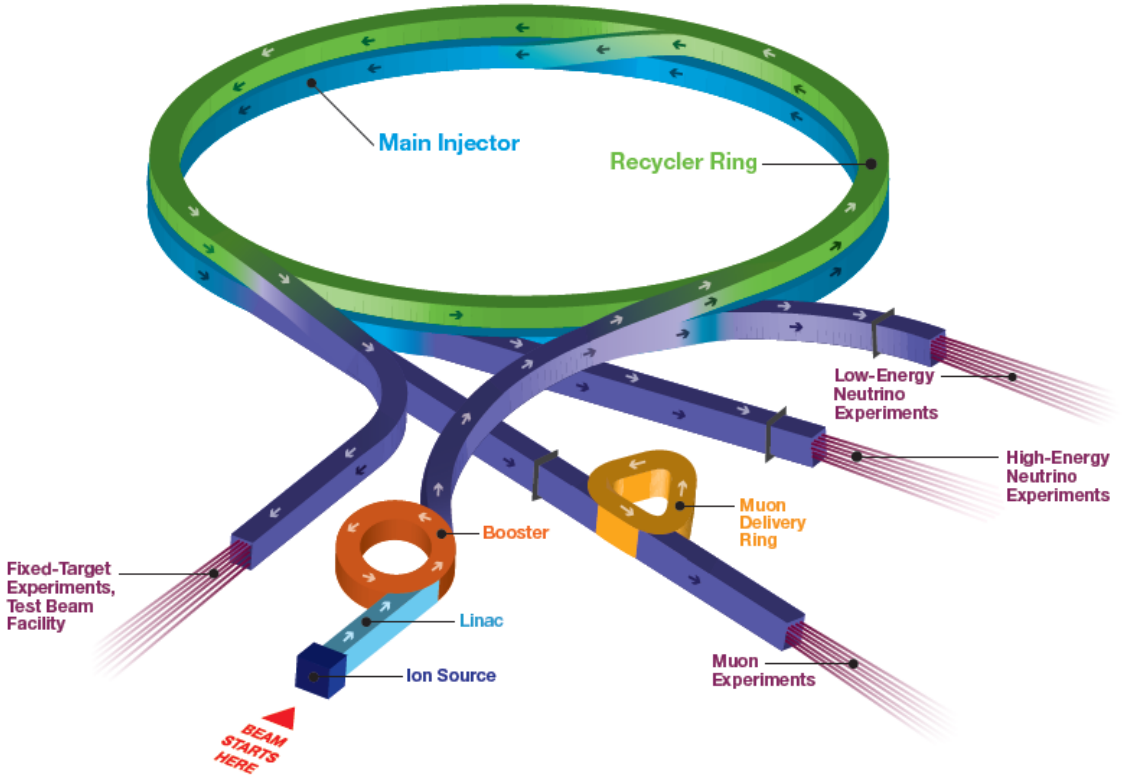
Plans for Users and Affiliates: User Engagement

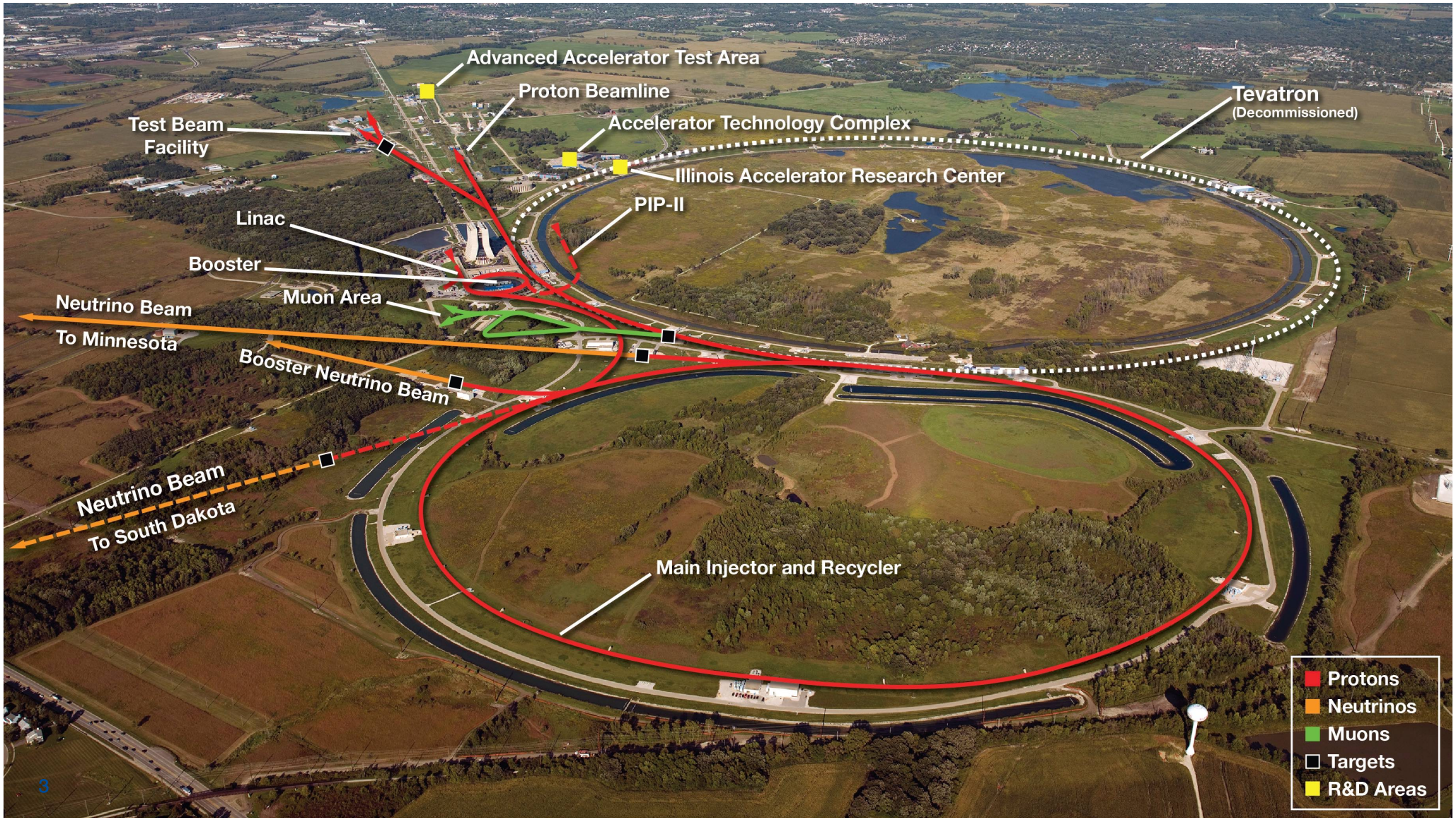
Charge: We ask the PAC to review the laboratory's plans for users and affiliates engagement in the context of Fermilab as host for both national and international collaborations.

Fermilab PAC
Bonnie T. Fleming
January 17th, 2022

Fermilab Accelerator Complex – User facility for groundbreaking science:

- Proton Source
  - 400 MeV Linac @ 805MHz.
  - 8 GeV Proton Synchrotron Booster 15Hz
- Recycler
  - 8 GeV fixed energy
- Main Injector
  - 120 GeV, 1.2 s cycle
- Beam lines
- Target stations

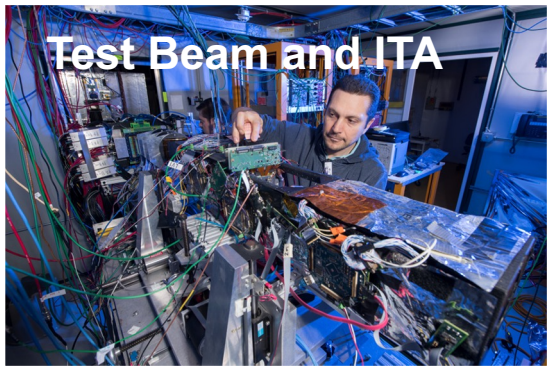


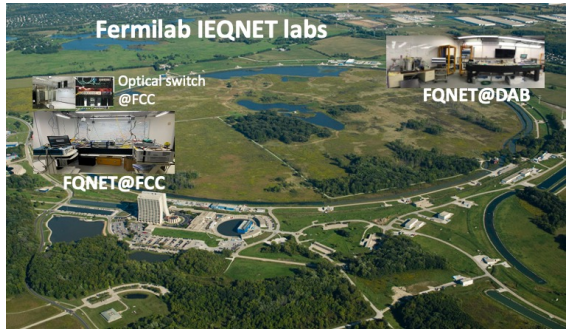

Advanced Accelerator Test Area
Proton Beamline
Test Beam Facility
Accelerator Technology Complex
Tevatron
(Decommissioned)
Illinois Accelerator Research Center
PIP-II
Linac
Booster
Muon Area
Neutrino Beam
To Minnesota
Booster Neutrino Beam
Neutrino Beam
To South Dakota
Main Injector and Recycler
Protons
Neutrinos
Muons
Targets
R&D Areas

CMS at Fermilab

US CMS at FNAL with ROC-east, the LPC, computing facilities

~700 CMS colllaborators use the FNAL LPC computing cluster





Fermilab facilities are key to Particle Physics Program

Fermilab

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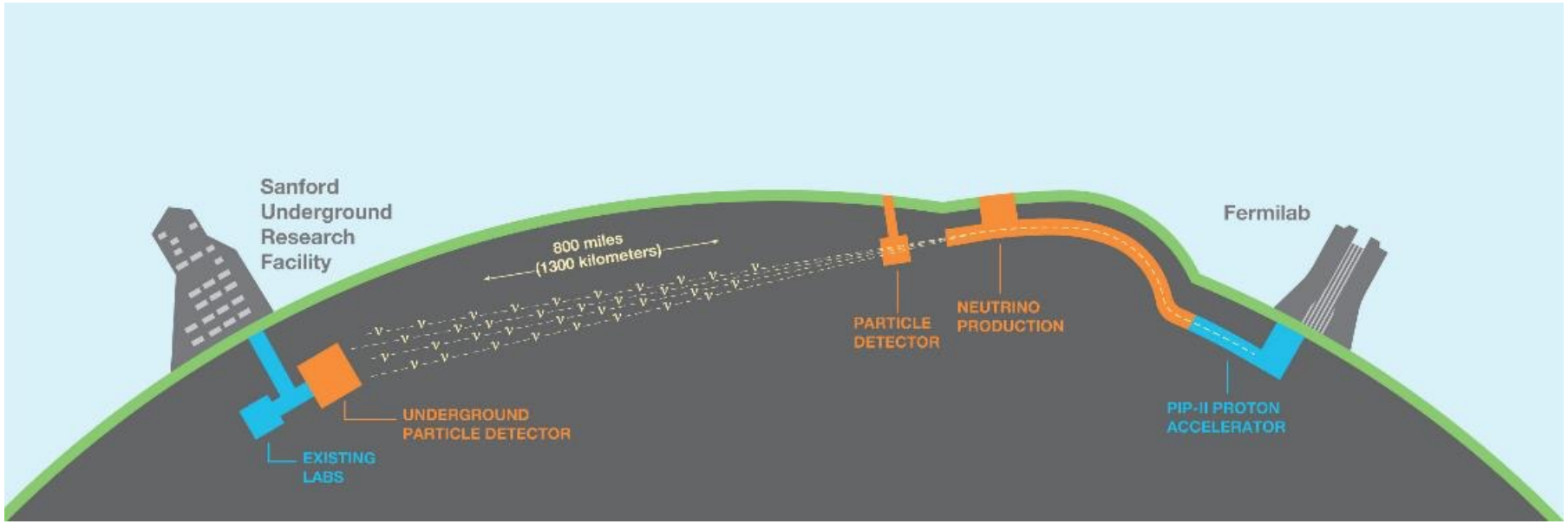
Fermilab



- Two sites with near and far detectors
- 1,402 collaborators, 47% U.S./53% non-US, 206 institutions from 37 countries including CERN
- FNAL to enable: Execution of detector subprojects, Operations of DUNE experiment, Hosting of an international science collaboration

Fermilab as a host for it's User's and Affiliates

Reinvigorate and transform Fermilab's Vibrant User Community for Science

New era:

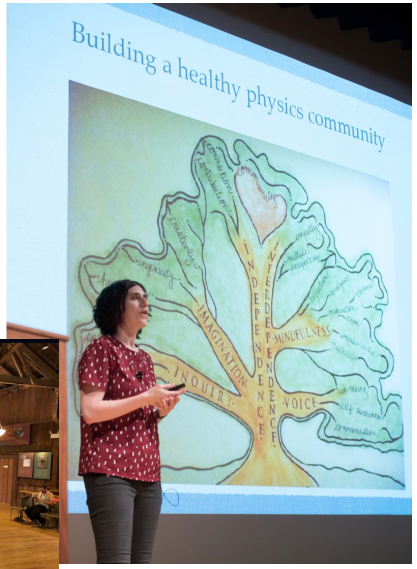
- DUNE continues to ramp up and begins to look towards operations at two sites
- return from COVID with the way we work still changing
- P5 planning in process → looking to the future overall

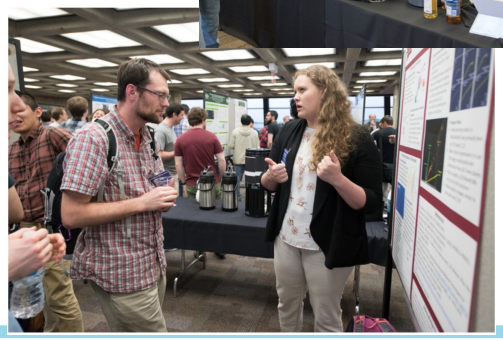
  - **Providing safe work environment → Physical safety and Psychological safety**
  - **Providing beam, facilities, and resources**
  - **Providing opportunities to engage in Science at Fermilab**
  - **Providing avenues of oversight and feedback for Users/Affiliates**

In the context in the near term → Host Lab Task Force for DUNE

→ More broadly speaking: User Engagement within Office of CRO

Reinvigorate and transform Fermilab's Vibrant User Community for Science





A Culture of Safety

- At Fermilab, we are committed and strive to establish a **Culture of Safety** in all its manifestations: **physical and psychological**

- **Safety, both physical and psychological, is our top priority and supersedes every other priority**.

- As an institution, we have the moral and ethical obligation to provide our employees/users/community a safe, respectful, inclusive, welcoming working environment.

- In this environment there is **zero tolerance** for disrespectful, disparaging, discriminatory behavior, bullying, harassment of any kind, and any form of unethical behavior.
    - Must preserve vigorous debates centered on ideas!

- This cultural change must be accompanied by a formal system for practical consequences for violations, accountability, and fair and transparent enforcement procedures resulting in appropriate actions for those who are detrimental to the health of our community, up to and including suspension or termination of a member.
- All supervisors are stewards of our message.

Providing beam, facilities, and resources

- **Site access: travel and visa services**
  - Site Access Task Force: Charged by CRO and COO, near, mid, and long term solutions for site access
- **Beam, experimental facilities**
- **Scientific Computing**
- **Offices and conference rooms**
  - Need to upgrade FNAL conference rooms to accommodate more: on site, and hybrid connections
- **Housing (live, breath, and eat science)**
  - Housing on site in Batavia
  - Housing at SURF

Site Access Task Force

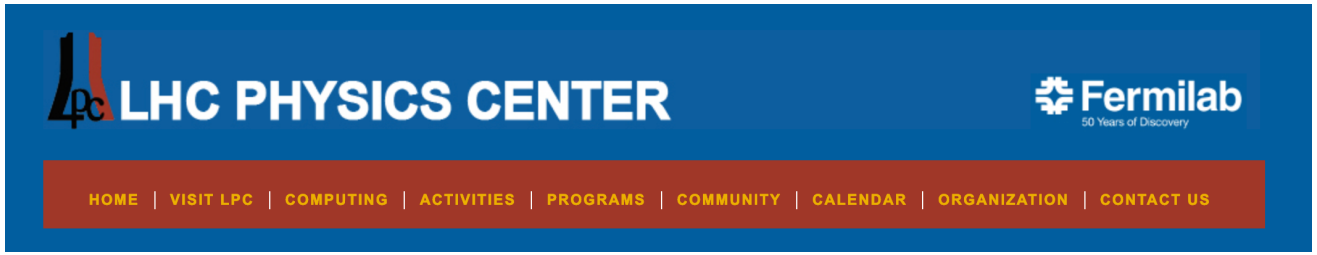
- Recognition that site access-related issues are impeding work for many users/affiliates/contractors
- Formed **Site Access Task Force** (SATF) reporting to CRO and COO
- Tasked with identifying and prioritizing improvements to site access process
  - That streamline and clarify process
  - Remain in compliance with DOE orders and site security plan
- SATF meeting bi-weekly (kickoff on 11/29)
- Deliverables are changes that can be implemented within a 12-month timescale
- For questions/suggestions, contact SATF co-chairs
  - Bo Jayatilaka (boj@fnal.gov)
  - Joe Rogers (jrogers@fnal.gov)

Site Access Task Force members

Users Representatives	Technical Representatives
Bo Jayatilaka (*co-chair*) (LPC/CMS)	Joe Rogers (*co-chair*)
Greg Bock (ex-officio)	Griselda Lopez (site access)
Mandy Kiburg (FTFB)	Matt Kwiatkowski (cyber)
Flor de Maria Blaszczyk (PAB)	Melissa Ormond (foreign access)
Sophie Middleton [Caltech] (UEC, Muon)	Jo Fazio (IT – Project Manager of existing Site Access and Badging Project)
Simon Corrodi [ANL](Neutrinos)	Craig Mohler (IT)
Mayly Sanchez [Florida State] (Neutrinos)	Jeremy Sawyer (ESH)
Carla Bonifazi [UFRJ] (Astro)	Aria Soha (ISD)
Stefan Hoeche (Theory)	Becky Thompson (EPE)
	Joe Pygott (South Dakota)
	Mary Jo Lyke (Procurement)

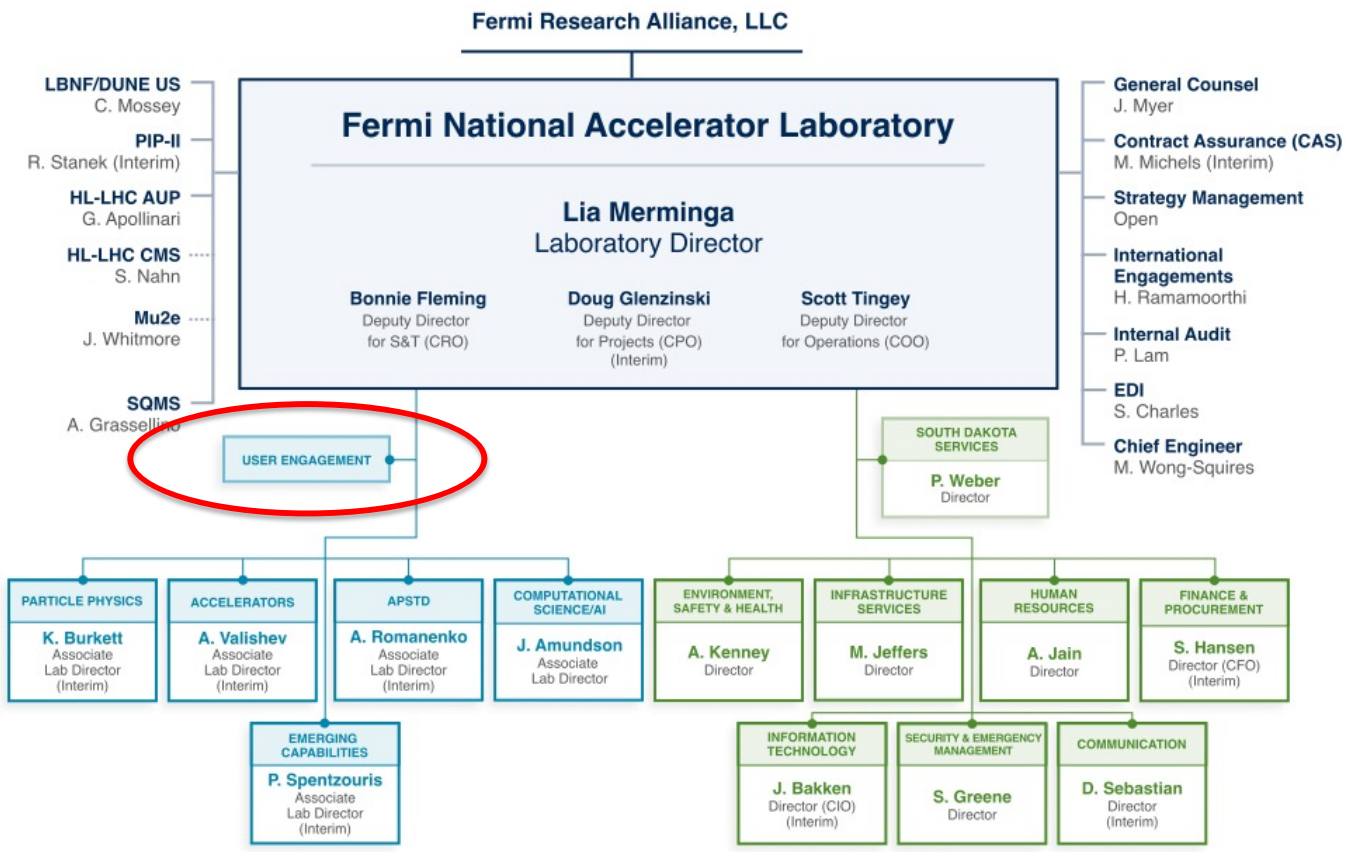
Providing opportunities to engage in Science at Fermilab

- **Fellow, Intern, and Scholar programs (too many to list here)**
  - High school, undergraduate, graduate, professional
  - Bring people to FNAL for summer and longer term
  - International engagement
- **Hosting conferences, workshops**
- **Hosting centers**
  - LPC
  - NPC
  - CPC



Providing avenues of oversight and feedback for Users/Affiliates

- PAC and Reviews
- Users Executive Commtitee
- Annual User's meeting
- User Engagement under CRO: Director of User Facilities
- **DUNE host lab task force**



Host Lab Task Force

- The DUNE Host Lab Task Force, led by the Chief Research Officer (CRO) and Chief Operations Officer (COO) has been working since August. These organizations will provide key support in the following areas:
  - **CRO**:
    - Interface with DUNE collaboration, Int'l funding agencies, physics community
    - Organizes and coordinates oversight bodies, including LBNC, NSG, and RRB
  - **COO**:
    - Organizes and coordinates support through laboratory mission support organizations (eg; legal, facility, property, safety, HR, financial, procurement, project support services, etc)

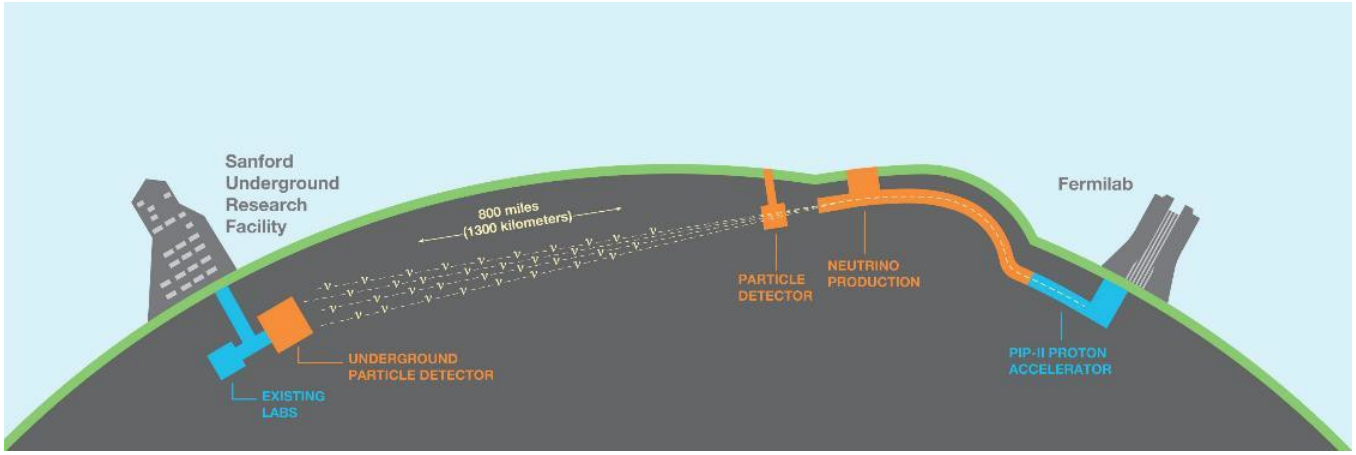
- Draft task force report in hand, working to finalize by March of 2023\

Purpose/Scope

To ensure (1) extensive and near-term support from Fermilab to successfully build the LBNF facilities and DUNE detectors and (2) there is adequate coordination, oversight, and support functions, as well as appropriate budget and resource planning for Fermilab to serve long-term as the Host Lab for LBNF/DUNE.

The scope of includes both the Batavia, IL and Lead, SD sites and includes science, engineering, and business support functions

Chairs – CRO/DCOO
Members - Science/Engineering Support Members, Business Support Members, Advisors



Approach/Deliverables

Approach

- Organized into subcommittees to address the specific components of the charge as captured in the Support tables (next slide)
- Subcommittees will meet regularly (in between meetings of the larger group)
- Encouraged subcommittees to work across Scientific and Business support areas as needed

Deliverables

- Produce an interim report by End of year
- Finalize the report by March 2023

Science/Engineering Support		Business Support
International User and University User support plan • Development of Neutrino Physics Center plan		Finance/Legal plan* • Housing options, purchasing, taxes, Property Insurance
Develop a profile of LBNF/DUNE affiliates that are likely to stay for extended periods of time in SD and at FNAL • Site Access (lab access) • Global Services support (visa support, international user support, university user support) • Quality of life		Security plan • Site Access (lab access) • Global Services support (visa support, international user support, university user support) • Quality of life
Communications • Scientific Communication		Communications • Lab communication to users, affiliates and employees Document Management
ROC West Integration plan		HR plan* near term (3-6 months) and long term (FY24 – FY30) • Hiring (technical staff) to support infrastructure and detector assembly activities, onboarding, HR partner in SD* • Batavia recruitment/short-term assignments • Union applicability
Scientific Computing plan		Facilities & Property plan • Shipping, Property tracking, receiving, parking & transit, logistics/space planning for components
Prototyping and Production Plan (Far and **Near** Site) 2x2, MITF, Storage of Devices, Testing		ESH plan* • Oversight and occ med support • Workers' compensation
		Core Computing plan • Support for existing and development of new IT systems

Short term goals already underway…

- Workforce support
  - Strategies and mechanisms to hire and support a technical workforce in SD, including hiring, onboarding, training, and providing employee assistance.
- Housing support, including multiple, flexible short- and long-term options.
- Site Access and Security
  - A plan to provide functional on-site support to ensure compliance with site access requirements.
  - Inclusion of Fermilab spaces at SURF in the security plan to ensure compliance with requirements.
- ESH – continued programmatic and policy support, in areas such as:
  - Medical support at SURF

Final Report March 2023

Fermilab as a host for it's User's and Affiliates

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- **Providing avenues of oversight and feedback for Users/Affilliates**
  - PAC, UEC, User's meeting, …
  - User Engagement under CRO: Director of User Facilities
  - DUNE host lab task force
- **Building for the Future!**