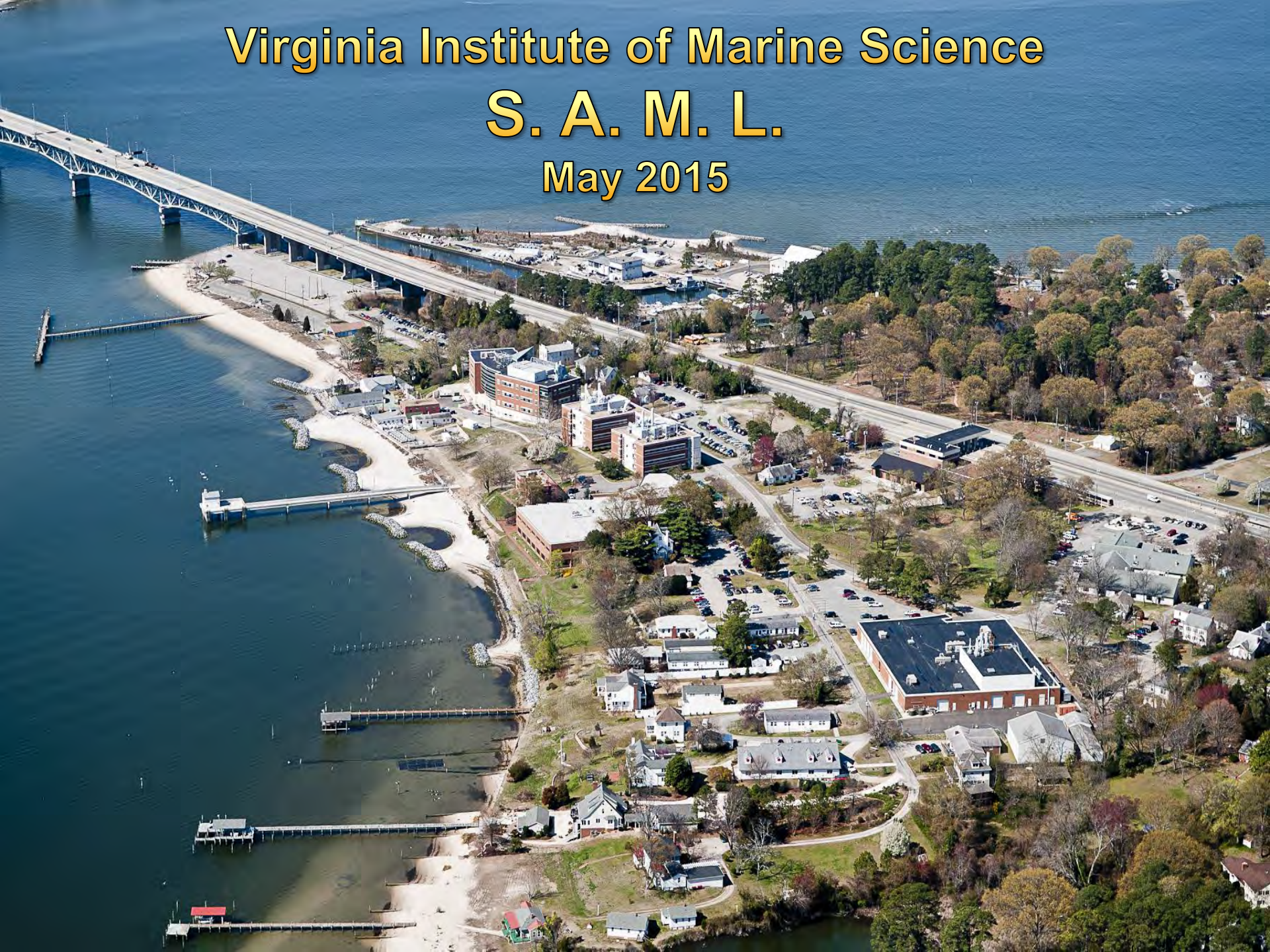


Virginia Institute of Marine Science

S. A. M. L.

May 2015



VIMS Campuses



Main campus, Gloucester Point:

- Located at the mouth of the York River
- ~42 Acres
- 61 Buildings
- 333,380 SF



Field Laboratory, Wachapreague:

- Located on the seaside of the Eastern Shore
- ~5 Acres
- 22 Buildings
- 24,249 SF



Kauffman Aquaculture Center, Topping:

- Located on the Rappahannock River
- 1 Building
- 6,420 SF







Wachapreague Campus



VIMS Mission

- Conduct research in ocean and estuarine science
- Educate students and citizens
- Advise policy makers, industry and the public



Virginia Institute of Marine Science

Important Attributes

- One of the Country's largest coastal and estuarine-focused institutes (more than 400 employees)
- Serves as a premier research powerhouse for Chesapeake Bay and beyond (over \$100 million in grant awards since FY 2009)
- Named in 32 sections of the *Code of Virginia* mandating our involvement in natural-resource use and management issues
- Partners with Industry to foster relationships that combine science and engineering as well as expedite applications of new technology to practical problems

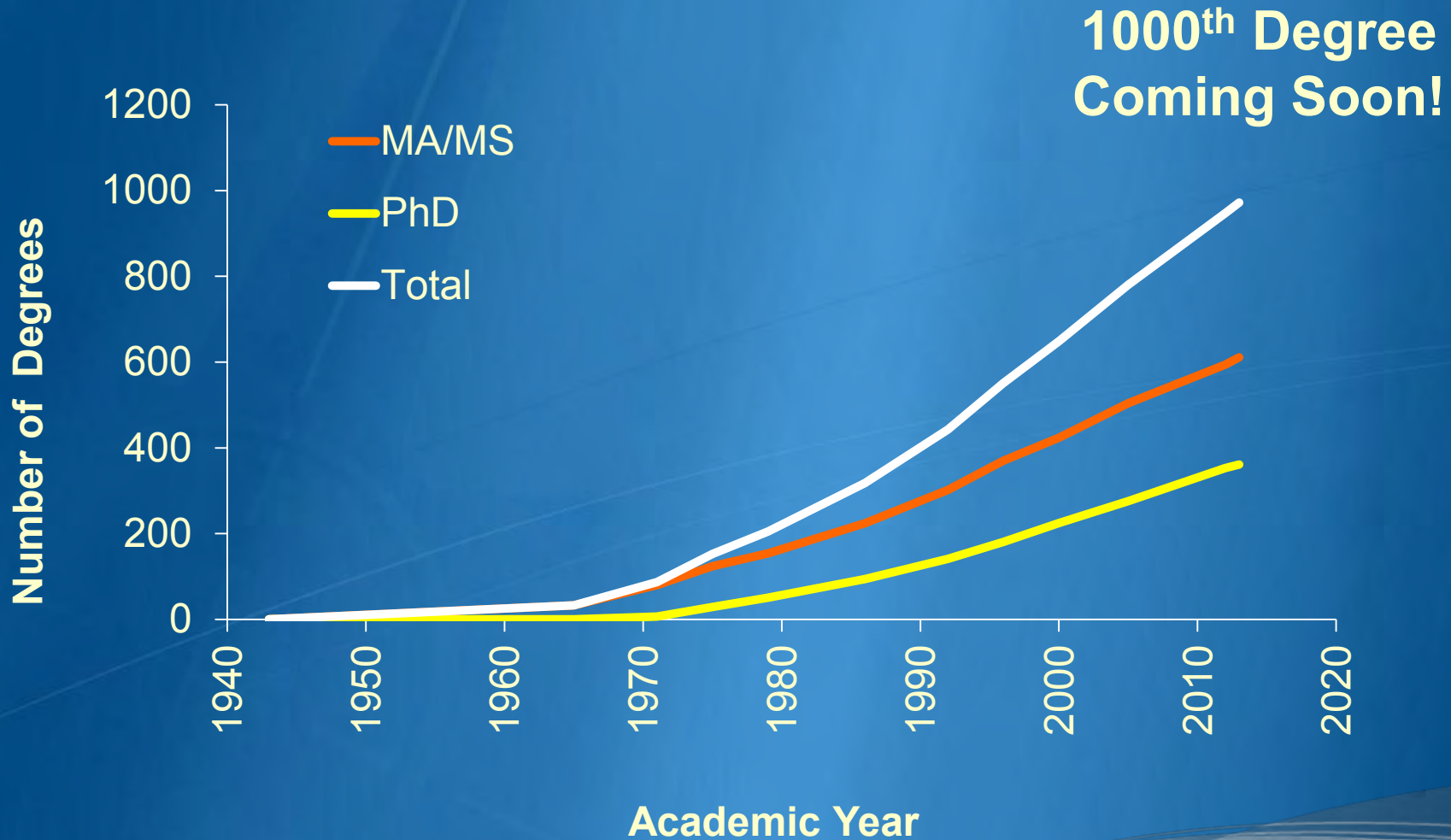
School of Marine Science

Important Attributes



- The W&M School of Marine Science is embedded within the Virginia Institute of Marine Science
- Approx. 60 Teaching & Research Faculty and 100 Graduate Students
- Students paired with Faculty Mentors and undertake leading edge research projects with high impact
- Recent Enrollment: 27% In-State (headcount); 45% PhD – 55% MS; 45% Male – 55% Female
- Our students graduate debt free and virtually all obtain jobs in marine and environmental science!

Just in time for the 75th Anniversary!





Training Scientific Leaders of the Future

Breadth of Research

- Faculty research expertise includes sub-disciplines from marine biology to marine physics
- Scale of projects ranges from global to molecular
- 270 projects funded largely by competitive federal grants and contracts



Strategy for World-Class Scholarship in Research and Education

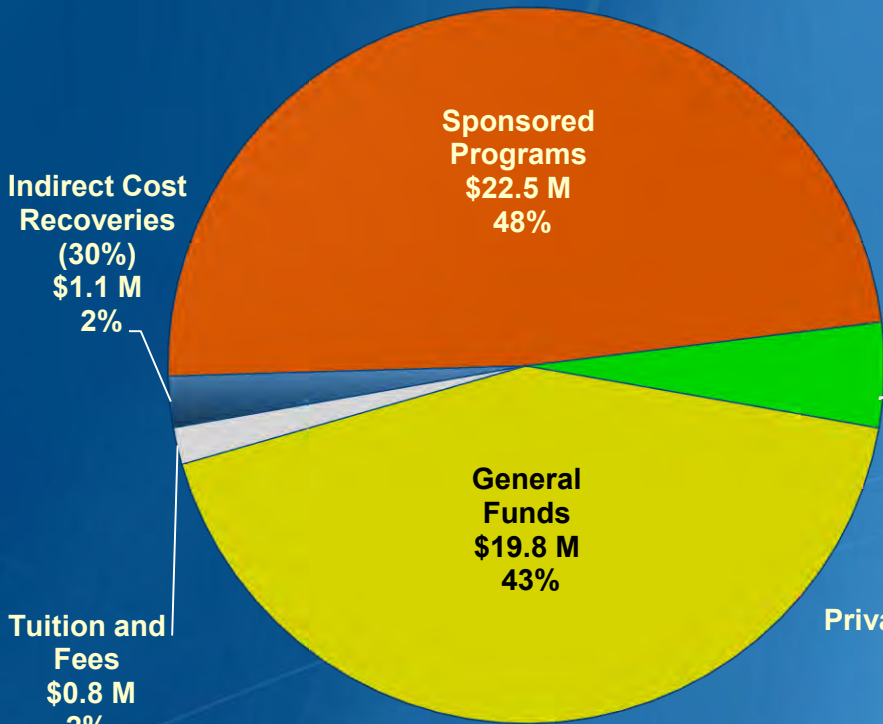
- Ask the right scientific questions
- Develop and apply the most advanced technologies and approaches
- Communicate research results and new technologies to both professional and public audiences
- Provide consultative assistance to facilitate the application of new knowledge to practical problems
- Train future generations of young scientists to continue this tradition

Advisory Services: The Public Face of VIMS

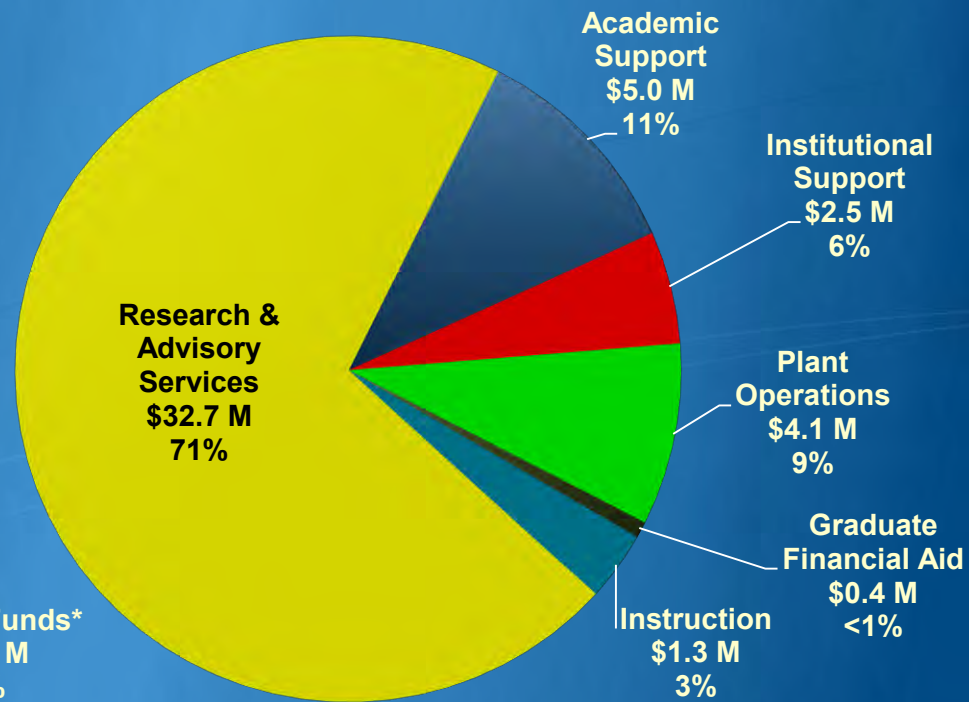
- Commonwealth's scientific advisor on natural resources
- **Over 30 sections** of VA Code require VIMS advisory service
- Advisor to General Assembly, State Agencies, Maritime Industries, and the Public



FY 2016 Budgeted Sources and Uses of Revenue (all sources)



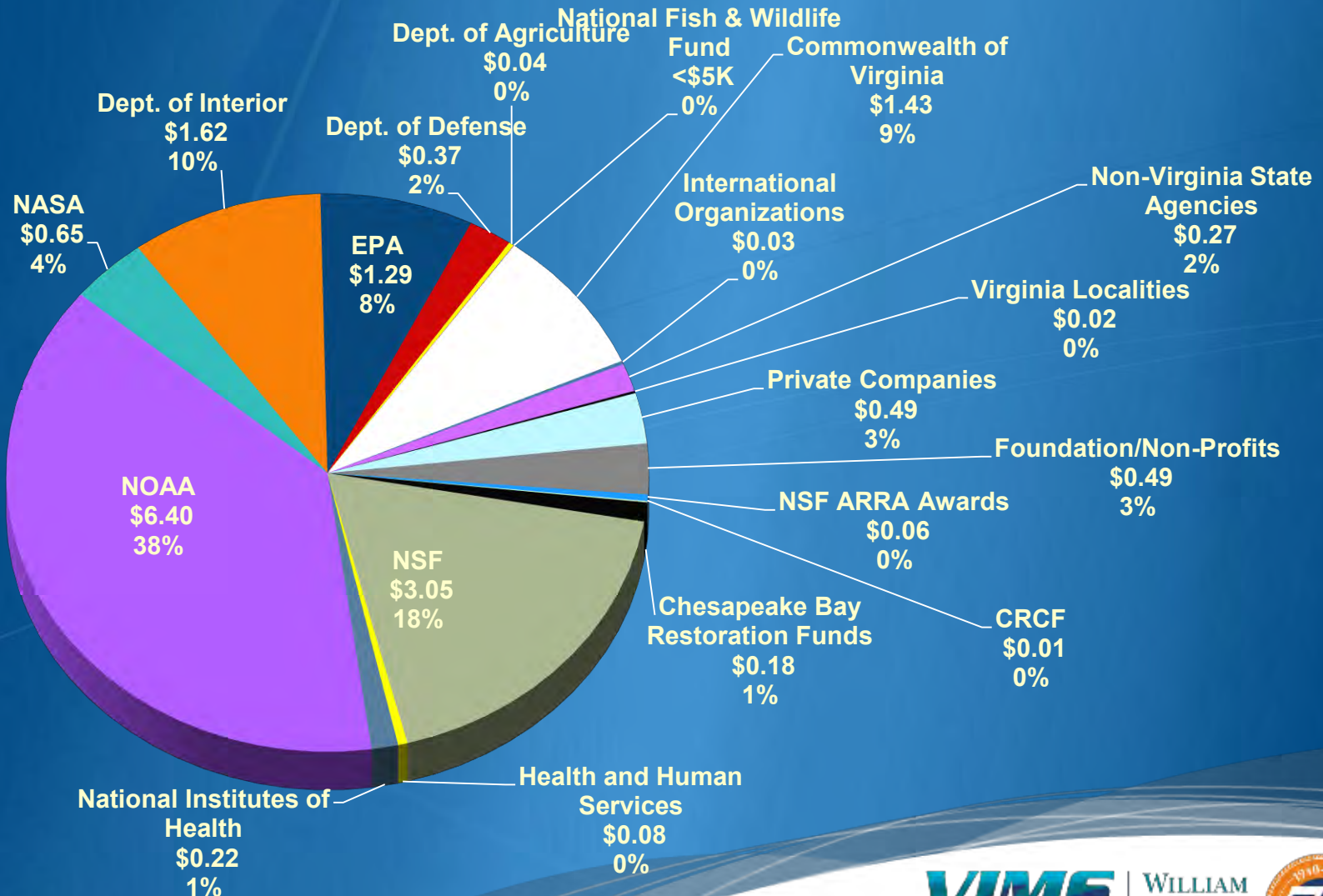
Total = \$46.5 M



Total = \$46.3 M

* Private sources are from the VIMS Foundation, W&M Foundation, and Board of Visitors

Grant & Contract Expenditures By Agency Fiscal Year 2014 (\$ in Millions)



Total Expenditures = \$16.73 M

Grant & Contract Proposals Submitted vs. Funded Averages Over FYs 2004 – 2014

# of Proposals Submitted	# of Proposals Funded	# of Active Researchers	11 Year Success Rate
256	140	69	55%

Aquaculture and Native Oyster Restoration: Support for Industry

Genetic Research and Selective Breeding



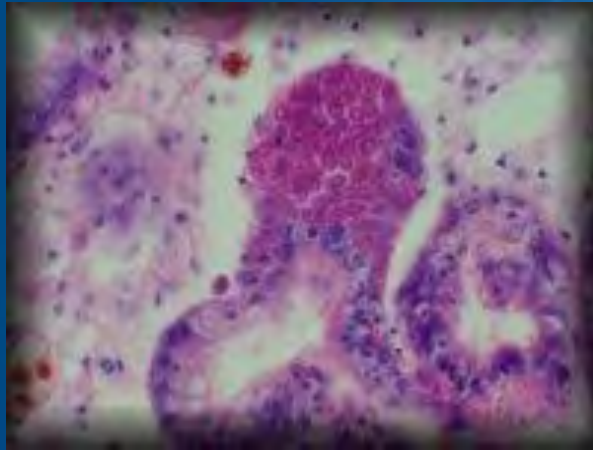


VIMS Supports Industry

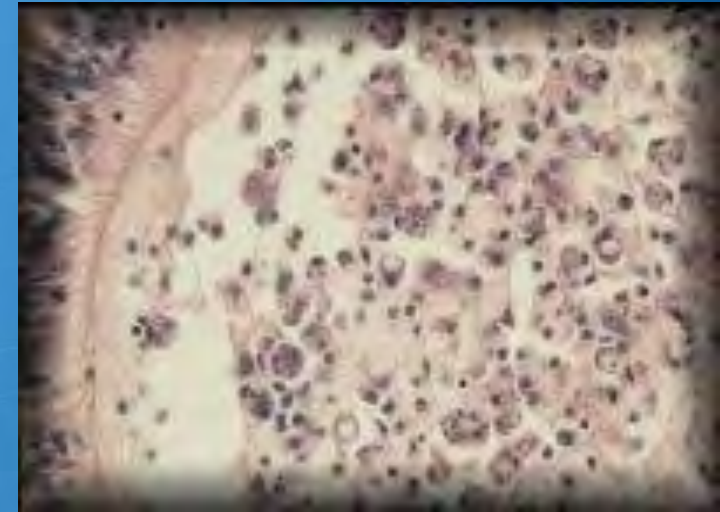
Economic Impacts of Commercial and Recreational Fishing

- Total sales from both sectors \$1.5B
- Total income from both sectors \$285M
- Total Full and Part time Jobs from both Sectors 15,000

Shellfish and Finfish Diseases: Impacts on Important Recreational and Commercial Species



Role of Aquatic
Pathogens



Application of
Molecular Genetics



Chesapeake Bay Fish Surveys: Essential for Fisheries Management (juvenile finfish, blue crab, striped bass, shad, sharks and oysters)



Water Quality Monitoring & Modeling: Refining the EPA Model

Gauge Effectiveness of
Public Fund Expenditures



Determine Fate of
Contaminants



Development of Buoys and
Biosensors for Remote
Sampling for TMDLs



Wetlands and SAV: Restoration, Climate Effects, Habitat Value



**Coastal Wetlands:
Mapping Change**

**Submerged Aquatic
Vegetation:
Critical Habitat**



Sea Level Rise and Shoreline Response: Partnership with Communities



Recurrent Flooding
in Norfolk

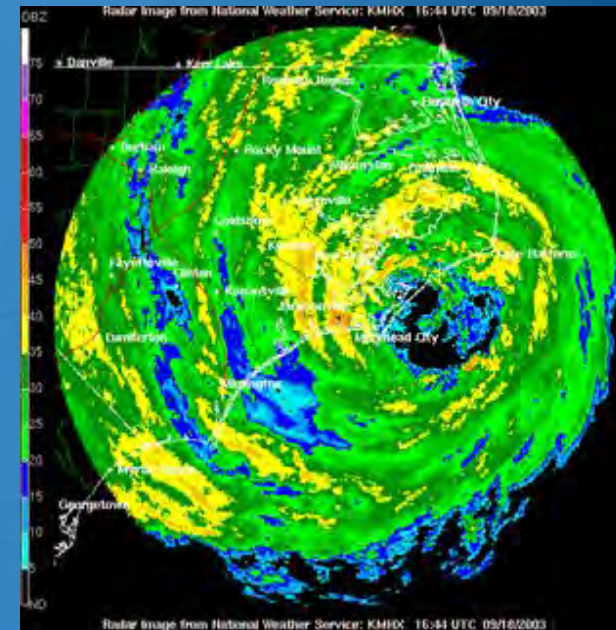
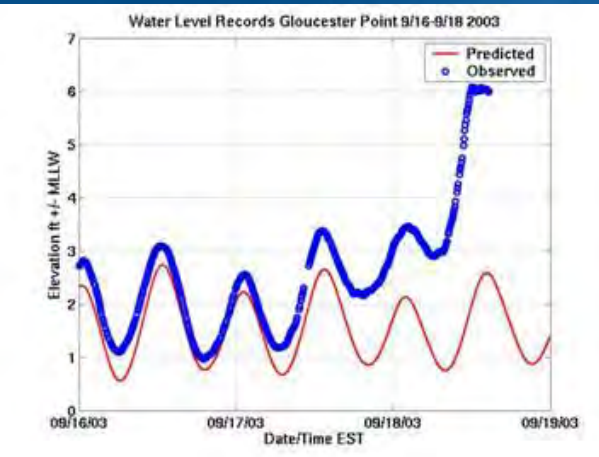


Barrier Island
processes



Numerical Modeling of Storm Surge: Possibility for Street-Level Predictions

Impacts of Hurricanes



Tide Watch in Real Time

Estuarine Sedimentation & Benthic Ecology: Role of Biogeochemistry



Student Field Trip



Sampling Eastern Shore Mudflat



Box Core Sample of :”Benthos”

Public Outreach

<http://www.vims.edu/public/>

- After Hours Lecture Series
- Discovery Labs
- Marine Science Day
- Summer Camps
- Science Under Sail
- Speakers Bureau
- . . . and more



2015 – 2020 Strategic Plan

Major Goals

- *Goal 1: Transform our understanding of local and regional effects of human activity and global change*
- *Goal 2: Build on our existing robust and effective linkages between science experts, public policymakers, and education leaders to more effectively reduce risk and enhanced sustainability and resiliency in coastal marine systems*
- *Goal 3: Enhance the regional economy through scientific discovery and application of new knowledge*

2015 – 2020 Strategic Plan

Major Goals

- *Goal 4: Train, inspire and empower the next generation of marine science leaders*
- *Goal 5: Develop and maintain a safe and attractive campus that promotes intellectual achievement and a sense of community*
- *Goal 6: Transform the public perception of and investment in VIMS in order to diversify revenue and advance Goals 1-5*



PERSPECTIVE LOOKING SOUTHWEST



PERSPECTIVE LOOKING NORTHEAST

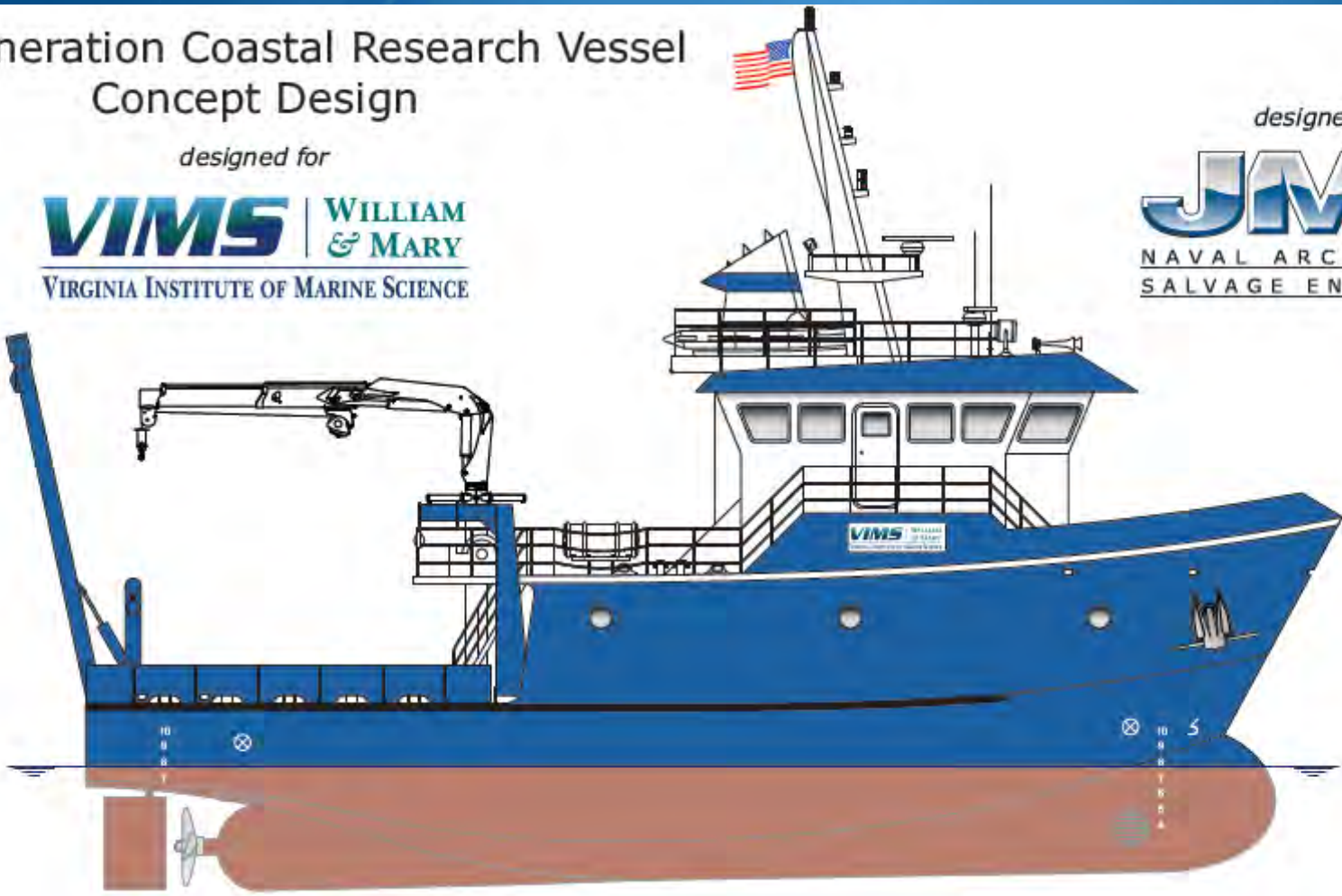
Next Generation Coastal Research Vessel Concept Design

designed for

VIMS | WILLIAM & MARY
VIRGINIA INSTITUTE OF MARINE SCIENCE

designed by

JMS
NAVAL ARCHITECTS
SALVAGE ENGINEERS



VIMS | WILLIAM & MARY
VIRGINIA INSTITUTE OF MARINE SCIENCE



A close-up photograph of a blue crab resting on a grey rock. The crab's body is a mix of brown and tan, with its legs showing vibrant blue and red colors. Its two large claws are raised, one pointing towards the top right and the other towards the top left. The background is a blurred view of a pier structure extending into the water under a clear blue sky.

Any Questions?