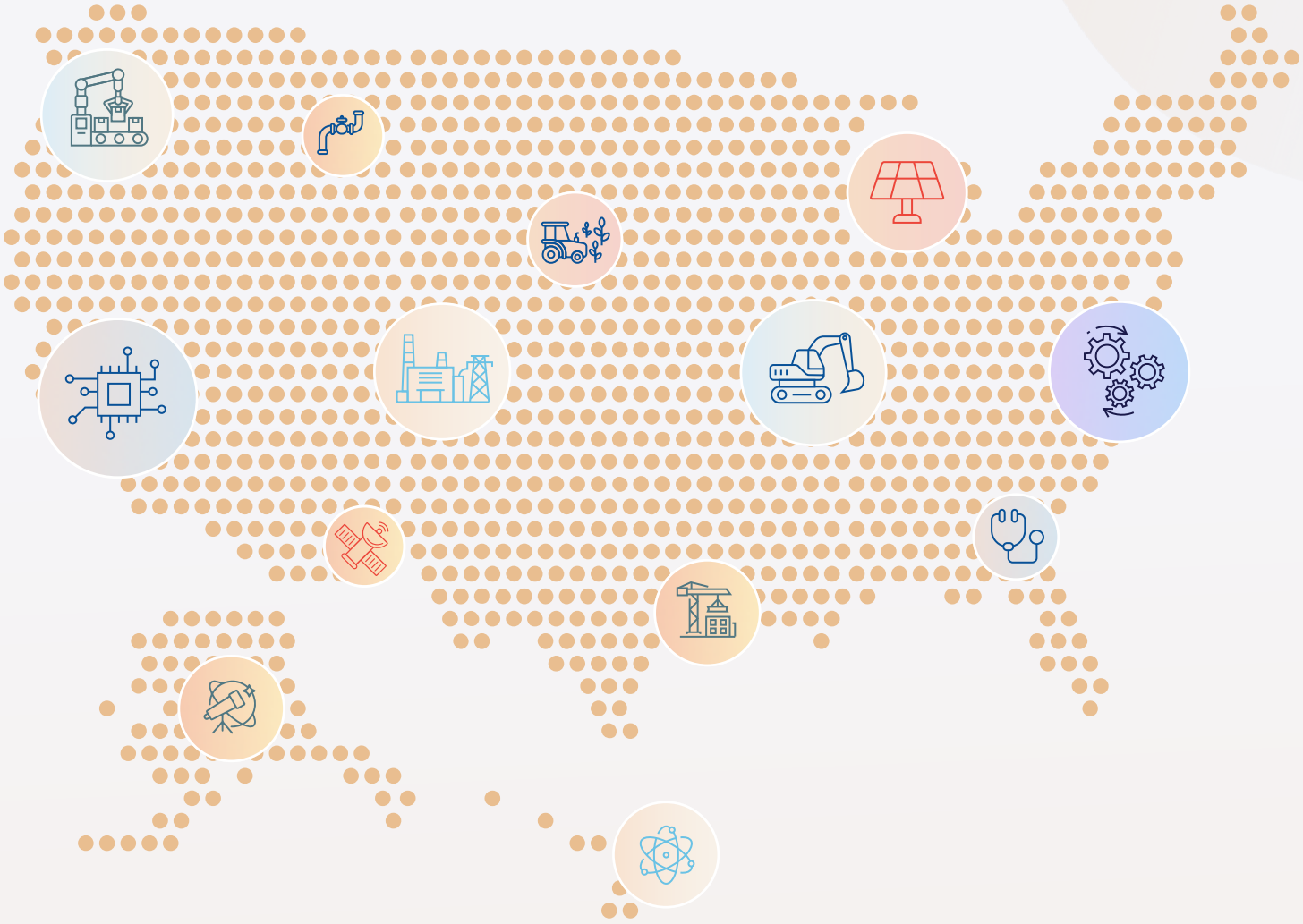
VAST

VISION FOR AMERICAN SCIENCE & TECHNOLOGY

2025



UNLEASHING AMERICAN POTENTIAL

A Letter From the VAST Task Force

2025

Scientific discovery and technological innovation are the largest drivers of societal advancement—making the world safer, healthier, and more prosperous. For much of the 20th century, the United States was unmatched in these domains. But now we are living in an era of disruption. Competition with foreign countries has intensified, while at home the American science and technology enterprise has been taken for granted—and we see our global leadership eroding before our eyes.

> **Without a strong compass and rapid action, America's primacy in science and technology will be lost and we will be unable to confront rising threats to our security, our prosperity, and our wellbeing.**

This is what brought together 70+ individuals as the VAST Task Force. The individuals of the Task Force —representing industry, academia, government, and the non-profit sector, and including early-, mid-, and senior-career perspectives—began this work in August 2024. In this intentionally brief, non-partisan document, we offer a vision of a future state in which American science and technology can continue to serve our country. We provide bold avenues for actions that will be new and sometimes disruptive, but not destructive.

We have been guided throughout our deliberations by probing whether every element of our recommendations will:

- Improve American competitiveness.
- Build and empower the vital workforce that is at the heart of our nation's success.
- Avoid counterproductive outcomes that delay scientific progress.

As other countries, particularly China, have doubled down on their investments and policies for their own R&D enterprises, these competitors are closely watching our next moves and fortifying their capabilities. If we stumble in this race, it will be difficult, if not impossible, to recapture our lead—and the American people will suffer the consequences.

We recognize the important work done by others and can see convergence around a similar set of critical actions. By bringing these ideas together, we intend to open a new era for American science and technology. (See page 16 for further reading.)

That future is within reach. The opportunities before us are too great, the benefits too sweeping, and the risks of complacency and inaction all too real. We must realize America's vast potential together.

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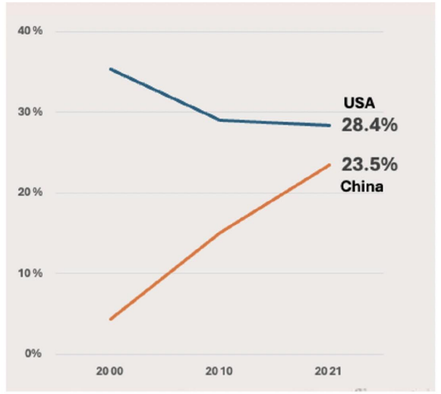
We Are At A Crossroads

For nearly a century, America's commitment to exploring the unknown, solving the impossible, and building the unimaginable has established the United States as a global leader, adapting to emerging challenges and seizing new opportunities to secure our prosperity and safety.

America's success in science and technology has fueled extraordinary achievements. It has been driven by forward-focused investments in fundamental discovery research and the uniquely American cooperation among government, private industry and entrepreneurs, academia, philanthropy, and capital markets, with intellectual property protections that inspire continued innovation. Most importantly, this enterprise has, for many Americans, been central to delivering the promise of our nation: for each successive generation to live better lives, with well-paying jobs, quality education, healthy environments, and strong national defense.

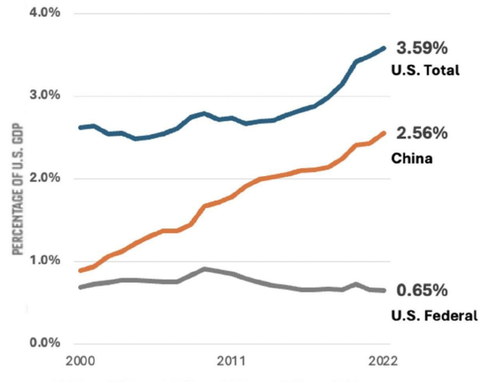
But we are at a crossroads. The pace of change is accelerating so rapidly that the tools and strategies that brought us here are insufficient to ensure our future. Transformational technologies are reshaping our way of life at an unprecedented scale, and offer the opportunity of a golden age of productivity and raising standards of living. At the same time, America faces existential threats to our health; food supply and water security; environmental resilience; energy production, utilization, and storage; and our overall wellbeing. And perhaps more than ever before, other nations that rival us in talent, infrastructure, and capital investment threaten the foundation of our leadership and put our economic prosperity and national security at risk.

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.

China Quickly Approaching U.S. on R&D as Percent of GDP



Source: OECD Main Science and Technology Indicators (MSTI) Database, March 2024.

At this critical moment, American science and technology are not meeting their full potential and promise. Strategies built for the time when international competition was far behind and the pace of discovery was slower will not work in this new era.

Correcting this trajectory requires an honest look at the obstacles holding us back:

- Innovative approaches dispersed across the nation are often overlooked or dismissed by decision-making concentrated in Washington.
- Bureaucratic barriers hinder alignment of public, private, and nonprofit resources.
- Structural obstacles and obsolete policies and regulations stifle our enterprise's ability to be as forward-looking, agile, and effective as it needs to be.
- Our educational system – from K-12 through higher education and beyond – is falling far short of its potential and must be adapted to serve people throughout their lives.
- Our national commitment to investing in fundamental discovery research – long the cornerstone of our global leadership – has stalled.
- Transformational advances in science and technology bring promise to addressing existential societal threats, but we have not prioritized focus on them.

Moreover, current competitive realities – with China in particular – dictate that we prioritize key areas of research and development that are essential to our national security and economic and social prosperity.

Artificial intelligence, materials science, quantum computing, biotechnology, and energy production, utilization, and storage will have pivotal roles in defining the future. Success in these domains will shape our world for generations to come and enable progress in all the areas of science and technology that improve our existence.

Finally, we must recognize and respond to profound changes unfolding within our science and technology enterprise:

- Business and industry now finance the majority of American R&D, while game-changing philanthropic investments act as a critical complement to catalyze progress.
- We have a much greater diversity of strong research institutions in all 50 states.
- Technology is connecting world-class talent and students with extraordinary potential from across the country and all backgrounds – although too many remain left out.
- We continue to attract incredible talent from all over the world, but also face increasing competition for this talent.

At the crossroads before us, we must act – swiftly and with purpose. To secure our future, we need an all-of-America science and technology enterprise with creativity, adaptability, and integrity – one that is rooted in and responsive to the American people, imbued with the national spirit to deliver a better way of life. The stakes are enormous, the necessary actions are clear, and the time is now.

Our Vision

An All-Of-America Science & Technology Enterprise

Today's modes of discovery and innovation are more complicated, more beautiful, and more powerful than our predecessors ever imagined. Our greatest differentiator as a nation is the combined strength of our sectors, our people, and our openness. We must use these advantages to write the next chapter in American science and technology with an All-of-America approach, mobilizing and empowering our people to create a future in which...

America leads the world in science and technology research, development, engineering, and application, with all Americans benefitting from a science and technology enterprise that is responsive to our needs and worthy of our trust, so that current and future generations can live more prosperous, healthier, and secure lives.

Every policy prescription, decision, and action strengthen our ability to act across sector boundaries with ease and speed.

Throughout the nation, 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 (see following page).

Local, regional, national, and international science, technology, and manufacturing partnerships continuously expand opportunities for all Americans to participate in and benefit from science, technology, and manufacturing, delivering good jobs and spurring innovation.

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.

We envision a supercharged American scientific enterprise that ensures our global competitiveness and national security and addresses the big challenges of our time: existential threats to our health; food supply and water security; environmental resilience; energy production, utilization, and storage; and our overall wellbeing.

Aspirations for Contributors to the Science and Technology Enterprise

In our vision...

The federal government sets national research priorities and invests in fundamental discovery research, applied research, and research infrastructure vital to America's national security and prosperity and to expanding the frontiers of human knowledge. Government agencies use evidence-based policies and regulation, tax structures, and other mechanisms to stimulate the delivery of critical products and solutions and to organize long-term, cross-disciplinary programs at scale. The federal government minimizes the regulatory and administrative burden placed on scientists and the enterprise so that both can focus on discovery and innovation.

State and local governments create tax and regulatory environments that are pro-innovation and tailored to the needs and strengths of their communities, improving public services and infrastructure, supporting research and education, and delivering pathways to prosperity.

Industry performs R&D and advances knowledge to solve problems and bring scientific and technological discoveries to market in the form of useful products and services. 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.

The science, technology, engineering, mathematics, and medicine (STEMM) workforce expands our understanding of how the world works and what is possible. Capitalizing on the complementary contributions of all disciplines, workers apply that knowledge to create technologies and services, take part in research and education, craft data-driven policies, and more. Scientists and engineers work across sectors, demonstrating the power of discovery and data and bringing learnings from industry to academia and vice versa. Scientists, engineers, technicians, and the many other types of workers in STEMM show up in their communities to lead with integrity, building trust in the enterprise.

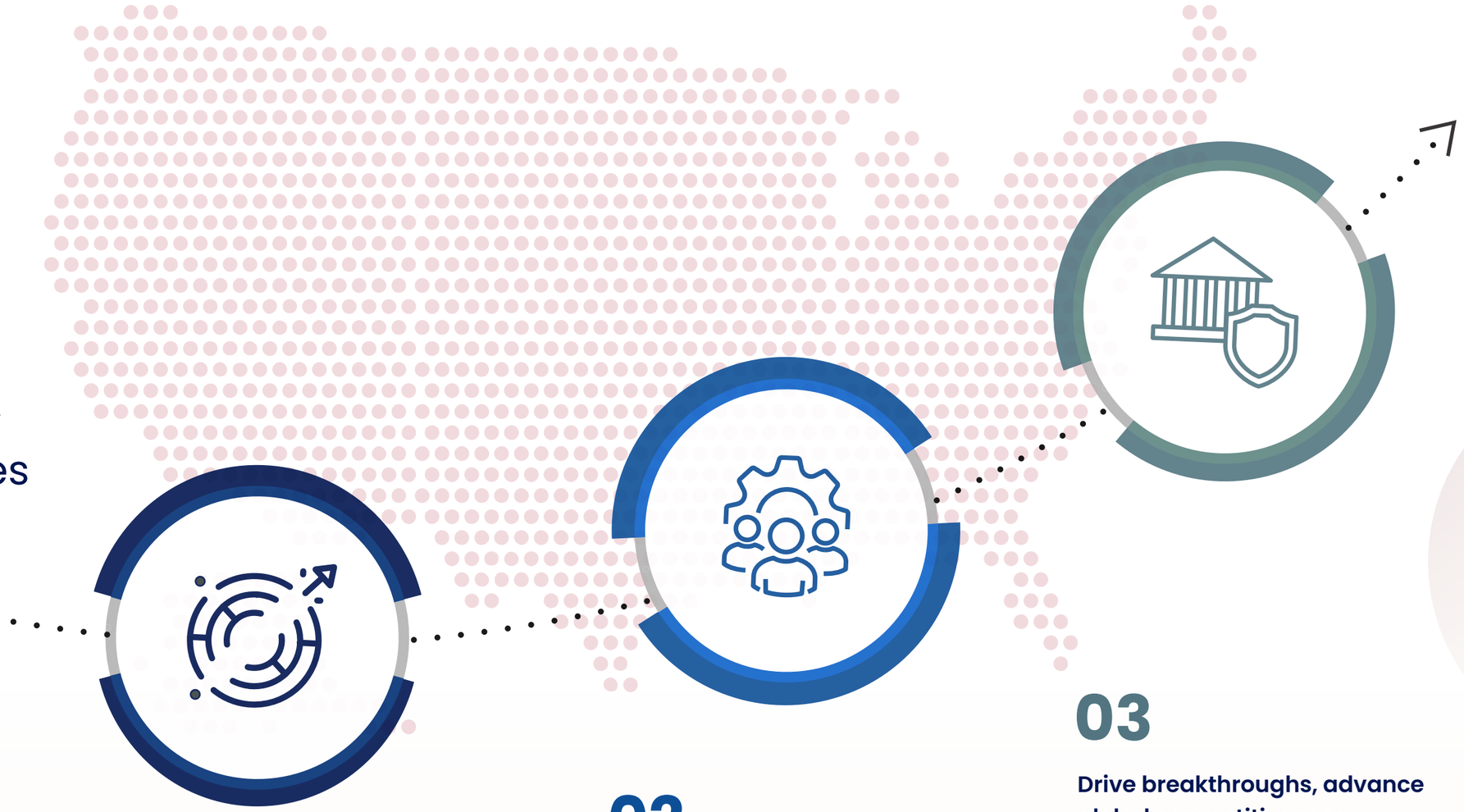
High-quality education prepares and inspires all students – from K-12 schools, community and technical colleges, colleges, and universities – to be globally competitive, equipped with the skills needed to reach their potential, meet the country's most pressing challenges, and fill critical STEMM workforce needs. Our educational system instills awe and wonderment, encourages a culture of integrity, recognizes the role of science and technology in every sector, and serves people throughout their lifetimes.

Markets and capital identify opportunities for economic growth and development, drive and direct innovation, and provide resources and investments. With their broad range of risk tolerance, they incentivize advances and connections across sectors, phases of research, industries, regions, and time.

Philanthropies strategically invest in interdisciplinary, emerging, high-risk, and often-underfunded fields and projects that have the potential to produce enormous benefits for all Americans. They act as a critical and complementary support to the public and private sectors.

Avenues for Action

To realize this vision, we need bold, decisive leadership and an all-of-country approach that reaches across sectors to...



01

Unleash the full power and potential of America's science and technology enterprise by reducing inefficiencies and breaking down barriers that hinder progress today

02

Build and empower the strongest and most adaptable workforce in human history to benefit our people and sustain our leadership as science and technology innovators

03

Drive breakthroughs, advance global competitiveness, address societal challenges, and strengthen our national security with commitments to fundamental discovery research, applied research, and research infrastructure

Actions that would further these goals follow >>

Unleash the full power of America's science and technology enterprise by reducing inefficiencies and breaking down barriers that hinder progress today

For all Americans to benefit from science and technology, we must build upon and accelerate successes at the state and regional levels and combine the assets of the private, public, and nonprofit sectors. States are major economic drivers, and each of these sectors is a vibrant generator of original research and development.

Today, too much of our investment and talent operate in isolation, bounded by sectors, industries, disciplines, and geographies. Our nation is also losing its inventive edge: long the world's leader in patent applications, the US fell to second place in 2021.

To make the advances our country requires, move at the pace of technological change, and reclaim our leadership as the world's top innovator, we must enable industry, government, and the nonprofit sector – including academia – to operate in complementary ways that reduce redundancies, eliminate red tape, incentivize collaboration, and engage Americans everywhere.

Spur private sector research and development with pro-innovation policies

- Optimize the tax code to enhance competitiveness, strengthen national security, and create more well-paying jobs
- Strengthen the Research & Development Tax Credit
- Enhance the Federal Advanced Manufacturing Investment and Production Credits
- Guarantee purchase of products developed to meet critical need areas (e.g., low-earth-orbit transport, medical interventions)

Align resources across sectors, geographies, and jurisdictions

- Empower local leaders to align American resources through regionally-based science and technology economic hubs – co-created and co-funded by the private sector and all levels of government – to spur efficiencies and create pathways to well-paying jobs
- Enable and encourage expanded use of nimble public sector funding tools to support limited, time-bound initiatives
- Accelerate technology transfer from universities and government to industry

Focus American science and technology's people and resources on discovery and innovation

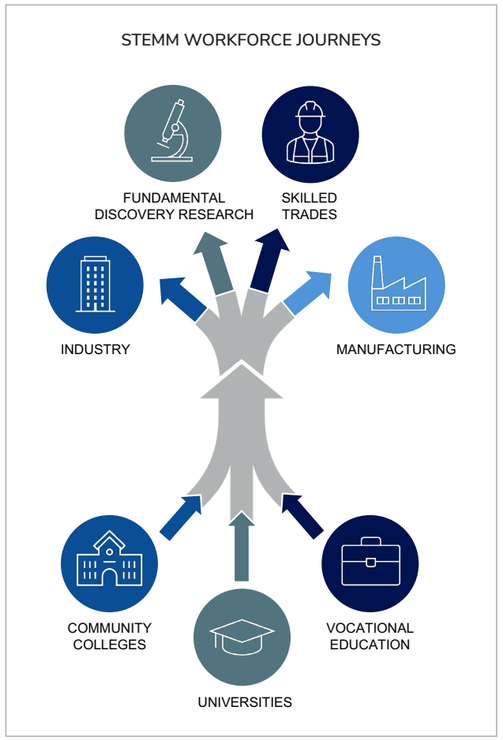
- Maximize returns from science and technology investments by developing and adopting evidence-based funding approaches
- Reduce researchers' administrative workloads by eliminating obsolete regulations

Build and empower the strongest and most adaptable workforce in human history to benefit our people and sustain our leadership as science and technology innovators

Talented individuals learn and work in every part of America and come from every background. Investing in STEMM training, education, and talent retention across the US and at all levels is critical to ensuring the American people can lead and benefit from a rapidly evolving economy while our nation keeps pace with global advances and our competitors.

Today, our students are falling behind those in other countries. American K-12 students trail those from other advanced economies in global mathematics and science assessments and our scores continue to drop. China has overtaken the US in awarding science and engineering doctorates. Even at American institutions, US-born students are also less likely to pursue science and engineering than international students.

The US also faces rising demand for top foreign-born talent, which contributes significantly to our nation's economic growth, domestic science and technology productivity, and leadership in innovation. With concerted action, we can position current and future generations of Americans to achieve their potential, provide pathways to better jobs and prosperity, meet workforce needs, and enhance our ability to compete globally.



A new National Defense Education Act (NDEA 2.0) that encompasses many of the recommendations in this Avenue is a top priority of the National Science Board. This legislation could include additional policies developed in partnership with Congress and others.

Objectives & Recommended Actions

Attract more Americans into STEMM and ensure they have the opportunity to go as far as their talent can take them

- Cultivate more K-12 STEM educators with a focus on professional development, salary enhancements, and science and technology externships
- Further integrate STEM education into K-12 and career and technical education (CTE) programs
- Widen opportunities for success in STEMM careers by reducing barriers to participation in STEMM courses and enrichment programs from early education to higher education and beyond

Build and strengthen our domestic workforce

- Drive partnerships involving industry and community and technical colleges, trade schools, research universities, and others to create future-focused career pathways and enable lifelong learning
- Incentivize private sector investment in upskilling for critical jobs using tools such as targeted tax credits
- Create new science and research career pathways for operators and technicians to become competency-based scientists
- Provide adequate compensation and benefits for graduate students and full employee status for postdocs to address practical barriers to entering high-skill science and technology professions

Keep US-educated international talent here and proactively recruit top talent from overseas

- Implement the recommendations of the 2024 National Academies' report on international talent programs, including setting aside a number of new Green Cards for specific categories of vetted, US-educated scientists and engineers
- Expand criteria for US EB visas to recognize and retain extraordinary international talent in the US
- Reform and expand the H1B program to retain key international talent that complements American talent
- Adopt a new, strategic talent recruitment program to attract the world's top scientists and engineers to work in the US

Drive breakthroughs, advance global competitiveness, address societal challenges, and strengthen our national security with commitments to fundamental discovery research, applied research, and research infrastructure

Much of America's competitive advantage has been propelled by our federal commitment to fundamental discovery research. Further, many areas of science and technology fueled by this commitment have become crucial to innovation and national security – these include artificial intelligence, materials science, biotechnology, quantum computing, and technologies for a resilient energy future.

Alarmingly, however, the US has lost or is losing its competitive advantage in a growing number of these critical fields – often overtaken by China. Federal support for fundamental discovery research needs to be strengthened and stabilized to realize our potential future groundbreaking discoveries. The private sector alone cannot drive these areas forward. The risks and uncertainty are too high, and the infrastructure required is too immense for the private sector to do it alone.

Renewal of our commitment to fundamental discovery research in all fields coupled with strategic investments in applied research will ensure our nation's continued ability to meet critical security, economic, health, and environmental challenges.

There is broad, cross-sectoral convergence that federal funding for fundamental discovery research is critical, evidenced by:

- Recommendations made by the Bipartisan House Task Force on Artificial Intelligence to increase funding for fundamental discovery research in emerging technologies.
- Industry leaders say that federal investment in fundamental discovery research today enables the emerging industries of tomorrow.
- Data showing the general public overwhelmingly agrees that fundamental discovery research that advances frontiers of knowledge should be supported by the federal government.

In addition to commitments to our own infrastructure, we must strike the right balance between preserving vital international research partnerships and strengthening our research security that protects American discoveries from exploitation.

Objectives & Recommended Actions

Invest strategically in fundamental discovery research, applied research, and research infrastructure that is vital to America's national security, competitiveness, and wellbeing

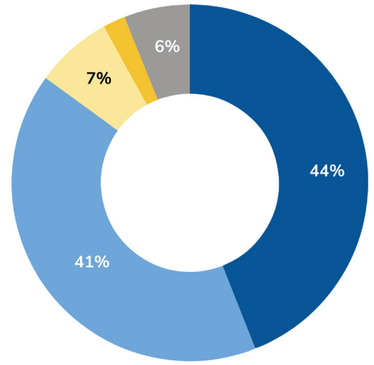
- Aggressively strengthen investment in artificial intelligence, materials science, quantum computing, biotechnology, and technologies for a resilient energy future
- Establish a recurring national priority-setting process to confirm areas of research that are foundational to national competitiveness and security
- Sustain and grow the federal government's vital role in supporting fundamental discovery research
- Invest government resources to assure that America's national science and technology infrastructure is equipped to support fundamental discovery and applied research

Protect our scientific discoveries from foreign adversaries

- Strengthen research security to prevent illegal and improper transfer of US research and development; create policies that are as open and streamlined as possible and as secure as needed

There is strong bipartisan support for basic research that advances the frontiers of knowledge.

Do you agree or disagree? Even if it brings no immediate benefits, basic scientific research that advances the frontiers of knowledge is necessary and should be supported by the federal government.



Source: A Research!America survey of US adults conducted in partnership with Zogby Analytics in January 2025.

Further Reading

In addition to input from Task Force members, this Vision was informed by ideas and reports from organizations such as the National Academies of Science, Engineering, and Medicine; the National Science Board; scientific societies; coalitions focused on innovation, energy, education, medical research, and national security; as well as think tanks and advocacy organizations across the political spectrum. Selected reports referenced below are offered for further reading. Many of these address ideas proposed in this Vision in much greater depth than has been done here.

American Statistical Association, George Mason University. The Nation's Data at Risk: Meeting America's Information Needs for the 21st Century. This assessment, based on year-long study of federal statistical agencies, evaluates their capacity to serve the US and includes recommendations for Congress, parent agencies where the statistical agencies reside, the Office of Management and Budget, and the statistical agencies.

Bipartisan Policy Center. Toward a Potential Grand Bargain for the Nation. 2024. Bipartisan Policy Center researchers provide several federal-, state-, and local-level proposals to education, environment, health, tax, and federal budget reforms to increase economic growth and overall upward mobility. This report focuses on broad recommendations rather than specific policy details. Recommendations include investing in training and education for workers, skill-based immigration, investments in basic research, tax reductions for new investments, and reducing regulations to spur innovation.

Hoover Institution. The Contribution of High-Skilled Immigrants to Innovation in the United States. 2022. Researchers analyzed patent records and social security number information to characterize the contributions of immigrants to US innovation. The results highlight the total innovation output of immigrants and trends related to immigrant inventors' influence on global importation and diffusion of ideas compared to US-born inventors.

National Academy of Medicine. The State of the U.S. Biomedical and Health Research Enterprise: Strategies for Achieving a Healthier America. 2024. National Academy of Medicine authors suggest that a lack of national coordination, a fragmented funding system, and a declining workforce contribute to the challenges facing the biomedical research enterprise. They propose priorities to reinvigorate the enterprise. The priorities include strategic vision, funding, health, equity, coordination and convergence science, and workforce.

National Academies of Sciences, Engineering, and Medicine. International Talent Programs in the Changing Global Environment. 2024. This study examines the global competition for talent, foreign talent within the United States' STEM research system and workforce, the history of China-US cooperation in science and technology, the rise of China as a science and technology leader, the national security and defense implications of scientific research and foreign talent, attracting and retaining foreign talent in the US, and how other countries attract and retain talent.

National Academies of Sciences, Engineering, and Medicine. Call to Action for Science Education: Building Opportunity for the Future. 2021. Call to Action for Science Education: Building Opportunity for the Future articulates a vision for high quality science education, describes the gaps in opportunity that currently exist for many students, and outlines key priorities that need to be addressed in order to advance better, more equitable science education across grades K-16. This report makes recommendations for state and federal policy makers on ways to support equitable, productive pathways for all students to thrive and have opportunities to pursue careers that build on scientific skills and concepts. Call to Action for Science Education challenges the policy-making community at state and federal levels to acknowledge the importance of science, make science education a core national priority, and empower and give local communities the resources they must have to deliver a better, more equitable science education.

National Academies of Sciences, Engineering, and Medicine. Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future. 2007. A comprehensive set of four recommendations and 20 implementation actions for federal policymakers aimed at creating high-quality jobs and focusing science and technology efforts on meeting the US's needs. The recommendations include: increase America's talent pool by vastly improving K-12 mathematics and science education; sustain and strengthen the nation's commitment to long-term basic research; develop, recruit, and retain top students, scientists, and engineers from both the US and abroad; and ensure that the United States is the premier place in the world for innovation.

National Academies of Sciences, Engineering, and Medicine. Rising Above the Gathering Storm, Revisited: Rapidly Approaching Category 5. 2010. A follow-up to the 2007 report, Rising Above the Gathering Storm, summarizing the work the government and the private sector have done since the release of the 2007 report, an analysis of whether the 2007 recommendations have or have not been acted upon, the consequences on future competitiveness, and priorities going forward.

National Commission on Innovation and Competitiveness Frontiers. Competing in the Next Economy: Innovating in the Age of Disruption & Discontinuity. 2024. This Call to Action lays out crucial policies to secure America's global leadership in technology and innovation. It describes seven pillars for driving productivity, prosperity, and national security. Among these pillars are the urgent need for renewed vision, a pro-innovation business climate, empowerment of the skilled work force, and collaborative innovation networks.

National Research Council, Institute of Medicine. Enhancing the Vitality of the National Institutes of Health: Organizational Change to Meet New Challenges. 2003. This summary identifies the structure and organization of the National Institutes of Health (NIH) and assesses whether it is configured for US biomedical research and other scientific needs, and the optimal structure for the NIH. It includes an analysis of the evolution of

NIH's organizational structure, the changing nature of biomedical research, the current organizational structure, and recommendations to enhance NIH's ability to respond to new challenges.

National Science Board. Vision 2030. 2020.
National Science Board's multi-year vision recommends leadership opportunities in four areas – the practice of science and engineering, talent, partnerships, and infrastructure – to help the US remain the world leader in innovation in 2030. Recommendations include strategic near- and long-term investments, increasing STEM skills and opportunities for Americans and attracting and retaining foreign talent, investments in research infrastructure, and increasing government-university-industry partnerships.

National Science Foundation. Connected Horizons New Opportunities in a Changed Landscape. 2024.
Darío Gil, National Science Board Chairman, summarizes the development of science and technology institutions and highlights trends in research and development funding, the current funding landscape, the role of geopolitics in science and technology leadership, and opportunities for cross-sectoral approaches.

Science & Technology Action Committee. Science and Technology Action Plan. 2020.
Three actions toward a renewed science and technology commitment dedicated to surmounting overarching societal threats are presented within this plan, which related to science and technology leadership, coordination and collaboration around emerging threats, and investment. Appendices address prior reports on similar topics and polling data demonstrating American support for science and technology.

Science & Technology Action Committee. The State of Science in America. 2023.
The Science & Technology Action Committee's report summarizes insights from science experts on the benefits of science and technology investments, the obstacles to advancing science and technology, and the challenges facing the US as it engages in global competition.

Science is US, American Association for the Advancement of Science. People of Science: An Inclusive Analysis of the U.S. STEM Workforce and Its Economic Impact. 2023.
An in-depth analysis of Bureau of Labor Statistics data on the growing US STEM workforce and its impact on the US economy. The report includes statistics on the number of STEM jobs, people employed in STEM professions, STEM salaries, the growth in STEM professions, and STEM-focused economic activity. The report also includes information on how STEM contributes to the size and impact of the workforce in every US state.

United States House of Representatives. Bipartisan House Task Force Report on Artificial Intelligence. 2024. The bipartisan House Task Force on Artificial Intelligence and other committees of jurisdiction developed this comprehensive report on artificial intelligence (AI) for Speaker Mike Johnson and Democratic Leader Hakeem Jeffries. The report includes guiding principles and recommendations for advancing US leadership in artificial intelligence innovation.

Relevant Data

Australian Strategic Policy Institute. ASPI's Critical Technology Tracker. 2024 A data collection and analysis tracker of technologies and institutions spanning defense, space, energy, the environment, artificial intelligence, biotechnology, robotics, cyber, computing, advanced materials, and key quantum technology areas.

National Science Foundation. Analysis of Federal Funding for Research and Development in 2022: Basic Research. 2024. A summary of funding trends in basic research, with a focus on basic research expenditures by funding source and federal investment levels overall, by federal agency, and by research field.

National Science Foundation. Invention, Knowledge Transfer, and Innovation. 2024.
This publication presents data on US patent activity, global trends in patenting activity, international patents by technology category, patents in artificial intelligence, and prevalence of women as inventors.

National Science Foundation. Research and Development: U.S. Trends and International Comparisons. 2024. A data comparison of research and experimental development funding in the US and globally by sector and source of funding over a period of several decades.

National Science Foundation. The State of U.S. Science and Engineering. 2022. An analysis of the STEM workforce, with a specific focus on global research and development and US business sector performance and funding trends. This report includes specific data on gross domestic expenditures in research and development, worldwide research and development expenditures by country, and US expenditures by sector and funding source.

National Science Foundation. The State of U.S. Science and Engineering. 2024. A follow-up analysis of the STEM workforce, with data on elementary and secondary mathematics and science assessment scores, science and engineering degree recipients in the US, science and engineering degrees awarded by country, the STEM labor market and economy, demographics of the STEM workforce, and Americans perception of scientists.

Politico Pro. Sullivan rails at low US science investment. 2024. Phelim Kine's article notes data from a Cygnal and American Policy Ventures survey of 1,500 prospective voters. Data suggests that most respondents support increasing funding for scientific research and development to compete with China.

Research!America. Survey Data: Public on Science. 2024. As highlighted in this polling data, only one-fifth of Americans believe that today's children will be better off than people are now. Eighty percent of those that do, however, cite advances in science and technology as the reason for this.

Contributors

The work of VAST was made possible by grants to the Science & Technology Action Committee (STAC), which is housed at the non-profit, non-partisan Research!America. Additional in-kind support was provided by the American Association for the Advancement of Science (AAAS).

Thank you to the following foundations for their generous financial support:

Simons Foundation · Gordon and Betty Moore Foundation · Rita Allen Foundation · The Paul G. Allen Frontiers Group

This document is the product of contributions from more than 70 VAST Task Force members who participated in dozens of discussions about opportunities and challenges facing American science and technology and what is most needed to strengthen the American science and technology enterprise from September 2024 through February 2025. All Task Force members were invited to participate in the review and revision of this document as it took shape, and to formally sign onto it upon its completion.

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Throughout our process, we also sought input from leaders of many organizations and coalitions. Their listing here does not imply endorsement of the document.

Scientific Societies

Alliance of Crop, Soil, and Environmental Science Societies (ACSESS)
American Anthropological Association
American Association for Anatomy
American Association for Dental, Oral, and Craniofacial Research
American Association for the Advancement of Science
American Association of Geographers
American Association of Immunologists
American Association of Pharmaceutical Scientists
American Association of Physicists in Medicine
American Association of Physics Teachers
American Astronomical Society
American Chemical Society
American Educational Research Association
American Geophysical Union
American Geosciences Institute
American Institute for Medical and Biological Engineering
American Institute of Aeronautics and Astronautics
American Institute of Biological Sciences
American Institute of Physics
American Mathematical Society
American Meteorological Society
American Ornithological Society
American Physical Society
American Psychiatric Association
American Psychological Association
American Public Health Association
American Society for Biochemistry and Molecular Biology
American Society for Cell Biology
American Society for Clinical Pharmacology and Therapeutics
American Society for Gravitational and Space Research (ASGSR)
American Society for Pharmacology and Experimental Therapeutics
American Society of Plant Biologists
American Society of Tropical Medicine and Hygiene
American Sociological Association
American Statistical Association
American Thoracic Society
American Water Resource Association
ASM International
Association for Molecular Pathology
Association for Psychological Science
Association for Women in Science
Association of Science-Technology Centers (ASTC)
Biophysical Society
Botanical Society of America
Computing Research Association
Consortium of Social Science Associations
COPAFS
Council on Undergraduate Research
Ecological Society of America
Endocrine Society
Engineering Biology Research Consortium
Entomological Society of America
Federation of American Scientists
Federation of American Societies for Experimental Biology
Federation of Associations in Behavioral and Brain Sciences
Infectious Diseases Society of America
INFORMS
International Society for Stem Cell Research (ISSCR)
International Society on Thrombosis and Haemostasis
Marine Technology Society
Materials Research Society
Minorities in Agriculture, Natural Resources, and Related Sciences
National Institute of Building Sciences
National Postdoctoral Association
National Science Teaching Association
OPTICA
Population Association of America
Psychonomic Society
ScienceCounts, Inc.
Sigma Xi, The Scientific Research Honor Society
Society for Advancing Chicanos/Hispanics & Native Americans in Science (SACNAS)
Society for Industrial and Applied Mathematics (SIAM)
Society for Industrial Microbiology and Biotechnology (SIMB)
Society for Neuroscience (SfN)
Society for Personality and Social Psychology

Society for Personality Assessment
Society for Research in Child Development
Society of Behavioral Medicine
Society of Vacuum Coaters
SPIE
Supporters of Agricultural Research (SoAR) Foundation
The Academy for Radiology & Biomedical Imaging Research
The American Institute of Architects
The American Physiological Society
The American Society for Cell Biology
The American Society for Microbiology
The American Society of Human Genetics
The Association for Research in Vision and Ophthalmology
The Electrochemical Society
The Endocrine Society
The Genetics Society of America
The Geological Society of America
The Gerontological Society of America
The Oceanography Society
The Population Association of America
The Society for the Psychological Study of Social Issues
The Wildlife Society
U.S. Pharmacopeia

Coalitions

Ad Hoc Group for Medical Research
Census Project
Coalition for Aerospace and Science
Coalition for Life Sciences
Coalition for National Science Funding
Coalition for National Security Research
Energy Sciences Coalition
National Academies Committee on Science, Engineering, Medicine, and Public Policy
Research!America
STEM Education Coalition
Task Force on American Innovation
The Science Coalition
United for Medical Research

Additional Acknowledgements

The Task Force would also like to thank the many leaders from the more than 15 federal agencies and offices who provided perspective on the current state of science and engineering within the federal government. These conversations took place in October 2024.

Finally, we would like to thank the many individuals beyond the Task Force who assisted in reviewing drafts of this vision to ensure that the ideas presented within were clear and could be well-supported with examples and evidence. In particular, our thanks to Jayshree Seth, Daniel Goroff, Donna Ginther, Scott Stern, Benjamin Jones, and Matt Clancy.

Faegre Drinker Consulting assisted in gathering and synthesizing input from Task Force members and individuals external to the Task Force to prepare the content of this report, with a team led by Ilse Peterson and Dave Zook that also included Nicholas Manetto, Cassie Maximin, Lee Nagao, and Sanjyot Sangodkar.

Global Strategy Group assisted with the production, design, and creative elements of this report, with a team led by Jim Papa and Amanda Thayer that also included Maggie Luddy, Lauren Gould, Isabel Foster, and Megan Ellingwood.

Additional strategic consultation and support was provided by staff of the Science & Technology Action Committee and Research!America, including Sheila Murphy, Shilpa Rajan, Anne Mandeville, and Mike Coburn.

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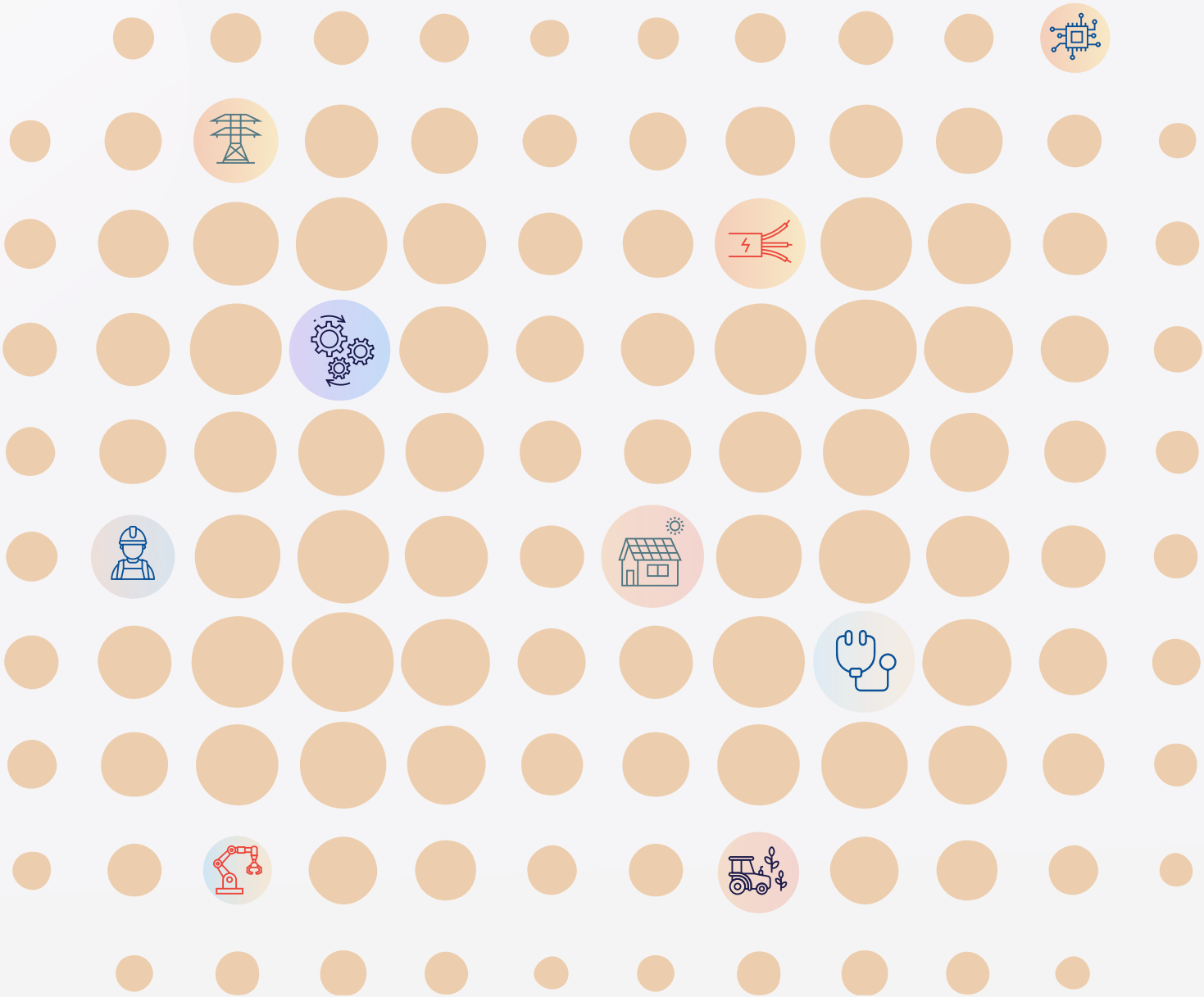

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