



EAST TENNESSEE STATE UNIVERSITY

Working Group
on Research and Innovation

Deliverable #2:
Research Strategic Planning Report

September 1, 2019

Table of Contents

<i>Introduction.....</i>	3
<i>Research Strategic Planning Report – Executive Summary</i>	4
<i>Appendix 1 – Foster institutional and college-level research infrastructure growth and operational excellence. (RSPR1).....</i>	5
<i>Appendix 2 – Identify, invest in, and increase the visibility of research strengths, growth areas, and partnerships. (RSPR2).....</i>	8
<i>Appendix 3. Link research to the educational experience. (RSPR3)</i>	12
<i>Working Group Members.....</i>	14

Introduction

As stated in the charge to all working groups and task forces, “the purpose of this University-wide emphasis on operational alignment is to assure that the University’s organizational structure and leadership team are aligned with our mission and with our strategic initiatives. This intensive review will increase focus, reduce redundancy, identify accountability, and best position the institution for the next ten years.” The second deliverable of the Research and Innovation Working Group (RIWG) is a Research Strategic Planning Report – a compilation and distillation of recent reports and strategic plans that brings focus to targeted, short-term research action items. The RIWG recognizes and appreciates the work of previous strategic planning task forces, committees, and working groups. In the past 5 years alone, much work has been done to identify research strengths and opportunities. This work includes:

- ETSU University Strategic Plan 2016-2026
- ETSU Strategic Research Plan 2015
- ETSU 125 Visioning Report
- Research and Economic Development at ETSU White Paper 2018
- ETSU Clinical Research Working Group Report 2018
- ETSU AIM Program Briefing Book
- ETSU AIM Program Site Visit Report

Importantly, there was consensus among the RIWG members that the 2015 ETSU Strategic Research Plan, developed by a diverse cadre of faculty and administrators who represented all schools and colleges, continues to be relevant. Many of the RIWG’s suggestions, therefore, reaffirm items in the 2015 Research Strategic Plan. There was also consensus among RIWG members that the Vice President for Research and Innovation (VPRI, see Deliverable #1) should inform ETSU’s next research strategic plan. Therefore, the RIWG, through reviewing all of the documents mentioned heretofore, developed a concise Research Strategic Planning Report that identifies action items for the next two years (Year 1 = 2019-2020; Year 2 = 2020-2021) and positions the university for research growth upon arrival of the VPRI (anticipated July 2020). Per the charge to the RIWG, the Report aligns with the ETSU University Strategic Plan 2016-2026 and cost estimates are provided. A one-page executive summary of action items is presented hereafter, followed by theme-specific appendices. Readers are referred to RIWG Deliverable #1: Office of the Vice President for Research and Innovation Structure, Position Description, and Implementation Report for additional context.

Research Strategic Planning Report – Executive Summary

RSPR1. Foster institutional and college-level research infrastructure growth and operational excellence. (Supports University Strategic Plan items 5a, 5b, and 5c)

1. In addition to the Vice President for Research and Innovation position, create and fill Research Integrity Officer, Assistant Director of Compliance and Training, and Subcontract Officer positions to bolster institutional research infrastructure.
2. Develop and fill college-level research leadership position (e.g., Associate Dean for Research) and research services manager position (shared or individual) in each college.
3. Establish ad hoc committee with representation from faculty who conduct externally funded research, college-level research leadership (e.g., Associate Dean for Research), the Office of Research and Sponsored Programs, the Office of the VP for Business and Finance (post-award grant accounting, procurement, budget development and control), the Office of Human Resources, the Office of Planning and Decision Support (data analysis), the Office of the VP for University Advancement (philanthropy, development), the Office of Facilities Management, Planning, Design and Construction, and the ETSU Division of University Relations (marketing, dissemination) to: 1) review, revise, and construct policies that position the institution to meet its research mission; and 2) establish interoffice research communication norms that foster operational excellence.
4. Transition grant accounting personnel from the Office of Business and Finance to the Office of the Vice President for Research and Innovation.

RSPR2. Identify, invest in, and increase the visibility of research strengths, growth areas, and partnerships. (Supports University Strategic Plan items 5b, 5c, 5d, 5e, and 5f)

1. Actively promote and market ETSU's research successes and mission, including making research prominent on the ETSU web page.
2. Using key outcome measures for the OVPRI, engage the Office of Institutional Research to establish and maintain research data collection definitions and mechanisms, including undergraduate, graduate, and professional student research engagement metrics.
3. Cultivate development of interdisciplinary Centers and Institutes in strength areas, with particular emphases on regional health-system partnerships.
4. Create mechanism(s) to align faculty recruitment efforts with research strengths and growth areas.
5. Create and/or enforce college-specific bridge funding mechanisms for highly productive faculty.
6. Objectively analyze and optimize use of research space considering both funding metrics and engagement of students in research activities.
7. Evaluate and disseminate return on investment data for current research investments, including investments in start-up packages and Research Development Committee funding dedicated to research projects.

RSPR3. Link research to the educational experience (Supports University Strategic Plan item 1c)

1. Explore barriers and facilitators to undergraduate student engagement in research.
2. Leverage undergraduate, graduate, and professional student research engagement data and downstream career successes to enhance student recruitment, student outcomes, and the overall university brand.
3. Promote and expand funding for student engagement in research activities.

Appendix 1 – Foster institutional and college-level research infrastructure growth and operational excellence. (RSPR1)

1.1. In addition to the Vice President for Research and Innovation position, create and fill Research Integrity Officer, Assistant Director of Compliance and Training, Subcontract Officer positions to bolster institutional research infrastructure.

Justification: Additional infrastructure is needed prior to arrival of the VPRI to bolster capabilities of the Office of Research and Sponsored Programs. Compared to peer and benchmark institutions, ORSPA is understaffed. The Research Integrity Officer (RIO)(Year 1) will facilitate policy development and investigations related to research and scholarly misconduct. The Assistant Director of Compliance and Training (ADCT)(Year 1) will provide operational oversight for and coordination of institutional research compliance programs that promote the highest standards of ethics, integrity and responsibility in the conduct of research. The ADCT will work with stakeholders to develop, implement, and monitor compliance programs to ensure that individuals and the institution carry out research in accordance with applicable federal and state laws and regulations, sponsor guidelines and policies, required protocols and federally mandated agency program requirements. The ADCT will develop and deliver a multifaceted educational and training program and will author and disseminate content on relevant compliance issues to the campus community. The Subcontract Officer (SO)(Year 2) will assist in establishing, promoting and implementing best practices for sponsored programs subcontracting at ETSU. The SO will assist in developing subcontract templates, tools and resources to facilitate subcontract set-up and management from pre-award to closeout including preparing and negotiating outgoing subcontracts. The SO will vet potential subrecipients by gathering, reviewing and analyzing subrecipient audit reports and financial documents, and recommending whether to take action in the form of management decisions, special contractual terms, or other subrecipient monitoring measures. The SO will prepare subrecipient monitoring plans, conduct subcontract monitoring in collaboration with project and finance staff, and document monitoring results including performance, compliance with terms and conditions, and budget management.

Timeframe:

Year 1 – Research Integrity Officer (20-33% effort of current ETSU faculty member); Assistant Director of Compliance and Training

Year 2 – Subcontract Officer

Metrics:

Positions created and filled

Estimated Annual Costs:

Research Integrity Officer: \$20,000; Assistant Director of Compliance and Training: \$75,000;

Subcontract Officer: \$75,000

Total Year 1: \$95,000

Total Year 2 and recurring: \$170,000

1.2. Develop and fill college-level research leadership position (e.g., Associate Dean for Research) and Research Services Manager position (shared or individual) in each college.

Justification: Presently, four colleges have Associate Deans for Research. Research officers are needed in colleges to advocate for the college's research agenda, communicate with, inform the work of, and collect college-level data for the Office of the Vice President for Research and Innovation, facilitate recruitment of faculty in alignment with research strengths and growth areas across colleges, and serve on the University Research Advisory Council (URAC). This action item directly aligns with University Strategic Plan item 5a. Three colleges presently employ Research Services Managers or equivalent personnel. RSMs facilitate the submission of grants by faculty in their colleges.

Timeframe:

Year 1 - Associate Deans for Research

Year 2 - Research Services Managers (shared or individual)

Metrics:

Positions created and filled

Estimated Annual Costs:

ADRs: \$140,000 (average of 30% effort of faculty member x 4 colleges); RSMs: \$375,000 (\$75,000 per RSM x 5 positions). The RIWG proposes that costs be shared by the colleges and the institution.

Total Year 1: \$140,000

Total Year 2 and recurring: \$515,000

1.3. Establish ad hoc committee with representation from faculty who conduct externally funded research, college-level research leadership (e.g., Associate Dean for Research), the Office of Research and Sponsored Programs, the Office of the VP for Business and Finance (post-award grant accounting, procurement, budget development and control), the Office of Human Resources, the Office of Planning and Decision Support (data analysis), the Office of the VP for University Advancement (philanthropy, development), the Office of Facilities Management, Planning, Design and Construction, and the ETSU Division of University Relations (marketing, dissemination) to 1) review, revise, and construct policies that position the institution to meet its research mission; and 2) establish interoffice research communication norms that foster operational excellence.

Justification: Changing the culture of research at ETSU necessitates operational excellence. Presently, there are inefficiencies, gaps in communication, and ineffective, outdated, and/or prohibitive policies across multiple offices that are well known to ETSU researchers.

Timeframe:
Year 1

Metrics:
1) Policy creation/revision; 2) Operationally excellent research communication

Estimated Annual Costs: No anticipated costs

1.4. Transition grant accounting personnel from the Office of Business and Finance to the Office of the Vice President for Research and Innovation.

Justification: Transitioning post-award grant management positions – positions funded by indirect cost recovery – will facilitate clear and consistent communication between the OVPRI and funded faculty.

Timeframe:
Year 2

Metrics:
Positions transitioned to OVPRI

Estimated Annual Costs:
No anticipated costs

Appendix 2 – Identify, invest in, and increase the visibility of research strengths, growth areas, and partnerships. (RSPR2)

2.1. Actively promote and market ETSU's research success and mission, including making research prominent on the ETSU web page.

Justification: ETSU is currently home to multiple highly productive faculty members. Likewise, ETSU has current research strengths in multiple areas. However, research is not highlighted, and is arguably hidden, on the ETSU home page. Moreover, when research is found, the viewer is not taken to a page that describes our strengths. Peer and benchmark institutions consistently position research front and center on their webpages. Examples include [East Carolina University](#), [University of Missouri-Kansas City](#), and [Old Dominion University](#).

Timeframe:

Year 1

Metrics:

Updated web page; web-related metrics

Estimated Annual Costs:

No additional costs

2.2. Using key outcome measures for the OVPRI, engage the Office of Institutional Research to establish and maintain research data collection definitions and mechanisms, including undergraduate, graduate, and professional student research engagement metrics.

Justification: The RIWG proposed a comprehensive list of 27 key outcome measures the OVPRI is expected to champion and advance (see Deliverable #1). Presently, data governance is lacking, and collection mechanisms are reactive, incomplete, and shared across multiple offices.

Timeframe:

Year 1

Metrics:

Data governance, definitions, collection, availability, and reporting

Estimated Annual Costs:

Per Associate Vice President of Planning and Decision Support, no additional costs assuming college research officer engagement in data governance.

2.3. Cultivate development of interdisciplinary Centers and Institutes in strength areas, with particular emphases on regional health-system partnerships.

Justification: As described in the 2015 Research Strategic Plan, ETSU has notable research assets in multiple areas, including: Appalachian Studies, Creative Arts, Education, Health Sciences, Public Health, and Science. Additional, more specialized pockets of excellence also exist at ETSU. Cultivation of interdisciplinary Centers and Institutions – particularly those that engage regional partners – advances the research mission of the university and the stewardship of place for which the institution is known.

Timeframe:
Ongoing

Metrics:
Number of Centers; Number of Institutes; Number of regional health-system partnerships

Estimated Annual Costs:
Variable

2.4. Create mechanism(s) to align faculty recruitment efforts with research strengths and growth areas.

Justification: There is presently not a systematic manner to evaluate the fit of potential faculty with the institution’s research strengths and growth areas. Doing so would be mutually beneficial.

Timeframe:
Year 2

Metrics:
Presence of mechanism coordinated through Associate Deans for Research and OVPRI

Estimated Annual Costs:
No additional costs

2.5. Create and/or enforce college-specific bridge funding mechanisms for highly productive faculty.

Justification: Productive investigators may episodically struggle to maintain continuous grant support. At these critical time-points, shifting effort from research to clinical activities or losing key research team members is counter-productive to successfully competing for grant funding. Institutional support to cover gaps in funding (i.e., bridge funding) is frequently determined in a case-by-case manner without clear guiding principles or procedures. A transparent and consistent

process would be beneficial both for the faculty principal investigators (PIs) and for college leadership. With this rationale, formal bridge funding policies should be developed, revised if needed, and enforced. The goal of such policies is to temporarily maintain PIs and programs with a high likelihood of funding success in the near future.

Timeframe:

Year 2

Metrics:

Number of college-specific mechanisms in place/enforced

Estimated Annual Costs:

College-specific

2.6. Objectively analyze and optimize use of research space considering both funding metrics and engagement of students in research activities.

Justification: The 2014 ETSU Facilities Master Plan indicates a need for a 14% increase in research space from 2014-2024. Presently, research space is allocated to faculty at the college level. The extent to which research space allocations consider both funding metrics and engagement of students in research activities is unknown.

Timeframe:

Year 2

Metrics:

Production of Research Space Report

Estimated Annual Costs:

Potential consultant costs; otherwise no additional costs

2.7. Evaluate and disseminate return on investment data for current research investments, including investments in start-up packages and Research Development Committee funding dedicated to research projects.

Justification: The return on investment of institutional resources in start-up packages and hard dollar research funding can and should inform future investments in projects and personnel. Understanding ROI for start-up packages, in particular, can inform faculty recruitment and hiring decisions.

Timeframe:

Year 2

Metrics:

Production of Research ROI Report

Estimated Annual Costs:

No additional costs

Appendix 3. Link research to the educational experience. (RSPR3)

3.1. Explore barriers and facilitators to undergraduate student engagement in research.

Justification: One element that robustly distinguishes ETSU from other educational institutions in the region is a strong faculty engaged in research. Engagement of undergraduate students in the scholarly and creative activities of university faculty has a proven positive impact on student retention, performance, success after graduation, and ultimately, alumni satisfaction and connectedness with the university. The success of our graduates defines the success of ETSU in accomplishing its primary mission. Hence, a greater emphasis on linking students to research and creative activities of ETSU faculty will make ETSU more competitive among its regional and peer institutions in the recruitment and retention of students and will result in graduation of students more competitive in the workforce marketplace. Understanding barriers and facilitators of engagement in undergraduate research – both from the student and faculty perspectives – would inform the university’s ability to accomplish its primary mission.

Timeframe:

Year 1

Metrics:

Production of report

Estimated Annual Costs:

No additional costs

3.2. Leverage undergraduate, graduate, and professional student research engagement data and downstream career successes to enhance student recruitment, student outcomes, and the overall university brand.

Justification: As mentioned in the justification for 3.1, research capacity and engagement distinguish ETSU from other regional institutions. As an extension of 2.2, a structure for capturing undergraduate, graduate and professional student engagement in research activities, and the impact of research experiences on subsequent career successes, is warranted. Once captured, data should be used to inform recruitment, continuous quality improvement activities, and resource investments.

Timeframe:

Year 1

Metrics:

See metrics for 2.2; Research data incorporated into recruitment messaging; Research messaging incorporated in to ETSU webpage

Estimated Annual Costs:

No additional costs

3.3. Promote and expand funding for student engagement in research activities.

Justification: Based on the 2018-19 Annual Report of the Office of Undergraduate Research and Creative Services, there is a need to promote mechanisms that currently exist to engage undergraduate students in research activities, as well as to continue to expand funding for summer research experiences. Data collected from 2.2, 3.1 and 3.2 should be used to inform such investments and promote opportunities to future and current students.

Timeframe:

Year 2

Metrics:

Number of ETSU Summer Fellowship Award proposals funded

Number of colleges applying for and successfully competing for Office of Undergraduate Research & Creative Activities funding mechanisms

Estimated Annual Costs:

\$20,000 in Year 2. The RIWG encourages using data from 2.2, 3.1, and 3.2 to guide subsequent investments.

Working Group Members

Joseph R. Bidwell, PhD, Chair and Professor, Department of Biological Sciences, College of Arts and Sciences

William A. Block, Jr, MD, MBA, Dean, Quillen College of Medicine

William R. Duncan, PhD, Vice Provost for Research and Sponsored Programs

Nicholas E. Hagemeyer, PharmD, PhD (Chair), Associate Professor, Department of Pharmacy Practice, Gatton College of Pharmacy

Aruna Kilaru, PhD, Associate Professor, Department of Biological Sciences, College of Arts and Sciences

Gregory A. Ordway, PhD, Professor, Departments of Biomedical Sciences and Psychiatry and Behavioral Sciences, Associate Dean for Graduate Studies, Quillen College of Medicine

Jonathan M. Peterson, PhD, Associate Professor, Department of Health Sciences, College of Public Health

Eric W. Sellers, PhD, Professor and Assistant Chair, Department of Psychology, College of Arts and Sciences

David M. Smith, MBA, Financial Information Systems Manager, Division of Business and Finance