
EICUG's Perspective of the EIC R&D Program

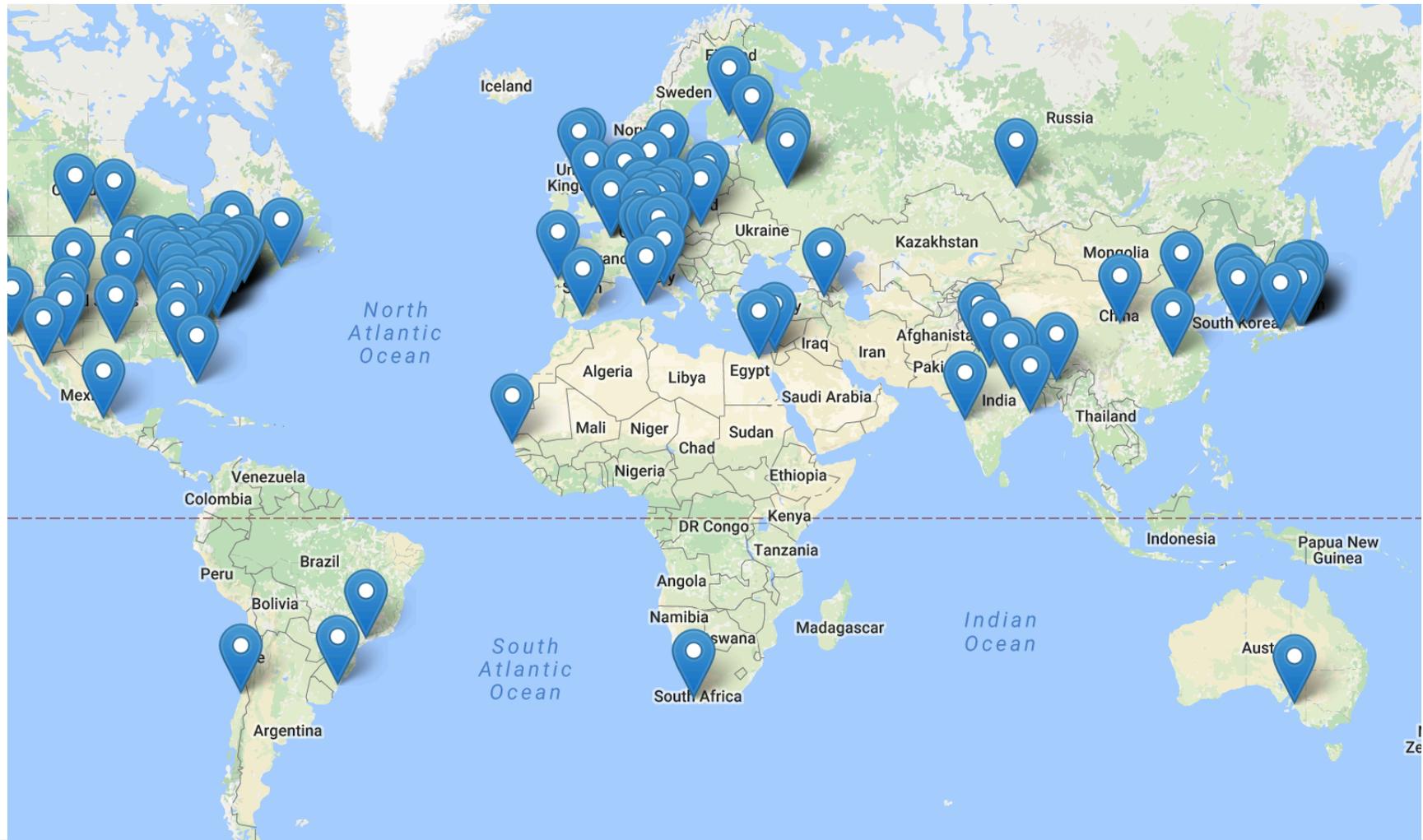
Abhay Deshpande
Stony Brook University

11/22/2016 at DOE

On Behalf of the EIC Users Group

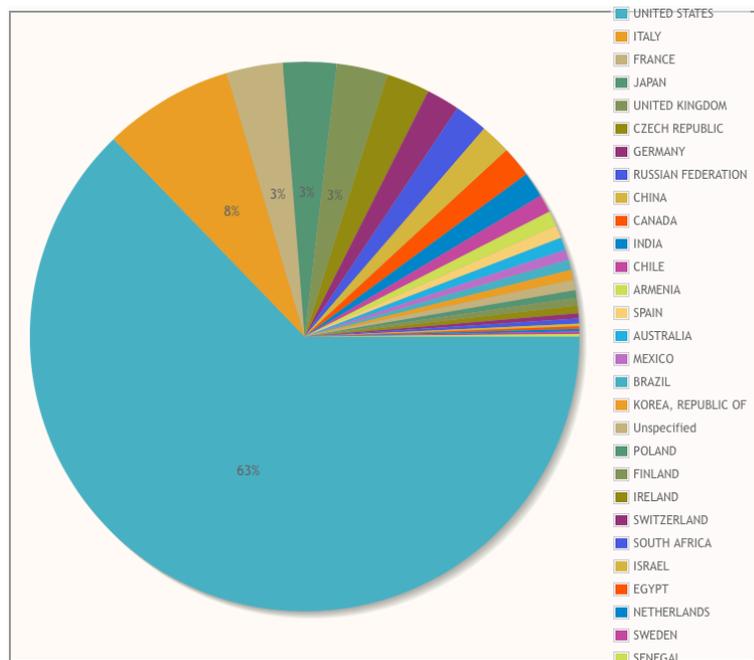
The EIC Users Group: November 2016

665 Members, 147 Institutions, 28 Countries, 6 world regions



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Users by Country:

USA 63%, Italy 8%

France, Japan, UK, China, India, & many others each ~3% & growing

Observation:

- World wide interest in science and participation
 - 7:2:3 (Exp:The:Acc)
- These numbers preliminary, many institutions are only represented by 1-2 “place-holder” users, who hope to grow their groups locally
- Currently no students are included
- Asymptotically about 2k Users are expected.
 - Not surprising considering current RHIC+JLAB users ~2500

Since the NSAC Long Range Plan 2015

- Of the order of 10 junior faculty/research scientist positions and another 5-7 post doctoral positions have been advertised with Electron Ion Collider explicitly mentioned in the outlook of activities of the scientists
- INT Program dedicated to the Science of EIC approved
 - **Yuri Kovchegov**, Yasutaka Hatta, Cyrille Marquet, Alexei Prokudin
 - October 1 – November 16, 2018
- Canadian LRP mentions EIC in its long time horizon beyond 5 years horizon
- NuPECC Long Range Plan under discussion: E. Aschenauer at their meeting (Also of ICFA). NuPECC's formal LRP meeting in January 2017
 - D. Geesaman and A. Deshpande invited to present the EIC status
- Europeans are gearing up to approaching their funding agencies with requests for research at the US EIC (UK, France, and Italy are at the forefront)

EICUG Since the Long Range Plan

EICUG is getting organized:

Formed Institutional Board, held 1st election of Chair of IB (Christine Aidala, U. Michigan), running elections for Steering Committee and its Chair (Spokesperson): next two weeks

UG Meetings: Stony Brook, UC Berkeley, Argonne National Lab and in [Summer 2017 at Trieste, Italy](#)

Preparing for the NAS Review:

- About 20+ active members of the EICUG have been meeting since October 2016 weekly to prepare the presentations for the NAS Review
 - Four questions within the Charge are being looked at by subgroups group of experience EICUG members

We looking forward to the dates/format of the Review

Message: There is a momentum!
EICUG is excited, expanding and
looking forward to moving ahead.

*EIC Detector R&D program is well poised to take
maximum advantage of this for the EIC.*

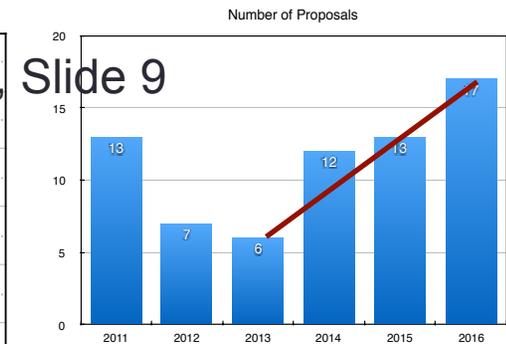
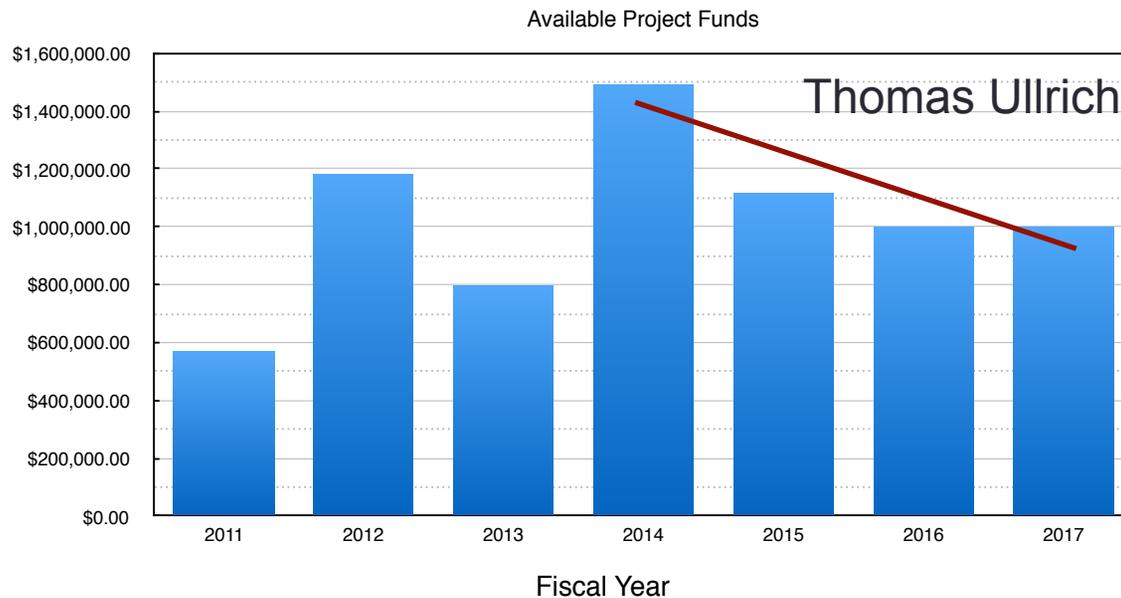
Anticipate EIC R&D requests to increase (I)

- Only 141 out of the 350+ experimentalists are currently directly involved in the EIC R&D program (T. Ullrich). This is expected to double in the next two years or so.
 - List of accomplishments even with the current level funding in diverse areas is impressive by any metric: *development of technologies and its use in near-term experimental efforts, publications, graduate and UG student research experience, prizes at national level...*
- The existing researchers currently supported by the EIC R&D are enormously grateful to DOE/NP, BNL/Jlab managements (Thomas) and the EIC R&D Advisory Committee (Chaired by Marcel, Glenn et al) for the advice and support that has enabled the ongoing research
- The new groups, both US and foreign, are now in the planning stage of their *new requests*, already in communication with T. Ullrich, and other existing “consortia” of detector development

Anticipation and Request

- There was a large increase in the interest and participation amongst the EICUG after the Recommendation of EIC in the NSAC LRP
- Anticipate such steps in the coming two years:
 - National Academy's Review of the EIC in 2017
 - NuPECC Long Range Plan being concluded in 2017

Statistics (II)



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- Anticipate such steps in the coming two years:
 - National Academy's Review of the EIC in 2017
 - NuPECC Long Range Plan being concluded in 2017
- We are delighted that the EIC R&D accelerator program is about to be launched.

The EIC UG Is eagerly looking for similar developments on the detector R&D side:

- **We anticipate that growth consistent with (\$2.6M in 2017 and \$3.1M in 2018 and \$3.6-4.0M in 2019+) EIC R&D.**
- The EICUG urges you to plan for sustaining the embryonic EIC user community with funds so that it will morph in to at least two if not more Detector Collaborations. --- **Considering the history of RHIC's time line, I am told, the time is ripe.**