



## The Challenge

Research and development at the private and public levels spurs scientific discoveries and technological breakthroughs to improve our knowledge base, human wellbeing, and the environment. At the federal level, many commercial breakthroughs originating from taxpayer-funded research have come through collaborative relationships with the private sector. Policy reforms should identify and remove barriers for commercialization of federally funded research and development.

## The Opportunity

Commercial breakthroughs that create jobs, drive economic growth, and reduce the risks of climate change will come from a variety of research channels. Federal research expenditures should take on endeavors of national significance and focus on efforts that are not being undertaken by the private sector. One cannot overlook the leading role the private sector plays in climate innovation and entrepreneurship. From individual financiers to large corporate R&D investments, the private sector invests heavily in energy, agricultural, and environmental R&D. Removing barriers to private R&D and providing consistent expenditures for public R&D will accelerate the deployment of next-generation technologies, strengthen American energy security, reduce global emissions, and strengthen the resilience of communities.

## The Solutions

The CHIPS and Science Act of 2022 authorized the creation of the DOE's first agency-related foundation, the Foundation for Energy Security and Innovation (FESI). FESI should be instrumental in enhancing energy security, driving environmental progress, and accelerating the commercialization of transformative technologies. DOE could seek support from FESI in attracting private capital for investments and infrastructure that is complementary to DOE and the private sector, not overlapping. To encourage more private sector R&D and to spur innovative breakthroughs originating from federally funded research, Congress and the administration should:

- Make immediate expensing permanent and apply it to longer asset class lives and research and development.
- Reform the research and development tax credit.
- Maintain support and continue to fund key R&D programs at the Department of Energy and the Department of Agriculture.
- Provide strong oversight on federal R&D spending.

## Key Facts

- According to the National Science Foundation’s 2022 report on research and development trends, R&D conducted in the U.S. reached [\\$667 billion in 2019 and an estimated \\$708 billion in 2020](#). The report notes that: “[b]usinesses are the predominant performers (75% in 2019) and funders (72%) of U.S. R&D. This sector performs most of U.S. R&D classified as experimental development, more than half of applied research, and a sizable (and increasing) share of basic research (32% in 2019).”
- In 2018 federal R&D directly and indirectly [supported](#) 1.6 million jobs, \$126 billion in labor income, \$197 billion in added economic value, and \$39 billion in federal and state tax revenue.
- After immediate expensing was implemented in the 2017 Tax Cuts and Jobs Act, private sector environmental and energy R&D jumped by \$3.3 billion, or 11.8 percent in 2018.

## Legislation to Follow:

Legislation	Bill #s)	House Sponsor	Senate Sponsor	House Cosponsor(s)	Senate Cosponsor(s)
<b>American Innovation and Jobs Act</b>	<a href="#">S.866</a>		Hassan (D-NH)		Young (R-IN), Cortez Masto (D-NV), Barrasso (R-WY), Sinema (I-AZ), Tillis (R-NC), and more
<b>Accelerate Long-term Investment Growth Now (ALIGN) Act</b>	<a href="#">H.R.2406</a>	Arrington (R-TX-19)		Estes (R-KS-4), Buchanan (R-FL-16), Miller (R-WV-1), Steel (R-CA-45), Hern (R-OK-1), and more	
<b>Build It in America Act</b>	<a href="#">H.R.3938</a>	Smith (R-MO-8)			
<b>CREATE Act</b>	<a href="#">S.2002</a>		Sinema (I-AZ)		Murkowski (R-AK), Whitehouse (D-RI), Capito, (R-WV)
<b>Hydrogen Infrastructure Finance and Innovation Act</b>	<a href="#">S.649</a>		Cornyn (R-TX)		Coons (D-DE), Cassidy (R-LA), Heinrich (D-NM), Murkowski (R-AK), Lujan (D-NM)