

STAC & the Business Community: Partnering for Innovation and Global Leadership

The nonpartisan Science and Technology Action Committee (STAC) includes leaders from non-profit, academic, foundation, and corporate institutions committed to dramatically increasing U.S. government investment in science and technology.

The Stakes Couldn't Be Higher, We Need Increased Investments Now

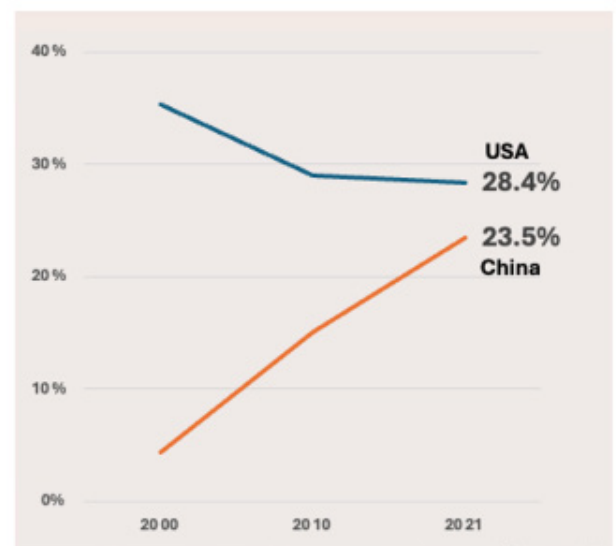
Federal investment in science and technology drives American competitiveness, but our investments in these areas aren't keeping pace with our strongest competitors or the challenges our nation faces. **In 1963, federal dollars made up 57.7% of funding for basic research. By 2022, that number had dropped to 39.6%.**

Meanwhile, China is aggressively investing in its science and technology (S&T) enterprise. China's investment in research and development has grown exponentially over the past two decades. In 2021, China spent about \$668 billion on R&D, a massive 171% increase from the \$246.5 billion it spent just a decade prior, while U.S. investment grew by just 89% over the same period. If both countries' current rate of R&D spending growth continues, **China will eclipse the U.S. in 2027.**

Without significant increases in U.S. federal funding of S&T, China could win the global innovation race. The runner-up position would be devastating for the U.S., resulting in fewer jobs and more intrusive and unethical uses of technology.

Federal funding for fundamental discovery research today enables the emerging industries of tomorrow and allows us to compete on the global stage. We must at least double federal investments relative to GDP over the next five years on S&T, research & development, advanced manufacturing, technology infrastructure, and greater STEM educational opportunities.

China's Share of Global R&D Climbs as U.S. Sinks



Source: National Science Board, National Science Foundation. Science and Engineering Indicators 2024: The State of U.S. Science and Engineering.

Boldly committing to renewed investments in S&T will pay major dividends, helping us respond to societal threats, spurring a new era of innovation, and promoting greater prosperity. Increased investment isn't just smart, it's popular: our State of Science in America report found overwhelming support for increased federal investment in S&T across parties, sectors, and industries.

Importance for the Business Community

Our nation's public-private science and technology partnership model is our differentiator and will be critical to ensuring we keep our leadership position. The government supports fundamental discovery research, which fuels applied research necessary for private sector mission-driven progress. The stagnation of federal funding constrains this process, stifling private sector development and threatening our position as the world's leading innovator.

The Vision for American Science and Technology (VAST), a project of STAC, is a gameplan to supercharge the S&T enterprise. VAST is built on the principle that public-private partnerships are not just beneficial but essential to the long-term success of our S&T enterprise and to sustaining and advancing America's global leadership.

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VAST presents a future in which:

- Industry performs R&D, invests in fundamental research, and advances knowledge to solve problems and bring scientific and technological discoveries to market in the form of useful products and services.
- All sectors – private, public, and nonprofit – contribute to American research, development, and translation of research and technology into products and services. Actors across these sectors engage in ways that play to their strengths, with flexibility and incentives to solve problems collaboratively.
- Our renewed national commitment to fundamental research continues producing cutting-edge discoveries and knowledge that is the foundation of applied research that leads to new products and services and economic growth.
- Companies generate jobs and invest in workforce development, often collaborating with educational institutions and non-profits.
- Private sector success generates profits and corresponding tax revenue that are, in part, reinvested in the scientific and technology enterprise.

Key recommendations for businesses include:

- Work with local leaders to co-create and co-fund regionally-based science and technology economic hubs that can align American resources to spur efficiencies and create pathways to well-paying jobs.
- Partner with community and technical colleges, trade schools, research universities, and others to create future-focused career pathways and enable lifelong learning.
- Create new science and research career pathways for operators and technicians to become competency-based scientists.

By embracing these recommendations, the business community can play a pivotal role in unleashing America's full potential in science and technology.

“The business sector has long relied on the federal government to make the crucial initial bets on new ideas across all scientific fields. Many of the S&T advances that underpin today's commercial technologies and industries are rooted in research conducted decades before practical applications were realized ... federal investment in fundamental research today enables the emerging industries of tomorrow.”

-Dario Gil, former member of STAC and SVP and Director of Research at IBM, who has been nominated to serve as Undersecretary for Science and Innovation at the Department of Energy