Updates as of January 26, 2021

- **2168 Students in residence halls with capacity of 3509**
- **Approx. 224 Rooms on Orono campus reserved for quarantine and isolation**
- **3352 Asymptomatic tests administered to students since the start of the Spring semester**
- **11,108 Current Enrollment (Undergraduate 8,760; Graduate 2,348) with 1,844 first year students**
- **36 Current COVID positive cases, UMS-wide**
- **65% Students taking at least one course face to face**
Funding by the Numbers FY 2020

<table>
<thead>
<tr>
<th>New R&amp;D Awards Received</th>
<th>New R&amp;D Funding Received</th>
<th>University Contributions (Cost-Share)</th>
<th>Indirect Costs Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>716</td>
<td>$125,188,029</td>
<td>$13,804,430</td>
<td>$16,541,807</td>
</tr>
</tbody>
</table>

Record breaking year and four-year growth trends in research
Graduate Education Complements Research Performance

Graduate School by the Numbers AY 19-20

<table>
<thead>
<tr>
<th>Number of graduate programs</th>
<th>Graduate enrollment increase over 5 years</th>
<th>Graduate Student Credit Hours</th>
<th>Ph.D.'s conferred in Maine</th>
</tr>
</thead>
<tbody>
<tr>
<td>138</td>
<td>42%</td>
<td>25,037</td>
<td>96%</td>
</tr>
</tbody>
</table>

Doctoral student enrollment is over 500 for the first time in UMaine history
UMaine drives & supports key strategies for Maine’s Growth

UMaine uniquely positioned to support the economic recovery of Maine, building on 20 years of MEIF investments in talent, infrastructure and innovation, leading to:

Business Growth and Expansion
New Business Creation
Business Attraction
Talent Development
The University of Maine is an R&D lab for all Maine companies

- Serve the entire state (and beyond)
- 944 contracted projects in last five years
- Leverage the university’s unique facilities and world-recognized expertise developed through years of investment
- Provide access and support in small and medium-sized companies that cannot afford their own R&D resources at UMaine
- These resources also can be used to help attract companies to Maine
UMaine Partnerships in Portland

- Maine Graduate and Professional Center
- Northeastern University’s Roux Institute
- Gulf of Maine Research Institute (GMRI)
- Climate Change Institute, Maine Law, and Maine Center
- New England Aqua-Ventus (NEAV)
- Graduate School of Biomedical Sciences and Engineering
New initiatives to spur the creation of new startups and accelerate technology commercialization partnerships

- 9 Teams in first two cohorts
- 5 Startups Incorporated
- $2 MILLION + raised in external funding and prototype sales
- 3 Teams to National I-Corps
- 4 Patents filed or in process

29 STARTUPS based on UMaine IP formed since 2000
UpStart Center for Entrepreneurship
- Orono, Maine
- Partnership with Bangor Target Area Development Corporation (landlord)
- Spinoffs from UMaine and R&D partners

Darling Marine Center
- Walpole, Maine
- Partnership with Maine Aquaculture Innovation Center
- Aquaculture companies

Foster Center for Innovation
- Orono, Maine
- Student incubator and faculty accelerator
- Average 75 potential student entrepreneurs coached each year

Union River Center for Innovation
- Ellsworth, Maine
- Partnership City of Ellsworth (landlord)
- Biotech and other innovations

Center for Cooperative Aquaculture
- Franklin, Maine
- Partnership with Maine Aquaculture Innovation Center
- Land-based aquaculture facilities
Aquaculture Example

- Unique expertise and land-based aquaculture facilities as a soft landing for companies locating in Maine
- Partner with Maine & Co. and others

“CCAR’s facility offers massive benefits in terms of infrastructure, and the existence of these fish [yellowtail broodfish] presents a unique opportunity for us.”

- Megan Sorby, Operations Manager
UMaine has a strong Research Learning Experience Foundation

- Center for Undergraduate Research/Experiential Programs Innovation Central
- Honors College
- Capstone Courses
- Faculty passionate about mentorship
- Foster Center for Student Innovation
- Research opportunities through centers and institutes
UMaine’s Research Strengths and Maine’s Unique Assets Create Opportunity

**Green Economy:** Growing demand for bioproducts creates opportunities to develop products ranging from medical devices to food packaging made from wood

**Blue Economy:** Growing demand for sustainable protein & energy creates opportunities to utilize marine expertise and assets
New Maine College of Engineering, Computing, and Information Science

- Bolstered by Alfond Foundation investment
- Graduate engineering programs in Portland
- Builds upon new Fernald Engineering Education and Design Center in Orono
- Integration of resources, world-class programs, faculty, students, and facilities to shape the future
Bringing it all together to grow Maine

- UMaine has a key leadership role in road-mapping the future of the forest products industry, looking global market opportunities

- Strategically leverage existing strengths and create new assets in talent, innovation and infrastructure

- Creates opportunities for business attraction, new business creation and the sustainability and growth of current businesses

- Similar efforts underway: SEAMaine, Offshore Wind roadmap, engagement on State Climate Action Plan
Working with FOR/Maine, Maine & Co. and DECD to brand the state “Nanocellulose Valley”

For 200 years, Maine’s economy has been deeply rooted in the forest products industry. Home to sustainably managed forests, skilled workers, and research expertise at the University of Maine, the state is a natural hub for forest-based innovations and the development of cutting-edge new products.

Today, nanocellulose, nature’s super polymer, is helping to build the forest products of the future. This renewable natural material offers virtually limitless potential in a wide range of applications from food packaging to biomedical devices.

Just as Silicon Valley grew up around Stanford University to become the heart of the tech industry, UMaine is driving an unrivaled center of nanocellulose bioproducts innovation right here in Maine.

Welcome to Nanocellulose Valley.
Offshore Wind

- Diamond Offshore Wind and RWE Renewables investing $100 million to demonstrate the technology at full scale.
- Combined, the two new partners are responsible for nearly a quarter of the world’s offshore wind capacity.
- Construction, following all permitting, completion expected in 2023.
- Project is projected to produce more than $150 million in total economic output and create hundreds of Maine-based jobs during the construction period.
And more…

Aquaculture Experiment Station with UMaine Aquaculture Research Institute and USDA – ARS first in nation.

$4.8M will upgrade Forest Bioproducts Research Institute facilities, bolster bioproduct research

Using forest-based materials for biomedical devices and air filters

World’s largest 3D printer with goal to print using forest bioproducts
UMaine/Northeastern Research Partnership

- **Five projects selected for one-year collaborative projects:**
  1. Aquaculture vaccines utilizing engineered bacteria
  2. Using AI to study pacifier use and SIDS link
  3. Gene modeling to study of Influenza immune response
  4. Human AI-vehicle interaction for BVI and older adults
  5. Development of a new bio fluid analysis instrument
Biomedical SARS-CoV-2 Research at UMaine

Molecular Biology
- Wheeler Lab
  - Wastewater Testing

Engineering
- Howell/Maginnis Labs
  - SARS-CoV-2 Transmission

Medicine
- Saber, Wheeler, Maginnis Labs
  - Healthcare Transmission

Pandemic-related CUGR Fellowships
UMaine Research Centers and Institutes

- Advanced Manufacturing Center
- Advanced Structures and Composites Center
- Aquaculture Research Institute
- Center for Community Inclusion and Disabilities Studies
- Center for Research on Sustainable Forests
- Center for Undergraduate Research
- Center on Aging
- Climate Change Institute
- Forest Bioproducts Research Institute
- Frontier Institute for Research in Sensor Technologies

- Innovative Media, Research and Commercialization Center
- Institute of Medicine
- Maine Center for the Genomics in the Environment
- Maine Center for Research in STEM Education
- Maine Sea Grant
- Margaret Chase Smith Policy Center
- Sen. George J. Mitchell Center for Sustainability Solutions
The President’s Council on Diversity, Equality, and Inclusion
UMaine and Maine Post-Covid

- Covid impact on operations
  - Future of remote learning in Maine
- UMaine Rapid Innovation Team
  - Supported healthcare (PPE, hand sanitizer and more)
  - UMaine design new solutions, provide scientific expertise, fill gaps
  - Connected supply chain of manufacturers to healthcare and response needs

Moving forward
- Changed institution
- Leverage people moving to Maine
- Increasing focus on rapid response to solve Maine challenges and drive immediate opportunities as part of recovery
- Use UMaine’s talent, innovation and infrastructure assets as the springboard for recovery and growth
THANK YOU!

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