

Training Reduction – discussion points

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Points

- a. What are the R&D issues, e.g. technical, manpower, M&S or other support
- b. What are the problems if any to meet the milestones

(charge question numbers addressed will be shown in red over yellow)

What are the R&D issues

lacktriangle There are not enough resources to cover all activities in our (short-term) plans	2
 □ Priorities among different directions are not set ✓ Core funding and allocations don't depend on us directly 	2
☐ Projects and other management activities also take resources away from R&D	2
□ R&D tasks rarely run at high priority✓ Schedule delays at least	2
 □ Some if not many R&D activities depend on one person ✓ If that person is not actively engaged the activity will virtually halt ✓ If they have busy periods, the same may happen ✓ Large inefficiencies 	2
☐ COVID-19 affecting (summer) student programs	2,3

What are the R&D issues

- ☐ "We" don't have clarity or easy to get support on some funding options so far (SBIR/STTR in mind)
 - ✓ It takes time to find for yourself (inefficient), typically will avoid spending time we don't have Not even clear if this can be justified to "charge" on R&D
 - ✓ There is no authority to work on this "for us"
 - ✓ We are often lacking active engagement on this
- ☐ Lack of dedicated focused research (depends on individual circumstances)
 - ✓ Meaning we often work on a subject when we can
 - ✓ No PhD students or post-docs (at least at FNAL) so far*
- □ R&D planning can be very rough <u>sometimes</u> (and we are required to plan)
 - ✓ There are "new things" sometimes, need extrapolation from "known things"
 - ✓ We depend on other people estimates and resource projections can be wrong.
 - ✓ Sub-tasks can be run by people who are not interested in the project (in other words, we typically don't choose the team)

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^{*}An exception is coming.

What are the problems if any to meet the milestones

Milestone #	Description	Target
Allle-M1	Commissioning of QCD	May 2021
Allle-M2	First Ultrasound based test	May 2021
Allle-M3	First high-Cp cable fabrication	September 2021
Allle-M4	First magnet test with QCD	September 2021
Allle-M5	Results from High-Cp cable studies	December 2021
Allle-M6	Optimized strand and cable FEM simulations	December 2021

M4: See M1, causing delays.

Also, AUP cryo-module testing at FNAL (starting in May).

We may have to wait for LDRD resources from FY22.

M5: A budget and plan was submitted.

No delays expected.

Student support not clear (Covid-19), other priorities.

M6: May get delayed.

Recourse over-run (inefficiencies due to initial funds decrease, imposed funding profile, unexpected "accounting" cut, COVID19, possibly inaccurate projections from sub-task leaders).

Still planning to meet the deadline but up to ORC.

Delay of tests schedules at FNAL (AUP/R&D), partially due to COVID19, resources.

The scope is now changed, at least for "first" testing.

A budget and plan was submitted.

No delays expected.

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3/4/2021