

Partnership for American Innovation

September 23, 2014

Office of Science and Technology Policy
Eisenhower Executive Office Building
1650 Pennsylvania Ave., NW
Washington, DC 20504
Attn: Dan Correa

Sent via email: innovationstrategy@ostp.gov

RE: The Partnership for American Innovation's Comments on the new *Strategy for American Innovation*

The companies that form the Partnership for American Innovation (PAI) – Apple, DuPont, Ford, GE, IBM, Microsoft and Pfizer – commend the Obama Administration and the Office of Science and Technology Policy (OSTP) for their outreach to the business community regarding an update to the *Strategy for American Innovation*. We appreciate the opportunity to provide our input on the questions posed, as strategies to maintain and grow our innovation economy are of critical importance to PAI members. Together, PAI companies invest more than [\\$40 billion](#) every year in research and development and depend on intellectual property (IP) protections to safeguard those investments. Its members support over 1.2 million jobs and have created iconic products on which consumers depend.

The Importance of a Strong IP System

The United States' intellectual property system protects investments in R&D, allowing companies to make big, bold bets on the future. IP protection creates value for these innovations during product and service development, across industries including software, pharmaceuticals, manufacturing, bio-tech and IT services. These IP-intensive industries contribute [\\$5 trillion in economic activity](#) to the American economy every year and are responsible for 40 million jobs, nearly half of private sector employment in the U.S. They also make up nearly three quarters of all U.S. exports.

The protections afforded by America's IP system motivate venture capitalists to invest in [new startup companies](#), which are a huge driver of job creation in our nation. IP enables the [return on investment](#) a company needs to invest billions every year in research, allows them to bring new products to market, and accelerates the pace of innovation. Without IP protection, businesses shift their R&D resources and commercialization strategies toward the types of innovations that cannot be easily duplicated by competitors. Heavy reliance on this practice clearly limits collaboration and can decrease the overall pace of innovation.

Previous versions of the *Strategy for American Innovation* have reflected an understanding that American innovation builds off and requires substantial investment in research and development, and that IP provides one of the most effective means for encouraging those investments.

Question 21 – IP and New Models of Innovation

We are pleased to see a question related to intellectual property included in this year's request for ideas. Question 21 inquires what challenges and opportunities for intellectual property are posed by new forms of innovation. The PAI believes that the patent system is complementary to, and in many ways enables, innovation models that are based on collaboration.

In the 19th century, inventors obtained patents on sewing machines, telegraphs and electricity, and naysayers worried that these patents would drive up costs and close off innovation. A similar cycle of breakthrough innovation protected by patents and a wave of concern occurred again in the 20th century with airplanes. In each instance, rather than foreclosing advancements, these technologies thrived, filled the consumer market and continued to improve and evolve. The public disclosure provided by the patent system provides valuable information to other inventors, and enables knowledge transfer through licensing, cross-licensing and joint agreements. Today's computerized looms, smartphones and smart appliances are heirs to the innovations of the past centuries, and brought to market thanks in part to the patent system.

This 'all of the above' approach to innovation continues today. Members of the PAI have some of the largest and most valued patent portfolios in the United States. Members are also committed to open and collaborative innovation. [IBM](#) is a leader in the development of open source software solutions and industry standards, bolstered through numerous [patent pledges](#), to encourage and enable the development of open platforms critical to the information technology industry. [Microsoft](#) has a business unit dedicated to open source development and encourages collaboration through opening their code to the developer community. [Apple](#) was the first major computer company to make open source development part of its software strategy, and continues these efforts today. [DuPont](#) has opened Innovation Centers in every region of the world dedicated to stimulating innovation and collaboration between business partners, customers and DuPont scientists and engineers. [GE](#) has a dedicated Open Innovation Unit focused on crowdsourcing innovation, internally and externally, to drive advancements. [Pfizer](#) has partnered with software companies to develop open source products for scientists and lab technologists. [Ford](#) is the first and only automaker to provide open source connectivity to vehicles; namely, Ford's dedicated "[Smart Device Link](#)" for connecting smart devices to vehicles, and the "[OpenXC Platform](#)," which includes both open source software and open source hardware, to enable innovators to receive data from vehicles.

These experiences, coupled with the research on cycles of innovation throughout history, demonstrate that effective IP rights actually promote open innovation by incentivizing disclosure and enabling knowledge transfer. However, the reverse is sadly not the case – without the protections afforded by the patent system, companies work to develop technologies that cannot easily be replicated under a heavy veil of secrecy. This significantly limits the ability of open and collaboration models to exist and thrive.

The Path Forward – Challenges and Opportunities

As Question 21 notes, we are not facing a dearth of innovation in this country. In fact we are home to some of the most talented and prolific innovators in the world. The *Strategy for American Innovation*

needs to empower these innovators so that their ideas can be translated into jobs and long-term economic growth.

For many innovators, the success of their efforts lives or dies on the ability to secure quality IP rights quickly. The U.S. Patent and Trademark Office (USPTO) has already made great strides in reducing backlog, increasing quality and educating its customers. Yet the agency does so under significant constraint, without control over its own budget despite the fact it is fully funded by user fees. Even though these fees are now held in reserve thanks to the Leahy-Smith America Invents Act, the USPTO must still approach Congress each time to free up these much needed funds. The *Strategy for American Innovation* should empower the USPTO to be a world-class institution focused on encouraging innovation and promptly issuing the assets that pave the way for investment in technology advancement.

Without these high quality assets, innovators will be hard-pressed to develop the technology that leads to increased jobs and exports. And these assets are at risk. There is a vocal minority waging an ongoing, increasing and significant assault on patent rights. Unending legal challenges to patent eligibility, driven by an organized campaign to redraw legal interpretations of abstractness and indefiniteness, are creating uncertainty about the future of patent protections that will ultimately make it harder to invest. An overly expansive view of abstractness and obviousness could imperil nearly all commercially relevant innovations, and harm the U.S. economy. While breakthrough innovations are certainly valuable, it is often incremental innovation that enables products and services to enter or be adapted for particular markets. These advances most directly support the creation of American jobs.

Heated rhetoric often based on the bad behavior of a few patent assertion entities has fueled an environment where a company is demonized for good faith enforcement of its hard-earned, legitimate property rights. The corresponding policy discussions lead our country away from a balanced IP system that enables collaboration and innovation. If this lopsided model of innovation is adopted, we risk creating a system where foreign competitors gain a competitive advantage by patenting their ideas while copying American IP without consequence.

This is a particularly pernicious problem in the discussion of technology and software patents. Software underlies and enables the endlessly varied functionality and utility that computers provide, and is an indispensable aspect of innovation in every field of technology and sector of the economy. Software-based innovations power amazing technologies ranging from the modern smartphone to advanced robotic manufacturing, fly-by-wire systems, artificial retinas, driverless cars, GPS, medical and diagnostic tools, and numerous products developed across industries by PAI companies. The vast majority of companies obtaining software patents are not traditional software companies, but are manufacturing companies that integrate software with the products they manufacture. Discriminating against a form of innovation that is increasingly critical to technological advancement in all industries would have far-reaching implications, all of which are detrimental to the future of American innovation and our ability to compete in the global market.

Also critical to U.S. competitiveness is the protection of knowledge through trade secrets. Without the need for formalities or the outlay of significant financial resources trade secrets are a critical tool for

many innovators and can offer broader protection than other forms of IP. They also provide a pathway to increase collaboration and as a result accelerate technology development by enabling firms to share critical details more widely than in the absence of meaningful protection. However, with the ease and speed in which information can flow combined with the labyrinth of laws which must be navigated to recover from trade secret theft, it can be difficult for innovators to rely on this type of protection. Instead many companies choose to protect themselves by keeping their critical information close to the vest, turning down opportunities to collaborate or engage important market opportunities. Improving trade secret protection, both at home and abroad, is essential to furthering the American economy.

Within the U.S. a strong federal civil trade secret law, as being currently contemplated by Congress, could greatly improve the landscape for our innovators by allowing them to decide their own fates when their confidential information is stolen, potentially preventing devastating losses. Such legislative action, combined with diplomatic efforts could also provide other countries the impetus to upgrade their own trade secret regimes. With globally distributed supply chains and the need for international collaboration to further technology development, safeguarding the security of U.S. know-how needs to be a core part of the Strategy.

Our IP system is a major contributor that has allowed the U.S. to lead in innovations for more than 150 years. The United States must continue to protect and champion our innovators who rely on intellectual property in our innovation economy. Enabling inventors to succeed regardless of technical field and improving the climate of innovation policy is crucial if the United States hopes to retain its global economic leadership. We encourage the next *Strategy for American Innovation* to include measures that will maintain the balance of our world-class patent system, while improving its effectiveness and efficiency.