**Findings from the University of Delaware Strategic Planning subcommittee working on Infrastructure related to Models for the New American Research University. 20 January 2015.**

*This report does not contain final recommendations of the Strategic Planning Process itself, but does summarize the findings and recommendations of one of the subcommittees.*

The University's Strategic Planning Initiative established by Provost Grasso created three main working groups: 1) Sustaining and Accelerating the Advance, 2) Grand Challenges, Great Debates, and Big Ideas, and 3) Models for the New American Research University.

The Models for the New American Research University working group (Chaired by Kristi Kiick and Matt Kinservik) was further subdivided into four committees tasked with investigating issues around: 1) Academic Organization, 2) Curriculum and Delivery, 3) Infrastructure, and 4) Resource Analysis. The infrastructure committee was chaired by Alan Brangman and Kelvin Lee and included 17 members representing faculty and staff from a wide variety of units (listed at the end of this document). This report summarizes the findings and suggestions from the infrastructure committee after nine months of work. While a summary cannot capture all of the 650 pages of ideas and suggestions received by the committee, many common themes and suggestions emerged around specific objectives that UD could pursue. Each of the individual "objectives" below were submitted as separate concept papers into the strategic planning process. Ultimately, that process will determine whether any of the recommendations will be considered further by the University. The committee thanks the faculty, staff, and supervisors that provided direct and anonymous input into our process. This report summarizes the input collected and is a means to distribute our committee's findings with the units that participated in our part of the overall process.

ORGANIZATION

In an early meeting, the Infrastructure Committee worked to define key elements of an educational institution's infrastructure that could support (or hinder) a University's mission. The committee then established a list of infrastructure units in place at the University of Delaware and implemented a plan to solicit feedback from as many of the known "infrastructure" units at UD as possible. These meetings were held during the Fall 2014 semester and collected feedback and input from more than 1500 UD staff from 33 units as well as from Assistant Professors and College Business Officers from all of the Colleges. Supervisors and director feedback was collected separately to enable a more free flow exchange of ideas at meetings. Everyone was encouraged to share anonymous input and ideas by sending campus mail to the chairs of the infrastructure committee. The meeting format engaged participants to consider four questions about what UD can do to: A) Ensure a diverse campus community and welcoming environment; B) Systematically expand innovation and capacity for research; C) Recruit and retain the best faculty, staff, and students; and D) Enrich the undergraduate experience in and out of the classroom. Summaries of each of the specific ideas and suggestions coming from each unit were then shared back with the unit. The committee reviewed all of the input collected and identified common themes around each of the four topics. In reviewing all of the materials and considering the issues that were raised, the committee felt that the feedback was best presented as six (rather than four) objectives with a series of specific, often measurable tasks, that support each objective or that support multiple objectives (newly added topics are E) Improve campus climate by (breaking down silos and) fostering a culture of collaboration and creation towards a common goal; and F) Invest in physical facilities and information technology to foster community, creativity, productivity, and to inspire and enable excellence).

GENERAL IMPRESSIONS

While the subcommittee was tasked at exploring ways to support infrastructure at a modern university, much of the feedback collected was aimed at defining problems and challenges about the current university environment that many felt limited UD from achieving it's potential. One of the more important general observations was that there is currently a lack of a defining vision for UD that the broad community can feel a part of. There was also a sense that many units and managers, are not amenable to changes that would improve efficiencies or promote the greater good. Some of these concerns may also be related to having relatively little diversity of staff within a given unit as well as to the significant siloing that exists in the current system - something that is reinforced under the current responsibility centered management (aka "RBB") financial model of the university. A lack of strategic investment in research, facilities, and educational infrastructure, was identified as an additional area of concern. While there were many issues raised, the committee was impressed with the willingness of so many individuals to play a proactive part in change. Such change, however, should be guided at the highest levels and include greater engagement by University leadership moving forward to improve the campus climate.

This report is separated into six sections - one for each of the Objectives:

OBJECTIVE A: Ensure a diverse campus community and welcoming environment.

OBJECTIVE B: Systematically expand capacity for research and encourage innovative business practices.

OBJECTIVE C: More effectively recruit and retain excellent faculty, staff, and students.

OBJECTIVE D: Ensure a rich undergraduate experience in and out of the classroom.

OBJECTIVE E: Improve campus climate by (breaking down silos and) fostering a culture of collaboration and creation towards a common goal.

OBJECTIVE F: Invest in physical facilities and information technology to foster community, creativity, productivity, and to inspire and enable excellence.

**OBJECTIVE A: Ensure a diverse campus community and welcoming environment.**

LESSONS LEARNED and COMMON THEMES

The goal of achieving greater diversity was supported by every unit and individual providing input to the committee. Where views diverged was in how successful UD has been in realizing this goal. Perhaps unsurprisingly, units with nondiverse demographics had a different view than other units in terms of the benefit of investing effort and resources to improve diversity. Many found the concept of diversity itself too general and ill-defined to speak in concrete terms about steps UD might take to address the issue. For example, does the concept include diversity of thought and political perspectives, in addition to race, gender, sexual orientation, and religion? There was a clear sense that UD limited its ability to attract students and employees of color as well as women so long as there remained few role models in positions of power at the most senior administrative and faculty levels. While there appear to have been recent improvement in the diversity of entering freshman, there was concern that support services for non-majority students remains uneven in quality and scattered across campus. In the absence of more centralized and coordinated support for minority and international students, individuals from these groups will feel less welcomed. The lack of a coherent plan of support for diverse individuals as members of a University community means that the promised benefits of a diverse campus (e.g., creating global citizens, fostering cross-cultural and racial collaboration, and challenging world views) are not being realized. Separately, all of the input regarding the physical beauty of our campus was positive.

STRATEGIC THEMES

Discussions on diversity coalesced around three major themes and action paths. First, conversations around diversity need to move beyond isolated offices tasked with addressing equity and inclusion. Many felt the need for on-going and campus-wide dialogue—initiated, supported and sustained by the president—that leads to a clear definition of diversity endorsed by all University stakeholders and the development of a comprehensive plan on how the pursuit of diversity might inform and impact every dimension of UD academic, administrative, and student life activity. Second, there must be improved outreach and recruiting to prospective students from diverse backgrounds and a mentoring structure to facilitate their success if they come to UD. The creation of a centralized facility to support student success and diversity (mentioned in our committee's recommendations related to Objective F: Facilities) would significantly improve UD's ability to create and support a diverse community of students. There was a sentiment that service learning (for students) and community-engagement (for faculty and staff) opportunities are an effective means to harness the enthusiasm among the current community to come together, learn about diverse perspectives, and support a greater good.

RECOMMENDED TASKS

**A.1) Establish a definition for diversity in the context of our campus community and society.**

**A.2) Create an ongoing and active dialogue among the entire campus community (through a range of activities initiated and attended by the President) regarding the role of diverse backgrounds, experiences, roles, and thought in supporting the University mission.**

**A.3) Increase outreach to regional secondary school students of all socioeconomic backgrounds, with a special focus on minorities and English Language Learners, through increased participation in information sessions and via the establishment of UD mentoring programs for their students.**

**A.4) Create at least five (over the next five years) service learning opportunities for students, and community-engagement opportunities for faculty and staff, through specific projects that tie UD to the all of the communities in Delaware.** *This Task also supports Objective C: recruiting and retaining the best people as well as Objective D: enriching the undergraduate experience.*

**OBJECTIVE B: To systematically expand capacity for research and encourage innovative business practices.**

LESSONS LEARNED and COMMON THEMES

In today's university, the research enterprise directly or indirectly impacts the entire community of students, staff, and faculty and support for research infrastructure has become essential given the many constituencies and stakeholders involved (e.g. the university community, the federal government, companies, and others). Efforts to systematically expand research capacity can also support efforts to increase instruction and public service activities. Over the past several years, there has been significant growth in sponsored research activities at UD leading to several highlights - some of which are communicated effectively to the community and some of which remain relatively hidden. Moving forward, the increasing emphasis on collaborative research and on research infrastructure means that UD should significantly expand and enhance its investment in strategic activities such as support for proposal preparation, shared use core facilities, and communication and incentive systems to encourage and facilitate world-class research activities. Such efforts can leverage existing relevant UD talent to mentor and assist individuals and departments that have less experience. Administrative barriers to promoting collaborative research are very high under the current financial model of the university and solutions to this issue must be identified. While the academic research enterprise is one mechanism to engage the community in innovation, many individuals provided feedback that they seek opportunities to innovate business practices in their unit, and other units. A problem bounty board is one mechanism to share and identify innovative solutions to problems. Other relevant issues are discussed in the Objective E (campus climate) concept paper.

STRATEGIC THEMES

There was a sense that a more strategic investment in research infrastructure could raise UD's research profile even higher and better support student learning. First, the increasing reliance on core facilities by students and faculty, combined with an environment of increasing regulation, means that strategic decision-making and investment in share use core facilities is more important than ever (Farber and Weiss, 2011). A clear path forward was articulated in 2012 by a University-wide Task Force and should be used as a guide. Second, the growth in opportunities for large (>$5M), multidisciplinary research projects means that investment in support for faculty to development research collaborations and to apply for such projects would be effort that aligns UD with national trends. Practices related to such activities (e.g. F&A distribution, central support for large grant preparation, etc.) could be established to encourage such activities. Third, there was a recognition that support for faculty that pursue intellectual property on behalf of UD could be strengthened and encouraged by further incentivizing these activities as well as by formally recognizing the value of intellectual property as a part of scholarly activities considered during promotion and tenure in departments where this is appropriate. Other important mechanisms to foster innovation among staff and students includes a problem bounty board where (non-academic) problems can be addressed by various members of the community and by an expansion of the marketing and opportunities for undergraduate research.

RECOMMENDED TASKS

**B.1) Create and invest in a shared use core facility administrative structure by following the UD Core Facility Task Force recommendations from 2012.** *This Task also supports Objective D: enriching the undergraduate experience.*

**B.2) Enhance the administrative support available to investigators interested in submitting large (e.g. >$5M) Center-type research proposals involving faculty from multiple Colleges.**

**B.3) Create an incentive system where faculty may be rewarded for interdisciplinary collaboration.**

**B.4) Increase the fraction of intellectual property income distribution to inventors and explicitly support it as a scholarly contribution during the promotion and tenure process where appropriate.**

**B.5) Create a problem bounty board where (nonacademic) problems can be solved by other members of the UD community and incentivize participation by members of the community.** *This Task also supports Objective E: improving the campus climate.*

**B.6) Increase marketing and communication about student research successes and opportunities.** *This Task also supports Objective D: enriching the undergraduate experience.*

**OBJECTIVE C: More effectively recruit and retain excellent faculty, staff, and students.**

LESSONS LEARNED and COMMON THEMES

As the strength of the university is largely based on its members, including faculty, staff, and students, there needs to be a more effective process in place for recruitment, retention, and promotion. The committee felt that to recruit excellent students, it is imperative to create a rich undergraduate experience for them and to ensure that they can work with excellent faculty and staff. Creating a rich undergraduate experience is covered by the infrastructure committee's concept paper: Objective D. In addition, relatively little specific feedback was given related to postdoc recruitment and it was felt that postdocs were attracted to work with the best faculty, so here we focus on recruitment and retention of excellent faculty and staff. While there are some processes in place to recruit and retain UD talent, community feedback collected by this committee identifies areas for improvement. These areas include: creation of incentives for delivering excellence in a more collaborative environment with a clear path for career advancement; updating the compensation process commensurate with performance; updating the process to improve or eliminate underperforming units, faculty, and staff; and defining a process for professional development and training. There are several subtle challenges associated with each of these Tasks (e.g. certain bargaining unit employees have limits on ways that employees can be recognized) but none of the issues identified by the committee were deemed difficult to overcome.

STRATEGIC THEMES

In the end, the committee identified the following issues that should be addressed related to the recruitment and retention of excellent faculty and staff. First, the community should establish incentives that promote and reward excellence. Such incentives will help retain the best staff at UD, and within units at UD. Second, compensation and benefits, including staff raises, should be examined relative to the local and national market and the outcomes of these evaluations should be clearly communicated to faculty and staff. Third, there was a sense that the current environment lacks the support necessary to deal with underperforming units, faculty, and staff. Specifically there is the need to create processes, supported at the highest levels, for the elimination of underperforming units and for training for supervisors to manage underperforming faculty and staff . Finally, feedback received by the committee indicates that there is a need to make professional development opportunities available to all staff to update skills and to help staff understand the university structure and their integral role in the University. Addressing these themes through the proposed tasks below will have important positive impacts on UD's ability to recruit and retain the best people, which will help UD become more diverse and welcoming, expand our research capacity, and enrich the experience offered to undergraduates.

RECOMMENDED TASKS

**C. 1) Identify at least 5 new ways to reward employee excellence and implement a system to recognize and reward the top 5% of UD staff in a unit in any given year.**

**C.2) Create and fund a ladder system to enable staff to stay in their current unit and improve their compensation and expand their responsibilities without having to create new positions or having the employee seek employment elsewhere.**

**C.3) Define and update compensation and benefit levels for UD positions in relation to the local and national market and make this information transparent to the UD community.**

**C.4) Evaluate, and communicate more effectively, the issues regarding the annual staff raise pool in the context of relevant expenses (e.g. parking rates).**

**C.5) Establish better processes and provide better training for supervisors to manage and address underperforming staff including training on management skills, interpersonal communications, and other relevant skills.** *This Task also supports Objective A: diverse community and welcoming environment.*

**C.6) Create a central process, backed by the President and Provost, to identify and support the elimination of  underperforming units in each College by 2020.**

**C.7) Require managers and supervisors to work with staff to update skills and ensure that professional development opportunities are accessible to UD staff from all units and shifts.**

**C.8) Create a professional development course (in person and/or online) that explains how Universities are organized and function and that also defines unique attributes and defining characteristics of the University of Delaware.**

**OBJECTIVE D: Enrich the undergraduate experience in and out of the classroom.**

LESSONS LEARNED and COMMON THEMES

The common desire of members of the University of Delaware community is to produce the innovators and leaders of tomorrow. To do this better, we need to make significant changes in our campus culture. We need, in particular, to dramatically increase the promotion of the role of research and creativity at the University rather than the social and co-curricular activities. Development of alternatives to the current "party culture" should be a major priority. We need to coordinate curricular improvements to improve retention and graduation rates within reasonable time intervals and especially for historically underrepresented groups (minorities, first generation college students, etc.). The classroom and laboratory facilities need dramatic improvement and upgrade to address the expectations of students and their parents for a residential research university. The infrastructure should be consonant with curricular goals – this means classrooms, studios, and laboratories require significant attention. Overall, UD has the potential to maintain leadership in undergraduate education because of its historical commitments to solving current problems, service learning, and global engagement if it continues to improve its ability to nimbly and ably address student needs.

STRATEGIC THEMES

The desire to improve the undergraduate experience was shared by all constituents. One important theme was the movement from a gatekeeper culture to gateway culture that tries to improve the likelihood of success in academic programs of all students. Several opportunities were identified. First, the advising/mentoring system needs improvement and better engagement so that students can receive personal attention to meet their academic aspirations rather than operating on a check box system of completing one-and-done obligations. This can be addressed in part by a mechanism for significantly enhanced faculty engagement and professional development for advising as well as programs focused on transfer students (internal transfer and those from other institutions). Second, more curricular innovation should be encouraged and administrative processes for new degree and certificate programs should be streamlined to decrease the time between conception and implementation of such programs. Internships and experiential learning opportunities are particularly effective means to help students learn and understand the value of their education and engage in scholarly activities. The creation of an office to facilitate such opportunities by serving as a portal between external individuals and organizations and our undergraduate mission may help coalesce the current efforts of diverse units around campus. Finally, there is a common agreement that every student should have a culminating experience in the final year of their study such as the completion of a thesis or project appropriate to their discipline.

RECOMMENDED TASKS

**D.1) Establish a mechanism for significantly increased faculty engagement and training for student advising and increase the number and effectiveness of staff that advise undergraduates.** *This Task also supports Objective A: diverse community and welcoming environment as well as Objective C: recruit and retain the best people.*

**D.2) Establish focused mentoring and advising programs for transfer students.** *This Task also supports Objective A: diverse community and welcoming environment.*

**D.3) Streamline processes for the creation of new interdisciplinary degree and certificate programs.**

**D.4) Create five new internship opportunities for students within the University of Delaware (i.e. at units inside the University of Delaware).** *This Task also supports Objective C: recruit and retain the best people.*

**D.5) Create an office to support partnerships between external individuals / organizations and the undergraduate educational mission (experiential learning opportunities, guest speakers, etc.).**

**D.6) Offer at least ten new activities as alternatives to the campus party culture and also ensure that marketing and communication around UD has a focus on academic and co-curricular and campus life (rather than merely social) activities.** *This Task also supports Objective C: recruit and retain the best people.*

**D.7) Require all undergraduates to complete a senior thesis/project appropriate to their discipline and guided by a faculty member.**

**OBJECTIVE E: To improve campus climate by (breaking down silos and) fostering a culture of collaboration and creation towards a common goal.**

LESSONS LEARNED and COMMON THEMES

The issue of improving campus climate is one that impacts nearly every part of a modern university's operations because universities are arguably all about people: undergraduate and graduate students, postgraduate scholars and visitors, the academic and administrative staff, the alumni, the local community, and of course, the faculty. Based on the feedback and interactions with the infrastructure units, the campus climate appears to be quite poor. The committee attributes some of the issues raised to a lack of a clear vision and mission for UD and how any given individual, or unit, aligns with that mission as well as to administrative processes that appear to be overly complex. There was a clear sense that many individuals and units have limited or no capacity for effective communication around topics that impact the broad community. The idea that service-based units could offer a more proactive and positive experience for end-users came up in many discussions and was often referred to as the desire for a Disney-like experience. On the positive side, the committee met with staff and managers of various levels who wanted to be more proactive in their responsibilities and spend time to learn how to help the University advance and compete effectively in today's world.

STRATEGIC THEMES

In the end, the committee felt that there were a few issues that need to be addressed. First, the community needs more engaged leadership from the President's office with on campus matters. Second, administrative units could better understand how their function relates to other units and end-users around campus. Such a culture change could be implemented through a staff sabbatical / job shadowing opportunity as well as by requiring service units to rely on customer feedback before implementing changes. Third, there was a sense that there are many ineffective managers and supervisors on campus that do not engage junior staff in opportunities to improve their units or foster their professional development. Finally, there was recognition that the responsibility-centered management financial model ("RBB") changed the nature of conversations and decision-making around campus to one focused on dollars at the expense of the recognition that Universities are still about people. Addressing these themes through the proposed tasks below will begin to improve campus climate as well as have important positive impacts on UD's ability to recruit and retain the best people, become more diverse and welcoming, expand our research capacity, and enrich the experience offered to undergraduates.

RECOMMENDED TASKS

**E.1) Foster improved morale and a sense of community by having the President visit with academic and nonacademic units at least once per year to increase communication about mission, vision, and values.** *This Task also supports Objective C: recruiting and retaining the best people.*

**E.2) Have the President's (or EVP's) office implement a "staff sabbatical" via a job-shadowing experience for all UD staff to spend several weeks working in other units around campus.***This Task also supports Objective C: recruiting and retaining the best people.*

**E.3) Require all administrative units to actively solicit and rely on "customer" feedback to ensure that they are meeting needs and expectations of their clients and stakeholders and to clearly communicate any changes to the relevant parts of the campus community.** *This Task also supports Objective A: diverse community and welcoming environment as well as Objective C: recruiting and retaining the best people.*

**E.4) Overhaul HR processes, timelines, and training related to classification and compensation and hiring.** *This Task also supports Objective A: diverse community and welcoming environment as well as Objective C: recruiting and retaining the best people.*

**E.5) Establish a mechanism to remove consistently underperforming supervisors, managers, chairs, and administrators.** *This Task also supports Objective A: diverse community and welcoming environment as well as Objective C: recruiting and retaining the best people.*

**E.6) Actively encourage staff to identify and propose innovative solutions to existing problems and reward and recognize staff for doing so.** *This Task also supports Objective C: recruiting and retaining the best people.*

**E.7) Require administrative and academic units to engage staff of all levels within a unit to brainstorm ways to innovate business practices at least once per year.** *This Task also supports Objective B: research and innovative business practices as well as Objective C: recruiting and retaining the best people.*

**E.8) Require managers to include staff of all levels to participate in (nonacademic) hiring in their units.** *This Task also supports Objective B: research and innovative business practices as well as Objective C: recruiting and retaining the best people.*

**E.9) Establish a mechanism within the RBB framework to recognize the contributions of people towards the success of units.** *This Task also supports Objective A: diverse community and welcoming environment as well as Objective B: research and innovative business practices as well as Objective C: recruiting and retaining the best people.*

**OBJECTIVE F: Invest in physical facilities and information technology to foster community, creativity, productivity, and to inspire and enable excellence.**

LESSONS LEARNED and COMMON THEMES

An investment in physical facilities and infrastructure is critical to every part of a modern university's operations because this infrastructure enables every aspect of scholarship, research, professional development, and community. In all meetings held with various units, a clear majority of campus constituents articulated a desire for more integration of functions across campus - among facilities units, between academic and support units, between staff, between faculty, staff, and students, and across intellectual disciplines and ideas. There was discussion about the lack of real-time reporting to stakeholders and the issues and outcomes that were created around not sharing project information in a timely fashion. There was a growing concern that resources which should be assigned to deferred maintenance have in fact been used for emergency repairs. Facilities staff felt that this places the University in the position of unnecessarily having to make critical capital investments at a later time. As noted in the infrastructure committee concept paper Objectives C and E (recruit and retain the best people and improving campus climate), the staff and managers of various levels expressed genuine interest in being more proactive in their responsibilities to advance the University in its mission.

STRATEGIC THEMES

There are a few key strategic themes that this committee recommends the University of Delaware consider to improve facilities and infrastructure on campus. First, UD should establish mechanisms to strategically identify and build or create (via renovation) new spaces that meet cross-cultural and cross-disciplinary needs on campus. Second, there should be a clear focus on maintaining necessary resources to support excellent staff, efficient operations, and ongoing maintenance of existing facilities. Third, improved integration of IT systems with facilities units and other units (e.g. HR) can increase efficiency of overall campus operations. Some of these improvements would also address issues raised in Objective E: improving campus climate. The key role of managers and supervisors in encouraging this cross-communication was regularly raised.  The Infrastructure subgroup believes that implementation of the specific tasks below represent key steps to elevating the excellence of  UD’s educational, scholarly, and community-based activities.

RECOMMENDED TASKS

**F.1) Create a multicultural and centralized tutoring/mentoring space (consolidating all forms of UD academic support and tutoring services for all courses, academic/language, ELI, etc. needs under one roof) to support and focus attention on success of all students**. *This Task also supports Objective A: diverse community and welcoming environment as well as Objective D: enriched undergraduate experience.*

**F.2) Provide the appropriate resources to ensure that Facilities Planning and Construction is adequately staffed to manage current and planned capital projects and require project management teams to communicate with each other and project stakeholders in a timely manner.**

**F.3) Ensure that the University Architect’s Office and Facilities Planning and Construction include input from Facilities Maintenance & Operations, consultants, vendors, and stakeholders in the design and planning process during the life of the project, including in any value engineering decisions.**

**F.4) Provide adequate resources to allow for preventative and ongoing maintenance of existing facilities infrastructure.**

**F.5) Invest in improved mechanisms for communication among backend IT systems and in end-user training on the role and use of those systems.** *This Task also supports Objective C: recruit and retain the best people.*

**Members of the Infrastructure Committee 2014-2015**

Prof. Titus Awokuse

Chairperson, Department of Applied Economics and Statistics

Prof. Mohsen Badiey

Deputy Dean, College of Earth, Ocean, and Environment

Alan Brangman (committee co-chair)

Vice President, Facilities and Auxiliary Services

Jeffrey Caplan

Director, Bio-Imaging Center, Delaware Biotechnology Institute

Jason Cash

Deputy CIO, IT-Network & Systems Services

Charles Garbini

Lab Coordinator II, Materials Science

Michael Gladle

Director, Environmental Health and Safety

Christina Hudson

Director, Planning Operation, Office of Executive Vice President

Prof. John Jungck

Departments of Biological Sciences and Mathematical Sciences

Prof. Kelvin Lee (committee co-chair)

Department of Chemical and Biomolecular Engineering

Sandra Millard

Associate University Librarian for Services, Outreach and Assessment

Gerald Poirier

Laboratory Manager, Delaware Environmental Institute

Prof. Darcy Reisman

Department of Physical Therapy

Trudy Riley

Assistant Vice Provost, Research Administration, Research Office

Prof. Wendy Smith

Department of Business Administration

Scott Stevens

Director, English Language Institute

Frank Warren

Assistant Director, Animal Care Program, Office of Laboratory Animal Medicine