

LSU

**Office of Research &
Economic Development**

WELCOME TO THE TEAM

Robert R. Twilley

**Vice Chancellor of
Research &
Economic
Development**

225-578-5833
research@lsu.edu
rtwilley@lsu.edu



**Darya Courville, Assistant Vice
Chancellor of Sponsored
Programs**

225-578-4765
ddcourv@lsu.edu



**Sean Courtney, Associate Vice
Chancellor of Research
Compliance, Integrity & Security**

225-578-1313
seancourtney@lsu.edu



**Elsa Hahne, Director of Research
Development Support Services**

ehahne@lsu.edu



Office of Research &
Economic Development

A&M RESEARCH FLEET: FIVE RESEARCH CAMPUSES

LSU (FLAGSHIP)

LSU AGCENTER

PENNINGTON BIOMEDICAL

LSU HEALTH SHREVEPORT

LSU HEALTH NEW ORLEANS

41,000 STUDENTS

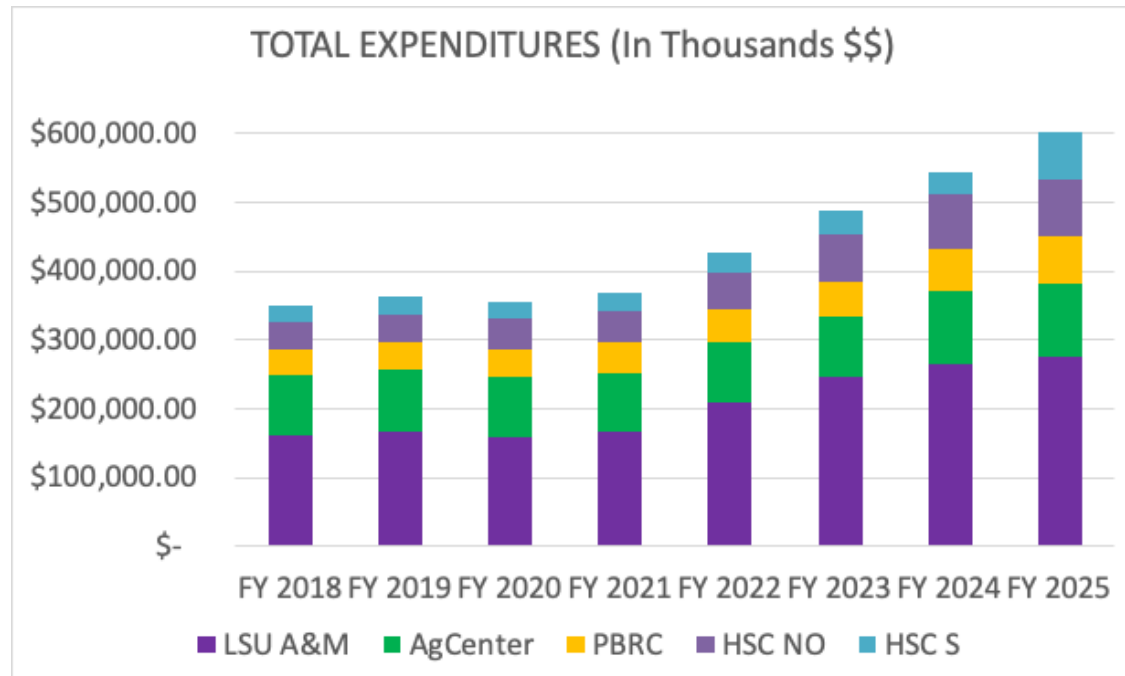
7,000 GRADUATE STUDENTS

LAND GRANT, SEA GRANT, SPACE
GRANT



REACHING TOP 50

\$601 million in research expenditures



ORED STRATEGIC GOALS

1. Increase National Ranking and Recognition
2. Enhance the LSU Research Experience
3. Conduct Compliant and Secure Research
4. Commercialize LSU Research Discoveries
5. Engage to Elevate Research Impacts

ASSOCIATE VICE CHANCELLORS

1. Represent broad discipline areas.
2. Consult with faculty and leadership.
3. Guide research strategy.
4. Support the development of competitive faculty research teams across LSU's research campuses.
5. Develop research centers, institutes, and core research facilities.
6. Identify federal, state, and private funding opportunities that accelerate LSU's research productivity.
7. Create outreach and community engagement opportunities for impact.



John Flake

**NATURAL & BUILT
ENVIRONMENTS**
johnflake@lsu.edu



Steph Cormier

**HEALTH AND HUMAN
SAFETY & SECURITY**
stephaniacormier@lsu.edu



Clint Willson

WATER & COAST
cwillson@lsu.edu



Janna Detting

**ARTS, HUMANITIES
& SOCIAL SCIENCES**
cdjanna@lsu.edu

OUR RESEARCH CENTERS, INSTITUTES & CORE FACILITIES

Research Centers

Center for Collaborative Knowledge
Center for Computation & Technology
Coastal Ecosystem Design Studio
Cyber Center
Louisiana Sea Grant College Program
Louisiana Space Grant Consortium
National Center for Advanced Manufacturing

Research Park/Campus

Innovation Park
LIGO (Caltech/MIT-operated, LSU-hosted)

* in development

Research Institutes

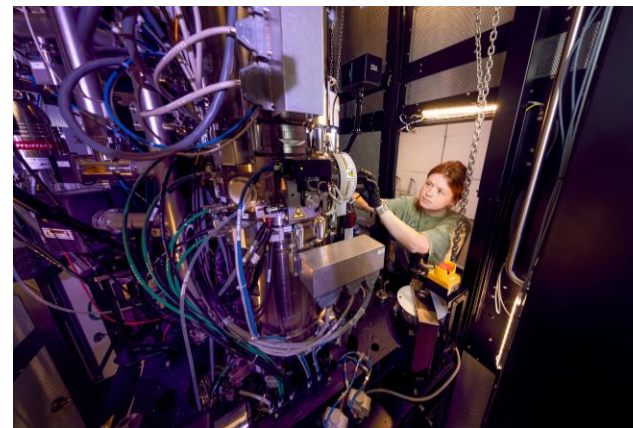
Coastal Studies Institute
Energy Institute (including Louisiana Geological Survey)
Minerals Processing Institute*
Stephenson Disaster Management Institute
Institute for the Health and Performance of Champions

Research Core Facilities

Advanced Microscopy & Analytical Core (AMAC)
Digital Twins*
Petroleum Engineering Research, Training & Testing
(PERTT) Lab*
Louisiana Light Source (formerly CAMD)

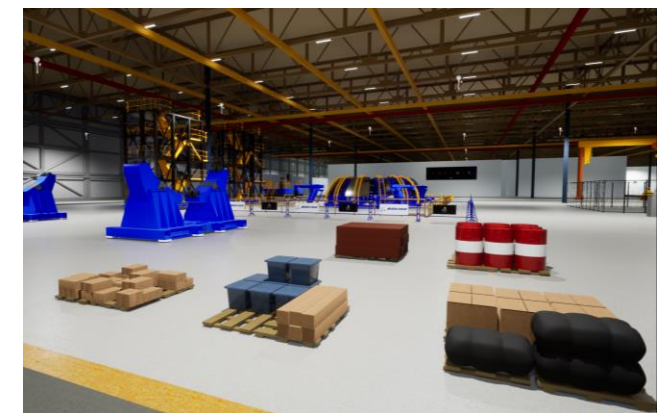
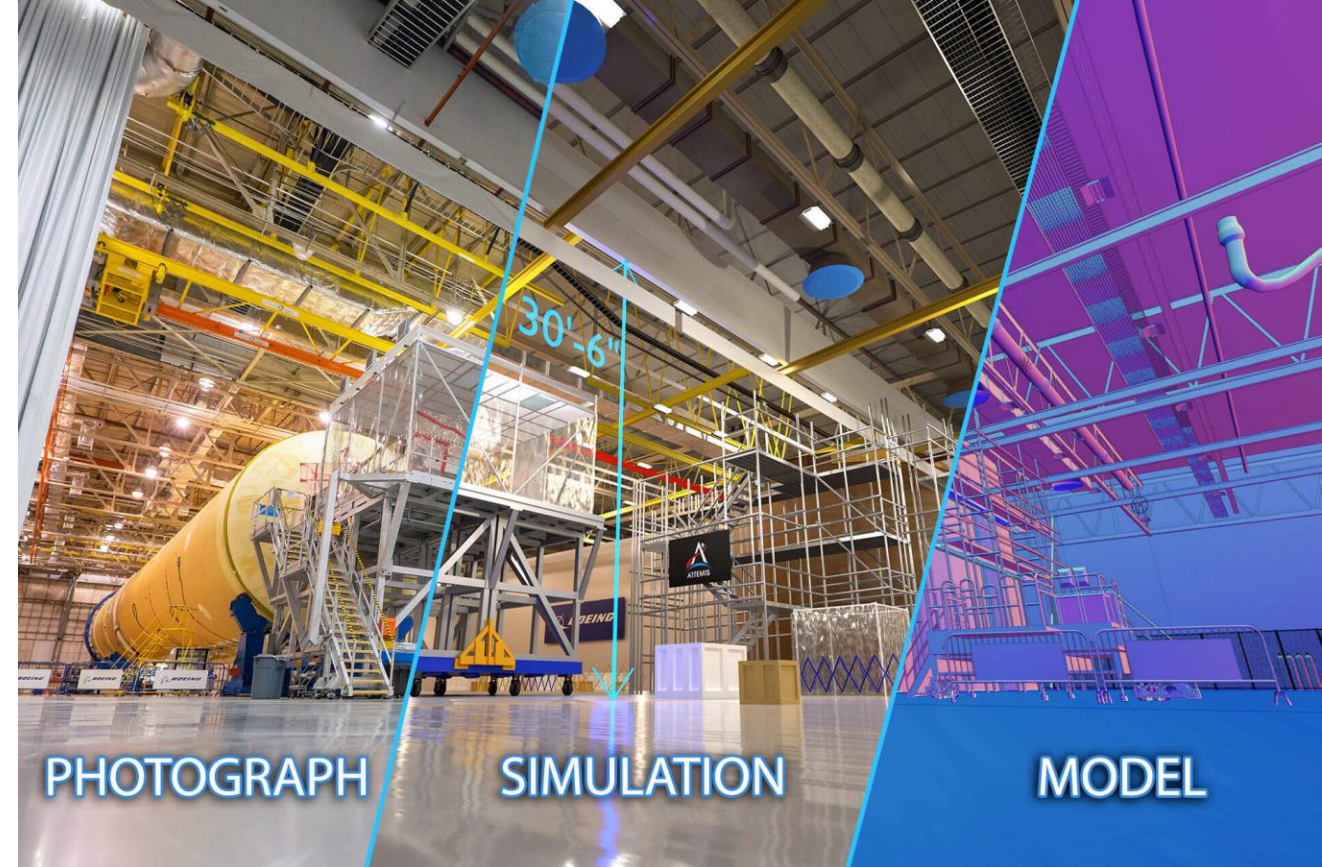
ADVANCED MICROSCOPY & ANALYTICAL CORE (AMAC)

- 16 state-of-the-art instruments, including electron microscopy, light/fluorescence microscopy, X-ray μ -CT, and X-ray spectroscopy
- Spectra 300 Scanning Transmission Electron Microscope (S/TEM) for atomic-scale imaging and analysis—the most advanced microscope in Louisiana, installed in 2025 with \$10 million in support from the Army Research Office



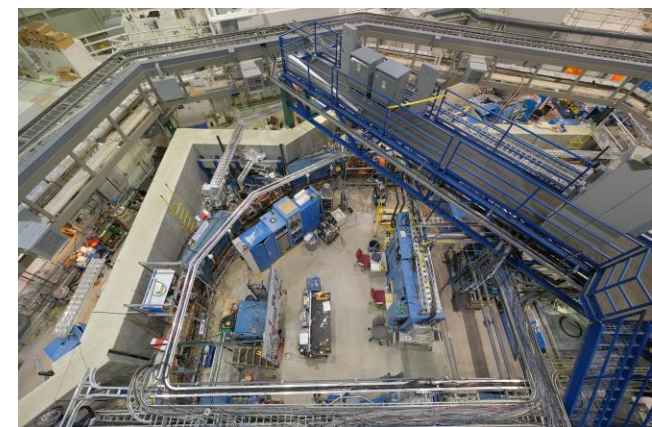
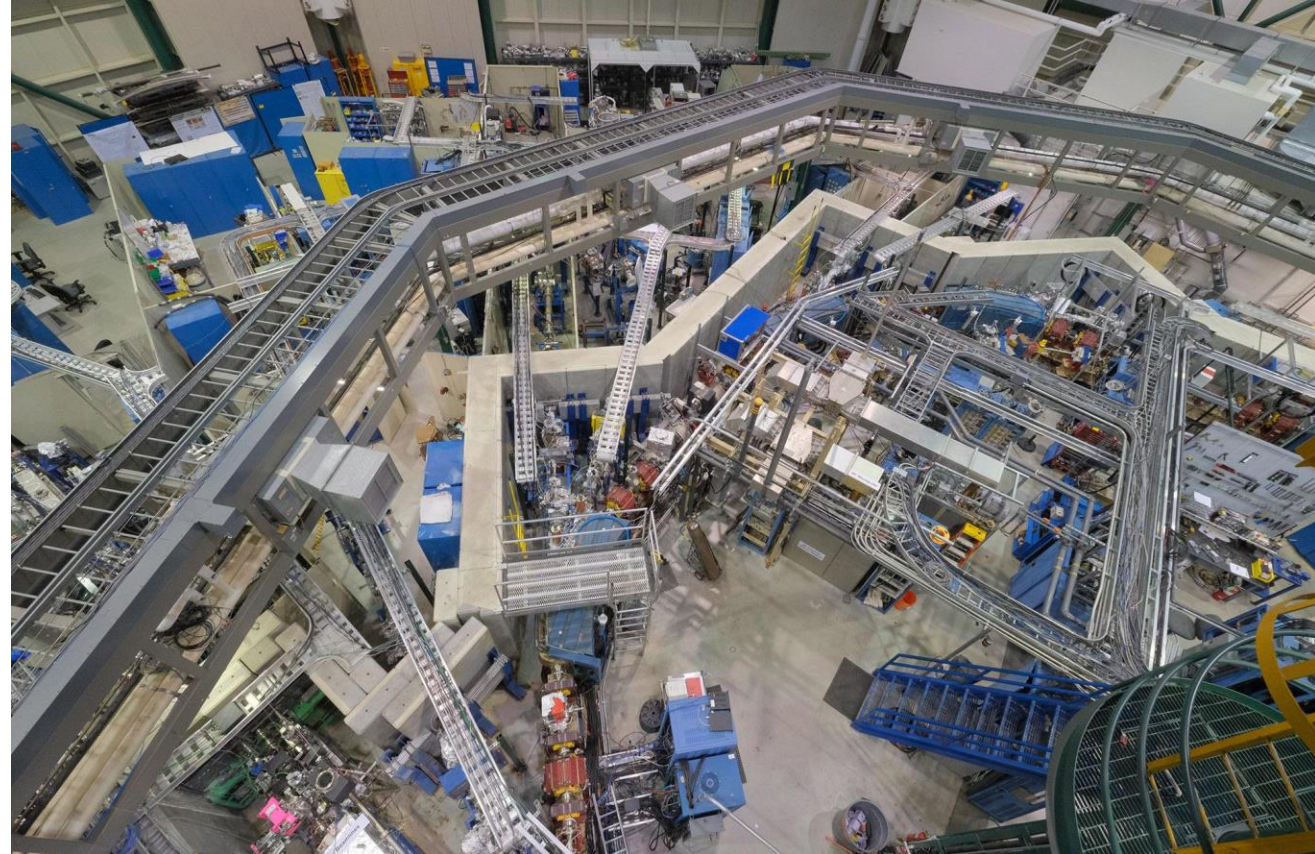
DIGITAL TWINS

- LSU's new digital twin core facility is led by John Vickers, who spent 40 years at NASA as principal technologist for advanced manufacturing
- Flagship project: real-time virtual replica of NASA's two-million-square-foot Michoud Assembly Facility, where Artemis SLS core stages are built using LSU National Center for Advanced Manufacturing equipment
- Art-plus-engineering ecosystem includes Digital Twinning Studio, XR Studio, Digital Humans Lab, and Spatial Computing Lab



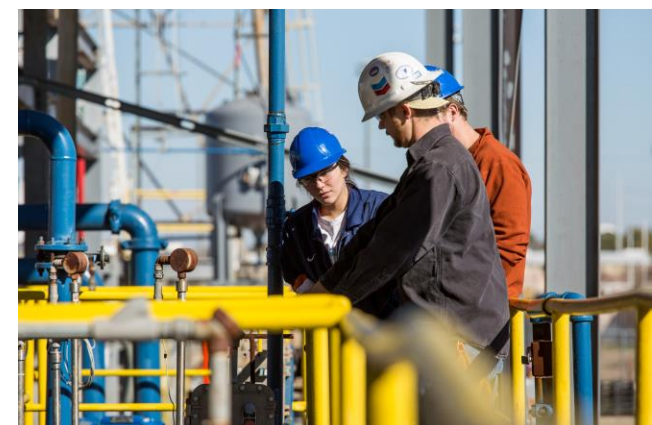
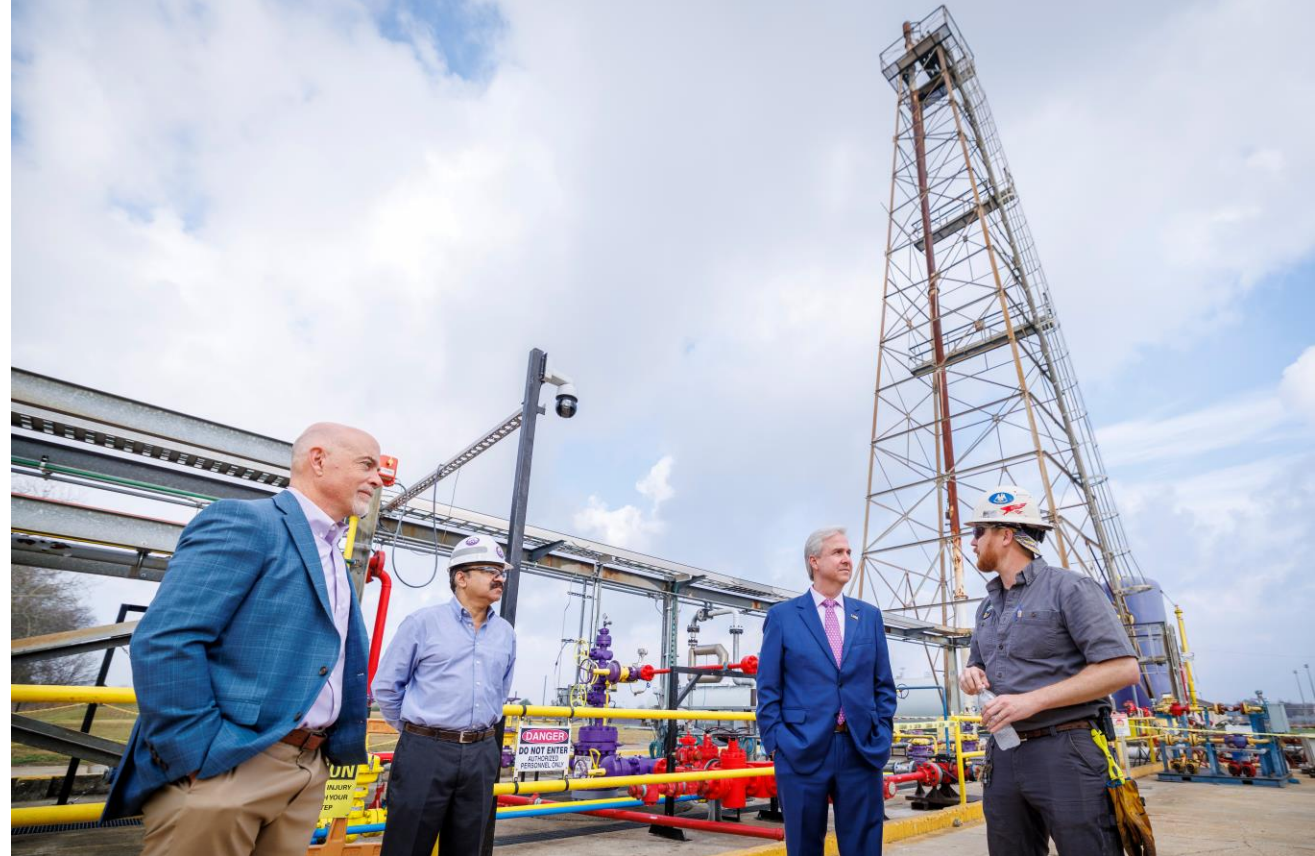
LOUISIANA LIGHT SOURCE

- One of only two university-owned synchrotrons in the nation
- 1.2-GeV storage ring
- Long-term collaborations with industry partners
- NSF to support free-electron laser
- Focus on catalysts, minerals processing, semiconductors, and advanced materials
- Recent upgrades include EUV beamline to develop new photoresists for semiconductor manufacturing
- 2026 Genesis Mission award to LSU will optimize synchrotron operation



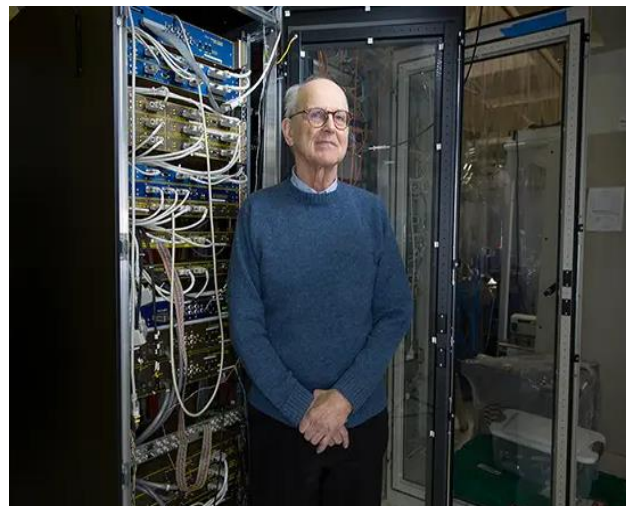
PETROLEUM ENGINEERING RESEARCH, TRAINING & TESTING (PERTT) LAB

- LSU is the only U.S. university with six full-scale research wells at depths from 1,200 to 5,200 feet
- CO₂-capable well with a horizontal section began drilling in 2026, funded by the EDA and Louisiana Economic Development with support from Halliburton, ExxonMobil, Shell, Chevron, and H&P
- Cybersecurity for energy infrastructure: Tiger Skid built for LSU by Idaho National Lab in partnership with DHS and CISA



LIGO LIVINGSTON

- NSF-funded, Caltech/MIT-operated, deeply LSU-entangled
- LSU's investment in gravitational-wave detection spans more than four decades, with faculty leading development, commissioning, and operation
- At the first detection in 2015, LSU's Gabriela González was spokesperson for the LIGO Scientific Collaboration and LSU's Joseph Giaime was observatory head
- Observatory is 45 minutes from LSU's main campus
- Rainer Weiss (Adj. Phys. 2017 Nobel Prize)



SOLVING NATIONAL CHALLENGES

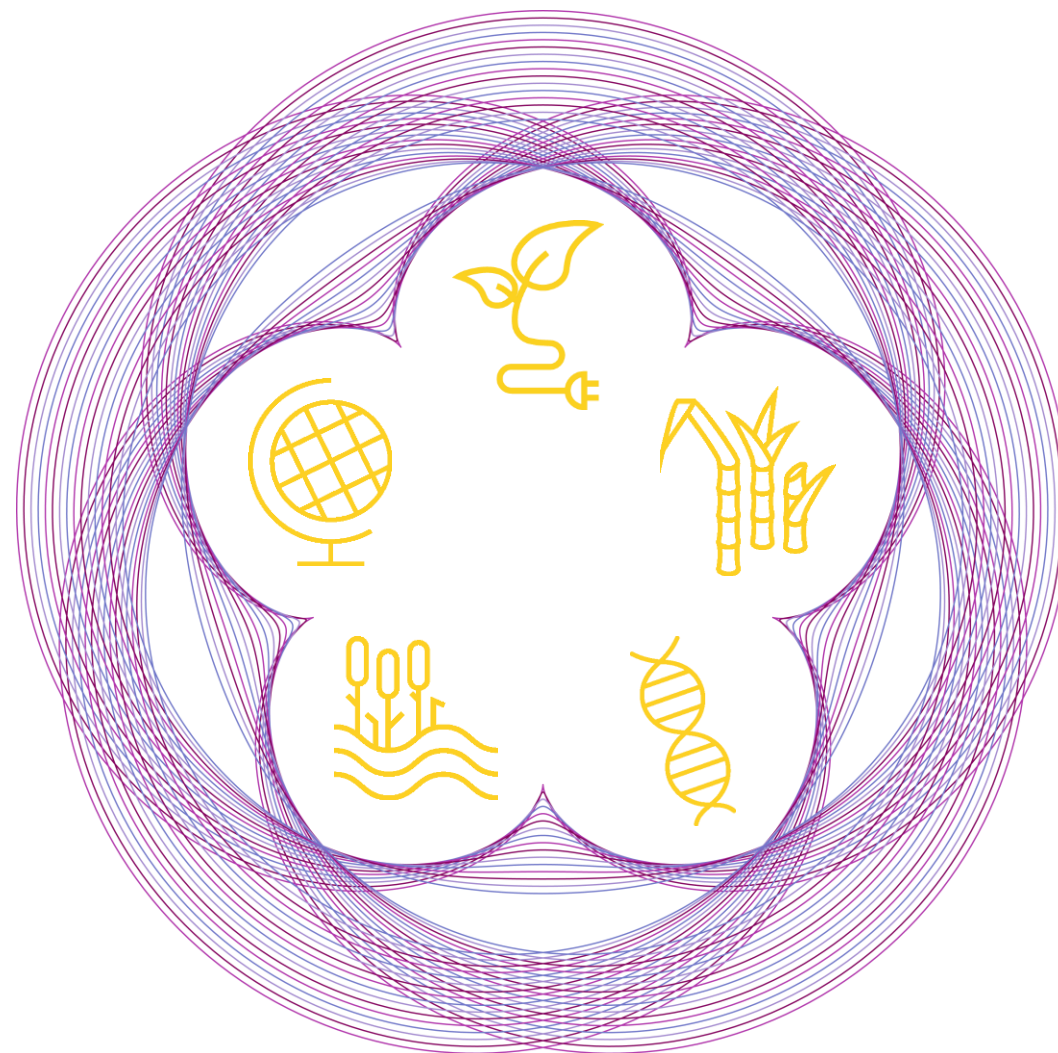
Agriculture research supports farmers and foresters; focus on precision agriculture, climate-resistant crops, liquid biofuels

Biomedical research for better health for all Americans; focuses on cancer, metabolism, diabetes

Coastal research to secure people, infrastructure, and navigation in a delta affected by erosion, subsidence, and sea level rise; focus on frontier environmental modeling and maritime

Defense research; focus on cybersecurity for energy infrastructure, AI, digital twins, and quantum

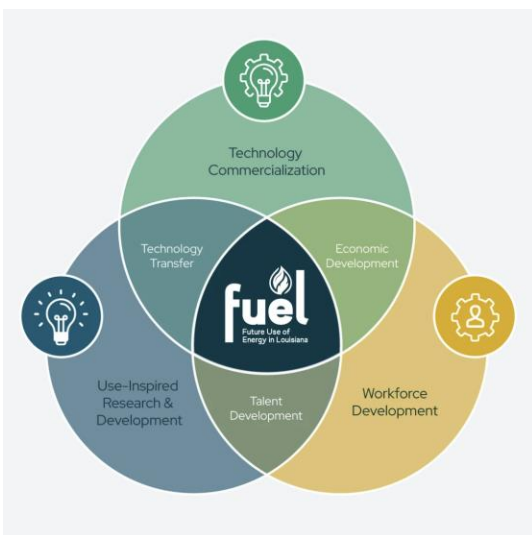
Energy research; focus on applied solutions for Louisiana's manufacturing industry, data centers, and nuclear development





Office of Research & Economic Development

FUEL EXAMPLIFIES LSU'S LONG- STANDING PARTNERSHIPS



EDUCATION



GOVERNMENT AND COMMUNITY



INDUSTRY AND CAPITAL



AAU PHASE I INDICATORS

1. Competitively funded federal research support
2. Faculty awards, fellowships, and memberships (highly prestigious awards)
3. Citations database provides an annually updated measure of both research volume and quality and will provide a valuable complement to the indicators listed above
4. Books: Membership Committee gathers data on book publications to represent scholarship at AAU institutions – especially in the arts, humanities, and social sciences



AAU PHASE II INDICATORS

1. USDA, state, and industrial research funding
2. Doctoral education: Membership Committee uses number of PhDs granted annually
3. Number of postdoctoral appointees



RESEARCH DEVELOPMENT

Example programs:

ORED Summer Institute for grant writing—ask your department chair if you are interested

ORED Faculty Recognition Awards

- Rainmaker Awards (Emerging, Mid-Career, Senior)
- Distinguished Research Master
- Support in nominations for national awards!

INNOVATION & TECHNOLOGY COMMERCIALIZATION

- Integral to the protection of LSU intellectual property
- Works closely with faculty to determine potential commercial value
- With new patent laws, it is critically important to disclose early and often

Connect with ITC: lsu.edu/innovation

Greg Trahan, Assistant Vice Chancellor of Strategic Research Partnerships, gtrahan1@lsu.edu

SPONSORED PROGRAMS

The Office of Sponsored Programs handles pre-award and non-financial post-award sponsored program activity, including:

- Proposal and preproposal review and submission
- Negotiations and approvals of awards, including amendments
- Subawards
- Prior approval requests
- GeauxGrants sponsored project module, lsu.edu/geauxgrants

Connect with OSP: lsu.edu/osp

Darya Courville, Assistant Vice Chancellor of Sponsored Programs, is LSU's signatory for proposals and awards, ddcourv@lsu.edu

OUR GUIDE FOR LSU RESEARCHERS

lsu.edu/research/guide/index.php



PROPOSAL TOOLKIT, EXAMPLES & TRAINING

- Our **Proposal Toolkit** includes outlines, agency guidelines, boilerplates, sample letters, and budget templates: <https://www.lsu.edu/osp/proposals/proposal-toolkit.php>
- **Examples** of successful proposals and components can be easily accessed online: <https://moodle.lsu.edu/login/index.php>
- Sign up for the **Introduction to Sponsored Programs & GeauxGrants** Sponsored Projects Module training through myLSU, LSU Training and Event Registration



RESEARCH COMPLIANCE, INTEGRITY & SECURITY

Contact Sean Courtney,
Associate Vice Chancellor
of Research Compliance,
Integrity & Security:
seancourtney@lsu.edu

Responsible Conduct of Research

- NSF/NIH/USDA-NIFA Guidelines
- Training
- Certification

Outside Employment (PM-11)

- Conflicts of commitment
- Contractual work outside of LSU
- Side jobs

Research Misconduct (PS-69)

- Fabrication
- Falsification
- Plagiarism

Financial Conflicts of Interest

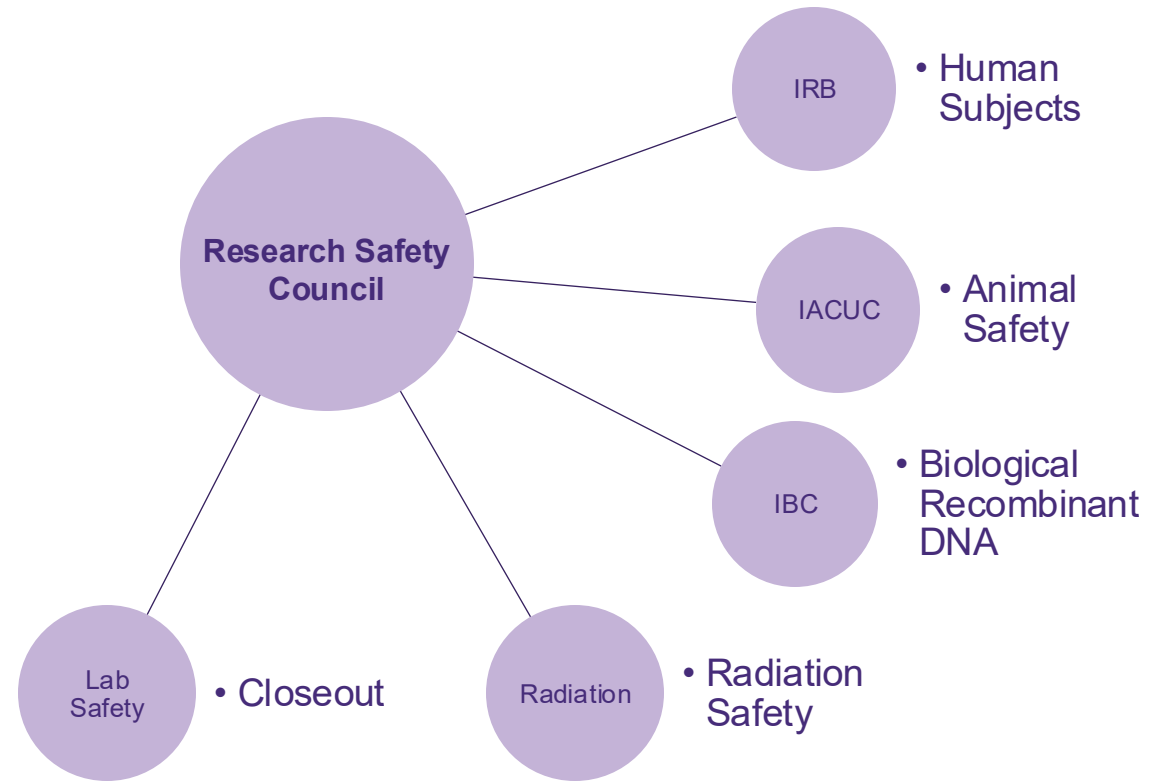
- LSU regulations
- PS 98 – Financial Conflicts of Interest
- PS 68 – Intellectual Property Rights

Export Control & Foreign Influence

- Complying with U.S. export regulations
- Transparency in all foreign contracts and grants
- Science and technology exports

RESEARCH SAFETY

Management and oversight of federally mandated regulatory compliance.





RESEARCH SECURITY

LSU embraces the core values of truth, integrity, excellence, and engagement. The Research Security Office, housed in ORED, strives to foster a research culture based on these values. Two federal acts, National Security Presidential Memorandum 33 and the Chips & Science Act, require researchers to take online research security training. LSU's research security policy: lsu.edu/policies/ps/ps_46.pdf

- **Protects Innovation.** Safeguards your intellectual property, data, and breakthrough discoveries from unauthorized access.
- **Secures Funding.** Ensures compliance with federal mandates (such as NSPM-33) to maintain institutional grant eligibility.
- **Defends Reputation.** Prevents conflicts of commitment, protecting your professional standing and academic freedom.
- **Disclosure & Transparency.** Accurately report foreign affiliations, external financial interests, and international collaborations.
- **Data & Cybersecurity.** Secure research data, utilize approved institutional servers, and practice safe digital hygiene.
- **Export Controls & Travel.** Comply with federal regulations regarding shipping sensitive items abroad or international travel.

RESEARCH SECURITY TRAINING & DISCLOSURE OBLIGATIONS

CITI Training

- **Required Course.** Faculty must complete the online Research Security Training-Combined module through the CITI Program: <https://about.citiprogram.org/>
- **Annual Refresher Training.** Training expiration tracks on an annual cycle. Recertification is required every 12 months.

Disclosure Obligations

- **All Collaborations.** Full transparency is required for all active and pending external research collaborations.
- **International Partnerships.** You must proactively report global activities, entity affiliations, and foreign talent programs.
- **Countries of Concern.** Elevated scrutiny applies to engagements with foreign countries such as China, Russia, Iran, Cuba, and North Korea.

COMMUNICATIONS & OUTREACH

GeauxGrants Newsletter

Weekly email listing new opportunities for awards, resources, guidelines, and more

LSU Research Highlights

Bimonthly email newsletter celebrating recent LSU research achievements

Working for Louisiana

Thematic email newsletter and website to illustrate LSU's impact and value

LSU Science Café

- Last Tuesday of every month (January-November)
- Speakers from across the flagship campus
- It's not just about science



RESEARCH COMMUNICATIONS: WHO, WHAT, WHEN

At LSU, we work as a team

- College and Department communicators are your go-to resources
- ORED steps in to support on cross-college, cross-campus efforts; on projects involving strategic partners of the university (government, industry, etc.); and on projects related to ORED strategic initiatives and units (research centers, institutes, and core facilities)
- Meg Sunstrom (President's Office) is the Chief Communications Officer for the LSU System

We're here for you

- Prestigious awards and publications—let us know, so we can help tell the world!

RESEARCH COMMUNICATIONS: WHERE, WHY

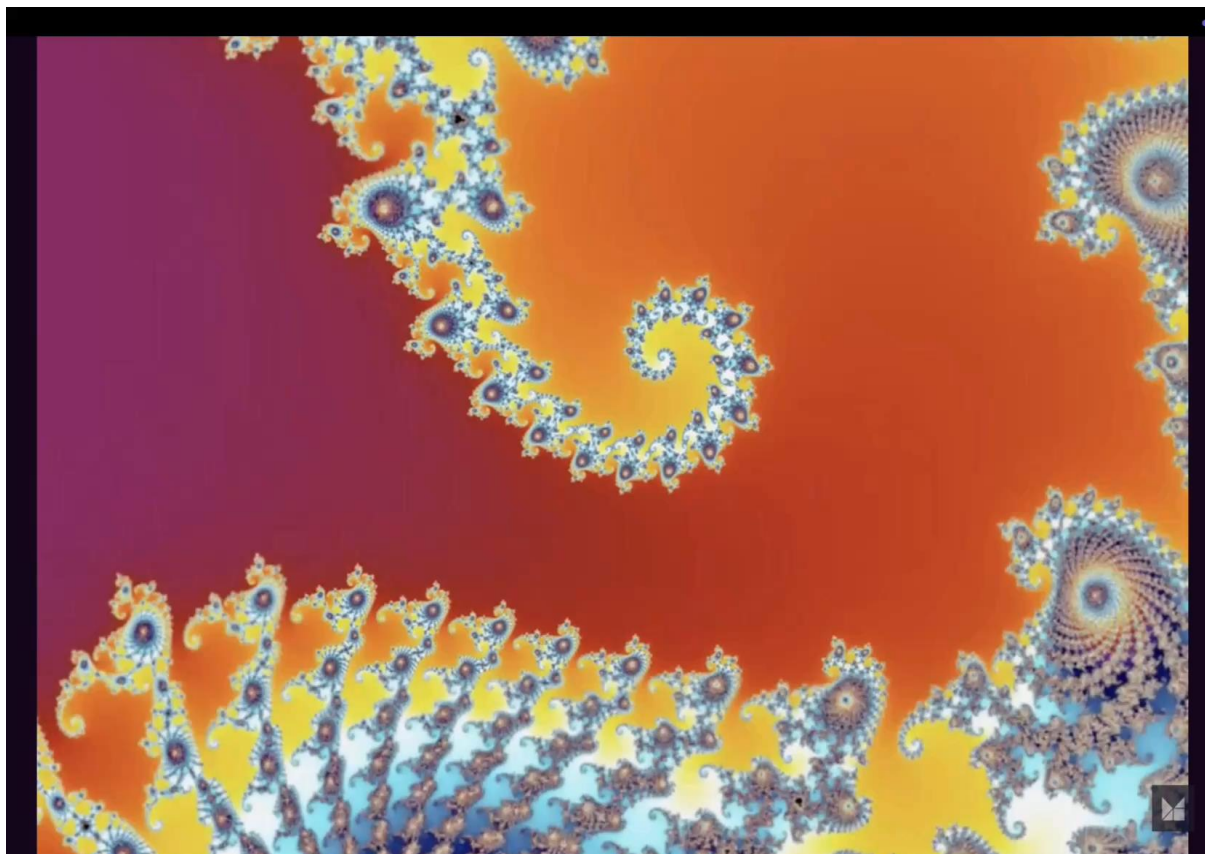
ORED's audiences

- LSU faculty, staff, and students
- Federal and state agencies
- Collaborators, including national laboratories and university peers
- Industry, niche audiences
- General public

ORED goals

- Increase research expenditures, revenue
- Protect the university and build LSU's research brand
- Build competitive research teams, elevate the LSU research experience
- Recruit and retain top talent (that's you)
- Create customers for LSU solutions and intellectual property

RESEARCH STORYTELLING: LET'S GET "THE ZOOMIES"



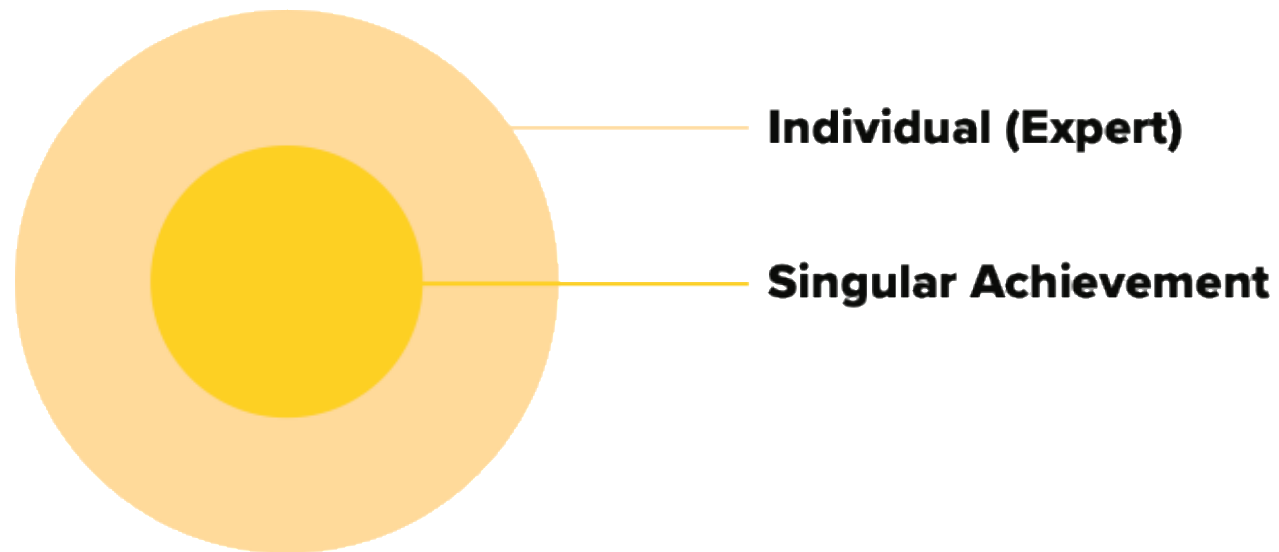
The **Mandelbrot set** is a visual representation of a mathematical equation; a set of complex numbers that behave a certain way under iteration, creating intricate patterns.

Research is **all about focus** on carefully defined questions. But in communicating your research, remember to start your story with the **big picture** and why the world needs the work you do. End by talking about real or potential **impacts**—how your work will change lives or change science.

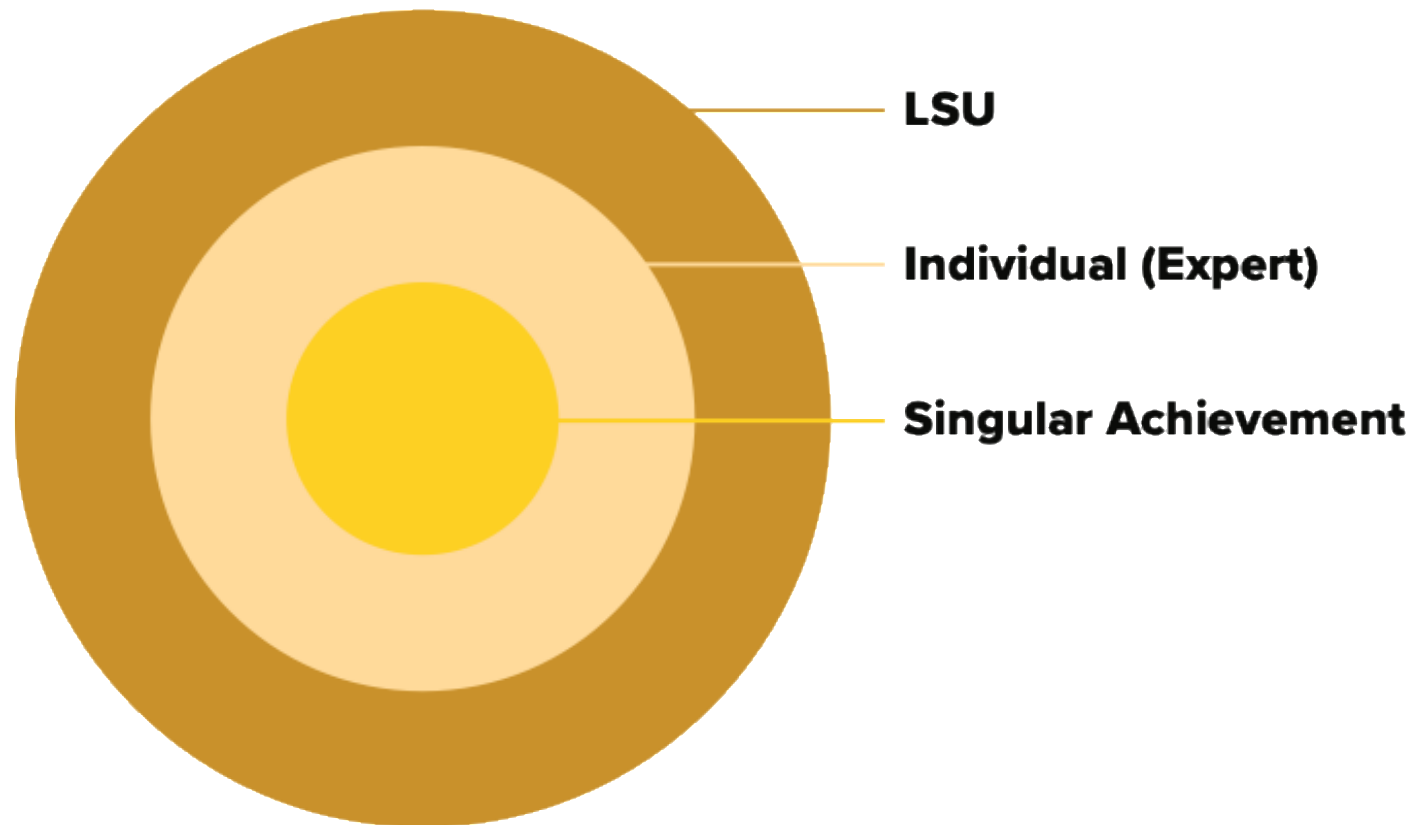
RESEARCH COMMUNICATIONS: HOW WE USED TO TELL STORIES



RESEARCH COMMUNICATIONS: HOW WE USED TO TELL STORIES



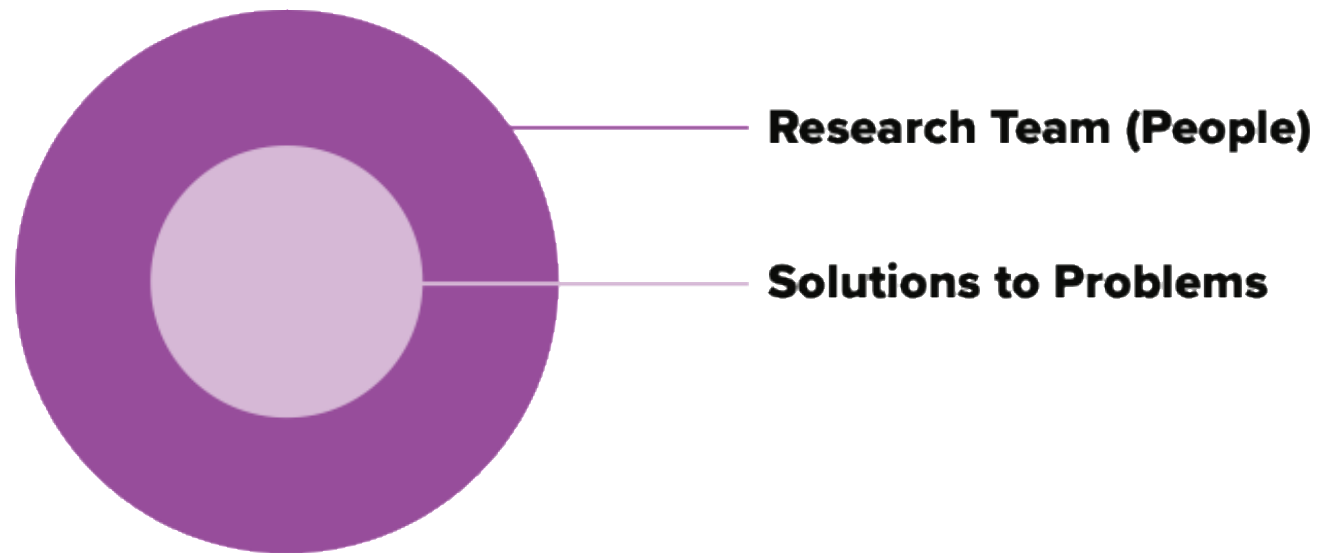
RESEARCH COMMUNICATIONS: HOW WE USED TO TELL STORIES



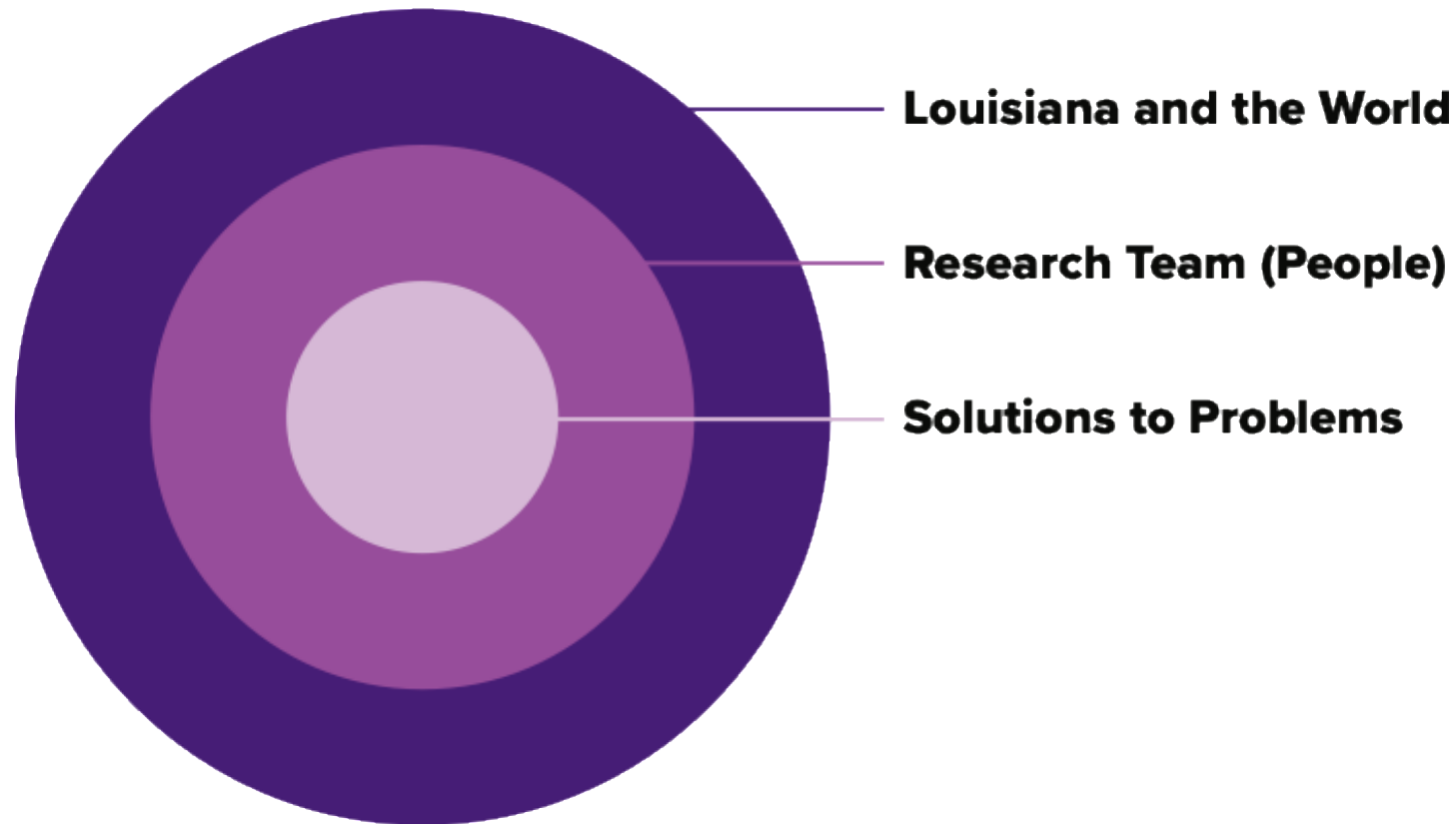
RESEARCH COMMUNICATIONS: HOW WE TELL STORIES NOW



RESEARCH COMMUNICATIONS: HOW WE TELL STORIES NOW



RESEARCH COMMUNICATIONS: HOW WE TELL STORIES NOW



SOCIAL MEDIA

Follow us @LSUResearch



QUESTIONS?

Robert R. Twilley

**Vice Chancellor of
Research &
Economic
Development**

225-578-5833
research@lsu.edu
rtwilley@lsu.edu



**Darya Courville, Assistant Vice
Chancellor of Sponsored
Programs**

225-578-4765
ddcourv@lsu.edu



**Sean Courtney, Associate Vice
Chancellor of Research
Compliance, Integrity & Security**

225-578-1313
seancourtney@lsu.edu



**Elsa Hahne, Director of Research
Development Support Services**

ehahne@lsu.edu