleges and Universities to develop broader and deeper curriculum to promote STEM education and careers to create a more diverse workforce.

• TechNet supports policies and programs that focus on engaging and providing opportunities for underrepresented communities of color and women students and workers in STEM and computer science.

• TechNet encourages the National Science Foundation to more equitably allocate funding for research with a focus on early childhood and to support research on the factors that encourage or discourage girls to engage in STEM activities, including computer science. TechNet also supports increased funding for programs that help girls learn computer science.

• Tax incentives for employers — especially small businesses — to incentivize significant new investments in the skills of the current workforce.

• Greater use of innovation and data to help workers understand available training and career paths and policies which would make it easier for individuals to differentiate between credentials and search for quality programs that are likely to lead to in-demand and higher-wage jobs. These systems must also be enabled to integrate data across employment, training, and higher education.

• Promotion of increasingly diverse and inclusive workplace environments that support backgrounds and experiences of all types embracing the creation of belonging.

• Apprenticeships and career and technical education programs (degree and non-degree) that advance the knowledge and/or skills necessary for college and career readiness and success in high-demand technical career pathways.

• An emphasis on programs that invest in skills, rather than only credentials.

• Invest in federal workforce programs which provide individuals with access to additional relevant skills training, including online tools and services, throughout their lives, as well as more funding to existing workforce programs focusing on technology and skills.

• Lifelong learning, retraining, and reskilling policies and programs that allow workers to attain the education and skills they need to stay current as jobs evolve and advance their careers.

• Broader work-based training programs, including support for transitional employment which would provide subsidies for time-limited, wage-paid work experiences and skill development.

• Employers and employees should be free to enter into mutually agreeable arrangements to resolve employment-related disputes, in order to obtain less formal, faster, and more cost-effective resolution of such disputes.

• In general, federal preemption with regard to employment-related issues.
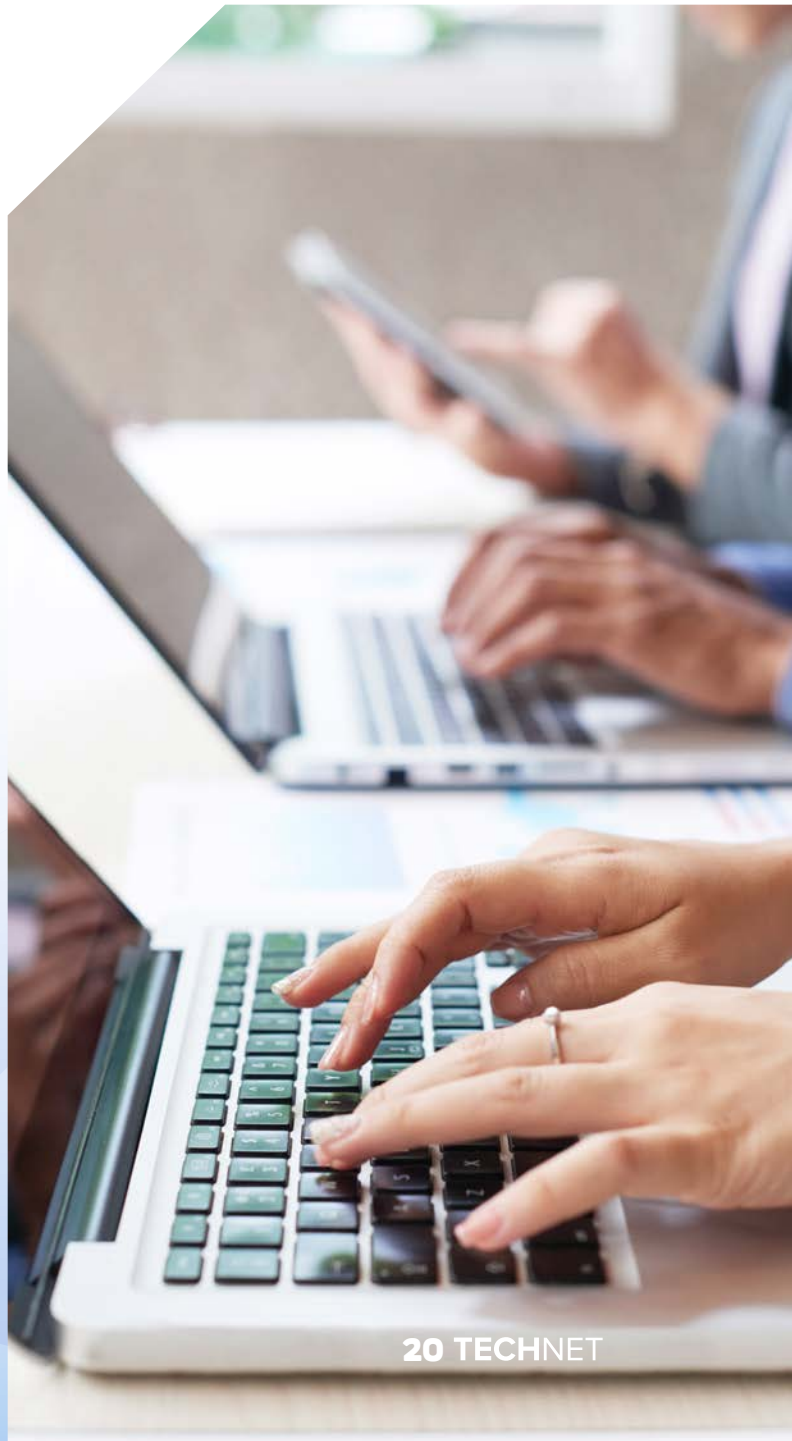
VII. Expanding Internet Connectivity and Promoting a Healthy Internet Ecosystem

TechNet views the internet as a vital tool for people's access to information and empowerment. With the rapid evolution of technologies, rising consumer demand for data, and the rapid growth of the Internet of Things (IoT), TechNet believes that policymakers should promote greater broadband connectivity. Broadband includes several high-speed transmission technologies such as cable, fiber optics, fixed wireless, low earth orbit satellite, fifth-generation communications technology, and is used below to refer to all of them in a technology-neutral manner. Policymakers should also support increased investment in broadband build-out and continued private investment in broadband networks and cloud services. The urgent need to address this has become clearer during the COVID-19 pandemic. TechNet supports:

• Policies that facilitate continued private investment in broadband services and streamlined network infrastructure deployment, including at the local level.

• Policies that promote public/private partnerships in deploying broadband connectivity to unserved and underserved areas, as defined by the *Infrastructure Investment and Jobs Act*.

• Robust funding and swift implemen-tation of policies that expand connectiv-ity and internet access in unserved and underserved areas, as defined by the *Infrastructure Investment and Jobs Act*,

in a technology-neutral manner, including unserved and underserved anchor institu-tions, to facilitate online learning and the delivery of telehealth services.

• Policies that modernize programs promoting broadband affordability for low-income users, such as the FCC's Lifeline and Affordable Connectivity program, which supports connectivity for low-income households, including the ability for all broadband service providers to be part of the solution, without unnecessary regulatory burdens, and ensure seamless delivery of benefits and greater economic opportunity for consumers.

• Policies and swift implementation for investments that enable a more accurate and detailed map that identifies where broadband is unavailable with geographic precision.

• Policies that foster a light-touch regulatory environment and that encourages a competitive marketplace that spurs innovation and private-sector investment to ensure the U.S. remains a leader in the race to 5G and other technologies.

• Policies to increase the availability of licensed, unlicensed, and shared spectrum, including for use by terrestrial and satellite services.

• Policies that increase access to, and participation in, the provision of advanced broadband services such as 5G and other services, including additional research and development funding and open-architecture systems such as open radio access networks.

• Responsible efforts to clear more federal spectrum for commercial use while protecting for public safety, especially in the mid-band that will be critical for powering next generation networks.

• Federal policy initiatives that can expedite broadband deployment, such as "Dig Once," and access to federal lands and buildings.

• Technology-neutral policies that reduce burdens on communications service providers, including easing restrictions on rights of way, speed cell tower siting and permitting, and prohibiting excessive pole attachment charges by some municipalities and co-ops, so that broadband buildout can expand rapidly.

• Policies that promote broadband adoption and digital literacy.

• Recognizing that the Domain Name System (DNS) is used in a widely distributed, multi-stakeholder manner and preserving its decentralized model that contributes to the internet's safety, security, and reliability.

• The principles of net neutrality and a fair and open internet without heavy-handed regulation.

• Safeguards against intermediary liability.

• Policies that provide a safe and secure user experience and promote free speech, while responsibly addressing the use of internet platforms to spread disinformation.

• Policies that protect children from online sexual exploitation, including increased federal resources to the Department of Justice for investigation and prosecution, as well as the preservation of strong encryption standards that protect both the privacy and safety of children. TechNet's principles on privacy can be found on page 43.

VIII. Gig and Sharing Economy and Future of Work

The continued growth of the gig and sharing (or "on-demand") economy has created income opportunities in virtually every corner of the country, allowing people to work independently and on preferred discretionary schedules, use their personal property to generate income, expand their businesses, and provide for themselves and their families with greater flexibility. Policymakers should ensure that efforts to oversee or regulate new technologies further innovation and individual empowerment, instead of stifling it. To that end, TechNet supports the following principles

• Establishing an innovation-friendly policy framework as the key to the competitiveness of the technology industry, and corresponding rules, regulations, and laws should be adjusted to allow for technological neutrality. TechNet opposes regulatory restrictions and unreasonable barriers to market entry imposed to protect existing markets from competition.

• The modern workforce requires a flexible environment that allows workers to find opportunities that best match their skills, interests, and availability on their own terms. TechNet opposes efforts to eliminate or severely restrict this essential flexibility, including restrictions on the use of independent contractor and consultant classifications, inflexible overtime rules, and indiscriminate expansion of collective bargaining rules.

• Education and workforce development policies focusing on greater access to digital skills training across industries and empowering workers to keep their skills updated and in line with the changing demands and nature of work in the 21st century.

• Tax and labor policies should help promote economic opportunities, provide clarity, avoid creating significant administrative burdens for job creators, and recognize the unique differences that exist among the business models of innovators operating in the growing gig and sharing segment of the economy.

• Ensuring that tax policies affecting the gig and sharing economy help promote economic opportunities, provide clarity, do not impose significant administrative burdens for job creators, and also recognize the unique differences that exist among the business models of innovators operating in this growing segment of the economy.

• Efforts to develop new avenues and "safe-harbors" that empower companies to voluntarily provide benefits to workers where appropriate without impacting classification outcomes, especially while

the economy continues to be impacted by COVID-19.

• Improved economic assessments that reflect a better understanding of the changing nature of work and the true impact and benefits of opportunities in the on-demand economy.

• Federal policies should leave room for innovative efforts to establish portable benefits programs that empower workers to maintain benefits as they move from opportunity to opportunity. Any portable benefits program should be guided by the following principles:

✓Participation by companies should be ensure benefits coverage for gig economy workers or independent contractors, including those who work across multiple platforms, and the program should maintain the flexibility these workers seek while allowing technology companies to continue to grow and provide earning opportunities for more workers.

✓These programs should be flexible enough to account for the differences between business models for finding work as well as differences in services.

✓The program should empower companies to provide portable benefits to workers by establishing a safe harbor with respect to the independent contractor status of workers.

✓The program should not impede the ability of self-employed workers, independent contractors, freelancers, and other small businesses to find work online by imposing "one-size-fits-all" benefits policies.

Ensure Global Competitveness

Ensuring global competitiveness for American businesses and workers has been encumbered by an erratic and inconsistent trade policy that is heavily reliant on tariffs and a "go-it-alone" approach. Despite a recent success in passing the *United States-Mexico-Canada Agreement*, which created a gold standard for digital trade, the Biden Administration and Congress must reassert America's role as the global leader in trade and work with willing partners in various regions to ensure and promote safe and efficient cross-border data transfers to encourage the deployment and use of innovative technologies around the world; reestablish efficiency in our supply chains; end tariffs that hurt businesses and consumers and cost jobs; and reassert diplomacy to achieve global competitiveness for our industries and workforce. Moreover, Congress needs to pass comprehensive, targeted investments in emerging technologies to cement our global leadership and ensure that America sets the rules for the use of these homegrown technologies. Finally, Congress must ensure that American firms are not constrained by discriminatory taxation and anti-globalization policies, and that the secure, free flow of data continues to fuel innovation and consumer choice at home and abroad.

IX. Tax

The U.S. corporate tax system, largely shaped by the *Tax Cuts and Jobs Act of 2017*, provides a globally competitive tax rate which encourages companies to invest in America and benefits U.S. workers, families, and communities. Policymakers at all levels should maintain and build upon this successful tax system to encourage investment in American businesses during the nation's continued recovery from the COVID-19 economic crisis. As Congress considers future changes to the tax code, TechNet supports the following:

• Defending the legal right of U.S. corporations to structure global business operations consistent with relevant legal requirements.

• Rejecting international efforts to impose special taxes on digital businesses while encouraging governments to engage via the Organisation for Economic Co-operation and Development's inclusive framework to develop a comprehensive income tax-based and treaty-compliant solution that applies equally across the digitalized economy.

• The continued prohibition of federal internet access taxes.

• Promoting more stock ownership opportunities for workers at startups and other employers by allowing them to defer the tax associated with the exercise of their personal equity until they sell the underlying shares and thus have the cash to pay the tax, instead of taxing these options upon vesting.

• Policies that allow companies to manage balance sheets through share repurchases, which allow a return of excess cash to investors after making necessary investments in people, research, and development.

• The permanent exclusion of federal and state capital gains taxes on investments in startup businesses that are held for more than five years.

• Policies that promote startup businesses by not increasing taxes on entrepreneurial investment activities.

• Policies that encourage equity sharing for employees of startups that incentivize risk throughout the various stages of a firms' growth.

• Current tax treatment of the Qualified Small Business Stock (QSBS).

• The use of the tax code to spur private investment in research and development. TechNet's principles on research and development can be found on page 12.

• Tax policy, such as the Foreign Derived Intangible Income (FDII) provisions, that promotes the development and maintenance of intellectual property in the United States and the high-value jobs that support intellectual property.

• Simplified tax requirements for mobile workers and gig companies.

• Ensuring that tax policies affecting the gig and sharing economy help promote economic opportunities, provide clarity, do not impose significant administrative burdens for platforms or independent workers, and recognize the unique differences that exist among the business models of innovators operating in this growing segment of the economy.

• Access to existing tax credits and benefits for gig and sharing economy participants.

• Preserving the full and current income tax deductions for advertising expenses while not allowing for carve-outs that limit the current deduction for certain types of advertising. Advertising revenue should not be used as funding for additional sources of revenue for the Universal Service Fund base expansion or similar fee impositions.

X. Trade

Maintaining a rules-based global trading system and ensuring U.S. businesses and workers are able to compete fairly in the global marketplace is critical for economic growth and job creation. The U.S. can improve market access for the technology sector by developing and cultivating strong relationships with our international trading partners, participating in efforts to shape global trade rules, and avoiding unnecessary trade wars that hurt American consumers, workers, and businesses of all sizes. TechNet supports:

• The advancement of comprehensive trade negotiations and agreements with the European Union, India, Japan, Kenya, Taiwan, the United Kingdom, and Vietnam.

• Renewal of Trade Promotion Authority, with increased attention to negotiation objectives on issues such as climate change, human rights, labor, and the responsible use of technology, and with careful attention to transparency throughout negotiating processes.

• Appropriate enforcement of existing trade agreements.

• U.S. membership in the World Trade Organization (WTO). TechNet understands the need for constructive dialogue about WTO reform, but recognizes the WTO as the world's preeminent trade body and critical for a rules-based trading system.

• The requirement in all future free trade agreements negotiated by the U.S. that our trading partners join the WTO Information Technology Agreement (ITA), the expansion of ITA in 2015, and any future extension of ITA to new products.

• Further trade liberalization at the WTO, including reductions in tariff and non-tariff barriers to information, communications, and advanced energy technology products, services, and investments, and a successful outcome in the WTO's E-Commerce/Trade negotiations.

• Protections for the free flow of data across borders, appropriate protections for intellectual property (including source code), and protection from intermediary liability.

• Federal agencies, including the Department of Commerce and Federal Trade Commission, should continue to engage with counterparts in the European Union with the aim of reaching an agreement to replace the Privacy Shield Agreement with a new, more robust framework for transatlantic data flows in light of the 2020 "Schrems II" decision. TechNet's principles on privacy can be found on page 43.

• Rejecting international efforts to impose special taxes on digital businesses while encouraging governments to engage via the Organisation of Economic Co-operation and Development's inclusive framework to develop a comprehensive income tax-based and treaty-compliant solution that applies equally across the digitalized economy.

• Ensure that any new domestic manufacturing requirements in federal government purchasing are consistent with our international obligations and do not interfere with markets or hinder the development of global supply chains.

• Making sure U.S. companies can compete on a level playing field for procurement opportunities with the governments of our trading partners.

• Allowing products with commercial encryption to be traded freely.

• Heightened attention to the need for global supply and value chains — particularly important to global innovation — which are often disrupted by government imposition of data localization requirements, including forced technology transfers, audits of proprietary code and other trade secrets, and investment conditions that discriminate against U.S. interests.

• Efforts by the U.S. Government to strengthen critical supply chains insofar as they do not discriminate in the open, global marketplaces.

• Incentives and investments to increase the domestic production of semiconductors.

• Greater expansion of market access for trade in services, including those that are digitally delivered.

• Customs modernization and open payment systems that support e-commerce and digital trade flows, particularly by small- and medium-sized enterprises (SMEs). This support includes trade facilitation measures and customs relief to small businesses operating abroad by compelling our trading partners to raise their de minimis thresholds to better align with the standards of the U.S and maintaining current U.S. de minimis policy.

• A copyright framework modeled on current U.S. law which incentivizes

innovation by providing reliable protection for all creative works, including software. This should include appropriate limitations and exceptions, consistent with current U.S. law, to drive the growth of new emerging technologies, such as machine learning and text and data mining.

• Interoperable data privacy and cybersecurity standards and, where available, utilizing international models and best practices.

• Securing commitments by our trading partners to build the capabilities of their national entities responsible for coordinated vulnerability disclosures undertaken voluntarily by the private sector.

• Addressing concerns about China's trade practices via targeted policy responses and international coalition efforts, instead of tariffs that lead to higher prices, slower economic output, and weaker demand for American products.

• The expansion of digital trade rules in the Indo-Pacific region.

• The *Foreign Investment Risk Review Modernization Act* (FIRRMA), included in the 2019 *National Defense Authorization Act*, which reformed the Committee on Foreign Investment in the U.S., and the *Export Control Reform Act* (ECRA), which created new processes focused on emerging technologies. Congress and the Administration should ensure that FIRRMA and ECRA are implemented in ways that keep the U.S. at the forefront of innovation in emerging technologies while effectively addressing important national security objectives.

XI. Intellectual Property and Patent Reform

TechNet advocates for a healthy patent system that yields high-quality patents, promotes innovation, and deters frivolous patent litigation.

• Patents are key drivers of our innovation economy. They support the creation of new and innovative products and services, which, in turn, create new jobs. TechNet values the incentives of the patent system and recognizes that predatory litigation threatens to undermine this precious resource.

• With technologies evolving more rapidly than ever, TechNet believes patent law and policy must foster an environment where innovation can flourish among companies of all sizes and across all sectors.

• High-quality patents promote innovation. Low-quality patents hinder innovation by fueling abusive litigation. The U.S. Patent and Trademark Office (PTO) must continue to develop and implement patent examination rules, procedures, and guidance to promote the issuance of high-quality patents that provide clear public notice of claim scope to downstream innovators and implementers.

• The PTO needs adequate and stable funding to fulfill its mission. Congress should ensure that the PTO retains flexibility to set appropriate user fees and that all user fees stay with the agency to fund its operations.

• The Inter Partes Review (IPR) program is a vital tool for improving patent quality and reducing abusive litigation. IPRs provide for fair and efficient administrative review of patents of questionable validity, weeding bad patents out of the system more quickly and at far lower cost than through district court litigation. Congress and the PTO should resist any efforts to undermine the program.

• TechNet supports reforms that deter litigation abuse, including policies that discourage vague and unsupported infringement allegations, asymmetric discovery burdens, and forum shopping. Proper jurisdiction within the bounds of statutory authority should be enforced and remedies should be narrowly tailored.

XII. Environmental Sustainability, Climate Change, and Advanced Energy Technology

Addressing climate change is one of the most critical global issues of our time, and immediate action is required by policymakers, businesses, and consumers to build a cleaner and more sustainable future for our planet. Solving the climate crisis will require enacting the right policies by lawmakers combined with innovation from the private sector. TechNet supports sound environmental justice policies that address this crisis based on global geopolitical engagement, cooperation, and accountability. TechNet further supports advanced energy policies that foster and promote a climate for innovation while providing safeguards against inaction and mitigating the impact of new regulations on the economic prosperity of our nation and the world. TechNet member companies committed to addressing climate change and leading by example through innovation and sustainability efforts while driving the public policy discussion toward a cleaner, brighter, and more energy efficient future.

TechNet supports technology-neutral, market-based policies that address the climate crisis and that: accelerate the deployment of low and zero-carbon energy technologies; promote innovation; bring competition to the renewable energy market; foster clean transportation; and mark success through scientific benchmarking and successful policy development supporting a new climate future.

TechNet calls for the following actions:

• The federal government should set science-based targets for climate action that limit warming to no more than 1.5 degrees Celsius by the year 2050. These targets should be binding and should also have robust interim targets.

• A federal clean electricity policy that will drive large amounts of new renewable generation that provides businesses with a clear path and expectations to make needed investments at the scale and speed necessary.

• The federal government should align its energy, tax, and procurement policies to address both the causes and consequences of climate change by reducing greenhouse gas emissions and promoting energy resiliency to climate change-induced extreme weather.

• The federal government should prioritize the modernization and greening of federal data center infrastructure that will lead to greater efficiencies and cost reductions and work with industry to replace and consolidate larger and older data centers with next-generation facilities that would lower costs, cut energy consumption, and reduce greenhouse gas emissions.

• Policies should be developed so that in this transition, communities are not left behind. Policymakers should focus on ensuring that all communities are able to also benefit from the transition to a clean energy and transportation economy.

• Investment in non-combustion infrastructure and non-wired alternatives directed at low-income communities and communities of color.

• A holistic and comprehensive vision that strategically plans for existing and anticipated climate impacts in environmental justice communities and implement resiliency focused energy projects, such as microgrids and non-combustion energy generation assets.

• Policies and projects that catalyze the transition of our economy from an extractive one to a green industrial economy that trains local residents for renewable energy and climate jobs.

• There should be specific policies that promote the adoption of hydrogen for hard-to-decarbonize sectors like heavy-duty transport, steelmaking, and other chemical and industrial processes.

• There should be renewed investments made on climate infrastructure and clean transportation and incentive programs to encourage their development.

• The federal government should prioritize the electrification of vehicle fleets and conversion to low-emission zero-waste buildings across government-owned properties.

• The federal government should improve how it purchases energy by working with the private sector to source clean, reliable, and resilient electricity.

• State and federal resources should be invested in climate science, technology research, and development efforts to build a pathway forward through innovation.

TechNet supports:

• A robust energy agenda that will spur the development and deployment of clean energy resources.

• Tax incentives to promote the adoption of low and no emissions technologies like the Section 48 investment tax credit, the Section 45 production tax credit, Section 45x production tax credit for hydrogen development, and the Section 45Q credit for carbon capture utilization and storage.

• Policies that enable the adoption of zero emissions light- and heavy-duty vehicles.

• Non-discriminatory policies that further the use of advanced technologies in energy markets.

• Policies that promote market competition by enabling interconnection of distributed energy resources.

• Adoption by the federal government of advanced energy technologies and clean transportation that can improve the mission assurance of federal agencies.

• The implementation of grid modernization technologies as well as electric and clean transportation and charging infrastructure.

• Forward-looking policies that ensure open access to and enable market-based deployment of wholesale and distributed energy resources.

• Policies that enable the growth of competitive and transparent energy supply markets at the wholesale and retail levels.

• Policies that recognize and reward technologies that increase the electric reliability and resiliency of industry, government, and consumers.

• Fair and equal access to data to enable industry and empower consumers to effectively deploy and utilize clean energy solutions.

• Stable tax policy that provides industry and consumers long-term clarity to support the investment and deployment of clean energy and transportation technologies, including electric vehicle charging infrastructure.

• Public/private partnerships between the federal government and industry to help specific sectors of the economy reduce their carbon emissions.

XIII. Artificial Intelligence and Machine Learning

Artificial intelligence (AI) and machine learning (ML) are transformational technologies that revolutionize the way we live and work and help us solve the greatest challenges of our time. AI and ML can enhance productivity, democratize and expand access to important services, and enhance product innovation. AI and ML are being used to defend our country against cyberattacks, detect and deter fraud, deliver high-quality health care solutions, assist persons with disabilities, help individuals make better financial decisions, and train workers, among other applications. AI and ML development should be embraced because its potential for improving our lives is almost limitless.

However, AI innovation must be developed and implemented responsibly. In doing so, there are key issues that must be considered: privacy, transparency, data veracity, security, and workforce.

⊙ Responsible and Ethical AI and ML:

Govern: AI and ML must be created within a framework that is anchored to our shared core values, ethical guardrails, and regulatory constraints, in addition to an organization's operating principles.

- Utilize the newly-established National Artificial Intelligence Research Resource (NAIRR) within the White House Office of Science and Technology Policy and the National Science Foundation to partner with industry and stakeholders to lower the barrier to entry for AI research and help spur greater economic prosperity.

- Support the Office of Management and Budget's (OMB) memorandum "Guidance for Regulation of Artificial Intelligence Applications," which establishes voluntary consensus standards and outlines a comprehensive approach to AI through ensuring public engagement, limits regulatory scope, and promotes trustworthiness within technology.

- Contemplate "ethical risk frameworks" to articulate voluntary ethical standards and guardrails.

- Monitor the development of the National Institute of Standards and Technology (NIST) Artificial Intelligence Risk Management Framework, which is intended to be a voluntary tool to incorporate trustworthiness considerations into the design, development, use, and evaluation of AI products, services, and systems.

- Ensure government regulations do not unintentionally advantage fraudulent actors.

Design: AI should adhere to "responsible by design" architecture and be deployed with trust and other safeguards built into the design. This means incorporating quality data and adherence to privacy, transparency, security, and, in some cases, interoperability.

- Utilize risk-based impact assessments for AI and ML initiatives that assess privacy, transparency, and security risks.

- Operationalize "ethical risk frameworks" in the design phase to implement appropriate oversight and governance.

- During the design phase, account for diverse backgrounds, expertise, and lived experiences.

Monitor: Throughout its lifecycle, AI must reflect human values and ensure its performance is appropriately monitored and evaluated. Measures to prevent bias and discrimination, especially against vulnerable communities, should be implemented. Owners of AI systems should ensure appropriate oversight and accountability enable humans to assess the need for improvements to ensure safety, fairness, and trustworthiness; protect against malicious activity; and address flawed data sets or assumptions.

Train: Support active upskilling through education and training and human-computer symbiosis, help move employees from executing rote tasks to providing analysis that requires judgment, ingenuity, and real-world understanding.

- Encourage the promotion and growth of training and workforce development to prepare employees for roles requiring human-AI collaboration. This includes using techniques and practices to identify skills gaps and promote the learning needed to succeed in AI, including technical skills and "soft" skills.

- Workforce development must also take steps to address potential displacement though retraining and the use of AI technologies to help current and future workforces.

Protect: To preserve our national security, certain technology-focused export restrictions such as International Traffic in Arms Regulations and arms control regulations should apply to AI.

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XIV. The Future of Transportation and Mobility

▶ Autonomous Vehicles Principles

• Autonomous vehicles (AVs) have the potential to enable tremendous societal benefits through increased safety and improved access to transportation, while reducing the inefficiency and error associated with human operators.

• TechNet supports implementation of a uniform national framework that promotes the safe testing, deployment, and operation of AVs, through clarifying federal and state roles, exemptions, and expedited rulemaking.

• TechNet opposes laws and regulations that require human control and intervention capabilities, implement unreasonable operating restrictions, or arbitrarily specify or prohibit the use of different technologies in AVs.

• Federal laws and regulations should be technology-neutral, applying equally to all companies and business models.

• TechNet supports congressional efforts to increase the existing cap on temporary exemptions that the Secretary of Transportation can provide to AV manufacturers and developers for exemptions from certain Federal Motor Vehicle Safety Standards to promote the development and deployment of AV technologies.

• Developers of AV fleets should have the opportunity to develop fleets of more than 2,500 vehicles.

• TechNet supports self-certification and voluntary assessments outlined in the National Highway Traffic Safety Administration framework "Automated Driving Systems 2.0: A Vision for Safety" (September 2017).

▶ Electric Vehicles Principles

• Electric vehicles (EVs) can improve fuel efficiency, lower fuel costs, and reduce carbon emissions, which help mitigate the effects of climate change.

• TechNet recognizes that the electrification of transportation includes all electric vehicles (EVs) including medium and heavy duty, electric vehicle supply equipment (EVSE), charging stations, and related smart and networked software solutions. EVs include all technology types, including battery EVs, plug-in hybrid EVs, and hydrogen fuel cell EVs.

• TechNet encourages the federal government to continue partnering with the automotive and tech sectors to enhance their significant investments and commitments made to make the transition to more fuel-efficient vehicles.

• We also encourage the federal government to work with state and local governments to coordinate efforts and reduce regulatory burdens in the nationwide deployment of EVs and EV charging infrastructure, especially during implementation of the *Infrastructure Investment and Jobs Act*.

• TechNet supports sustainable tax policy that provides industry and consumers with long-term clarity to support the investment and deployment of clean energy and transportation technologies, including EV charging infrastructure. These programs should offer opportunities for funding for different types of EV technology and prioritize supporting private market solutions and transportation modes with the greatest

potential impact to electrify both a high quantity of vehicles and high-mileage applications, including personal, fleet, ridesharing, ride-hailing, autonomous vehicles, transit, micromobility, peer-to-peer car sharing, and more.

• Additional federal investments are needed to educate consumers on EV technology to bridge the knowledge gap and provide momentum for the adoption of EVs.

• The federal government should prioritize the electrification of its vehicle fleets.

• TechNet encourages leveraging government, private, and private-public partnerships to buildout charging infrastructure, especially in underserved areas.

• Policies regarding payment systems for EV use and EV charging should be technology neutral and allow for a variety of technologies such as open payment systems, mobile payments, contactless or "tap and pay," and tokenization, for example.

• TechNet supports a robust energy agenda that will spur the development and deployment of clean energy resources, including widespread access to a Clean Fuel Standard (CFS), which would create a technology-neutral market-based program that requires the incremental reduction in the carbon intensity of transportation fuels over time. TechNet's principles on climate change can be found on page 30.

▶ Drone Principles

• Drones are being used to support many areas, including public safety, real estate, agriculture, infrastructure inspection, medical and goods delivery, the entertainment industry, and humanitarian relief. In many cases, drones can enhance safety and reduce the environmental impact of certain commercial use cases.

• TechNet values the innovation that drones bring to these and other industries, especially as their use and technology continues to evolve.

• TechNet supports solutions that enable and encourage responsible use of drones and believes that technology can best address these concerns.

• TechNet supports ongoing work at the Federal Aviation Administration (FAA) to enable beyond visual line of sight and more advanced drone operations, including Advanced Air Mobility, to enable the use of drones to transport people and cargo.

• Although the FAA has exclusive regulatory authority over the navigable airspace, manufacturers and operators are facing legislation in many states and localities that seeks to restrict the use of drones, often based on arbitrary data and restrictions.

• Any legislative and regulatory proposals should be technology- and sector-neutral and reflect the FAA's authority to regulate the airspace. Targeted legislation will lead to inefficiencies and inconsistencies in how laws are applied and could slow technological solutions and growth.

• To fully realize the economic and consumer benefits of drones, FAA regulations and processes must be developed or updated to reflect their novel designs and operational capabilities. TechNet supports the deliberative processes that are further developing a regulatory framework for safe drone operations.

▶ Shared Mobility Principles

• Shared vehicles, such as automobiles, bikes, and scooters, help provide access to critical transportation for millions of Americans alongside the significant environmental benefits that come from multi-modal mobility.

• TechNet supports policies that enable U.S. service members to share their vehicles, including when deployed, and use shared cars, including while on base, through peer-to-peer carsharing platforms.

• Municipal and regional mobility hubs provide communities with convenient access to a variety of mobility options. TechNet supports federal efforts to support the development and maintenance of such multi-modal mobility hubs.

XV. Trusted Technologies

• As the world's information technology leader and home to the vast majority of the world's major information technology providers, the United States has a unique opportunity to provide leadership in the establishment of a legal framework that recognizes the legitimate rights and needs of consumers, businesses, governments, and the American economy.

• To ensure the appropriate balance between personal liberty and public safety in a free and democratic society, it is important to have an honest discussion on the government's surveillance authority. The discussion should include assurances that law enforcement and national security surveillance authority is subject to meaningful judicial and legislative oversight and follows the rule of law. It is also important that the United States works with its allies to ensure there are proper global legal frameworks within and among other countries.

• The U.S. faces real and significant national and economic security threats. These threats heighten the need for domestic and international trust in U.S.-based technology companies, which play a central role in building and operating an open, global internet.

• Policies that ensure the U.S. tech ecosystem remains competitive and viable for companies to securely develop emerging technologies and bring them to market.

• To the extent that customer communications do not compromise legitimate government needs in ongoing government operations or investigations, U.S. technology companies need the ability to communicate with their customers about the nature, number, and scope of government requests for data.

• Strong encryption is a fundamental commercial necessity and consumer expectation that underpins millions of daily transactions and allows companies to safely store and move personal consumer information.

• The establishment of interoperability standards, open to all companies, which would allow network operators the ability to transition away from suppliers and systems with significantly less disruption.

⏵ *Electronic Communications Privacy Act* Reform Principles

• Reform of the *Electronic Communications Privacy Act* (ECPA) should create a clear set of rules for law enforcement access that are in line with users' expectations of digital privacy in the 21st century. These rules should safeguard end user privacy, provide clarity for service providers, and enable law enforcement to conduct effective and efficient investigations.

• The ECPA statute needs to be updated to reflect how information is managed, stored, and shared today.

• ECPA reform should provide a document stored in the cloud with the same protections the document would be subject to if it were stored under user control.

• ECPA reform should require a warrant for content regardless of how old that stored content is or where it is stored.

⏵ International Online Privacy Reform Principles

• U.S. online privacy and government access laws have failed to keep up with modern electronic communications in the digital age. The Administration and Congress should work together to effectively implement the *Clarifying Lawful Overseas Use of Data Act of 2018*, or CLOUD Act, to provide law enforcement, U.S. companies, and consumers with much needed clarity about the appropriate way to access data held abroad, while setting standards for foreign governments seeking access to information held by U.S. technology companies.

• Reforming and modernizing ECPA and implementing the CLOUD Act are critical steps needed to safeguard our citizens' privacy rights, ensure law enforcement has the tools they need to protect us, and to boost confidence in the technologies

we use to communicate with each other. Reforming and modernizing ECPA and implementing the CLOUD Act are critical steps needed to safeguard our citizens' privacy rights, ensure law enforcement has the tools they need to protect us, and to boost confidence in the technologies we use to communicate with each other.

• Federal agencies, including the Department of Commerce and Federal Trade Commission, should continue to engage with counterparts in the European Union with the aim of reaching an agreement to replace the Privacy Shield Agreement with a new, more robust framework for transatlantic data flows in light of the 2020 "Schrems II" decision. TechNet's principles on privacy can be found on page 43.

Promote Digital Trust

Promoting digital trust in the age of innovation necessitates that Congress act to ensure the protection of consumer data by creating a uniform, federal privacy regime that empowers consumers, improves security requirements, and enhances transparency. As data continues to grow in size and value, cybercriminals will increase their interest in accessing and stealing sensitive information. Congress must also address the critical need for investment in cybersecurity awareness and prevention in the public and private sectors and incentivize investment in new technologies that protect intellectual property, safeguard our economy, and protect American consumers.

XVI. Cybersecurity

In order to meet the cybersecurity needs of today's increasingly interconnected digital world, policy makers and industry leaders must focus efforts on educating and training a highly-skilled workforce, modernizing government Information Technology (IT), and building long-lasting public/private partnerships. TechNet will promote the adoption and use of voluntary, adaptable, risk management-based approaches to meet this changing environment and effectively manage cybersecurity risk. TechNet supports the following principles and objectives:

• Alignment of policies, legislation, regulations, and guidance with flexible, stakeholder-driven, risk management-based approaches to cybersecurity, including:

✓Promotion of voluntary private sector adoption of the Framework for Improving Critical Infrastructure Cybersecurity (Framework), including any updates to the Framework;

✓Further guidance on the implementation of President Biden's Executive Order on Improving the Nation's Cybersecurity;

✓Further guidance for and oversight of Framework adoption by federal agencies, per Executive Order 13800; and promotion of Framework-like approaches (adaptable, stakeholder-driven, risk management-based) with international partners;

✓A comprehensive risk-based cybersecurity strategy that increases the security and resilience of all networks, and prepares for and mitigates cyberattacks through the voluntary coordination of industry and government;

✓Market-based incentives to encourage companies to actively manage risks in accordance with industry standards and best practices;

✓Improved accountability, reporting requirements, and uniform standards for federal agencies as they comply with cybersecurity laws, regulations, and executive actions;

✓Federal agencies and vendors should have a vulnerability disclosure policy, which contribute to data protection, cybersecurity, and mitigation of risk across complex assets;

✓Public/private initiatives that support improving the cyber defense capabilities of small businesses;

✓Harmonization of conflicting requirements on the private sector with attention paid to reducing duplicative and conflicting reporting requirements to minimize time, expense, and complexity of compliance;

✓To promote the public/private sharing of accurate and helpful information, federal use restriction/ liability protections should be clear to incentivize sharing and the private sector should be allowed sufficient time to report confirmed intrusions; and

✓Addressing cyber threats to the supply chain of the National Industrial Base.

• Government participation, working through the NIST and the recently-established Office of the National Cyber Director within the White House, in the continued development of an international, consensus-driven Internet of Things (IoT) security guidance for consumer, industrial, and critical infrastructure. This may involve the development of a risk management approach similar to the NIST framework that focuses on IoT security and incorporates security into initial designs that can be built upon, depending on the functionality and risk associated with the device.

• Lawmakers and regulators should continue considering the recommendations of the Cyberspace Solarium Commission, as established by the *National Defense Authorization Act of 2019*.

• Funding and implementation of the *Modernizing Government Technology Act* that focuses on driving down cybersecurity

risk. Agencies must report on existing networks that cannot be fixed and must be replaced.

• Continued adherence to the *Cybersecurity Information Sharing Act of 2015* that facilitates a risk-based strategy by promoting the sharing of actionable cyberthreat information from government to industry, from industry to government, and among private companies.

• The U.S. government should promote greater sharing of cyberthreat information with the private sector in a timely, straightforward, and actionable manner, and ensure government agencies are funded and staffed with the necessary resources to achieve this goal of efficiently managing the collection of data. The current process does not provide companies with actionable, accurate, and timely information. Specifically, the federal government should work to minimize the average amount of time that a threat actor remains undetected once they have gained their initial exploit or foothold. To this end, the federal government should track and publish its own performance metrics, including the amount of time that occurs from (1) breach-to-detection, (2) detection-to-response, and (3) detection-to-sharing of the cyberthreat indicators.

• Appropriate liability protections when participating in government cybersecurity sharing programs.

• Regulators should be cognizant of sector-specific risks and build off of existing successful sector-specific regulations.

• Government efforts to develop norms that support an open, secure, stable, accessible, and peaceful cyberspace. Cyberattacks by state and non-state actors threaten international and national security, democratic processes, the global economy, the free flow of ideas and information, and the safety, security, and privacy of individuals.

• An increase in attention for cybersecurity in international forums, including the G20 and increased U.S. Government engagement in international bodies, such as the The United Nations Economic Commission for Europe World Forum for the Harmonization of Vehicle Regulations (WP.29).

• No federal government mandates on the design of products and services. The federal government should be particularly careful to avoid requirements that could weaken the security of technology used to protect sensitive personal information and critical systems.

• Cybersecurity efforts at the federal and state levels to protect the integrity of election systems and related information technology infrastructure.

• A renewed focus on enhancing attribution and bringing cyber criminals to justice.

• Education, workforce, and immigration policies and initiatives that help the U.S. develop and retain the world's best cyber workforce.

• Additional funding for states to procure consolidated cybersecurity services on behalf of local entities to thwart the increasing ransomware attacks against our local government systems and school districts — because efforts by the district and county level will never scale to enable a reasonable defense in this threat environment.

• The continuation and further development of Information Sharing and Analysis Centers (ISACs) that provide critical infrastructure owners and operators a forum to detect, share, and analyze cyber threat information

XVII. Privacy

TechNet's diverse membership includes dynamic American businesses ranging from startups to the most iconic companies on the planet and represents over four million employees and countless customers in the fields of information technology, e-commerce, the sharing and gig economies, advanced energy, cybersecurity, venture capital, and finance. All of them collect, secure, or analyze data to provide services and enhanced experiences for their customers and fuel economic growth and opportunity across our nation. When it comes to the future of the federal privacy landscape, we believe the following:

⊙ For the Data-Driven Economy to Continue Enhancing Our Lives, We Must Keep the Consumer First

• The growth of the data-driven economy continues to fuel economic and social opportunity not just in the technology industry, but throughout every sector of the global economy.

• To date, U.S. laws and regulations have enabled unprecedented innovation, economic growth, and technological advancement stemming from responsible data collection and processing. This has allowed companies to not only create new, innovative products, but also to enhance products and services that have improved consumers' lives. More could be done to further advance this pro-innovation environment, but at minimum, when updating existing laws or creating new regulatory frameworks, federal authorities must prioritize the protection of consumers' privacy and security while ensuring businesses are able to continue innovating.

• All Americans deserve to have their privacy protected and to trust that the laws and business practices work to protect their privacy, which is why TechNet supports a robust set of uniform data protections in federal law. Once bipartisan consensus has been reached about a federal law's guarantees, layering on additional state requirements, which are rapidly being developed in many states, will only serve to complicate doing business across state and national borders, undermining the global competitiveness of U.S.-based companies.

• The internet continues to: be a means to: connect people; offer consumers more choices and better prices; provide businesses of all sizes more opportunities to sell their products and services across state and national boundaries; and encourage entrepreneurs to create new products and platforms — all of which benefits consumers. TechNet supports federal privacy proposals and frameworks that protect consumers while promoting continued innovation, consistent enforcement, interoperability, and a predictable regulatory environment for businesses.

• Innovations in consumer protection approaches are a key way companies obtain competitive advantages and must be encouraged.

   ✓For example, one way companies protect consumers from fraud is through the responsible collection, storage, and analysis of data that enables them to detect unusual consumer use and purchasing patterns. Federal legislation should ensure that companies can continue to effectively combat fraud and other forms of suspicious activity and allow companies to continue to innovate on how to detect and prevent suspicious activity.

• TechNet believes that just as technology evolves, consumers and their preferences also evolve. The digital economy has empowered businesses to not only respond to, but also anticipate, changing consumer tastes and needs, thereby enhancing user experiences. To remain competitive, businesses understand that they must continue to be responsive to these evolving consumer expectations. In a similar vein, federal policymakers must take great care to listen to these businesses and their

customers and avoid rigid regulation that would inhibit the ability of companies working in good faith to respond to their customers, innovate, and adapt.

• Companies should proactively take steps to enhance portability of consumers' personal information while enabling consumers to correct and delete their data, as appropriate.

   ✓Policymakers should take great care to ensure any policies adopted do not undermine privacy or data security interests; undermine detection of fraud or other unlawful activity; interfere with law enforcement or judicial proceedings; impose unduly burdensome or excessive requirements (particularly for small businesses and new market entrants); or inadvertently require greater collection or processing of personal information about the consumer than required or necessary.

• We should also help ensure companies can proactively educate consumers about the full range of services companies can offer and the privacy protections they have in place to protect consumer data.

▶ Companies Must Proactively Promote Transparency and Security

• Keeping personal information safe and secure — and being transparent with consumers about its use — must be a top priority of any organization.

• Protecting consumers' privacy, being transparent about how companies collect and use their data, and earning and maintaining the public's trust must remain overriding priorities for our industry. Our companies should lead by example when it comes to setting U.S. and global data and privacy standards that protect data and allow innovation to flourish.

• We encourage voluntary business-to-business and business-to-government data-sharing framework models in full compliance with existing laws and regulations. We caution against state and local government mandating "real-time" and seamless data portability without taking into account the privacy implications and technical challenges of adhering to such a mandate.

• We caution against a blanket prohibition or moratorium on all uses of biometric technology. Biometric technology has an innovative and diverse range of use cases. Policymakers should avoid one-size-fits-all frameworks for any regulation of biometric technology.

▶ Congress Should Act

• Congress should lead the way by enacting federal privacy legislation that brings uniformity to all Americans regardless of where they live.

• Federal legislation is needed to provide harmonized and consistent standards throughout the U.S. to protect consumer privacy and providing regulatory certainty for businesses. Federal legislation should be tech- and sector-neutral and apply to online and offline entities alike that collect and process personal information.

• Congress and other federal and state government entities must be collaborative partners in advancing the protection of consumers and the furtherance of innovation in the 21st century data-driven economy.

• Congress and the Administration should consider and incorporate certain national and international frameworks, with particular focus on interoperability and secure data flows, as they develop a framework for baseline legislation.

▶ Clarify the Role of the Federal Trade Commission and Preserve the Role of State Attorneys General in Enforcement

• The FTC should be the primary authority to enforce privacy laws given its proven expertise and track record of enforcement of consumer privacy protections.

• Congress should ensure that the FTC has the resources it needs to effectively enforce privacy laws and data security rules that protect consumers from tangible privacy harms, while also preserving the ability of state attorneys general to protect their constituents and enforce the law based on a federal standard.

▶ Uniform Laws and Regulations Will Enhance Compliance, Promote Even-Handed Enforcement, and Promote Innovation

• Federal policies should harness market incentives to drive effective risk-based management.

• Any law should recognize the value of certain permissible and narrowly construed forms of reasonable data collection, processing, use, and retention activities, including using data to provide customer service, authenticate a consumer's identity, and process or fulfill orders and transactions.

• Because technology and security threats to consumer privacy evolve constantly, legislation should recognize that security requirements should be risk-based, technology-neutral, and flexible.

• Private rights of action must be avoided.

▶ Congress Should Pass a Strong Federal Data Breach Notification Law

• Congress should pass a strong federal data breach notification law establishing a robust set of uniform protections for all Americans. More detail about TechNet's federal data security principles can be found on page 49.

▶ Ensure New Entrants, Small Businesses, Underserved, and Under-Resourced Innovators Are Not Adversely Affected by Burdensome Regulations

• While regulations affect all businesses, small, minority-owned, rural, and other under-resourced businesses in particular face disproportionate burdens and unique challenges in complying with complex privacy laws and regulations. This problem is exacerbated when having to deal with multiple sets of inconsistent or conflicting regulatory frameworks at home and abroad, making it important for policymakers to evaluate the global privacy landscape with the goal of promoting interoperability that allows American businesses to innovate and compete globally.

• To some innovative young companies that have limited personnel and resources to devote to overly stringent compliance efforts, regulations that are too prescriptive could effectively stifle their growth. Congress should endeavor to set baseline requirements but provide flexibility in how to meet those requirements, taking care to avoid prescriptive programmatic requirements and consider the unique needs and resource constraints of small and medium-sized enterprises and new market entrants.

✓For example, Congress could provide regulatory relief for startups and small businesses if their activities are limited in nature in the amount of personal information they process, in particular if it does not include sensitive information.

• Congress should establish robust training resources within the Department of Commerce, Small Business Administration, Federal Trade Commission, and/or other appropriate agencies that can provide guidance to startups and small businesses, particularly minority-owned and rural businesses, to ensure they are abiding by the most basic privacy rules they may be subject to as a result of legislation or rulemaking.

• Furthermore, we must ensure that the complexity of privacy requirements do not effectively become a barrier to entry for new potential innovators. Congress and the Administration must ensure that fundamental core privacy protections for consumers are in place without stifling free market forces that could enable new entrants and new data-based business models to flourish.

⊙ The U.S. Must Lead Globally

• As the home of the world's preeminent tech sector, the U.S. must proactively demonstrate global leadership by leading multi-stakeholder discussions and trade negotiations with the goal of setting global standards, rules, frameworks, and norms that adequately promote data-driven innovation and safeguarding consumers' privacy.

• Federal agencies, including the Department of Commerce and Federal Trade Commission, should continue to engage with counterparts in the European Union with the aim of reaching an agreement to replace the Privacy Shield Agreement with a new, more robust framework for transatlantic data flows in light of the 2020 "Schrems II" decision. TechNet's principles on privacy can be found on page 43.

• Congress should take up and pass a baseline data protection bill that would enable a finding of adequacy under the General Data Protection Regulation or GDPR.

• Congress should consider whether it is possible to develop additional redress mechanisms that do not undermine the effectiveness of foreign intelligence surveillance laws.

• Efforts to promote digital trade and negotiate new trade agreements must promote predictable seamless data flows across international borders.

XVIII. Data Security

• TechNet supports a strong federal data breach notification law establishing a robust set of uniform protections for all Americans.

• A national breach notification standard will provide companies and customers with consistent, actionable notice of a data breach that could result in substantial harm and should include the following:

   ✓Notice requirements that are not related to a substantial harm will only burden companies and confuse customers with frivolous notifications.

   ✓The private sector should be allowed sufficient time to report confirmed intrusions.

   ✓Confidentiality clauses should be in place to protect the intellectual property of reporting parties and sensitive information, including consumer data.

• A federal data breach notification law should have no state savings clauses.

• Notice standards should be related to protecting individuals from harm.

• A federal law should apply not only to the breach notification timeline, but also to the data security requirements, which should be adaptable, non-prescriptive, and reasonably related to the sensitivity of the data and the state of technology. Any standard should also recognize that companies making every effort to secure data with the best available technology require predictable, accurate, and up-to-date engineering specifications.

• Statutory requirements and obligations should be pinned to adherence to clear objective goals and outcomes, not specific security standards, which change over time.

• Data accessed that is not used or rendered unusable by encryption, redaction, or any other security method or technology should not be considered identifiable information.

• The distinction between an account takeover of a customer's online account and a data breach should be explicitly recognized in statutes, with differentiated provisions and reporting methodologies.

• Any statutory definition of personally identifiable information that triggers notification should be limited to information that, if compromised, could identify a specific individual and lead to substantial harm.

• A federal data breach notification law should address instances when there is a breach of personal information on a third-party system. In such instances, the third party should be required to notify the first party that has the relationship with the end users if the third party is knowledgeable that the data was personally identifiable information. The notification obligation to the consumers should rest with the first party that has the relationship with the end user, unless otherwise stipulated in contractual provisions.

• Public safety entities should be provided the appropriate level of resources to help deter, identify, track, and punish identity theft or other substantial harm stemming from criminal behavior, and provide assistance to consumers.

• Enforcement of a new data breach notification statute by the Federal Trade Commission and state attorneys general should be consistent and exclusive, other than for entities subject to federal notification requirements such as in the *Health Insurance Portability and Accountability Act* or the *Gramm-Leach-Bliley Act*.

• Legislation that includes private rights of action and civil penalties would significantly undermine the effectiveness of a federal data breach notification law without providing substantive breach protections for consumers.

XIX. Health Care and Telehealth

TechNet is committed to supporting healthcare policies that enable accessible, high-quality care for patients, while fostering the power of innovation to reduce barriers to entry and ensure the highest value care is provided. As the country continues its recovery from the COVID-19 pandemic, TechNet encourages Congress to prioritize policies that provide Americans greater control over their health needs and that make it easier to receive care, especially in rural areas and communities with a shortage of providers.

• Now, more than ever, consumers need reliable access to healthcare as we continue recovering from the COVID-19 pandemic. TechNet supports healthcare policies that enable wide access to high-quality care for patients, enhances provider accountability, promotes efficiency, and harnesses the power of innovation to reduce costs and improve the patient experience. TechNet further encourages Congress to act to ensure that expanded patient access to telehealth services continues to be available as the nation continues its public health and economic recovery from the COVID-19 pandemic.

• Harnessing the power of innovation is a critical step in the advancement of our healthcare system. TechNet supports the adoption of modern technologies, including the facilitation and increased use of telehealth and remote monitoring technologies, to help improve health care delivery and outcomes.

• TechNet supports increased investments in research and development programs in health, wellness, and vaccine development to fight disease and thereby improve the lives and economic prosperity of the American people.

• TechNet supports the expansion of healthcare access in particular for underserved and at-risk populations and for these to equally benefit from telehealth and digital health services. State and federal health programs should address and reflect health disparities in state and federal health programs, and policy makers should support robust investment in telehealth infrastructure, including broadband, to ensure universal access for the benefit of all communities.

XX. Modernizing Government Technology

Much of the federal government's information technology (IT) infrastructure is woefully outdated. Federal entities spend nearly 80 percent of their total IT budgets on maintaining aging, insecure, and expensive legacy systems. Obsolete technology systems are inefficient and especially susceptible to cyberattacks, which, among other challenges, put citizens' personal information at risk. Federal government technology officials need more flexible procurement programs to enable them to move beyond the IT status quo that agencies and departments are saddled with today.

• TechNet supports swift implementation of the *Modernizing Government Technology Act*, or the MGT Act, which would help the federal government creatively improve its information systems. The MGT Act authorizes two competitive IT modernization funding streams to accomplish the following: improve, retire, or replace current technology systems; promote transition to cloud computing when it is appropriate for not only the agency's mission, but also the type of data being stored; and procure IT products and services to strengthen the federal government's cybersecurity posture. The MGT Act also facilitates the sound adoption of state-of-the-art technologies, thus helping deliver new IT capabilities, operational efficiencies, and cost savings for the federal government and taxpayers.

• Congress should appropriate the full funding required for the Technology Modernization Fund, which will facilitate the development of inter-agency or federal government-wide strategies to better manage cybersecurity risk.

• Congress should conduct oversight to ensure that working capital funds authorized by the MGT Act are used to reduce cybersecurity risk.

• Congress should require agencies to inventory the technology they use and then prioritize use of the flexibility afforded by the MGT Act to eliminate legacy products and services that are beyond their supported lifecycle.

• Congress should codify the requirement in the May 2017 Executive Order requiring agencies to manage risk under the *Federal Information Security Management Act* using the National Institute of Standards and Technology Framework.

• Congress should equip federal agencies with the resources needed to implement the Cloud Smart strategy.

XXI. Financial Technology

TechNet supports private sector efforts to empower consumers to better manage their financial lives and enjoy new, safe, secure, inclusive, and reliable financial tools. Congress and federal agencies should update outdated laws and rules in order to utilize modern financial technologies and meet consumer and business demand for innovative financial products. Overall, the federal regulatory environment must be more amenable to emerging fintech innovations. In particular, TechNet supports the following ideals:

▶ Open Finance and Consumer-Authorized Data Access

• Establishing a robust consumer data right through a Section 1033 rulemaking that promotes the free flow of consumer-authorized data across the financial ecosystem, allowing consumers broader access to financial services and control over their financial data.

• Supporting an open finance regulatory regime through a Section 1033 rulemaking that looks to industry-developed interoperability, portability, and security standards for ensuring a seamless, standardized, and secure experience for sharing consumer data.

• Supporting an open finance regime through a Section 1033 rulemaking that provides a flexible, consent-based framework for notifying consumers of how their information will be shared, transmitted, stored, and utilized.

• Supporting a Section 1033 rulemaking that clarifies ambiguities around liability for unauthorized access, privacy, credit reporting, and data accuracy that provides clear rules of the road for consumers and ecosystem participants.

▶ Chartering Alternatives for Fintechs

• Promote regulatory and legislative efforts to encourage fintechs to be able to expand their service offerings through risk-based regulatory regimes that embrace competition and innovation together with systemic and consumer protections, such as Industrial Loan Companies (ILCs) and National Trust Charters (NTCs).

▶ Financing Reforms

• Streamlined rules for the online lending marketplace. Federal and state regulations fail to address the constant change, diversity, and innovation in the marketplace. Federal and state policymakers should streamline lending laws across jurisdictions to protect their constituents and to account for the innovative lending market of today.

• Policymakers should promote industry best practices that protect consumers and small businesses while maximizing diversity and innovation in lending services.

• Modernized rules for deposit-taking. Prudential banking regulators should continue to modernize outdated regulations that restrict third parties' ability to connect consumers' deposits and financial institutions.

▶ Financial Empowerment

• Unlock the power of financial apps. Policymakers should empower consumers and businesses to take advantage of financial applications that help them improve security, convenience, and reliability.

• Leverage technology to reduce barriers to financial services, particularly for the unbanked and under-banked. The internet, cloud computing, blockchain, and mobile innovations should be empowered to thrive in an open environment with reasonable regulatory burdens, requiring a reassessment of existing barriers to adoption along with incentives to pursue use of innovations that promote individual and small business access to financing.

• Rulemaking that would allow for a robust consumer right to access and share their financial records. Federal regulators should establish an operational framework for secure, consumer-authorized data sharing and access through a formal rulemaking that clearly establishes the form and manner in which consumers can securely request that their financial information be shared with approved third parties.

• Promote policies for usage of open, multi-cloud solutions that allow easy portability and movement of workloads across any cloud provider.

▶ Payment System Principles

• Promote enhanced security and convenience through continuous innovation. No one technology should be mandated for security and authentication, nor should one technology become a de facto mandate through "floor-setting."

• Support policies that promote new entrants and empower consumers to utilize a broad array of financial technology products and solutions.

• Support efforts to reduce fraud in the financial industry through the empowerment of innovators and innovation.

• Legislative and regulatory policies impacting electronic payments should promote continued innovation and support free market economics.

• Support efforts for faster and more efficient financial services, including the Federal Reserve's FedNow initiative for faster payment systems, central bank digital currencies (CBDCs), stablecoins, faster payments in real time, automation to improve efficiencies, including using AI and machine learning, and automated data workloads and data sharing to facilitate faster analysis.

▶ Federal Action Plan for Blockchain and FinTech Modernization, Legislative Tracking

• Support the U.S. Government's adoption of a coordinated approach to blockchain technology and position the U.S. as a leader in blockchain innovation.

• Support and advocate for U.S. Government's adoption of policies that safely facilitate and encourage adoption of emerging technologies like blockchain, and create beneficial partnerships between financial institutions and fintech companies that improve consumer access, choice, and opportunity.

• Support financial innovation initiatives around cryptocurrencies, blockchains, "tokenization" of assets and value, and recognize these technologies as significant market transformers in the financial and technology sectors.

▶ Anti-Money Laundering / Countering the Financing of Terrorism / Know Your Customer (AML/CFT/KYC) Compliance

• Develop clarity around compliance with AML obligations while balancing law enforcement objectives, and doing so in a way that fully utilizes and exploits benefits arising from blockchain technology analytics.

• Modernize AML/CFT/KYC regulations, taking into account the evolving landscape of financial crime, money laundering, and terrorist financing in view of blockchain technologies.

• Support artificial intelligence/ machine learning (AI/ML) and blockchain technologies to improve efficient fraud and financial crime detection, surveillance, and mitigation.

▶ Regulatory Oversight and Clarity for Digital Tokens, Wallets, Crypto-assets, Digital Securities

• Promote education regarding blockchain, digital currencies, tokens, and digitized assets.

• Provide clarity and regulatory certainty around business platforms built around digital tokens, and propose solutions to regulators and policymakers to help promote a predictable legal environment for companies working with digital tokens and digital token solutions.

• Promote universal, "self-managed"- type capabilities and controls (e.g., self- managed private keys, digital wallets, etc.) for digital tokens and digitized assets as a fundamental right, and enable individuals to engage in transactions and exchanges without a third-party intermediary.

• Promote regulatory clarity around U.S. Securities Law and its impacts on blockchain industry, and develop modernized securities regulations governing tokenized securities.

• Develop frameworks for the regulation and oversight of digital assets that are securities, commodities, and currencies to enable companies and platforms that use them to have a predictable legal environment. Such frameworks should promote consumer protection and market stability while enabling U.S. companies to innovate and thrive in a global marketplace.

▶ Taxation and Accounting Treatment of Digital Assets

• Advocate for clear tax treatment audit and accounting standards for digital assets to enable appropriate compliance with regulatory requirements. The absence of such hinders companies seeking to invest and innovate in this technology.

▶ Regulations and Policies Should Support Decentralized, Open Blockchain and Proof of State (or Proof of Work) Systems

• Ensure that proposed rules and regulations remain technology neutral to enable continued innovation with blockchain and distributed ledger technologies.

• Educate policymakers about various types of blockchain and Distributed Ledger Technology (DLT) networks and the legal and regulatory issues associated with them.

▶ Promoting the Use of Blockchain in Business and Working with Innovators to Grow the Industry

• Develop resources for innovators and entrepreneurs interested in implementing blockchain technologies.

• Ensure policies and initiatives that support and encourage responsible innovation in financial services at all levels of the economy (e.g., from large banks to startups).

▶ Stablecoin

• Identify applications and promote stablecoin as an enabler of consumer choice and efficiency in payments.

• Developing sensible policies to support and adopt activities involving stablecoins with appropriate guardrails.

▶ Federal Financial Regulator Office of Innovation

• Every federal financial regulator now has an innovation office, and TechNet supports efforts to make each of these offices live up to their potential to foster innovation among the entities they regulate. TechNet supports these offices being meaningful venues for engaging industry around innovative use cases subject to their agency's jurisdiction and these innovation offices being advocates for ensuring that agency rules and guidance keep pace with marketplace innovation.

▶ Artificial Intelligence in Financial Services

• Artificial intelligence and machine learning are core to fintech operations, and TechNet supports federal financial regulators' efforts to better understand how fintechs utilize artificial intelligence and machine learning to power innovation, expand access to financial services, and meet consumer and business demand.

• TechNet supports ongoing engagement with federal financial regulators in working to ensure that fintechs have clear expectations from regulators regarding the utilization of artificial intelligence and machine learning in a manner that is compliant with relevant federal law regarding credit access, privacy, and other federal consumer protection laws.

• We support efforts to promote responsible AI design and use by the private sector consistent with flexible and clear principles articulated by regulators on important AI/ML topics such as model governance, transparency, bias reduction, and fairness.