



**MONTANA**  
UNIVERSITY SYSTEM

# Montana Research

2021 Interim Update

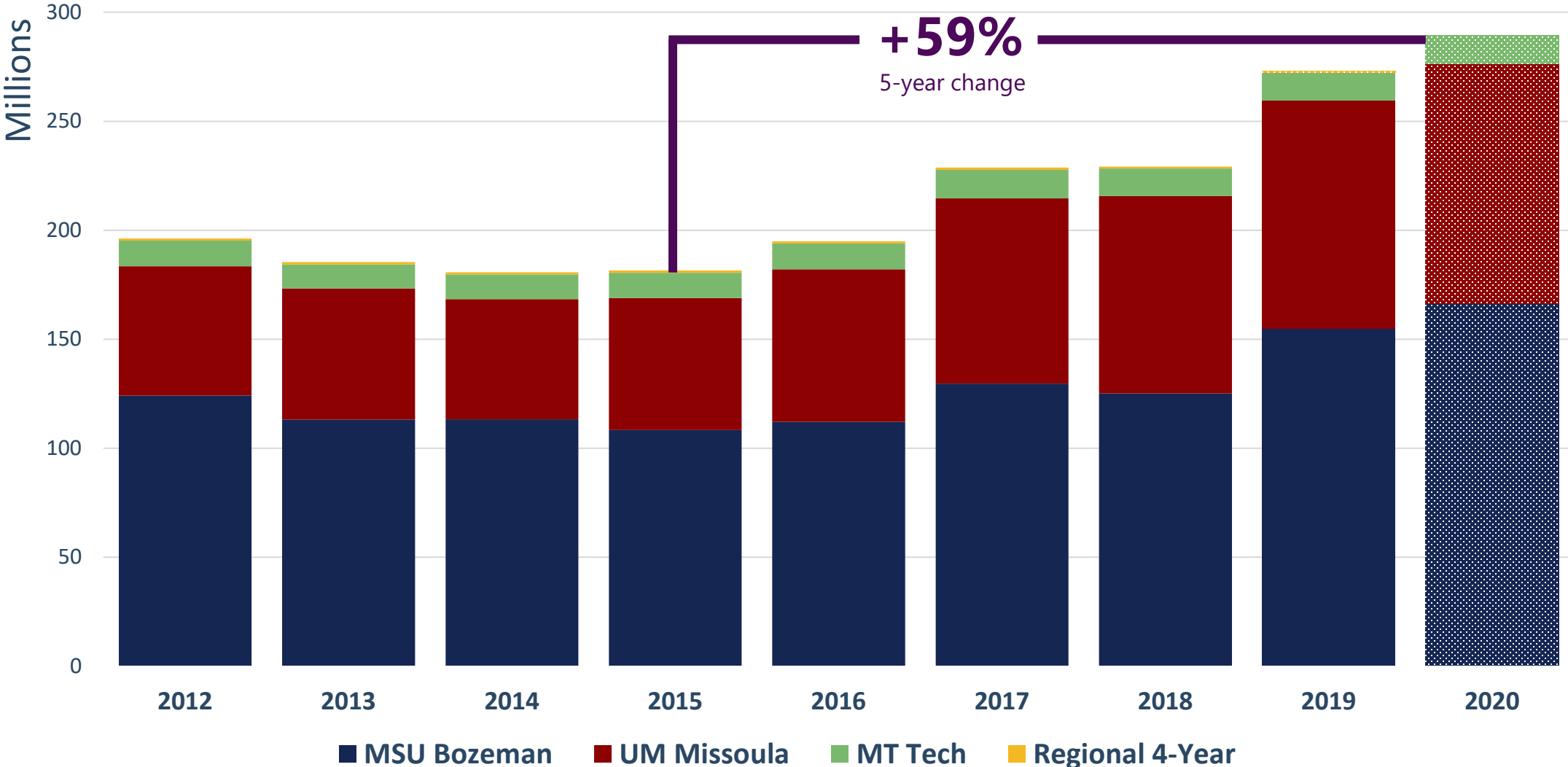
September 2021



OCHE – Academic, Research, and Student Affairs

# Research Expenditures

(SOURCE: National Science Foundation HERD survey; values in nominal \$)

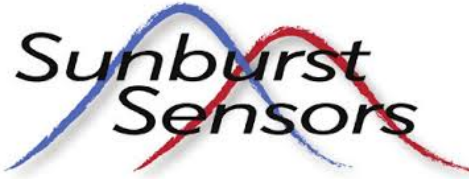


**+59%**  
5-year change



# Research & Economic Opportunity

## AG & THE ENVIRONMENT



## SOFTWARE



## OPTICS



## Archer Biologicals



Montana Molecular

## EDUCATION





**\$193 M**

FY21 Total Research  
Expenditures  
(Preliminary)

**+15%**

FY21 Sponsored  
Research

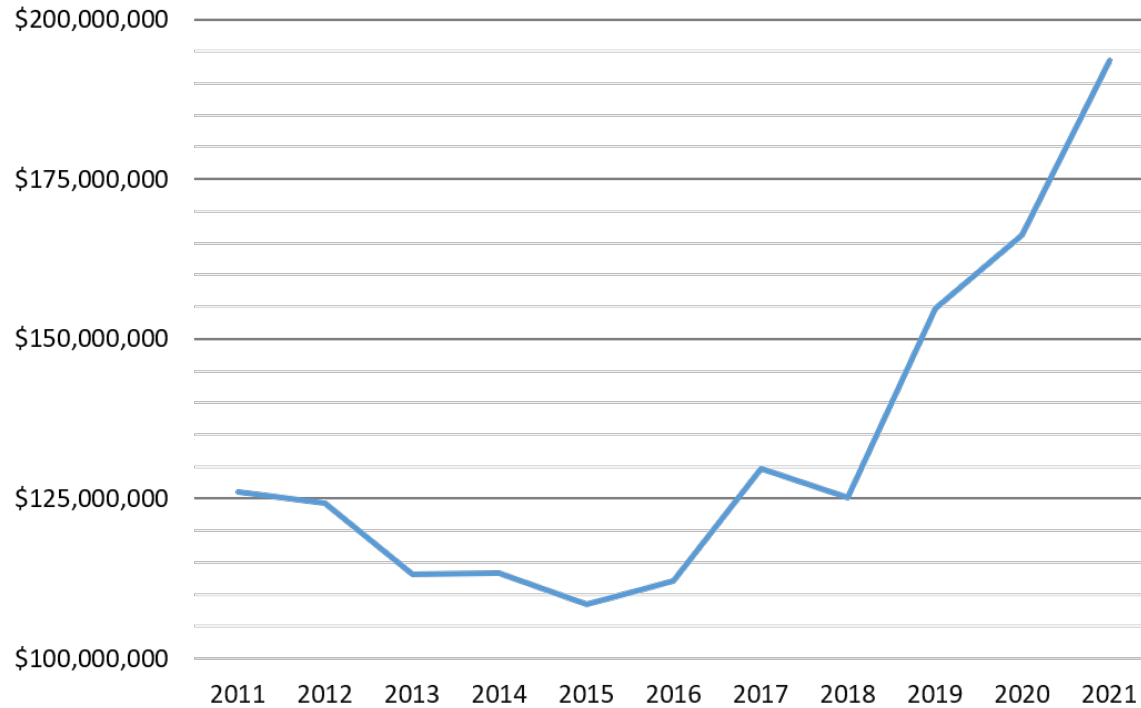
**+21%**

FY21 New Authorized  
Sponsored Awards

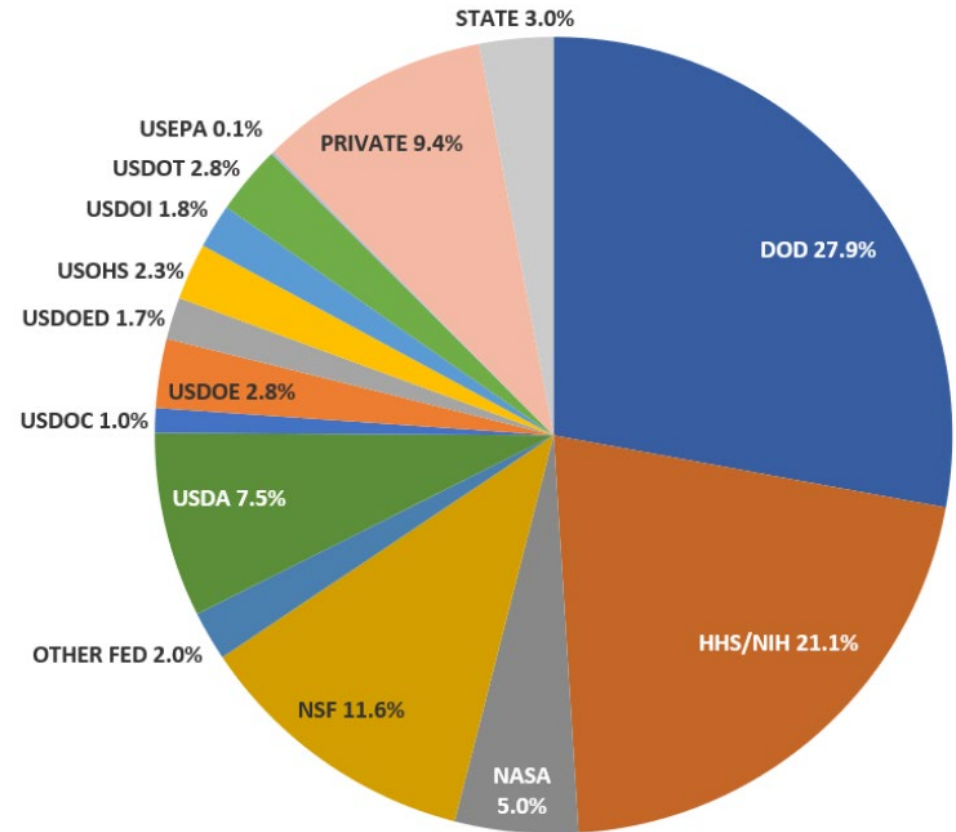
**Montana State research expenditures hit record high**

# MSU Research: Expenditures and Portfolio

## MSU 10-year Research Expenditures



## MSU FY 2021 Expenditures by Sponsor



# NSF-Sponsored Quantum Materials Foundry

## Four Primary Goals:

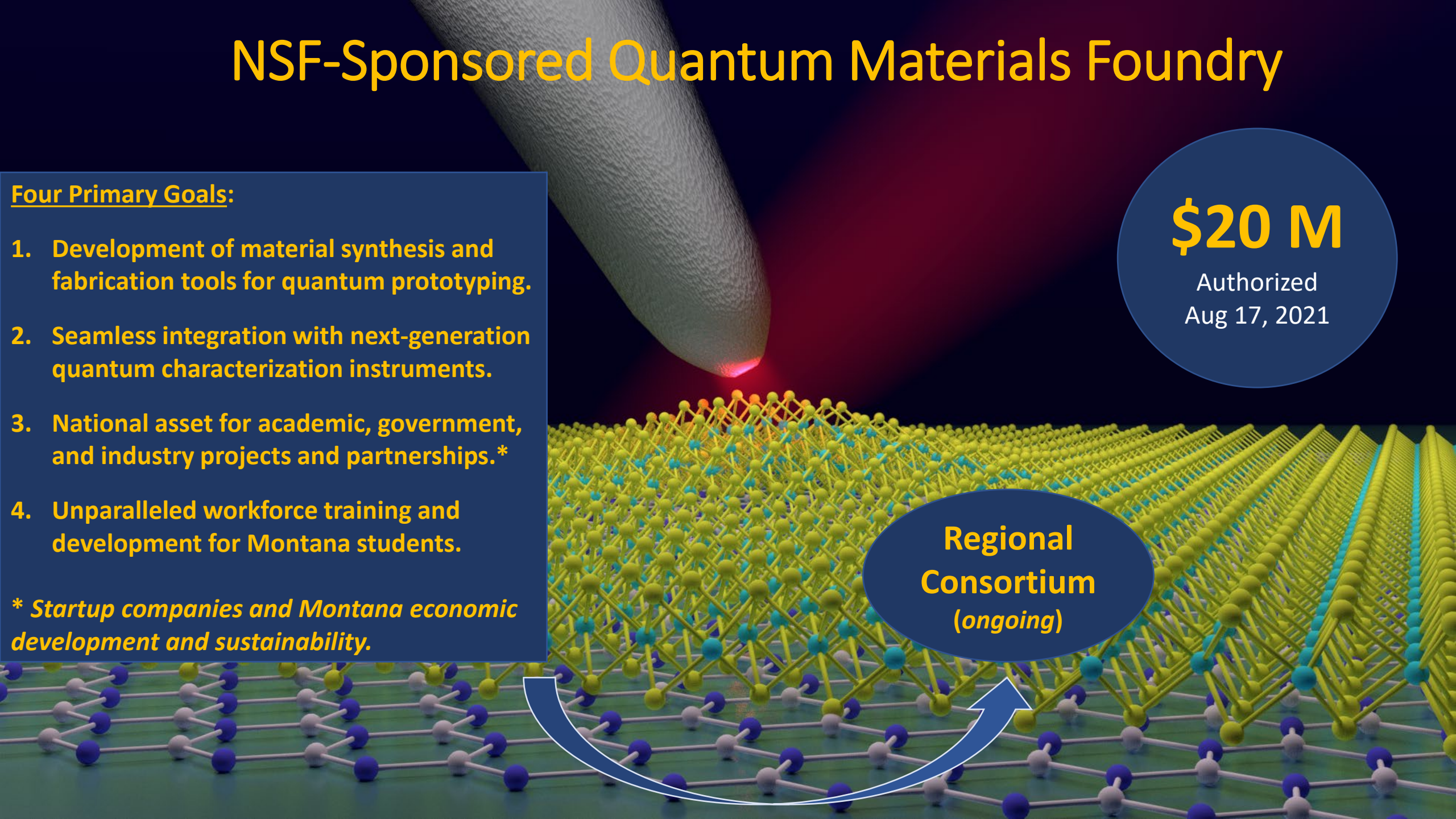
1. Development of material synthesis and fabrication tools for quantum prototyping.
2. Seamless integration with next-generation quantum characterization instruments.
3. National asset for academic, government, and industry projects and partnerships.\*
4. Unparalleled workforce training and development for Montana students.

*\* Startup companies and Montana economic development and sustainability.*

**\$20 M**

Authorized  
Aug 17, 2021

**Regional  
Consortium  
(ongoing)**



# University of Montana research expenditures hit record high

**\$125 M**

FY21 Total Research Expenditures (Preliminary)

**+10%**

FY21 Sponsored Research

**+38%**

FY21 New Authorized Sponsored Awards

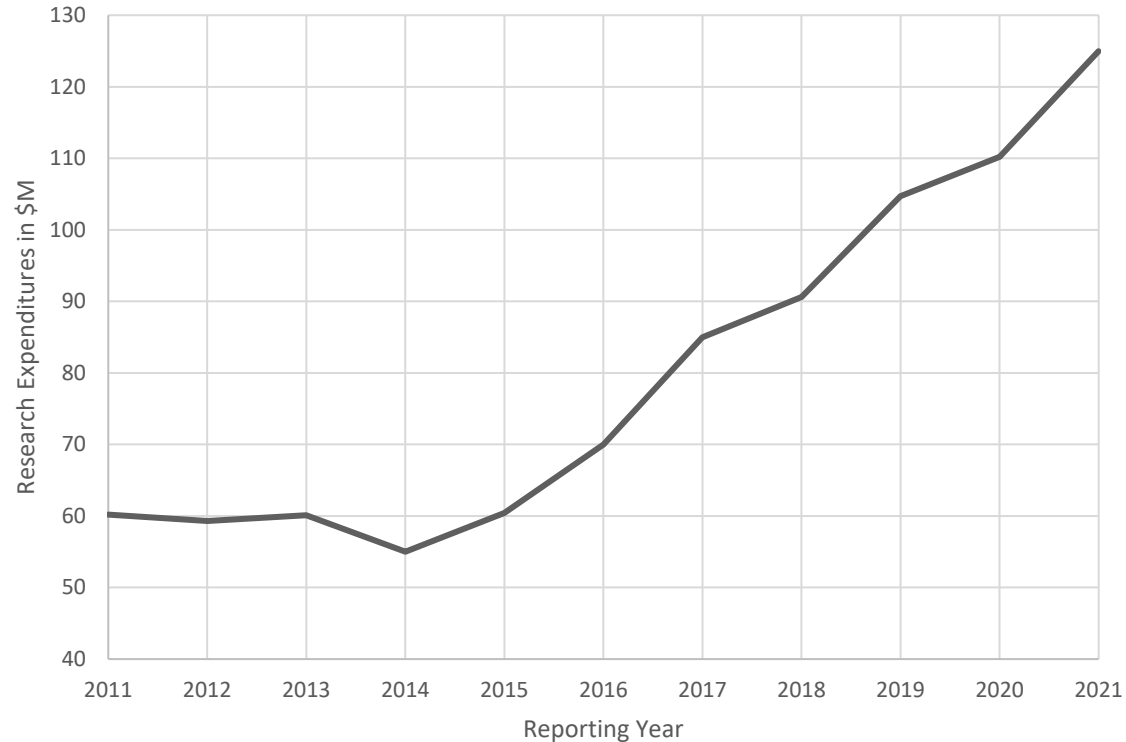
RESEARCH, UNIVERSITY OF MONTANA

**UM RANKED NO. 6 IN NATION FOR RESEARCH GROWTH**

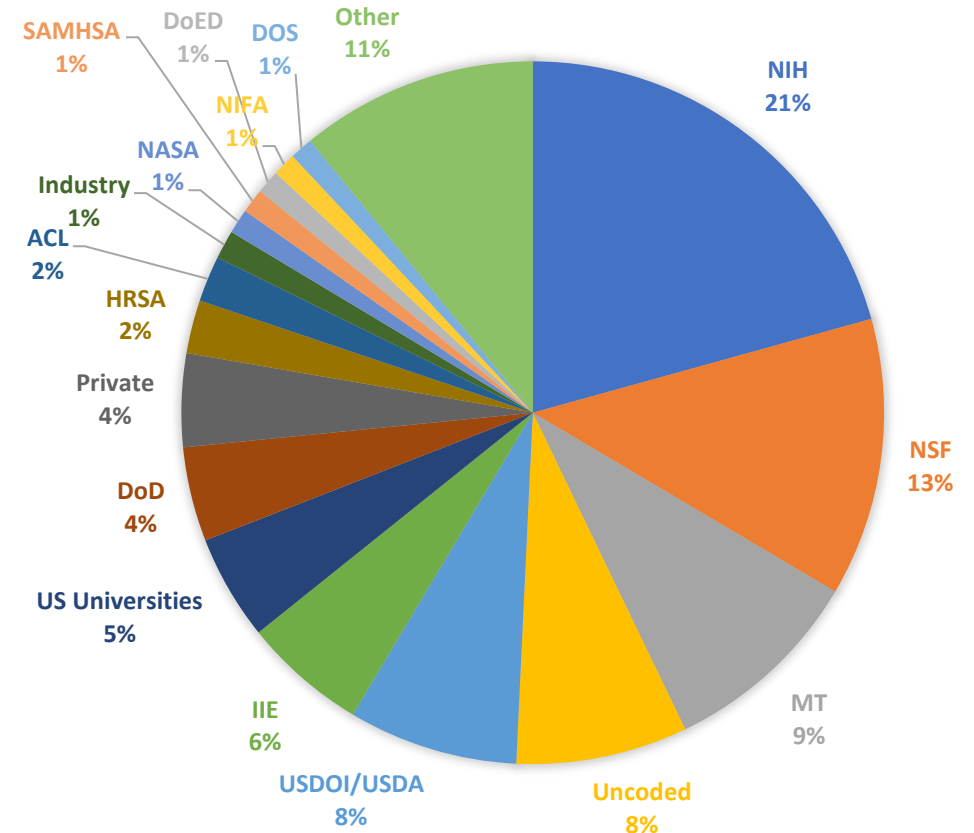
23 FEBRUARY 2021

# UM Research: Expenditures and Portfolio

## UM 10-year Research Expenditures



## UM FY 2021 Expenditures by Sponsor





# UM Research Solving MT Problems

## UM gets \$730K federal grant to boost rural, tribal economic development

AMRII envisions a Montana in which rural and Indigenous innovators have the support, training, and access to networks and resources they need to pursue entrepreneurship and innovation, helping to solve the world's most difficult rural problems.



<https://acceleratemontana.umt.edu/default.php>

<https://www.umt.edu/umhm/default.php>



- **University of Montana College of Health in Missoula, Montana** was awarded \$679,441 in order to purchase telemedicine kits to enable critical, remote telehealth services and to provide internet connected devices for remote patient monitoring services during the pandemic for underserved, rural, and Tribal populations within the state.

ACCELERATE MT



<https://climate.umt.edu/>

**MISSOULA** – The Army Corps of Engineers has awarded a \$21 million contract to the Montana Climate Office at the University of Montana to install weather stations for monitoring snowpack and soil moisture in the Upper Missouri River Basin.

# A BIG Year for MT Research

**1<sup>st</sup>**

Montana leads the region in research, with 2019 expenditures passing North Dakota and rising to ~1.5X Idaho, ~2X South Dakota and ~3.5X Wyoming

**+25%**

Year-on-year increase at MSU and UM in R&D award volume, a key leading indicator of future research expenditures

**121**

Patents issued to MUS researchers, 2010-2020



**1<sup>st</sup>**

Montana State University is the largest research university by R&D expenditures in the region, for the first time since 2010

Growth in research expenditures at the University of Montana from 2014-2019

**90%**



**43**

New startups commercializing MUS research, 2010-2020

