

# Status & Plans

Eric James

Far Detector Technical Board Meeting

February 7, 2019

# TDR Production Schedule

Consortium	1st draft	2nd draft	To LBNC
SP-HV	November 2, 2018	December 7, 2018	December 21, 2018
SP-APA	November 2, 2018	December 14, 2018	December 21, 2018
SP-DAQ	November 12, 2018	December 14, 2018	December 21, 2018
SP-PDS	December 7, 2018	January 11, 2019	January 25, 2019
SP-CISC	November 30, 2018	January 11, 2019	January 25, 2019
TC	December 7, 2018	January 11, 2019	January 25, 2019
PHYSICS	November 30, 2018	January 11, 2019	January 25, 2019
SP-CE	December 14, 2018	February 8, 2019	February 22, 2019
DP-Electronics	December 14, 2018	February 8, 2019	February 22, 2019
Computing Exec Summary	December 14, 2018	February 8, 2019	February 22, 2019
DP-HV	February 1, 2019	March 1, 2019	March 29, 2019
SP-IIC	February 1, 2019	March 1, 2019	March 29, 2019

Consortium	1st draft	2nd draft	To LBNC
DP-PDS	March 1, 2019	April 5, 2019	April 26, 2019
SP-Calibration	March 1, 2019	April 5, 2019	April 26, 2019
SP-Exec Summary	March 1, 2019	April 5, 2019	April 26, 2019
ND-Exec Summary	March 1, 2019	April 5, 2019	April 26, 2019
DP-IIC	April 5, 2019	May 10, 2019	May 31, 2019
DP-DAQ	April 5, 2019	May 10, 2019	May 31, 2019
DP-CISC	April 5, 2019	May 10, 2019	May 31, 2019
DP-Calibration	May 10, 2019	June 7, 2019	June 28, 2019
DP-CRP	May 10, 2019	June 7, 2019	June 28, 2019
DP-Exec Summary	May 10, 2019	June 7, 2019	June 28, 2019
Overall Exec Summary	May 10, 2019	June 7, 2019	June 28, 2019
TDR Final			July 26, 2019

# LBNC TDR Review (Feb. 28 @ FNAL)

## 1. FD-SP (DRAFT AGENDA)

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### DUNE Detector TDR Session

8:00am executive session

#### Session I – subsystem talks

8:30am overview/executive summary/physics\*\*

9:00am APAs

9:30am HV

10:00am DAQ

10:30am break

10:45am PDS

11:15am CE

11:45am CISC

12:15pm lunch/executive session

#### Session II – follow-up and Q&A

1:00pm follow-up/Q&A

With specific subsections as needed

#### Session III executive

3:30pm executive session

# LBNC TDR Review

- Consortia talks should focus on following:
  - Key performance parameters
  - Major issues, points of concern
  - Anticipated evolution from current draft to final version (what's to come?)
  - Plan for down-select if multiple technologies still being considered
- For each of six consortia, I need to know who will present talk and who else will be available in person at the review (expect practice talks – Feb. 27?)

# RRB Deliverables

- RRB Meeting Mar. 14-15 @ FNAL
- On the timescale of early March, we need to have
  - Re-formatted cost estimates (see Gina's Presentation)
  - Updated mapping of institutional responsibilities for consortia deliverables (see Gina's Presentation)
  - Conversation with each consortia leadership team about how to represent their consortia in the FD responsibility matrices (see next slide)

# Preliminary FD Responsibility Matrices

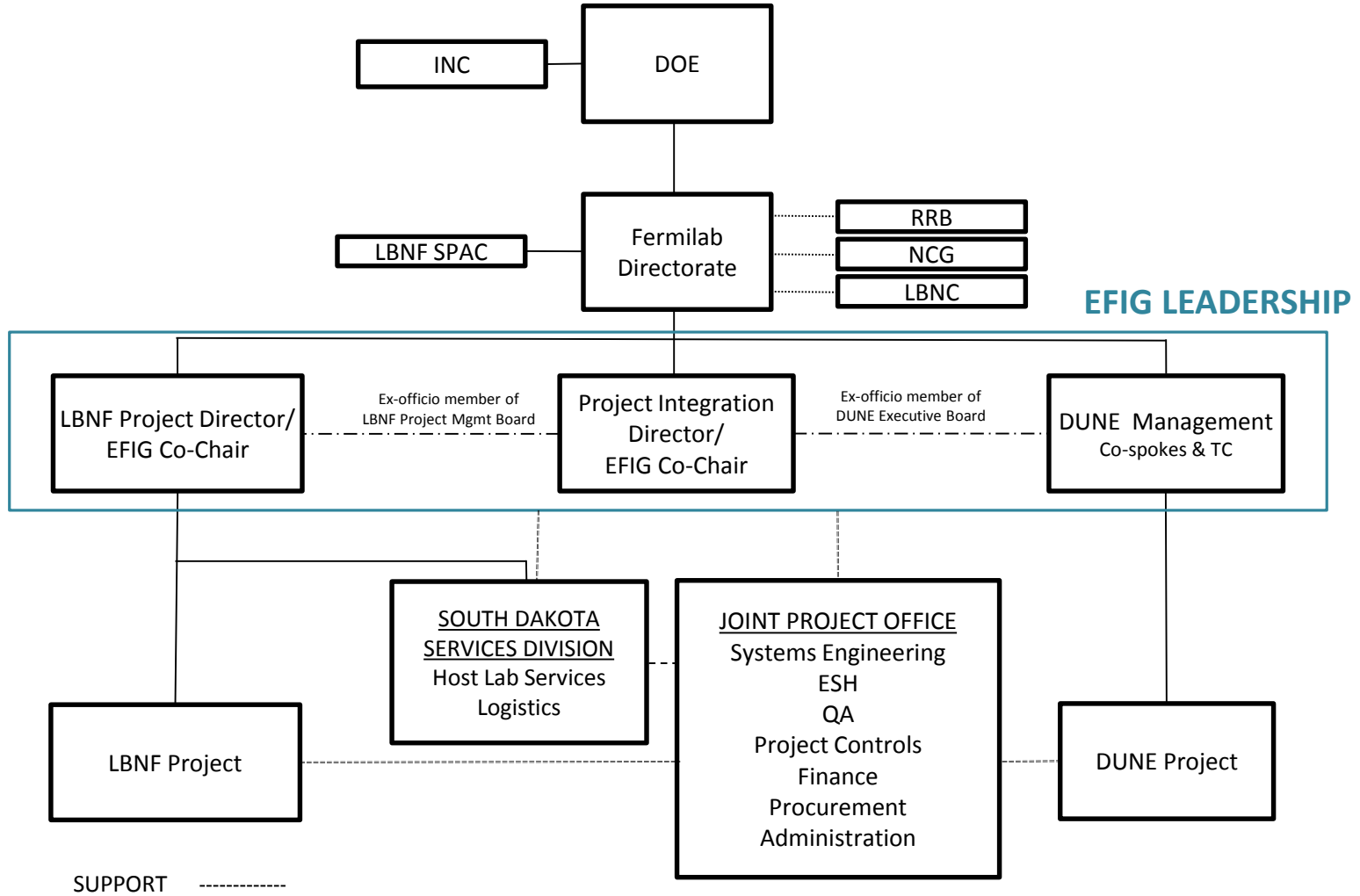
Option 1: One SP FD and One DP FD Module

	US	UK	CERN	BRAZIL	ITALY	SPAIN	PORTUGAL	FRANCE	SWITZERLAND	CANADA	CHEZ	NETHERLAND	JAPAN	TBD	Total
Anode Plane Assemblies	50%	50%													100%
Cold Electronics - SP	100%														100%
Photon Detectors - SP	5%			60%	30%						5%				100%
CRPs			20%					30%	25%					25%	100%
Electronics - DP			20%					70%					10%		100%
Photon Detectors - DP						50%								50%	100%
High-Voltage System	10%		25%		25%									40%	100%
DAQ		60%	30%							5%		5%			100%
Slow Controls & Instrumentation	33%		33%			33%									100%
Calibration Systems	50%						50%								100%
<b>Total</b>	<b>31%</b>	<b>13%</b>	<b>10%</b>	<b>8%</b>	<b>6%</b>	<b>3%</b>	<b>2%</b>	<b>11%</b>	<b>4%</b>	<b>0%</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>	<b>10%</b>	<b>100%</b>
% of Total	Level of Confidence														
	42% High (approved proposal)														
	30% Medium-high (proposal under review)														
	17% Medium-low (proposal under development)														
	10% Low														

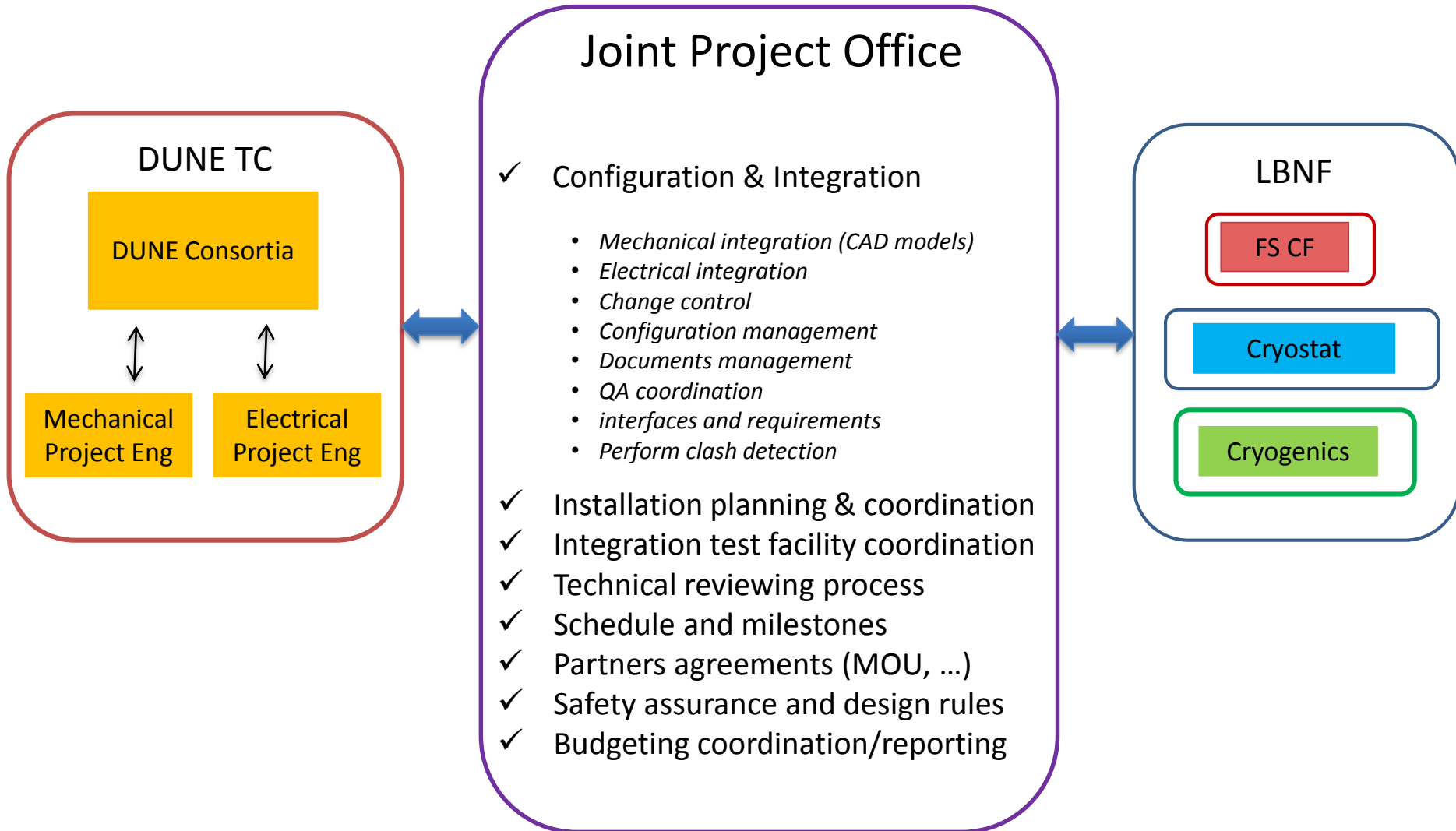
Option 2: Two SP FD Modules

	US	UK	CERN	BRAZIL	ITALY	SPAIN	PORTUGAL	FRANCE	SWITZERLAND	CANADA	CHEZ	NETHERLAND	JAPAN	TBD	Total
Anode Plane Assemblies	50%	50%													100%
Cold Electronics - SP	100%														100%
Photon Detectors - SP	5%			60%	30%						5%				100%
CRPs															0%
Electronics - DP															0%
Photon Detectors - DP															0%
High-Voltage System	10%		25%		25%									40%	100%
DAQ		60%	30%							5%		5%			100%
Slow Controls & Instrumentation	33%		33%			33%									100%
Calibration Systems	50%						50%								100%
<b>Total</b>	<b>43%</b>	<b>18%</b>	<b>8%</b>	<b>11%</b>	<b>9%</b>	<b>1%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>0%</b>	<b>5%</b>	<b>100%</b>
% of Total	Level of Confidence														
	59% High (approved proposal)														
	28% Medium-high (proposal under review)														
	7% Medium-low (proposal under development)														
	5% Low														

# Global Project Partners



# Joint Project Office





# Consortia Interactions

- Consortia interactions with Joint Project Office are through Technical Coordination
- A baseline for the integrated detector model now exists and proposed changes must go through an official change control process
- As many as four steps depending on import of proposed change
  - Consortia to Technical Board to Executive Board to EFIG

# Upcoming Schedule

- CE Mechanical 60% Design Review: Feb 11-12 @ BNL
- LBNC TDR Review: Feb 28 @ FNAL
- RRB Meeting: Mar 14-15 @ FNAL
- APA 60% Design Review: Mar 27-28 @ PSL
- LBNC Meeting: Apr 1-3 @ FNAL
- DUNE Collaboration Meeting: May 20-24 @ FNAL