# News and Discussion

- LBNC and NSG Review Findings
- CHEP abstract acceptance
- Organization Openings
- Computing Model Update

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# LBNC Review

- [https://indico.fnal.gov/event/63290/](https://indico.fnal.gov/event/63290/)

- next meeting Oct 2-4, 2024 at Fermilab

- Recommendation:  The LBNC requests an update about the CSF at the next meeting. The LBNC recommends that the update presents the specifications and milestones for the pilot implementation plan.

- Add this as a milestone within the Frameworks Task Force calendar

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# Neutrino Scope Group

The overall purpose of the NSG is to review the scope completeness, the availability and sufficiency of resources to complete the scope on schedule, and identify any non-technical risks associated with the DUNE program.

Assessing the appropriateness of the estimate of available resources, including staffing resources and M&S funding for the DUNE experiment, including computing.

Two Charge Questions about Computing:

4. What is the status of interface documentation between the scope of the computing consortium and those of other groups within the collaboration, particularly the DAQ consortium, the various detector consortia, and the analysis groups working on algorithms?

5. What is the Computing and Software plan to develop the schedule and resources required to start DUNE physics as planned?

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# One Question to Computing:

**Provide us with a list of high-level Software and Computing goals through "Start Physics with Detector #1" as well as the main milestones in accomplishing them.**

2025 Q2 ProtoDUNE-VD beam operations
2027 Q2 FD DAQ data transfers begin
2029 Q1 ND DAQ activity begins
2029 Q2 Physics Readout of FD

Core Software and Computing Goals and Milestones:
Framework:
2025 Q3 Milestone: Framework Prototype
2027 Q3 Milestone: Framework Ready for full module integration
2028 Q1 Goal: Framework integration into production complete

Databases:
2026 Q3 Milestone: Conditions Database Content Specification Complete
2026 Q3 Milestone: Slow Controls Database Content Spec Complete
2027 Q4 Milestone: Calibration Database Devel and Int. Complete
2028 Q2 Goal: Full suite of Database for FD and ND

Workflow Management:
2026 Q2 Milestone: HPC Integration into Workflow Management
2027 Q1 Milestone: DUNE Data Challenge (ND HPC workflows)
2028 Q2 Milestone: SuperNova Workflow Data Challenge

2029 Q2 Goal: Validated Monthly SuperNova Workflow

Data Management:
2025 Q1 DUNE Data Challenge (PDVD)
2025 Q2 Goal: FD Data Management PDVD Complete
2026 Q2 Milestone: WLCG Data Challenge (50% data volume)
2027 Q1 Goal: FD Data Management Phase I Complete (30 PB/year)
2028 Q2 Milestone: WLCG Data Challenge (100% data volume)
2029 Q1 Goal: ND Data Management Phase I Complete

Analysis Development:
2028 Q1 Milestone: Prototype Analysis Facility Design
2029 Q3 Goal: Deployment of Common Analysis Facility

The effort profile for DUNE CS&C computing is based upon the having an increase in effort at the start of each project development (e.g. FD Databases), an increase in operations effort when the goal is reached, and an appropriate level of continued development to address on-going feature needs. We try to maintain a distinction between development and operational effort, but for software development it is sometimes difficult to keep the two separate given the need to deploy projects once minimally viable.

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# Comments

1. The CS&C group has made excellent progress in preparing computing infrastructure. We applaud their efforts in updating computing group responsibilities.

2. The CS&C group has largely been meeting the collaboration's software and computing needs over the past few years. This is a positive sign.

3. CS&C effort has come primarily from the US and UK. However, participation by other partners is now ramping up.

4. There was no explicit discussion of risk for CS&C in this meeting. Presenting a simple risk analysis would be helpful in assessing if and where critical action is necessary.

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# NSG Recommendations

1. For the next NSG meeting, present a preliminary assessment of top CS&C risks and mitigations capturing the primary vulnerabilities DUNE software and computing.

2. For the next NSG meeting, present a proposal for a mechanism to effectively track progress in CS&C areas, allowing objective identification of potential problem areas before they become critical.

3. For the next NSG meeting, please present an update on CS&C effort from collaborators beyond the UK and US and on securing resources from all collaborating institutes and funding agencies. Do they meet estimated CS&C needs?

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# Action items

- Identify a non-US/UK person for next NSG meeting (potentially in South Dakota)
- Integrate finer detail milestones and goals for working groups (e.g. workflow, data management, databases)
- Working groups develop risks and enter into a risk registry (yet to be determined if DUNE project or FNAL Smartsheet risk registry)
- still need to recruit for Release managers

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# Upcoming meetings

- CCB Meeting still being set, but for Sep 3-6 or Sep 16-20.
  - updated on usage and delivery
- Discussions continue for annual DUNE S&C week.
  - Fermilab has said they are willing to host
  - looking for date and will update soon

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