Research Infrastructure Recapitalization
Fall 2012

IT/DATA:
➢ A researcher collaborating with scientists across campus resorts to using commercial cloud services to share data and documents among his colleagues. Costs notwithstanding, the security and privacy of this approach are vulnerabilities that he must accommodate in order to stay competitive in sponsored research.

ELECTRICAL:
➢ A newly hired faculty member has joined us after a post-doc at an ivy league institution. Her research area promises to be a strong addition to the capabilities of OSU. Her startup package included acquisition of equipment that cannot be used since the electrical demands for its operation are not supported by the service capacity of the (98 year old) building where her lab is located.

TEMPERATURE/HVAC:
➢ In one laboratory alone, millions of dollars' worth of sophisticated analytical instruments and data acquisition/management equipment are operated on the threshold of failure, since the chilled water system that should stabilize temperatures in the lab is inadequate, and fails regularly.

STRUCTURAL:
➢ Let’s put an animal science example in here ...

Each of these situations is an element of a broader challenge for Oregon State University: addressing long standing deferred maintenance issues that impact both the quality and quality of research and the educational experiences of the OSU community. Within this larger problem, the Research Office has a vested interest specifically in identifying our priorities for recapitalization of research infrastructure. No doubt the demands for investment far exceed the available resources. Consequently, we currently deal with the situation by making do (i.e. not addressing the situation and resolving not to conduct important research), resorting to undesirable solutions (i.e. tolerating risk of equipment breakdowns, or erosion of research quality), or investing in an ad hoc fashion (by addressing the needs of the most vocal complainants first). None of these solutions is appropriate. The resolution lies in our taking a strategic approach to prioritizing the infrastructure recapitalization needs.
We may never fully address the shortfalls in research infrastructure, and we must assume that resource constraints will define an important limit to what we can fix, and when we can fix it. However, we also need to make the compelling case that attention to research infrastructure is critical as we work toward the goal of becoming a top 10 Land Grant institutions. Therefore, we must seek a fair, compelling and concise methodology for taking two important steps:

1) Establishing the criteria for prioritizing research infrastructure needs
2) Applying those criteria

The OSU Research Council (RC) and the Associate Deans of Research Advisory Council (ADRAC) are the two critical bodies that can move this issue forward. I recommend that the RC be charged with addressing the first step above (establishment of criteria), and the ADRAC follow up with defining how to move forward on the RC recommendations (applying the criteria).

To initiate this process, the leadership of the Research Office (RO) provides the following examples of criteria to be established for prioritization of research infrastructure investments, for consideration by the RC:

- Breadth of research applicability (broader is better)
- Cost avoidance of investing (higher is better)
- Sustainability of the solution (longer is better)
- Return on investment – research revenue and broader social and educational impact (higher is better)
- Commercialization potential (more, and more realistic are better)
- Faculty retention (more important than recruitment)
- Mission criticality (tied to Land Grant responsibilities)
- Other...?

Similarly, the RO, recommends that the ADRAC define the strategic framework within which the prioritization criteria can be applied. This framework should incorporate such elements as:

- Use of the OSU capital campaign
- Leveraging existing resources
- Political opportunism
- Establishment of a dedicated funding base

The product of this effort will be a first-ever transparent definition of how OSU will define the investment priorities for expanding our capacities and capabilities as a leading research institution.