



# APS-U PROJECT UPDATE



Jim Kerby  
APS Upgrade Project Director  
PSC All Hands Meeting  
January 25, 2023



*2016 Kentucky Derby winner Nyquist coming out of the last turn...*



Argonne National Laboratory is a  
U.S. Department of Energy laboratory  
managed by UChicago Argonne, LLC.



Advanced  
Photon Source

# AND HERE WE COME...



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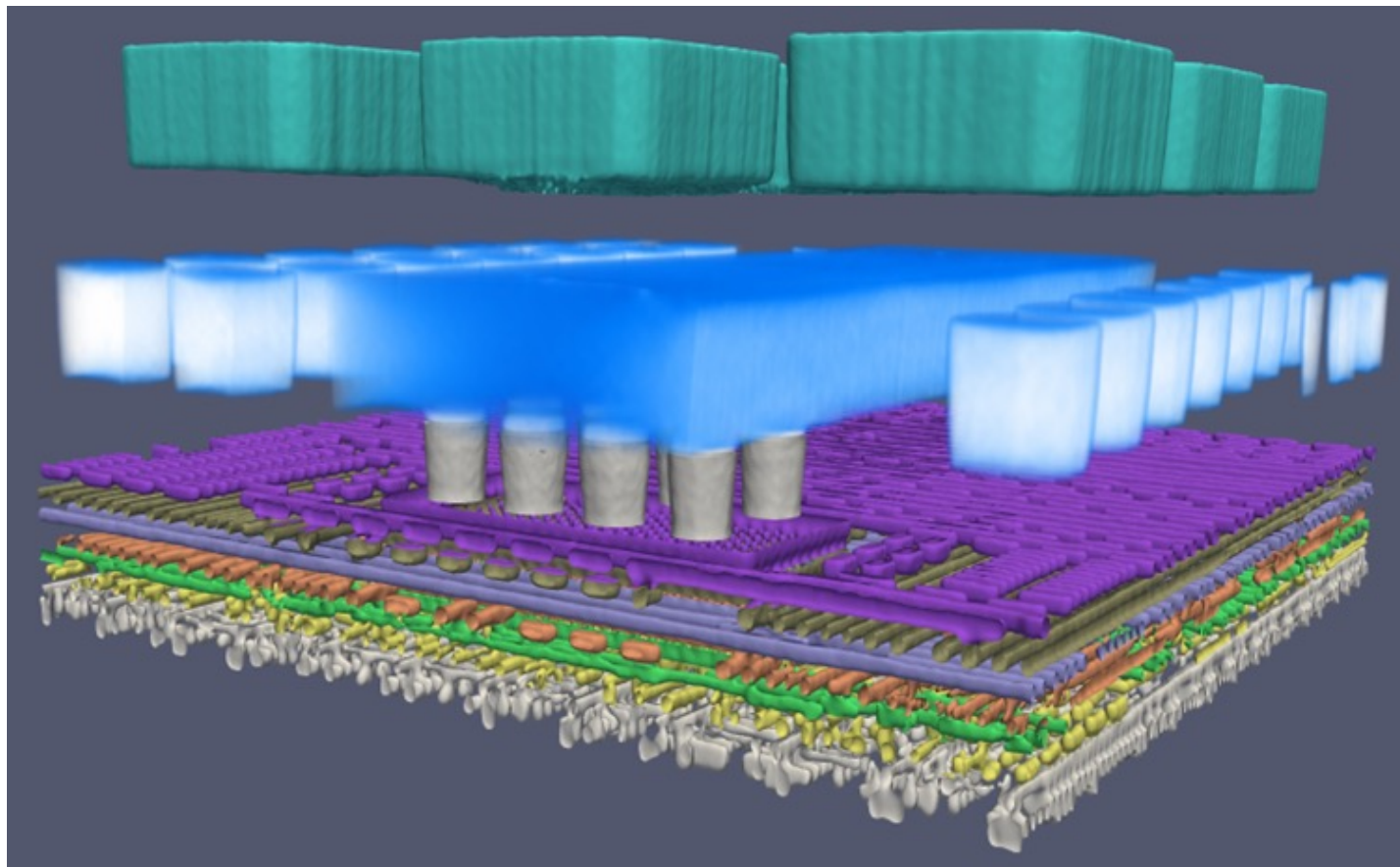
x500



\$815M



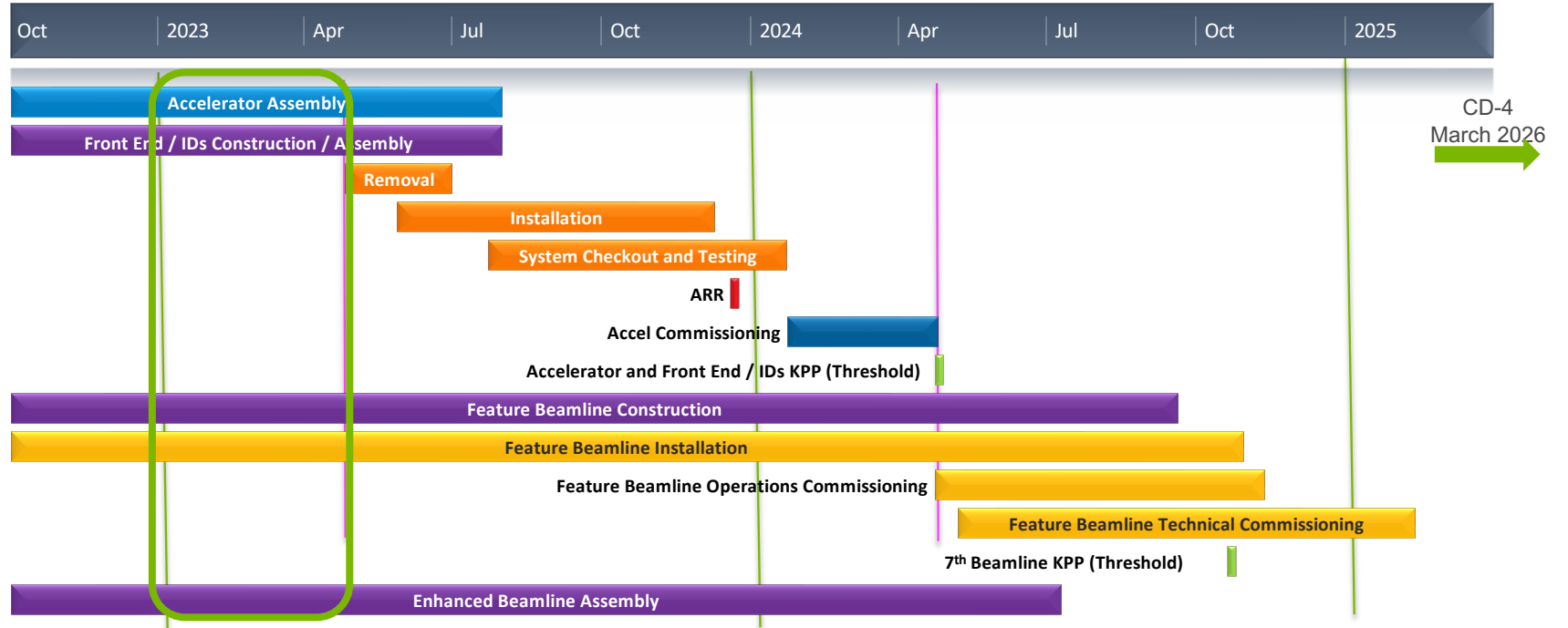
\$1.5B



# SCHEDULE – LOOK AHEAD

2022

2025



# THIS IS THE LAST APS USER RUN

81 days to go! You can find the counter at the top of the APS Web Page.

The start of the downtime is driven by our accelerator systems readiness.

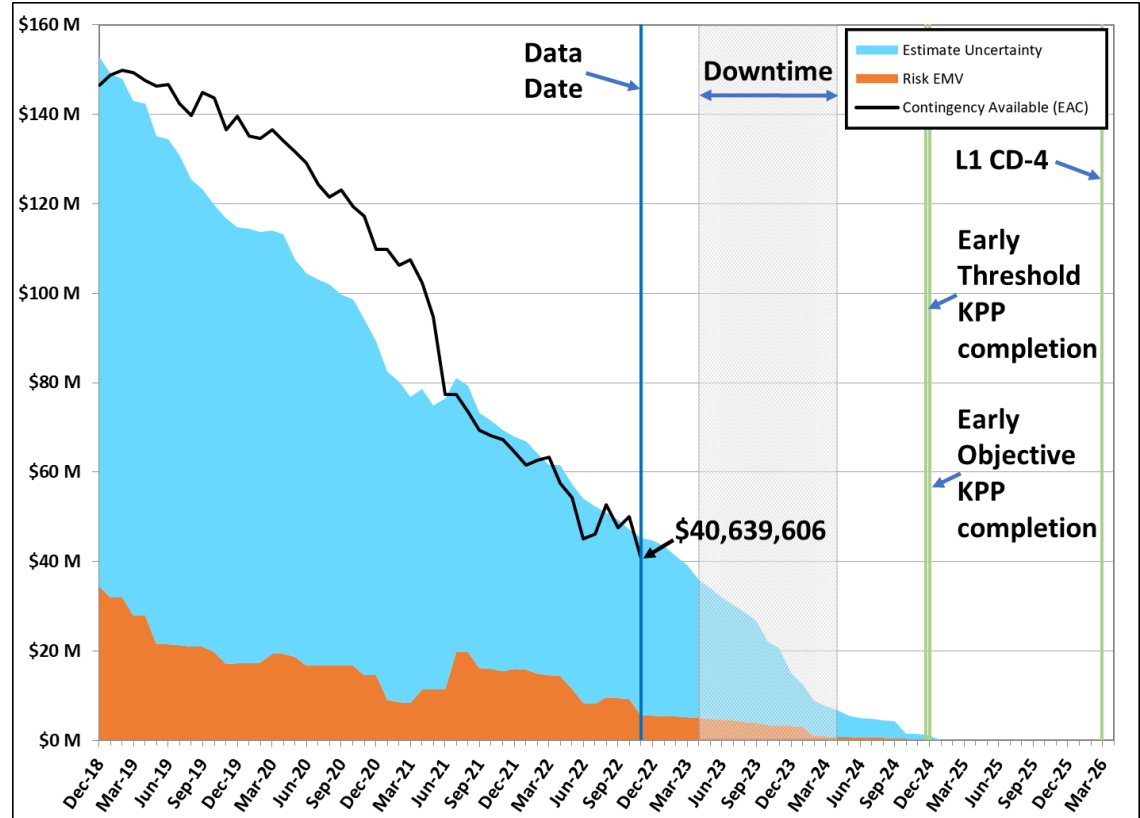
Despite all hardships, module production has continued, and as of today we have 21 modules FULLY completed and 5 more in the final stages of assembly.

With continued oversight, we expect to safely execute the downtime.



# PROGRESS AND CONTINGENCY

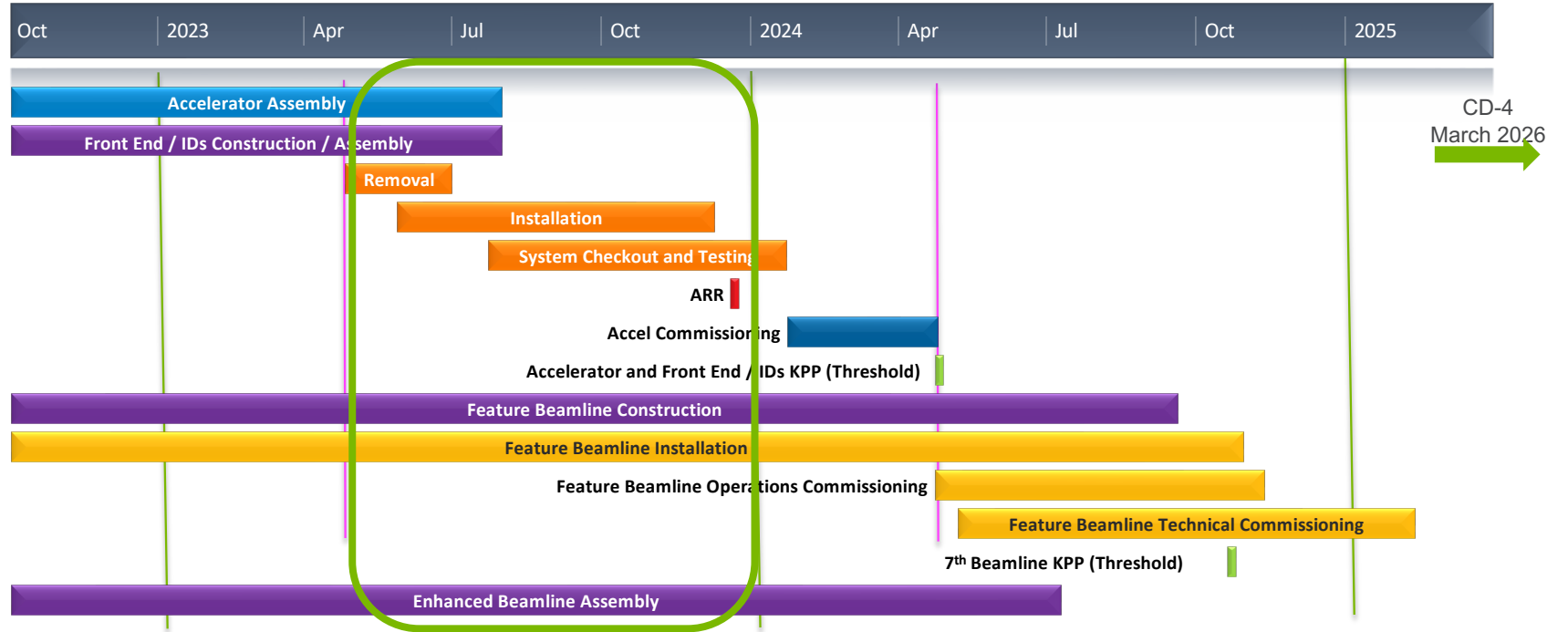
- Contingency remains TIGHT, and the schedule is near.
- Focus on completion of all designs – every last piece – and decisions needed to deliver the initial facility.
- Planning for the ramp-up of the machine and restart of the experimental program being done at the Directorate level.
- This is a massive and complex undertaking. Thoughtful and coordinated planning is needed to execute this -- SAFELY!



# SCHEDULE – LOOK AHEAD

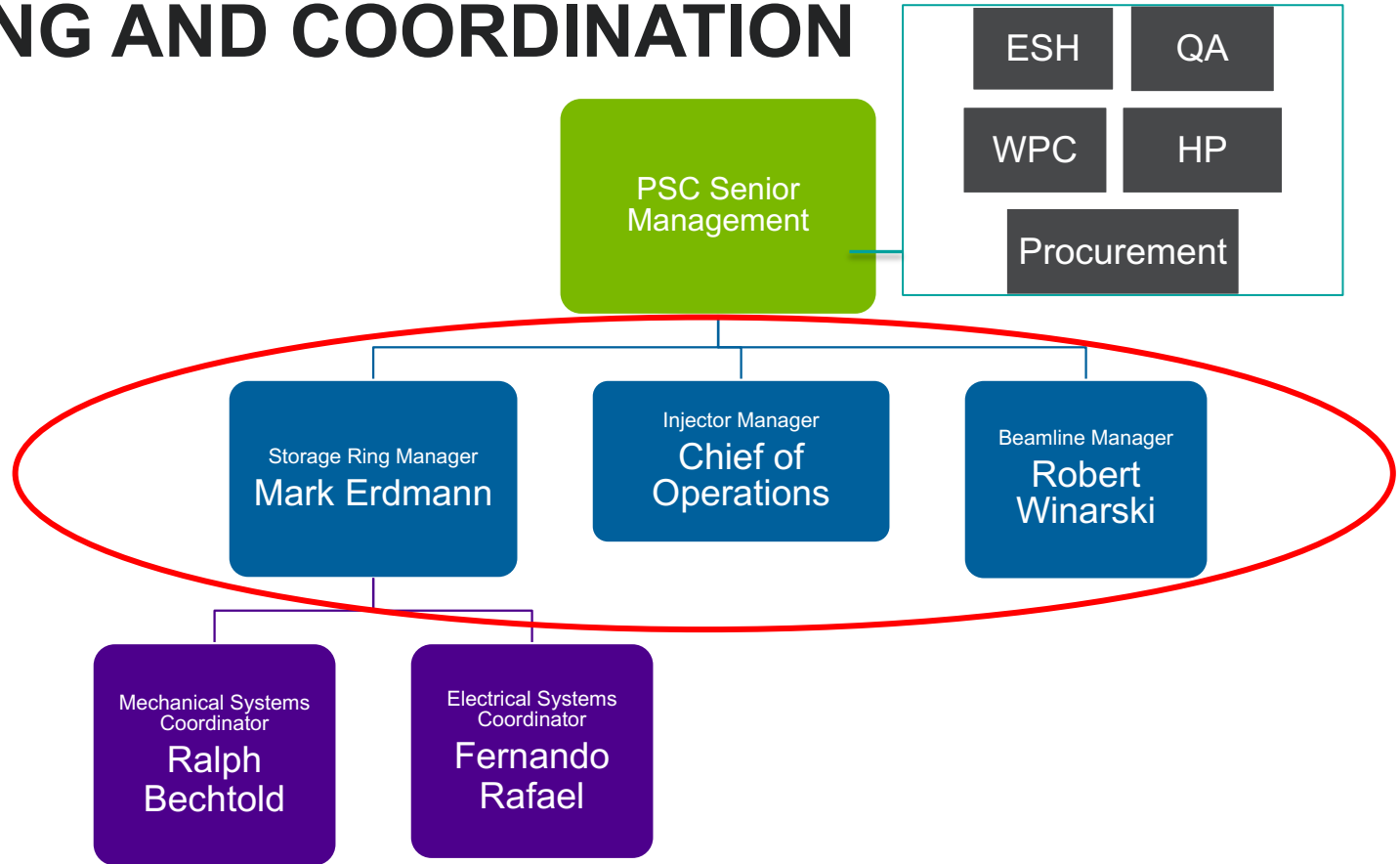
2022

2025





# PLANNING AND COORDINATION



# BEAMLINE RESOURCE COMMUNICATION COORDINATION

**All Bend Magnet Beamlines**  
Contact – Thomas Gog

**XSD Insertion Device Beamlines**  
Contact – XSD Group Leaders

**Beamline Installation Coordination**  
Robert Winarski

**CAT Insertion Device Beamlines**  
Contact – Ashley Wayman and John Mazzio

**APS-U Feature or Major Enhancement Beamlines**  
Contact – Robert Winarski or deputy

# COMMUNICATIONS

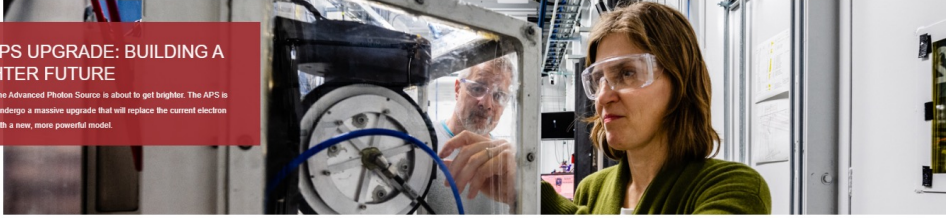

## APS Upgrade web page on the APS website

- <https://www.aps.anl.gov/APS-Upgrade>

## APS Upgrade web page on the Argonne website

- <https://www.anl.gov/aps-upgrade>

The Advanced Photon Source  
a U.S. Department of Energy Office of Science User Facility



### THE APS UPGRADE: BUILDING A BRIGHTER FUTURE

The future of the Advanced Photon Source is about to get brighter. The APS is scheduled to undergo a massive upgrade that will replace the current electron storage ring with a new, more powerful model.

- APS Upgrade Home
- About the APS Upgrade
- FAQ
- New Storage Ring
- Feature Beamlines
- Videos
- People of the APS Upgrade
- Workshops, Meetings & Town Halls
- Organization Chart
- Sharepoint (Password Required)
- Documents
- Comparable Beamline Options for Users
- Progress in Pictures

#### APS USER EXPERIMENTS SCHEDULED TO END APRIL 17, 2023

#### INSTALLATION PERIOD SCHEDULED TO BEGIN APRIL 24, 2023

The APS Upgrade Project will require a storage ring installation period, during which the APS will pause operations for one year. User experiments are scheduled to end on April 17, 2023, with the installation period scheduled to begin one week later, on April 24, 2023.

Consistent with these dates, the last APS operations run is scheduled to start on Jan. 31, 2023, and end on April 17, 2023. The upgraded APS will return to operations after the 12-month installation and commissioning period, though the initial operations will be at reduced current and availability as the machine is tuned up. Regular updates will be provided on this website.

#### APS Upgrade News

- 10.14.2022  
Fleeting IDEA Beamline Will Provide Lasting Value to the Advanced Photon Source
- 10.03.2022  
Deconstruction Site: 8-ID Beamlines Ready for Their Upgrades
- 09.28.2022  
Toasting the Spectroscopy Program at APS Beamline 20-ID

# SUMMARY



81 days to go! Safely!

It's an exciting time! The goal is in reach. We will get there... One thoughtful step at a time.

The upcoming shutdown will be unlike any shutdown that has occurred in the past 25+ years.

Thank you for your continued interest in, support of, and safe work conducted on behalf of the Lab, PSC and the Upgrade.