



LDRD at Fermilab

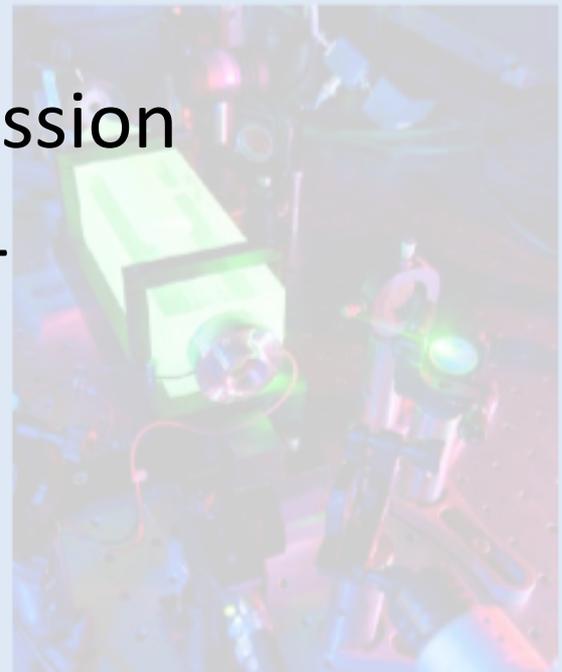


Information Session

April 2014



William Wester
LDRD Coordinator



Introduction

- The Department of Energy allows national labs to have and administer a “Laboratory Directed Research and Development,” LDRD, Program
- In the past, Fermilab has not participated
 - Single purpose nature of Fermilab
 - Budget flexibility already existed
- With the current budgetary structure (all the categories), LDRD at FNAL would be a benefit
 - Adds budget flexibilities
 - Encourages lab personnel to think innovatively
 - Promotes R&D that has potentially high pay-off
- Fermilab is the last laboratory to establish LDRD

LDRD Program Objectives

DOE Order 413.2B

- Maintain the scientific and technical vitality of the laboratories.
- Enhance the laboratories' ability to address future U.S. DOE/ NNSA missions.
- Foster creativity and stimulate exploration of forefront science and technology.
- Serve as a proving ground for new concepts in research and development.
- Support high-risk, potentially high-value research and development.

LDRD Program Scope

DOE Order 413.2B

- LDRD projects must be in the forefront areas of basic and applied science & technology relevant to DOE missions.
- Normally, LDRD projects will be relatively small and will also include one or more of the following characteristics:
 - Advanced study of hypotheses, concepts, or innovative approaches to scientific, technical, or computational problems
 - Experiments, theoretical studies, simulations, and analyses directed toward “proof of principle” or early determination of the new utility of new scientific ideas, technical concepts and devices, or research tools
 - Concept creation and preliminary technical analyses of advanced, novel experimental facilities/devices or of facilities for computational science.

LDRD Program Requirements

DOE Order 413.2B

- **Length of Projects:** LDRD projects will be limited to a maximum period of performance of 36 months.
 - *Typically, labs require progress reviews before second and third year funding is approved*
- **Funding Level:** Level must not exceed **6%** of a lab's total operating and capital equipment budgets.
- **Appropriate Expenditures:** Projects may be charged the same allowable costs associated with similar R&D activities at the lab, including fully burdened payroll, benefits, materials and supplies, travel to user-facilities, and capital equipment in direct support of a project or support for participation by non-laboratory personnel.
- **Management of Funds:** Funds must be carefully managed to ensure appropriateness and accountability of all charges.

LDRD Program Restrictions

DOE Order 413.2B

- ***LDRD funds will not be used to:***
 - Substitute for or increase funding for any tasks for which a specific limitation has been established by Congress or DOE, or for any specific tasks that are funded by DOE or other users of the laboratory.
 - Fund projects that will require the addition of non-LDRD funds to accomplish the technical goals of the LDRD project.
 - Fund construction design beyond the preliminary phase (e.g., conceptual design, Title I design work, or any similar or more advanced design effort) or fund line-item construction projects, in whole or in part.
 - Fund general purpose capital expenditures with the exception of acquisition of general purpose equipment that is clearly required for the project and is not otherwise readily available from lab inventory.
- ***LDRD is required to be for work that is outside current programmatic activities or projects***

For Fermilab personnel with great ideas ...

LDRD represents a great opportunity to think creatively, to explore a new idea, a new concept, try out a new technique ... work at the forefront of science and technology.

While there are requirements and restrictions, the idea is that the process is as little burdensome as possible.

Your role is to be a “Principal Investigator of a LDRD Project”

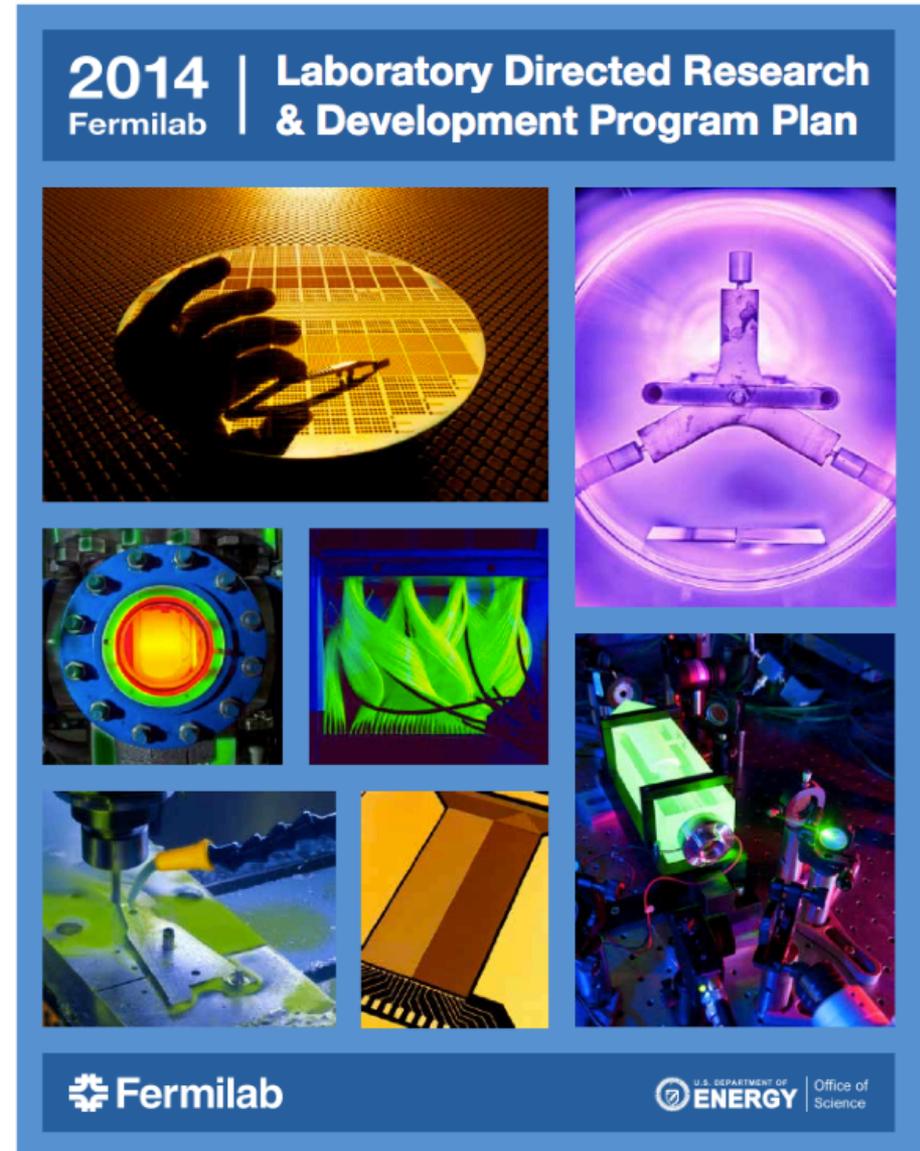
You propose a project, it gets reviewed, ultimately the Laboratory Director approves the project for funding. Your project gets assigned a project / task code and you manage the work plan outlined in your proposal. You obtain results in a deliverable milestone (publication, device, etc.) and complete end-of-project reporting.

LDRD can also be used to support new strategic areas

LDRD Annual Program Plan

An LDRD Advisory committee has met and developed the implementation procedures for Fermilab's LDRD program. These appear as part of a LDRD Annual Program Plan and a set of documents that describe the process.

The Annual LDRD Program Plan for Fermilab has been approved by DOE and has authorized FY2014 LDRD expenditures to not exceed \$1.5M



Call for proposals

1st step: A one-page preliminary proposal

(due May 9 for full consideration)

- Brief description of your project with the scope of the work plan and resources required AND sign-off approval from your Supervisor and Division Head
 - Management is aware of your intentions and believes it can accommodate your requested resources
 - LDRD Selection Committee gets a first look at possible proposals and might suggest changes to be compliant with LDRD requirements

Fermilab Laboratory Directed Research and Development, LDRD
Preliminary Proposal

Project Title:
Principal Investigator:
Co-Investigators (w/institutions):

Supervisor/Line Management Approval: _____
Date

Lead Division/Sector/Center Approval: _____
Date

Project Summary (~150 words): Project objectives, novelty, relation to mission.

Project Work Plan (~200 words): Overview description the work to be performed, timescale, and approximate financial/personnel resources required.

Comments or Questions (optional). Short description of anything else relevant or if you have any initial questions of the LDRD Selection Committee.

Call for proposals

2nd step: up to ~6 page full proposal

(due May 23 for full consideration)

- Summary and full description of your project with a detailed research/work plan and resources required.
 - Emphasize novel nature, relation to Fermilab's/DOE's mission
 - Detailed research plan with key milestones and ending deliverable
- Budget table to be prepared with assistance of Division's Field Financial Manager (FFM).
 - FTE costs for various job categories
 - Overhead rates for various pieces of the proposal

Title
PI (co-I's)
Project Description
Significance
Research Plan
Future Funding
Budget Table

Criteria for Evaluating LDRD Proposals

WORKSHEET FOR SCORING LDRD PROPOSAL

Proposal Name and/or ID Number	Principal Investigator's Name

Scoring Criteria	Rating (Check One Per Criteria)					Comments/Notes
	1 = Poor	2 = Fair	3 = Good	4 = Very Good	5 = Excellent	
Scientific/Technical Significance						
Innovativeness/Novelty						
Proposer Qualifications						
Proposal Quality						
Likelihood of Success						
Mission Relevance						
Initiative Relevance						
Strategic Fit						
Enduring Capability						
Laboratory Reputation						

Managing a LDRD Project

LDRD Selection Committee recommends LDRD Projects to the Director for approval subject to DOE Fermi site office concurrence.

Work on the LDRD project may begin when project/task code exists.

The PI is responsible for managing the LDRD project

- Cost effective use of funds

- Adhere to ES&H and Quality Assurance and other Lab policies

- Obtain Division approval of Work Plan (safety concerns addressed, etc.)

- Notify LDRD Coordinator of any changes in scope, other issues

- Prepare mid-year review materials for multi-year projects

- Provide management with periodic status reports

- Protect intellectual property

- Culminate the project in a clear deliverable such as a publication

- Prepare required end-of-project reports

Summary and then questions

I would like to thank Nigel for being a champion for establishing LDRD at Fermilab. I personally think that there is tremendous potential within the Fermilab staff to do great things. LDRD allows for those great things to get started.

Web site: ldrd.fnal.gov

Please contact
wester@fnal.gov
with any questions

FY2014 deadlines are
fast approaching; however,
FY2015 LDRD program is
just around the corner too!

Fermilab **LDRD at Fermilab**
Laboratory Directed Research and Development

Accelerator | Accelerator Physics | Computing | IARC | Particle Astrophysics | Particle Physics | Technical | Theory

About LDRD and FAQs
for Principal Investigators

2014 Annual LDRD
Program Plan

LDRD at DOE

Current Awards

Past Awards

LDRD Advisory
Committee

LDRD Selection
Committee

[LDRD SharePoint Site](#)

Email:
[To LDRD Coordinator](mailto:wester@fnal.gov)

Webpage: wester@fnal.gov
04/22/2014 07:23:00

[Security, Privacy, Legal](#)

A complete description can be found in the [Annual LDRD Program Plan](#)

Fermilab has instituted a Laboratory Directed Research and Development program as outlined by DOE Order O413.2B in order to support employee initiated proposals that are novel, cutting edge, and explore forefront areas of science and technology. The program will enhance the Laboratory's ability to carry out the mission of DOE and the Laboratory in areas that are outside current programmatic activities, such on-going projects, but are well-aligned with the mission and strategic goals of the Laboratory.

The FY2014 Call for Proposals will be announced 23 Apr 2014
Preliminary proposals received by 9 May 2014 will receive full consideration.
Full proposals received by 23 May 2014 will receive full consideration.

- Quick links for perspective Principle Investigators
 - Preliminary Proposal (template ([.docx](#), [pdf](#)))
 - Full Proposal (template under development, see [instructions](#))
 - Reporting Requirements ([instructions](#))
- What LDRD can be used to support
 - Advanced study of hypothesis, concepts, and innovative approaches to scientific, technical, or computational problems
 - Experiments, theoretical studies, simulations, and analyses directed toward "proof of principle" or early determination of the utility of new scientific ideas, technical concepts, and devices or research tools
 - Concept creation and preliminary technical analyses of advanced, novel experimental facilities and devices or of facilities for computational science.
- What LDRD is unable to support
 - R&D that is already part of programmatic activity / existing project
 - R&D that requires non-LDRD funds to complete

Fermi National Accelerator Laboratory | Office of Science/U.S. Department of Energy | Managed by Fermi Research Alliance, LLC