



PURDUE'S NEXT

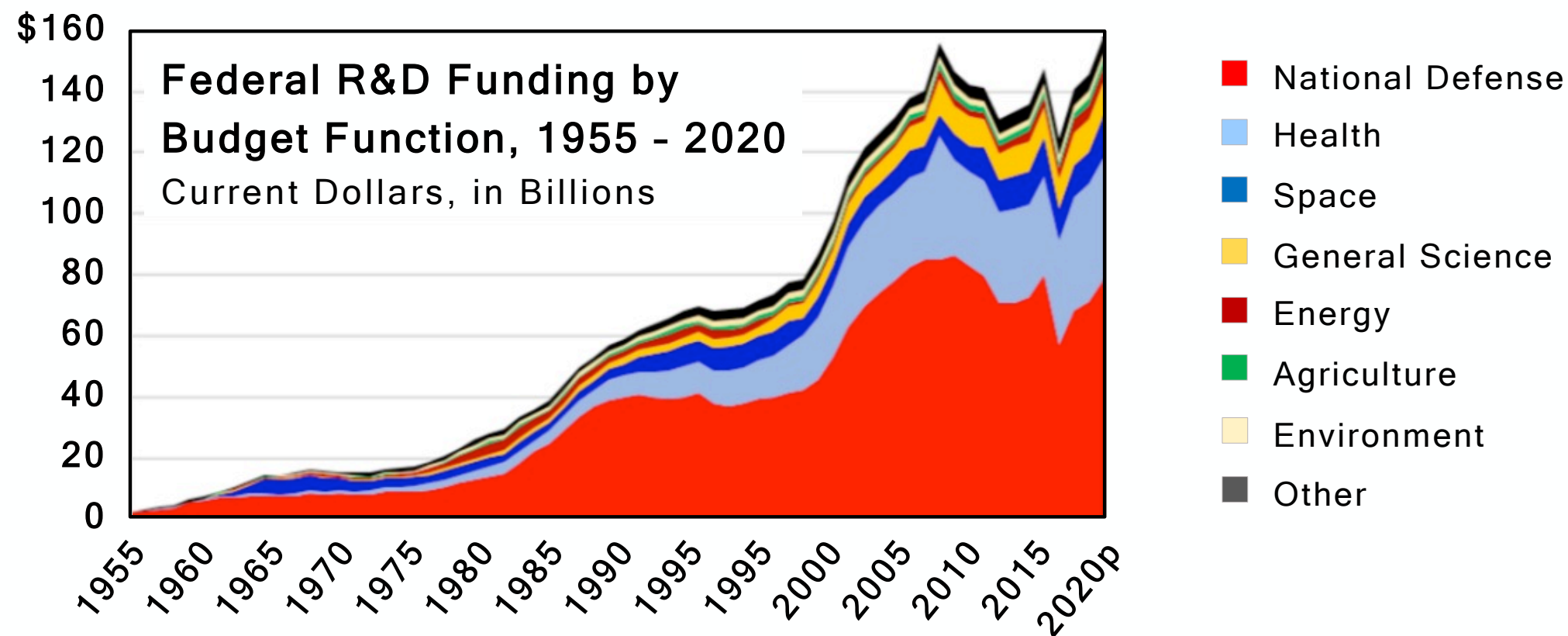
MOVES

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***Purdue Applied
Research Institute***

Congressional leaders recognize that increased federal investment in research and workforce is critical to U.S. economic prosperity and national security



Source: CRS analysis of data from NSF Federal R&D Funding (NSF 21-315)

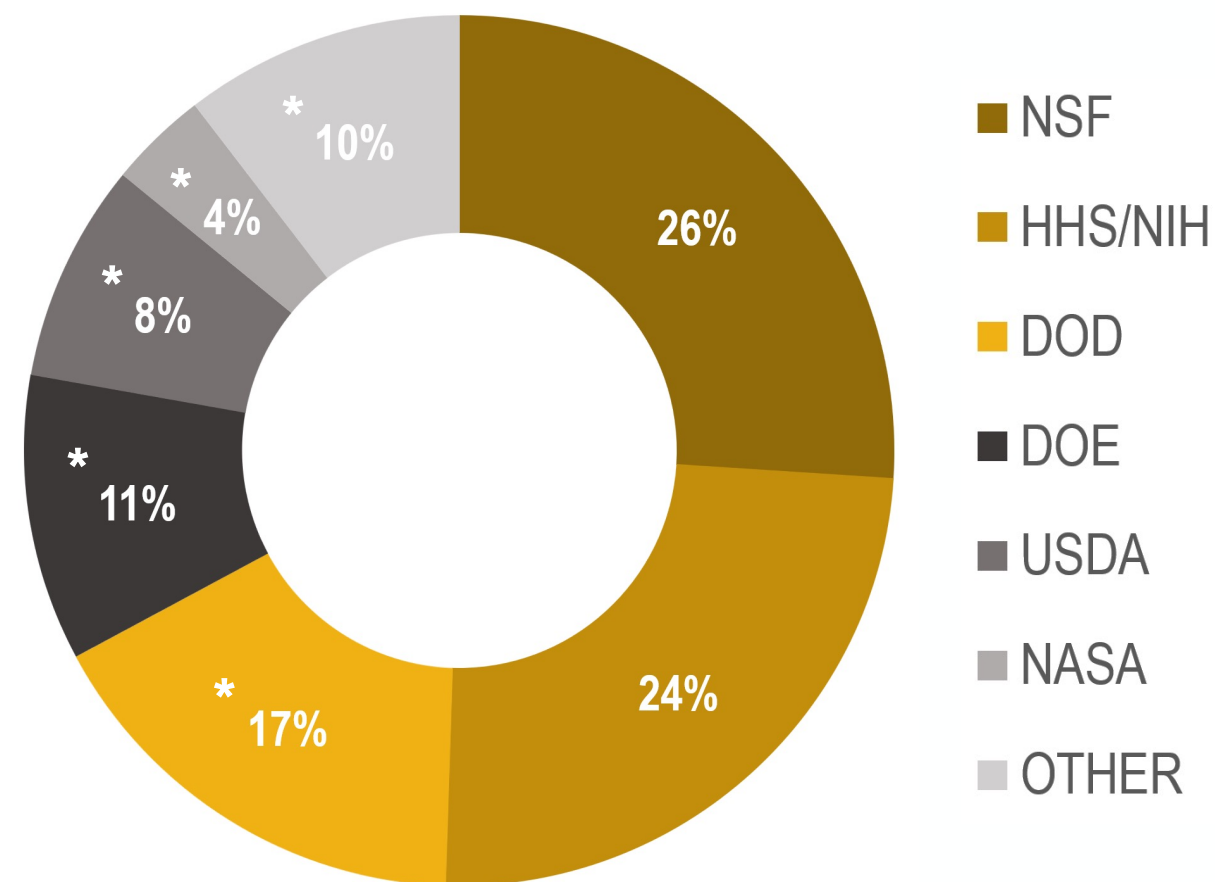
Renewed commitment to federal investment

Senate USICA ACT (passed)
House COMPETES ACT (introduced)

“The bill is expected to invest heavily in tech research and pour \$52 billion into chip-making and packaging, setting the nation up to compete globally in science and technologies with countries like China

Purdue Research Expenditures

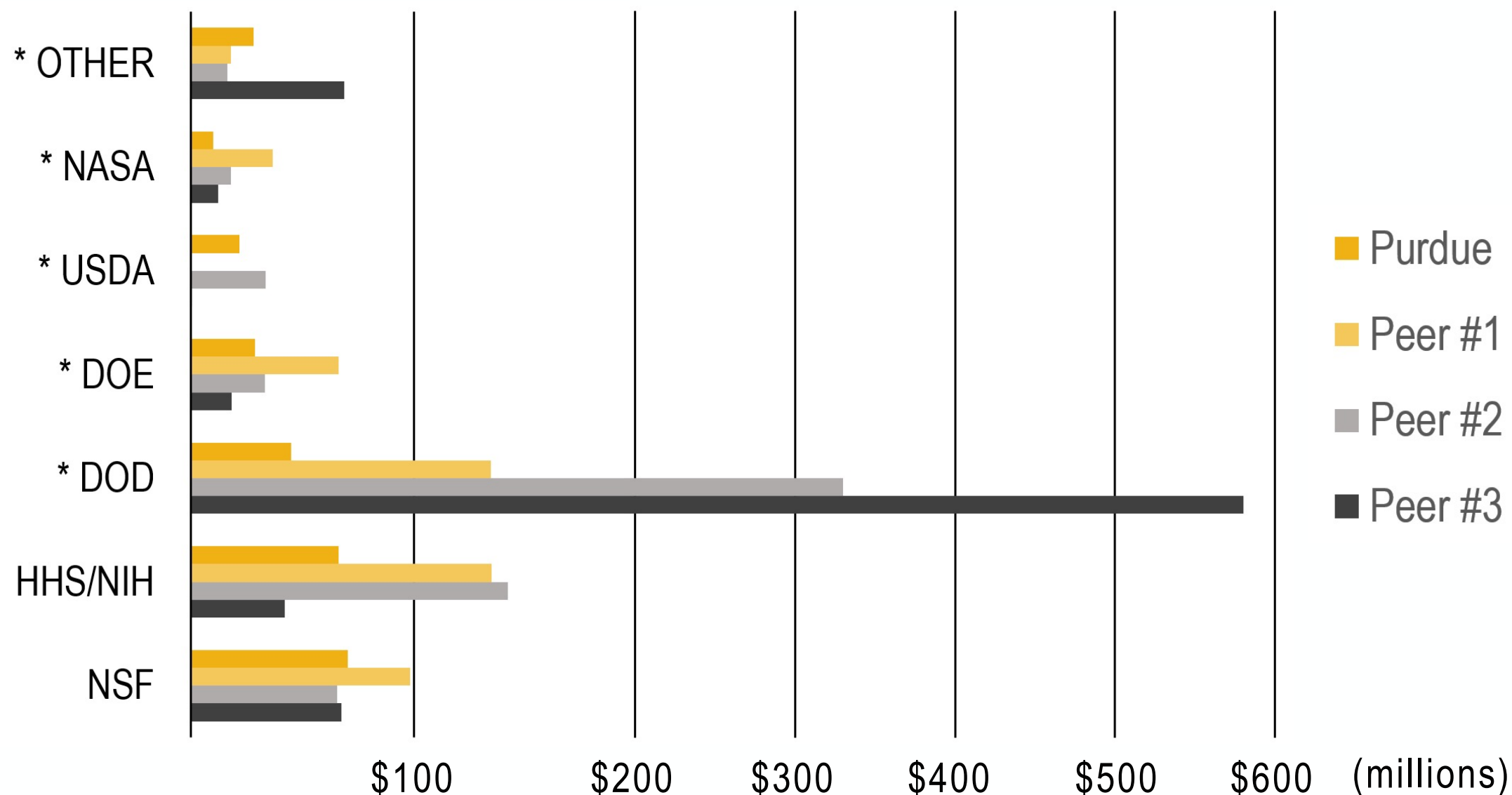
FY20 Federal Agencies: \$271M



* agencies support mission-driven, applied research

PARI is an agile platform to scale Purdue's applied research

Comparison: FY20 Federal Agency Research Expenditures



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PARI will become a partner of choice in three target areas



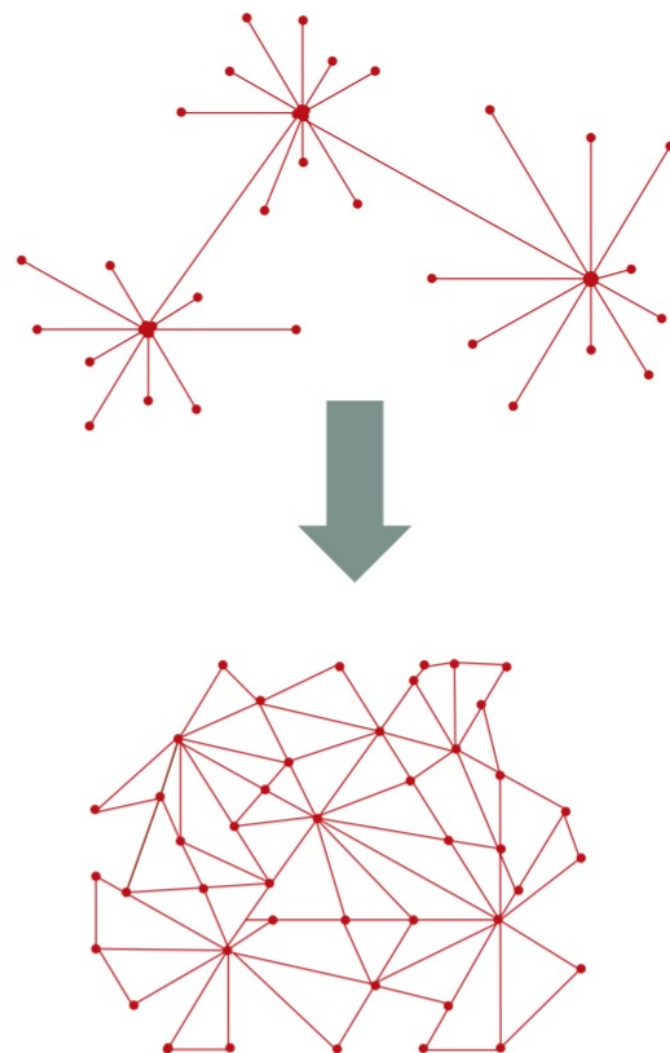
PARI, LLC - Purdue's non-profit applied research arm - launched in July 2021 with Purdue Next Moves investment in people, state-of-the-art facilities and infrastructure

National Security and Technology

Technology Acceleration

Global Development and Innovation

PARI operations are in place and divisions growing



Agrifood system value chains before and after digitization, source: World Bank

Technology Acceleration Division

Digital Innovation in Agri-Food Systems Lab (DIAL)

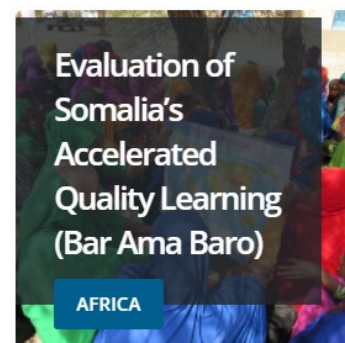
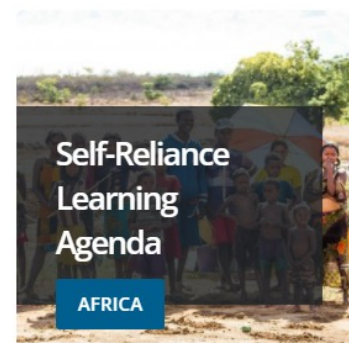
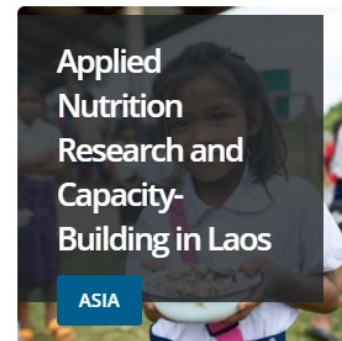
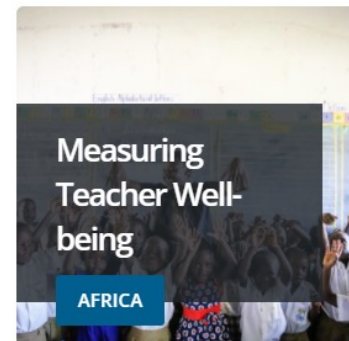
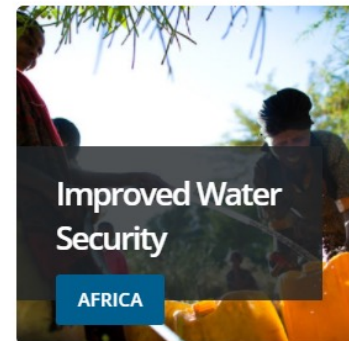
Unique venture studio focused on serving the agriculture industry by creating startups in the food and ag sector with a goal of 10+ start-up exits in 5 years

Executive Director, Allan Gray, launched pilot of DIAL Fellow program with new PARI staff, first cohort of three DIAL fellows, and partnerships with High Alpha and EY

Platform to support Scale-Up and Tech Hub efforts

- Decarbonization by electrification of industrial and chemical manufacturing processes (Ribeiro)
- Advanced Microelectronics Packaging regional hub for metrology and “proof of concept” fail fast research (Subbarayan, Handwerker)

PARI operations are in place and divisions growing



Global Development and Innovation Division

Executive Director, John Glover, joined PARI in Jan 2022 with over 25 years of public and private sector International Development experience. John and three new GDI team members are engaging the “Power of Purdue” to deliver interdisciplinary solutions to pressing international problems.

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Delivering new state-of-the-art facilities and capabilities



Broke ground on HARF in Nov 2021, on track for occupancy and tool installation in Feb 2023

Hypersonics and Applied Research Facility

The \$41 million, 65,000-square-foot facility will house two cutting-edge hypersonics wind tunnels and an advanced manufacturing laboratory, enhancing Purdue's world-leading capabilities in hypersonics evaluation and testing. The tunnels recreate different scenarios such as spacecraft re-entry or missile flight through the atmosphere as well as replicating unique engine conditions for extremely high-speed propulsion.

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Announcing the first major DOD award for PARI



Mike Sangid will lead HAMTC - a single location for partners, GE, Dynetics, Lockheed Martin, Aerojet Rocketdyne, Boeing and small businesses, to advance innovations that would enable the U.S. to overtake near peer adversaries in hypersonics.

Hypersonics Advanced Manufacturing Tech Center

PARI's first contract from the Department of Defense (DOD) will expand Purdue's hub of hypersonics research with the addition of a center focused on developing high-temperature materials and creating new manufacturing processes to build and join these materials, which will extend hypersonic vehicles' capabilities and apply to other industries.