CONCEPT PAPER FROM INFRASTRUCTURE COMMITTEE:

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

INTRODUCTION AND BACKGROUND

The Objective being addressed in this concept paper is how UD, in the context of administrative and infrastructure units, can systematically expand capacity for research and encourage innovative business practices.

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).

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.

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.*