



**U.S. SENATE COMMITTEE ON
COMMERCE, SCIENCE & TRANSPORTATION**
Senator Maria Cantwell, Chair

CHIPS and Science Bill – Key Legislative Priorities

Tech Directorate: \$20 billion

The bill authorizes a new mission at the National Science Foundation (NSF), focusing on translational science in key areas with an authorization of \$20 billion over five years. NSF's mission to date has been basic research. What is translational science? Translational science is the way to turn ideas in a lab into products and solutions for the American people. The 10 key technology areas the new law specifies are: Artificial Intelligence, High Performance Computing, Quantum Technology, Advanced Manufacturing, Disaster Prevention, Advanced Communications, Cybersecurity, Biotech, Advanced Energy Efficiency, and Material Science.

Department of Energy Authorization: \$16.9 billion

The bill authorizes \$16.9 billion over five years for the Department of Energy (DOE) to conduct applied research and development (R&D) in the 10 key technology areas of the bill. The bill also authorizes a first-time-ever \$50.3 billion five-year reauthorization of the Office of Science at DOE, increasing its stability and long-term vision into the future of basic research.

Department of Commerce Tech Hubs: \$10 billion

The bill authorizes a new grant program at the Department of Commerce (DOC) to build as many as 20 new regional technology hubs to accelerate important technology development by encouraging collaboration between university research centers, businesses, labor and economic development organizations. Funds can be used for accelerating commercialization of key U.S. competitive technologies, workforce development and entrepreneurial training.

Manufacturing Extension Partnership: \$2.25 billion

The bill authorizes \$2.25 billion, tripling the annual funding for the Manufacturing Extension Partnership, a program that helps small and medium size manufacturers improve their competitiveness with training on supply chain management, cybersecurity, workforce shortages, and job training problems.

Investments for Domestic Semiconductor Manufacturing: \$76 billion

This bill provides the Department of Commerce \$39 billion in direct funding to competitively award grants, loans, and loan guarantees to incentivize domestic semiconductor manufacturing, with \$2 billion of these dollars set aside to support production of legacy chips primarily used in the auto industry. It also creates a new 25 percent investment tax

credit, valued at \$24 billion, for capital expenditures to expand U.S. semiconductor manufacturing. Additionally, the bill provides \$11 billion to the Department of Commerce and \$2 billion to the Department of Defense to develop and prototype the next generation of semiconductors in the United States.

STEM Education: \$13 billion

This bill authorizes \$13 billion in STEM education funding at the National Science Foundation, representing a tripling of the NSF's annual STEM education budget. This funding can be used for scholarships, fellowships and traineeships, and for competitive awards to universities to expand STEM education capacity. The United States is on track to be 3 million STEM workers short by 2030. The bill additionally directs the NSF to increase STEM education opportunities for women, minorities, and tribal communities, directing nearly \$2 billion to minority-serving institutions and other emerging research institutions around the country with a proven track record of helping grow a diverse workforce.

NASA Authorization

The bill for the first time authorizes the NASA Artemis program and the Moon to Mars program. The bill requires NASA to establish a Moon to Mars office to oversee the program. It would also extend the lifetime of the International Space Station from 2024 to 2030. The bill would additionally authorize NASA to continue research and development in aeronautics and to develop new materials and manufacturing processes to reduce the cost of aeronautics manufacturing.

EPSCoR Authorization Increase

The bill would grow the funding available to the 25 states and three jurisdictions that participate in the Established Program to Stimulate Competitive Research (EPSCoR). EPSCoR is a program at NSF that encourages development of science, education, and research capacity in states that have been historically low on R&D activities. NSF would grow the funding available to these states, increasing their budget from 13 percent to 20 percent in key research accounts over the next seven years.

Recompetes: \$1 billion

The bill authorizes \$1 billion for Recompetes, a competitive Department of Commerce pilot program to alleviate persistent and economically distressed communities and support long term economic development and job creation. State, local, Tribal governments, nonprofit organizations and economic development districts can apply for grants to create comprehensive economic development programs, workforce development activities and business entrepreneurship development activities.

ORAN Wireless Supply Chain: \$1.5 billion

Directs \$1.5 billion to the Department of Commerce to support the development of Open Radio Access Network (ORAN) technologies. With this funding, the Department of Commerce will help develop and accelerate the commercial deployment of a next-generation interoperable network with an open architecture for 5G and 6G.