Impact of NSLS to NSLS II Transition on DOE User Community

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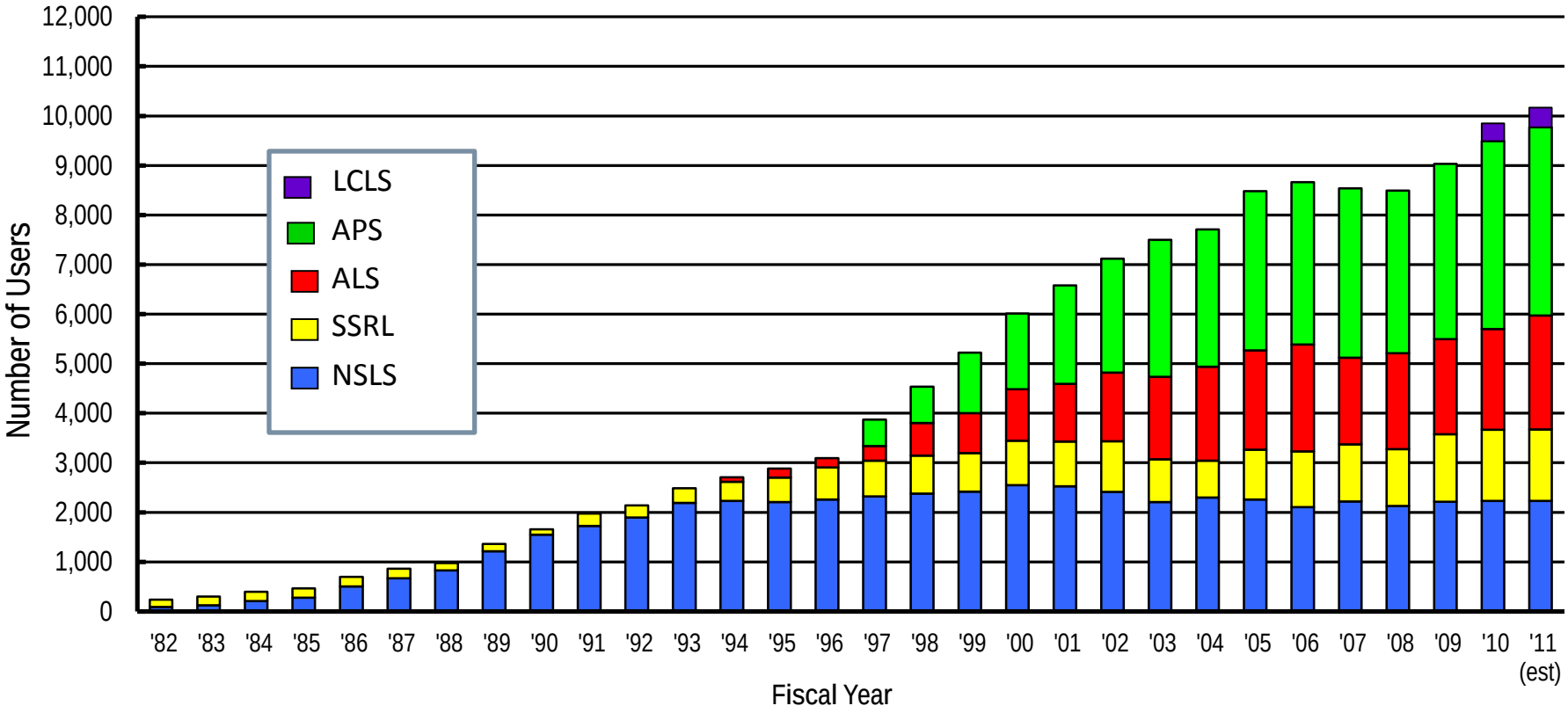
The SR User Community Continues to Grow



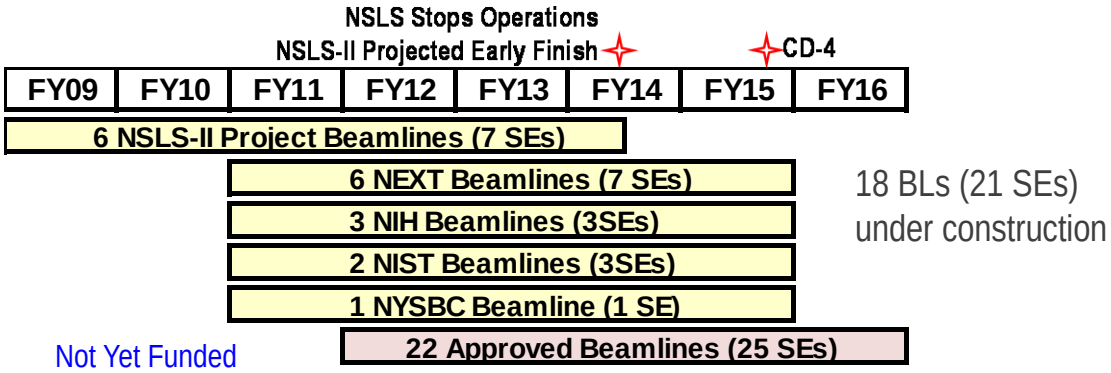
NSLS Background Information

- DOE Storage Rings Host 8800 ± 350 users over last 5 years
- NSLS hosts 2200 ± 50 (~24% of all users)
  - ~1200 experiments per year
- NSLS Publications
  - ~ 900 per year
  - ~ 150 per year of these are premier publications
- Current NSLS Resources
  - Operating Budget $38.5M
  - ~ 140 FTE w/average experience ~20 years
  - NSLS has 59 End Stations hosting users (56 independent + sum of fractions)

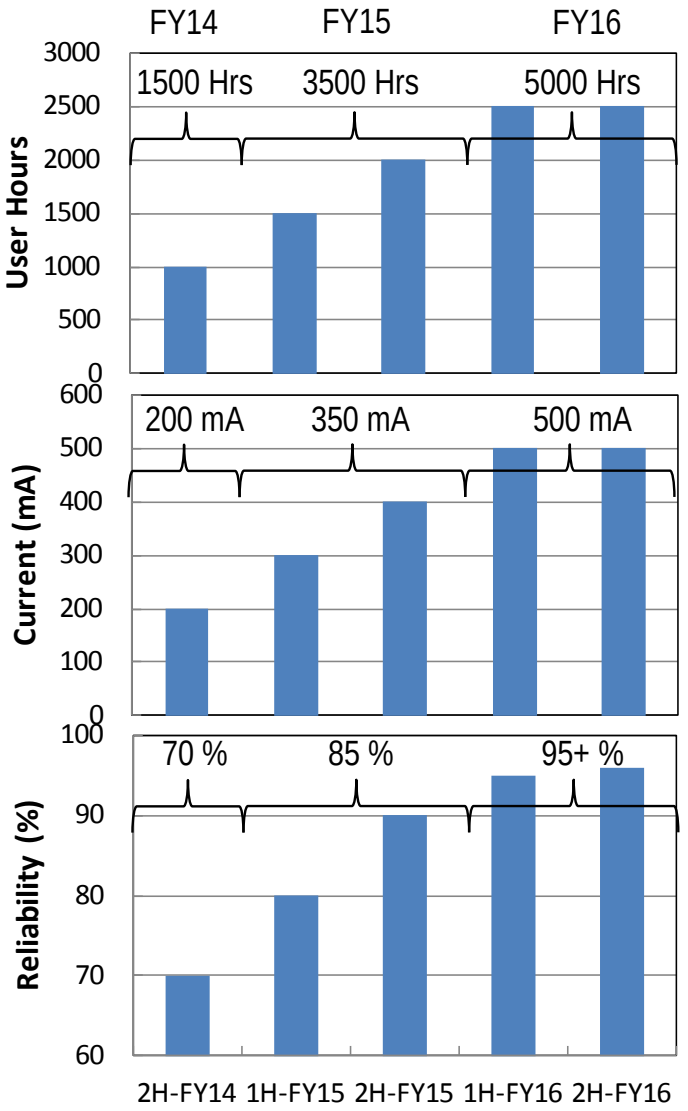
NSLS II Planned Accelerator Operations and Beamline

Initial tasks limiting user hours

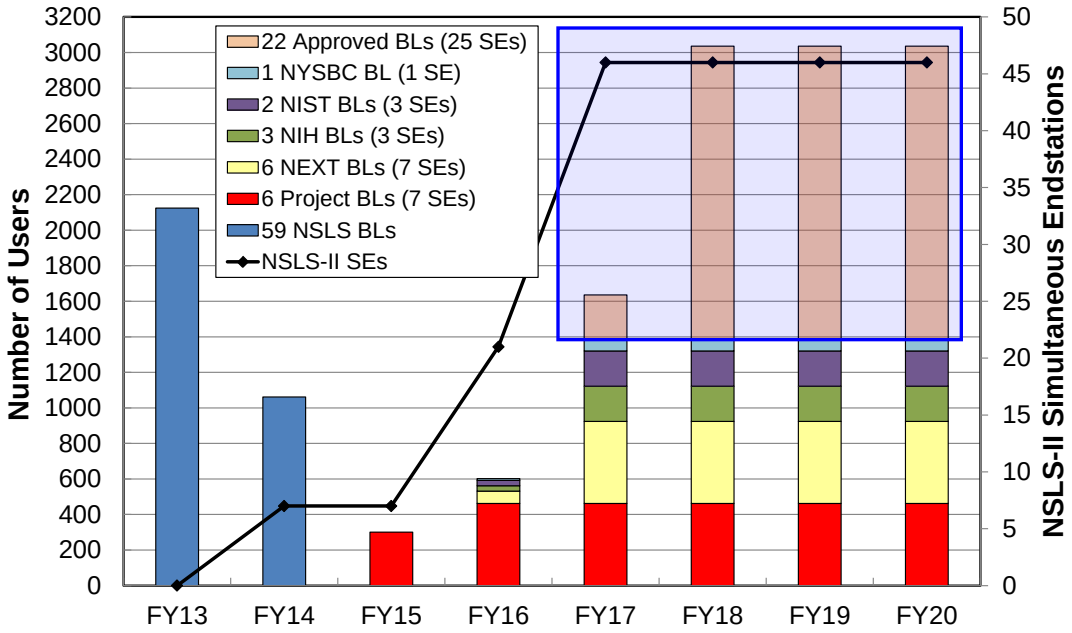
- Shake-out & conditioning of accelerator
- ID installation
- Beamline commissioning



18 BLs (21 SEs) under construction



Number of Users That Can be Supported by Fiscal Year at Brookhaven



- NSLS stops & NSLS-II starts mid-FY14
- NSLS-II will host
  - ~ 300 users with 7 BLs in FY 15
  - ~ 600 users with 21 BLs in FY16
  - At least 1400 users with 21 BLs in FY17 (more if additional beamlines are funded)
- NSLS-II provides net capacity increase before end of decade (with additional beamline funding)
- *But substantial capacity reduction for several years starting FY14*

Potential Short-Term Mitigation Plan

- Options
  - Identify and communicate to users similar capabilities at ALS, APS, SSRL
  - Adjust capacities where possible and sensible at ALS, APS, SSRL
    - For a small investment, what capabilities and how much capacity can be added to ALS, APS, and SSRL
    - We are exploring primarily underdeveloped and/or underutilized bending magnet beamlines at the APS.

- The Plan
  - Eric Johnson working with NSLS Users and staff to determine what is “most needed” to maintain continuity of various scientific programs during the transition time.
    - For example; need EXAFS, powder diffraction, SAXS, etc.
    - Determine which of the facilities could expand their current capabilities in these areas for a “modest” amount of additional funding.
    - Take our finding to BES