

EICUG Going Forward...

A Discussion

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Building upon discussions/presentations this week and before...

Why an EICUG?

Build on the momentum gained by the strong recommendation in the NSAC LRP: It is opportune to form a Users Group which further helps the timely realization of the EIC

- Provide help and a gateway for new users and institutions to enter and assimilate (include new physics/detector ideas)
- Pursue effective outreach: scientists, public & agencies
- Communicate transparently amongst users, the Labs and the funding agencies leading to design decisions, R&D support
- Help “seed” future collaborations
- Work with international collaborators and funding agencies on optimal level of internationalization

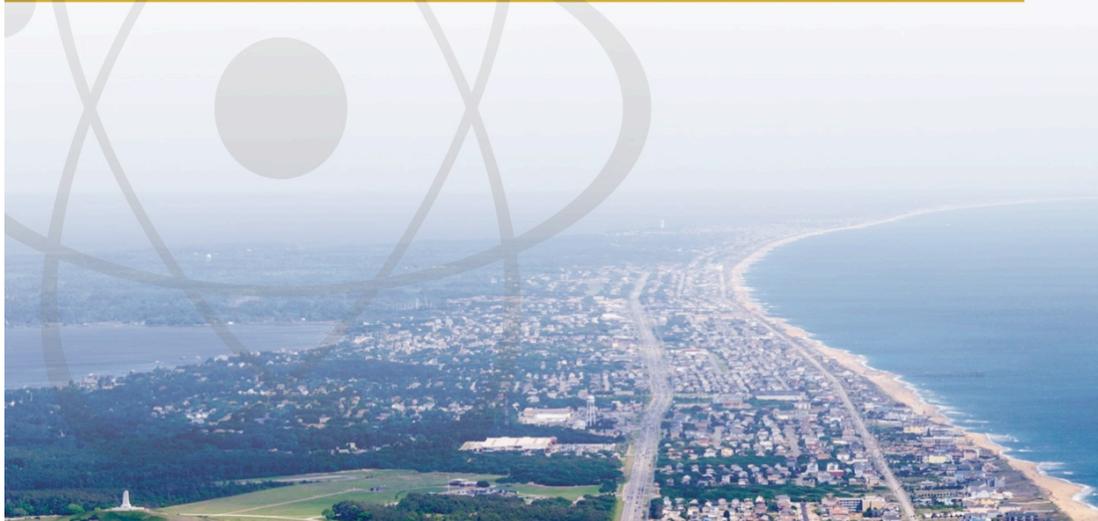
EICUG

Will NOT constrain research activities of its members

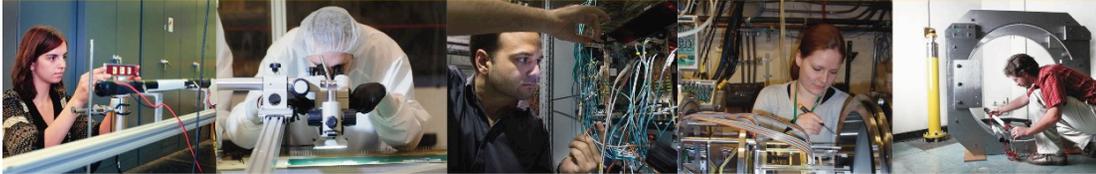
It will meant to ENHANCE and HELP activities towards realization of the EIC

Where are we now?

REACHING FOR THE HORIZON



The Site of the Wright Brothers' First Airplane Flight



The 2015 LONG RANGE PLAN for NUCLEAR SCIENCE



<http://science.energy.gov/np/reports>

Recommendations:

Finish current physics programs at existing facilities (RHIC, **JLab**, NCLS, **FRIB**,...)

Invest in a neutrinoless double beta decay experiment

We recommend a high-energy high-luminosity polarized EIC as the highest priority for new facility construction following the completion of FRIB.

Invest in mid- and small-scale projects at universities and laboratories

Initiatives:

Theory

Detector & Accelerator R&D

What's the immediate future:

- National Academy of Science (NAS) Review (initiated and will write a report within the next year)
 - We respond to requests for presentation of science and readiness
- Positive NAS review: trigger the CD process
 - Modulo the timing of the Change of Administration (US presidential elections)

Critical Decision Process DOE

PROJECT ACQUISITION PROCESS AND CRITICAL DECISIONS						
Project Planning Phase		Project Execution Phase			Mission	
Preconceptual Planning	Conceptual Design	Preliminary Design	Final Design	Construction	Operations	
i CD-0		i CD-1	i CD-2	i CD-3	i CD-4	
Approve Mission Need		Approve Preliminary Baseline Range	Approve Performance Baseline	Approve Start of Construction	Approve Start of Operations or Project Closeout	

CD-0	CD-1	CD-2	CD-3	CD-4
Actions Authorized by Critical Decision Approval				
<ul style="list-style-type: none"> • Proceed with conceptual design using program funds • Request PED funding 	<ul style="list-style-type: none"> • Allow expenditure of PED funds for design 	<ul style="list-style-type: none"> • Establish baseline budget for construction • Continue design • Request construction funding 	<ul style="list-style-type: none"> • Approve expenditure of funds for construction 	<ul style="list-style-type: none"> • Allow start of operations or project closeout

PED: Project Engineering & Design

Modest Growth: 1.6% real growth/year above constant effort

The 2015 Long Range Plan for Nuclear Science

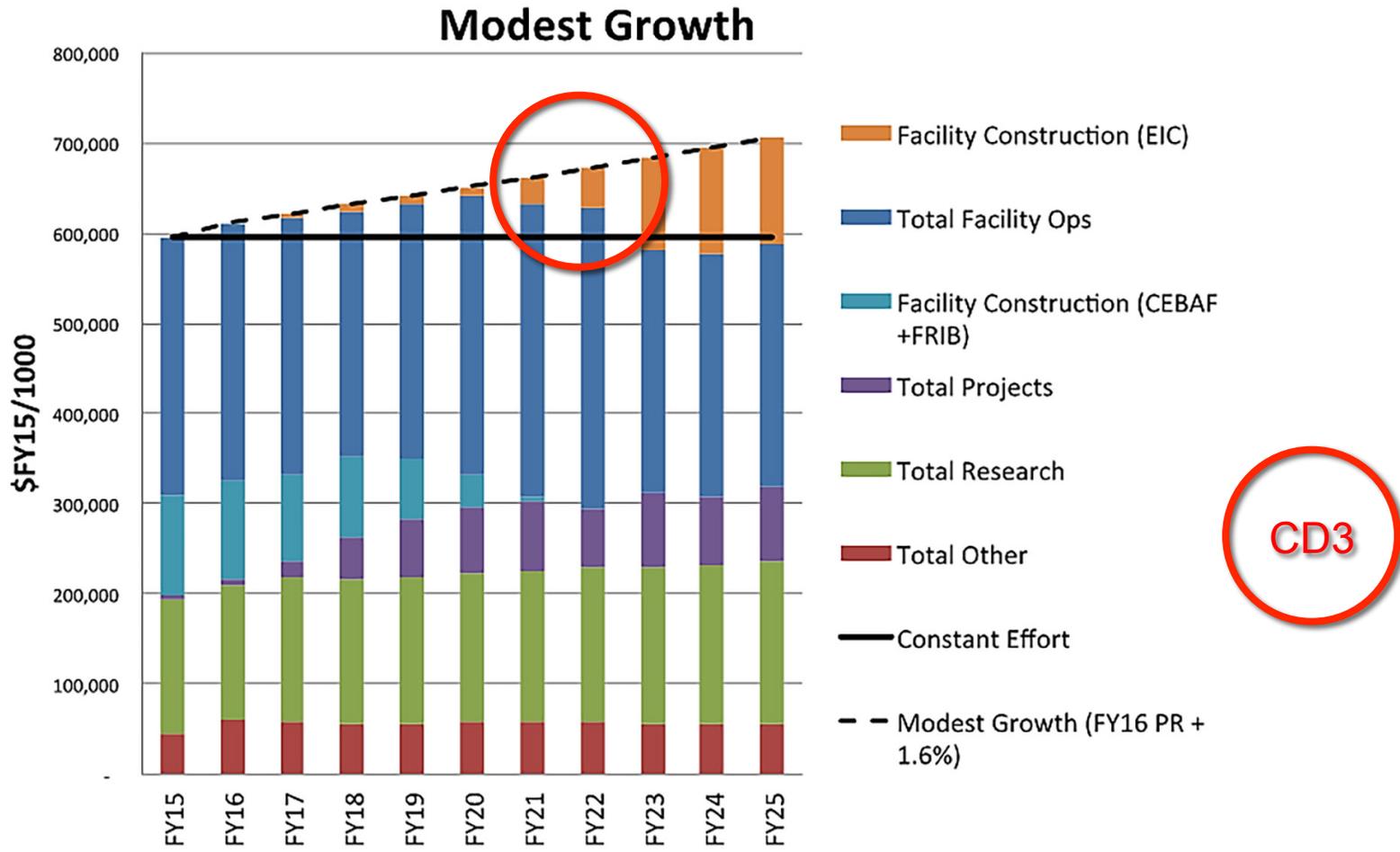


Figure 10.4: DOE budget in FY 2015 dollars for the Modest Growth scenario.

Message

To accomplish CD3 by 2022, there is an enormous amount of work.

By 2021/22 there may be another LRP where the EIC will have to be presented and defended as still a critical and essential project.

All this will need significant and coordinated effort amongst the Labs, the Users and the funding agencies...

EICUG:

Intended to provide the organizational umbrella for the Users

(My re-organization)

EICUG: Issues raised so far:

- What should be its structure? What should be its governance?
- Expand the science beyond the EICWP, new detector ideas
- Internationalization?
 - How do we setup the those mechanisms?
 - What homework to be started now?
 - This could be different for different countries.
- How do fund ourselves?
- What roles of the Lab Managements? (BM & RM's talks)

(Based on C. Hyde's talk)

EICUG structure

- Membership: open to all (no distinction between institutions: universities & labs)
- Steering Committee: One representative from each institution (~90)
- Charter to be adopted by a vote of full user group membership (one-person-one-vote) (~400)
- Officers: Chair/Spokes/Contact person (1,2) & Executive Board (~10), elected by majority vote of the Steering Committee or full membership
 - Officers elected for a 4 year term, half executive board members will rotate off every 2 years
- National Labs have an ex-officio member on Executive Board
- Steering Committee approves new members

(Starting from C. Hyde's presentation)

Key elements of the Charter

- Mechanism for adoption of Charter (one person one vote)
- Mechanism for becoming a member of the UG (role of Steering Committee)
- Definition and manner of election of Executive Board & Chair (Steering Committee or Full Membership vote, 4 year term)
- Definition and evolution of the role of Steering Committee
- Mechanism and trigger for evolution of the EICUG in its present form including “dissolving it”.

Expectation in the next 2-6 months?

- User Group Exists! We will make it active & alert (Feb, 2016)
 - Eicug.org, Setup a Web Page, link all existing Wiki's with physics and detector R&D activities
- Steering Committee: Exists but will be made active (Feb, 2016)
- Identify a group of ~6(?) wise people to draft a charter (April, 2016)
- Get the Charter ratified by full membership (April, 2016)
- Conveners for Physics Task Forces for Physics covered and not covered in the EICWP
 - Help them initiate studies
 - Self organized activity but UG will help maintain visibility and activity (May, '16)
- EIC Detector R&D (Ongoing program will continue)
 - EICUG will communicate with Labs and DOE for enhancements of this program
- Organize the next EICUG meeting ~ July 2016 (Host Volunteers Welcome)

Rolf Ent's presentation & comments

Internationalization

- Preliminary considerations only....
- Detector activities/collaborations: definitely international
 - Path to get scientists involved: Coordinate with International EICUsers – Comments/suggestions from you essential
- Machines: International? How to proceed?
 - Significant guidance from DOE and Labs
 - Comments and suggestions from International EICUsers welcome
- Constitution of International Advisory Committee (with high-level input):
 - Include additional sensitivities mentioned in this meeting

Funding & Role of Lab Managements

- How do we fund ourselves?
 - Past: Organized meetings to be funded by host institutions supported by the laboratory managements
 - Now that EIC is a major recommendation, groups could use DOE grants for EIC related travel and some physics/R&D activities
 - Electronic/Internet for many activities (votes, meetings etc.)

- Role of Laboratory Managements
 - BNL: Berndt Mueller
 - JLab: Robert McKeown

Thank you.

CD 0-4 pre-requisites

2020/2022

2025+

	CD0	CD1	CD2	CD3	CD4
Critical Decision Prerequisites					
<ul style="list-style-type: none"> • Justification of mission need document • Acquisition Strategy • Preconceptual planning • Mission Need Independent Project Review 	<ul style="list-style-type: none"> • Acquisition Plan • Conceptual Design Report • Preliminary Project Execution Plan and baseline range • Project Data Sheet for design • Verification of mission need • Preliminary Hazard Analysis Report 	<ul style="list-style-type: none"> • Preliminary design • Review of contractor project management system • Final Project Execution Plan and performance baseline • Independent cost estimate • National Environmental Policy Act documentation • Project Data Sheet for construction • Draft Preliminary Safety Analysis Report • Performance Baseline External Independent Review 	<ul style="list-style-type: none"> • Update Project Execution Plan and performance baseline • Final design and procurement packages (**) • Verification of mission need • Budget and congressional authorization and appropriation enacted • Approval of Safety documentation • Execution Readiness Independent Review 	<ul style="list-style-type: none"> • Operational Readiness Review and acceptance report • Project transition to operations report • Final Safety Analysis Report <hr/> <p>After CD-4</p> <p><u>Closeout</u></p> <ul style="list-style-type: none"> • Project closeout report 	