

# Research, Development, and Innovation in the University of Maine System

*A discussion with new UMS trustees*  
*April 12, 2021*

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“R&D is creative and systematic work undertaken in order to increase the stock of knowledge, including knowledge of humankind, culture, and society, and to devise new applications of available knowledge. R&D covers three activities defined below — basic research, applied research, and experimental development.”

# Research is part of the UMS mission.

## ACADEMIC AFFAIRS

### Section 301.1 University of Maine System Mission Policy

Effective: 9/23/91

Last Revised: 11/18/96

Responsible Office: Vice Chancellor for Academic Affairs

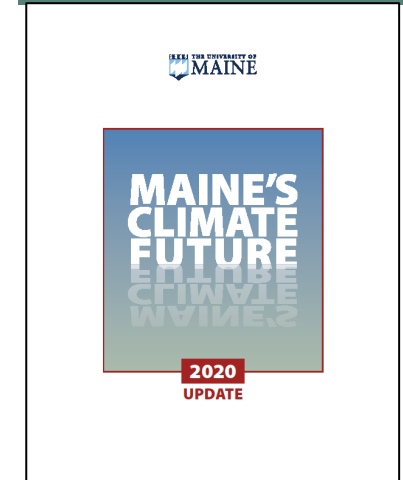
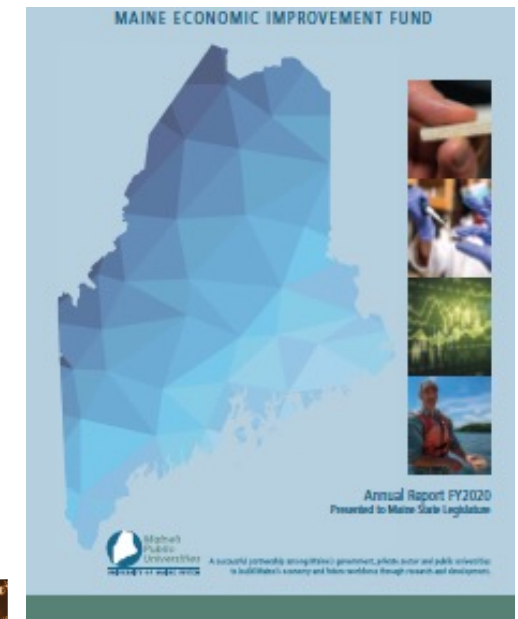
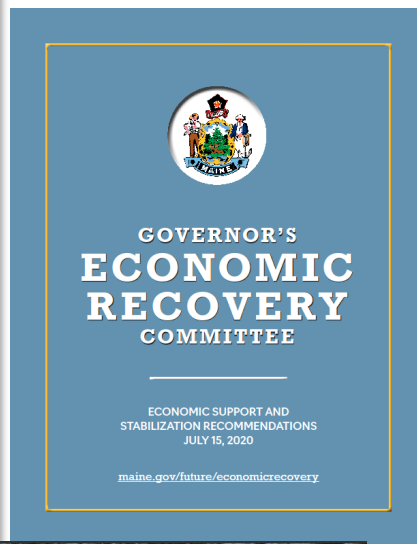
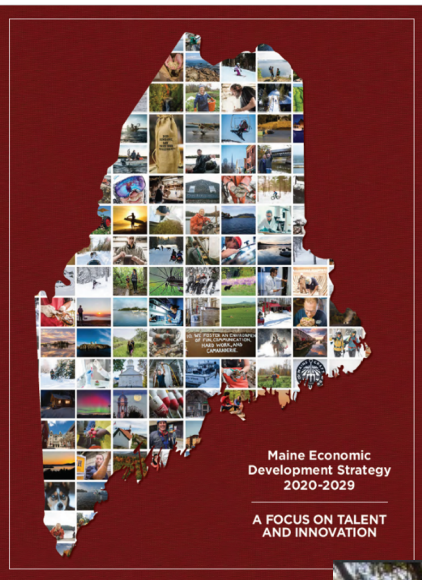
#### Policy Statement:

The University of Maine System unites seven distinctive public universities in the common purposes of providing first-rate higher education at reasonable cost in order to improve the quality of life for the citizens of Maine. The System, through its Universities, carries out the traditional tripartite mission—teaching, research, and public service. As a System, it extends its mission as a major resource for the State, linking economic growth, the education of its people, and the application of research and scholarship.





# The research enterprise at UMS is situated in a broad context.



# UMS grants and contracts revenue includes research which brings F&A dollars (indirect costs).

Chart 8: Total Operating and Net Nonoperating Revenue

2020 - \$716 million

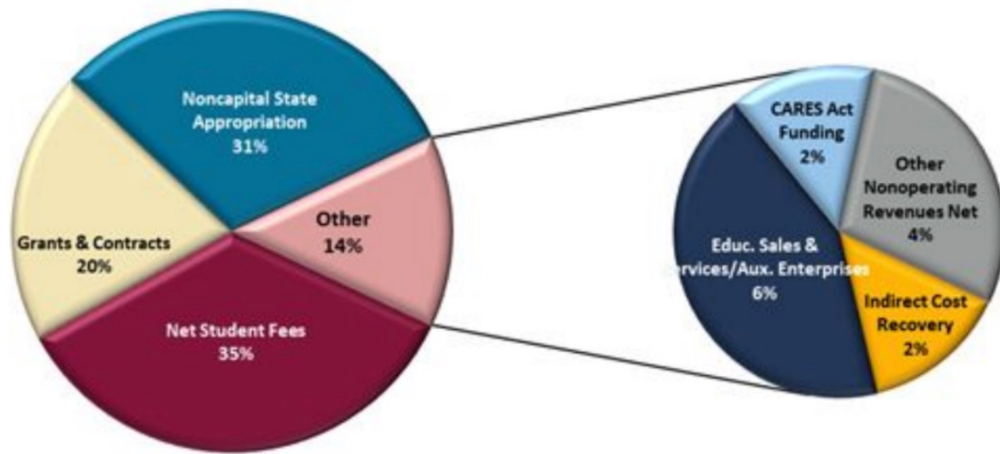
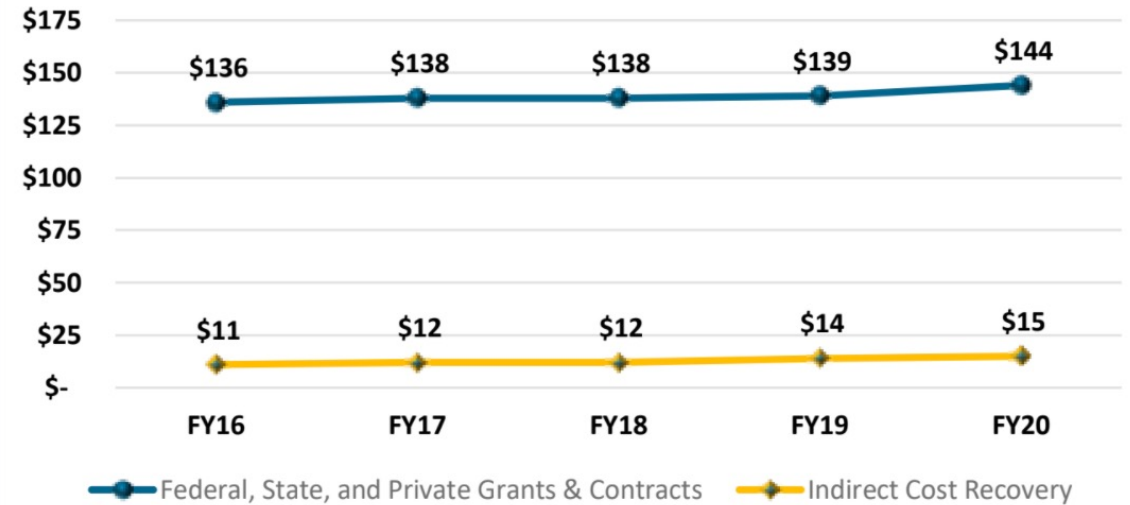


Chart 10: Grants, Contracts and Indirect Cost Recovery  
(In millions)



(From the FY 2020 UMS Financial Report presented at the 10/28/2020 Special BOT meeting.)







## Higher Education Research and Development Survey (HERD)

[About The Survey](#)[Data](#)[Publications](#)[Related Products](#)

The Higher Education Research and Development Survey is the primary source of information on R&D expenditures at U.S. colleges and universities. The survey collects information on R&D expenditures by field of research and source of funds and also gathers information on types of research, expenses, and headcounts of R&D personnel. The survey is an annual census of institutions that expended at least \$150,000 in separately accounted for R&D in the fiscal year.

The leading source for tracking information about the higher education research enterprise nationally is the National Science Foundation's Higher Education Research and Development Survey (HERD).

# UMS R&D Expenditures from HERD

	2013	2014	2015	2016	2017	2018	2019
UMaine	77,583	101,247	79,500	79,222	99,502	106,694	129,913
USM	11,725	9,408	7,091	4,773	7,147	7,414	6,654
UMM	379	384	N/R	N/R	737	N/R	N/R
UMF	NR	NR	NR	NR	NR	NR	526
<b>UMS total</b>	<b>89,687</b>	<b>111,039</b>	<b>86,591</b>	<b>83,995</b>	<b>107,386</b>	<b>114,108</b>	<b>136,567</b>

*Dollars in thousands.*



*The University of Maine is our only public research university. It is a land, sea, and space grant university. Currently UMaine's Carnegie ranking is R2, and we are seeking R1 status.*



# The State and UMS also provide funding for research.

## **UMS Research Reinvestment Fund (RRF)**

*\$2.1M annually*

The purpose of RRF is to strengthen research and development activities that are tied to Maine businesses, and to industries that are critical to the future of Maine.

## **Maine Economic Improvement Fund (MEIF)**

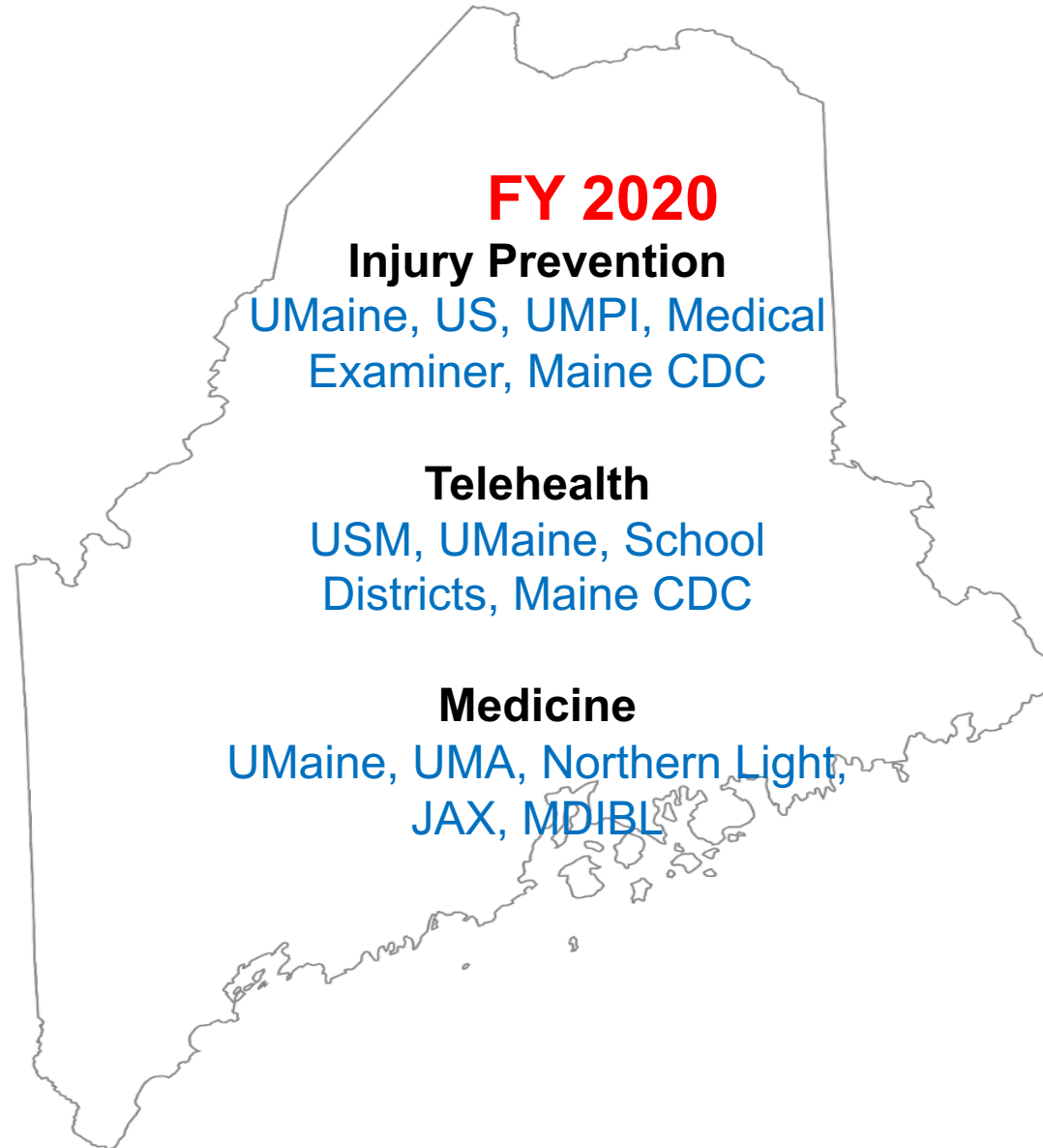
*\$17.35M annually*

The purpose of MEIF funds is to support university-based research, development and commercialization in the state's legislatively designated seven strategic technology areas.

[Refer to BoT materials for 3/22.](#)

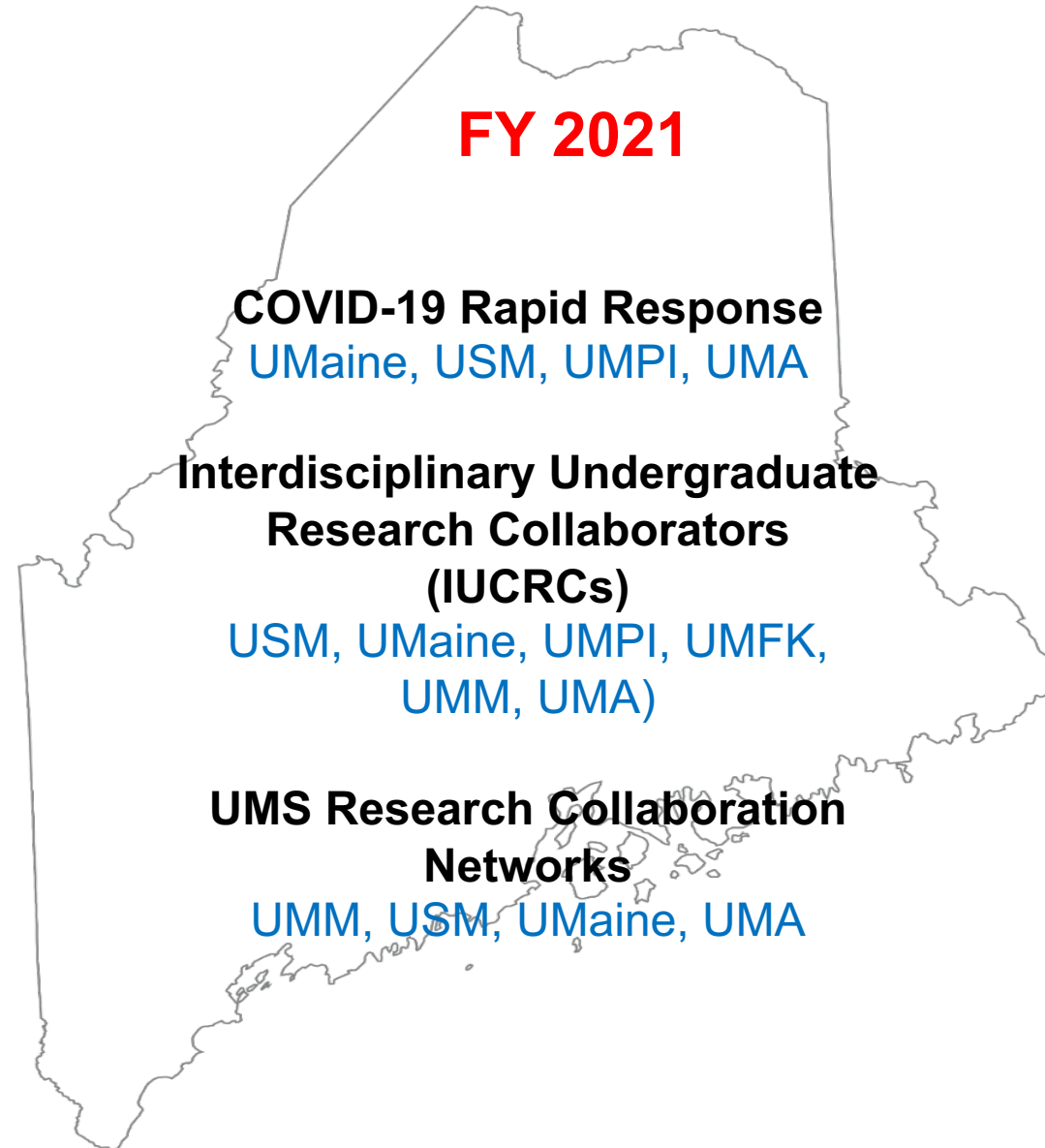
# Research Reinvestment Fund Grand Challenge

## *Rural Health and Well Being*



# Research Reinvestment Fund Grand Challenge

## *Rural Health and Well Being*



## **Compliance**

- Export Control and International Traffic in Arms Regulations (ITAR)
- Foreign influence and research security

## **Faculty**

- Hiring and retention
- Adequate support (postdocs, technicians, post-award management)

## **Facilities**

- Upgrades and financing
- Maintenance and overall footprint
- Operation and management of shared instruments and computing resources

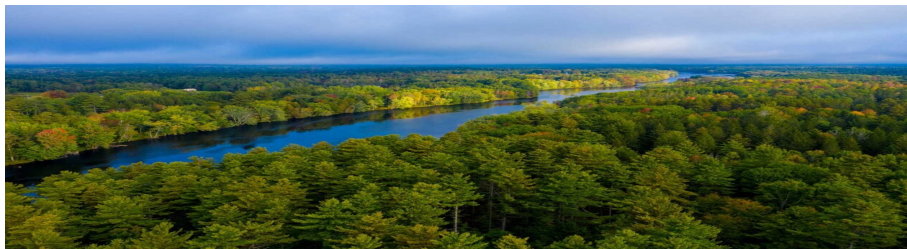






*Part of the infrastructure  
on which we can build  
UMS-wide*

UMaine Institute of Medicine  
UMaine AI  
UMaine FOREST  
UMaine FORCE  
UMaine Arctic  
UMaine MARINE  
UMaine Research Gateway - Portland



University-wide Initiatives