

Below are a summary and key takeaways from the subject presentation given at the 2017 Large Facilities Workshop.

Large Facility Innovations & Technology Transfers Discussion

Speaker: Matt Hawkins, Head, NSF-LFO

Description: All NSF programs support NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense." This type of support is a primary driver of the U.S. economy. NSF's Research Infrastructure also plays a key role in driving the U.S. innovation ecosystem by creating new (or enhanced) technologies and processes in order to meet the scientific objectives and advance human knowledge. Innovation can happen at every life-cycle stage, but it happens most readily during design, construction and operations. NSF and its Recipients have always been (and should remain) focused primarily on the science outcomes that our Research Infrastructure supports. However, as facilities costs rise in an era of challenging budgets, it may be advantageous to better articulate these innovative aspects in the "Broader Impacts" of major facility proposals. To best achieve this, and more broadly support NSF's mission, cataloging and quantifying these successes in a more formal and routine way may be beneficial. This session focused on sharing examples of innovative activities driven by NSF-funded Research Infrastructure and discussing ways in which NSF can work with major facility Recipients to better describe the benefits on U.S. innovation and the economy. Many NSF award Recipients in attendance shared excellent, illustrative examples of innovative activities conducted in-house or in close partnership with the private sector.

Best Practices:

- Include information regarding innovative technologies and processes developed as part of Design, Construction or Operations in annual reports to NSF.
- Routinely post information regarding innovative technologies and processes (including partnerships with the private sector) on program websites using main headers that include the word "Innovation" so that NSF's Office of Legislative and Public Affairs and easily locate using a simple web search.

Actionable Recommendations (numbering continued from above):

9. Investigate the ability to informally use NSF's Business R&D and Innovation Survey (BRDIS) with the academic institutions and non-profits that operate NSF's major facilities.