

UK EIC Discussion Meeting, 20 May 2021: Introduction / EIC Project Status

Paul Newman (Birmingham)

11:00 → 12:00	Brief Introductory Talks	
11:00	Introduction / Overview of EIC Status Speaker: Paul Richard Newman (University of Birmingham (GB))	⌚ 5m
11:05	EIC@IP6 Speaker: Daria Sokhan (University of Glasgow, UK)	⌚ 5m
11:10	ECCE Speaker: Dan Watts	⌚ 5m
11:15	Status of Tracker Project Speaker: Laura Gonella (University of Birmingham (UK))	⌚ 5m
11:20	UK Funding perspectives Speaker: Peter.G Jones (University of Birmingham (GB))	⌚ 5m
12:00 → 12:30	Discussion.	⌚ 30m

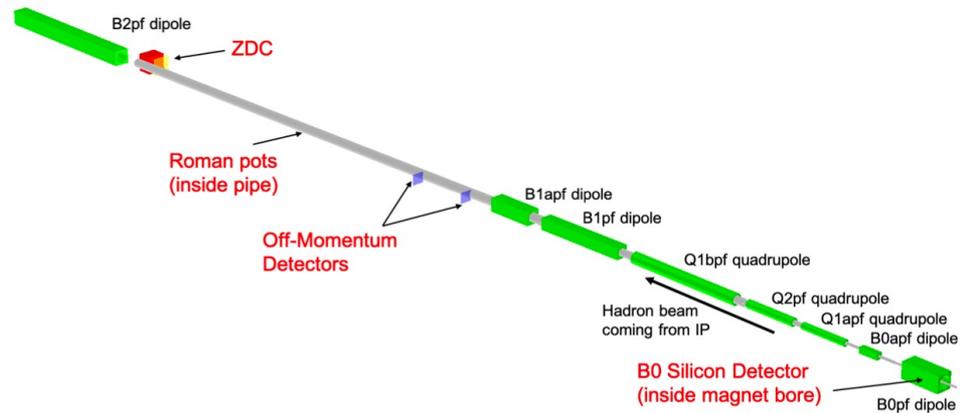
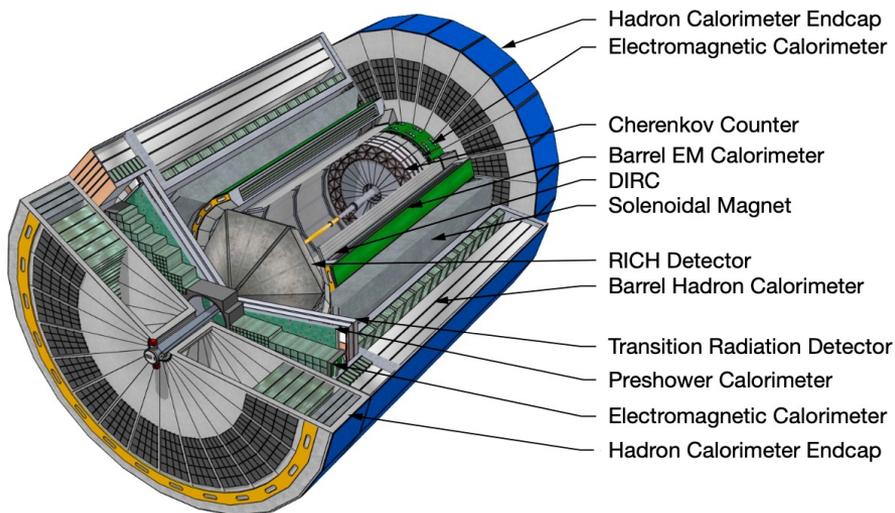
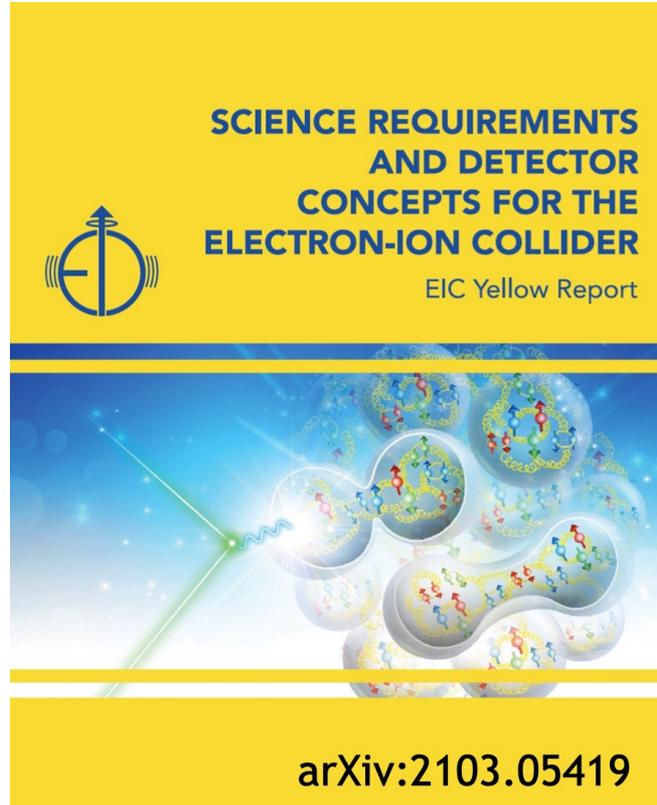
... Suggest we interleave some of the discussion with the
Intro talks

EIC Recent History

Event	Date
DOE Mission Need Statement Approved	January 22, 2019
DOE Independent Cost Review	July 2019
DOE Electron Ion Collider Site Assessment	October 2019
Critical Decision – 0 (CD-0) Approved	December 19, 2019
DOE Site Selection Announced	January 9, 2020
BNL TJNAF Partnership Agreement	May 7, 2020
DOE Office of Science Status Review	September 9-11, 2020
Independent EIC Conceptual Design Review	November 16-18, 2020
DOE Office of Science CD-1 Review	January 26-29, 2021
DOE Independent Cost Review	January - February 2021
<i>CD-1 Approval Target Date</i>	<i>April/May 2021</i>

Yellow Report Exercise Completed (User Group)

- Over 900 pages!
- Science motivation
- Detailed 'reference' detector
- Some discussion of case for two detectors
- 3 UK conveners



EIC Experimental Programme: Ongoing Process to decide on detectors / collaborations

[Yellow Report](#) and [EIC Conceptual Design Report](#) are both available and include the reference detector concept.

BNL and TJNAF Jointly Leading Process to Select Project Detector

2020	Call for Expressions of Interest (EOI)	May 2020
	EOI Responses Submitted	November 2020
	Assessment of EOI Responses	On-going
2021	Call for Collaboration Proposals for Detectors	March 2021
	BNL/TJNAF Proposal Evaluation Committee	Spring 2021
	Collaboration Proposals for Detectors Submitted	December 2021
✓	Decision on Project Detector	March 2022

EIC Long-term Future Timeline

DOE Critical Decision (CD)	CD-1 Review (2020)	Change (Months)	Proposed (03/21)
CD-1, Alternative Analysis	April 2021	+1	May 2021
CD-2, Performance Baseline	October 2022	+3	January 2023
CD-3, Construction Start	July 2023	+8	March 2024
		Construction Start to Early Ops = 6 ¼ Years	
Early Start of Operations (CD-4a)	July 2029	+12	July 2030
Late Start of Operations (CD-4a)	January 2031	+6	July 2031
CD-4 Early Project Completion	July 2031	=	July 2031
		Schedule Contingency = 2 Years	
CD-4 Late Project Completion	January 2033	+6	July 2033

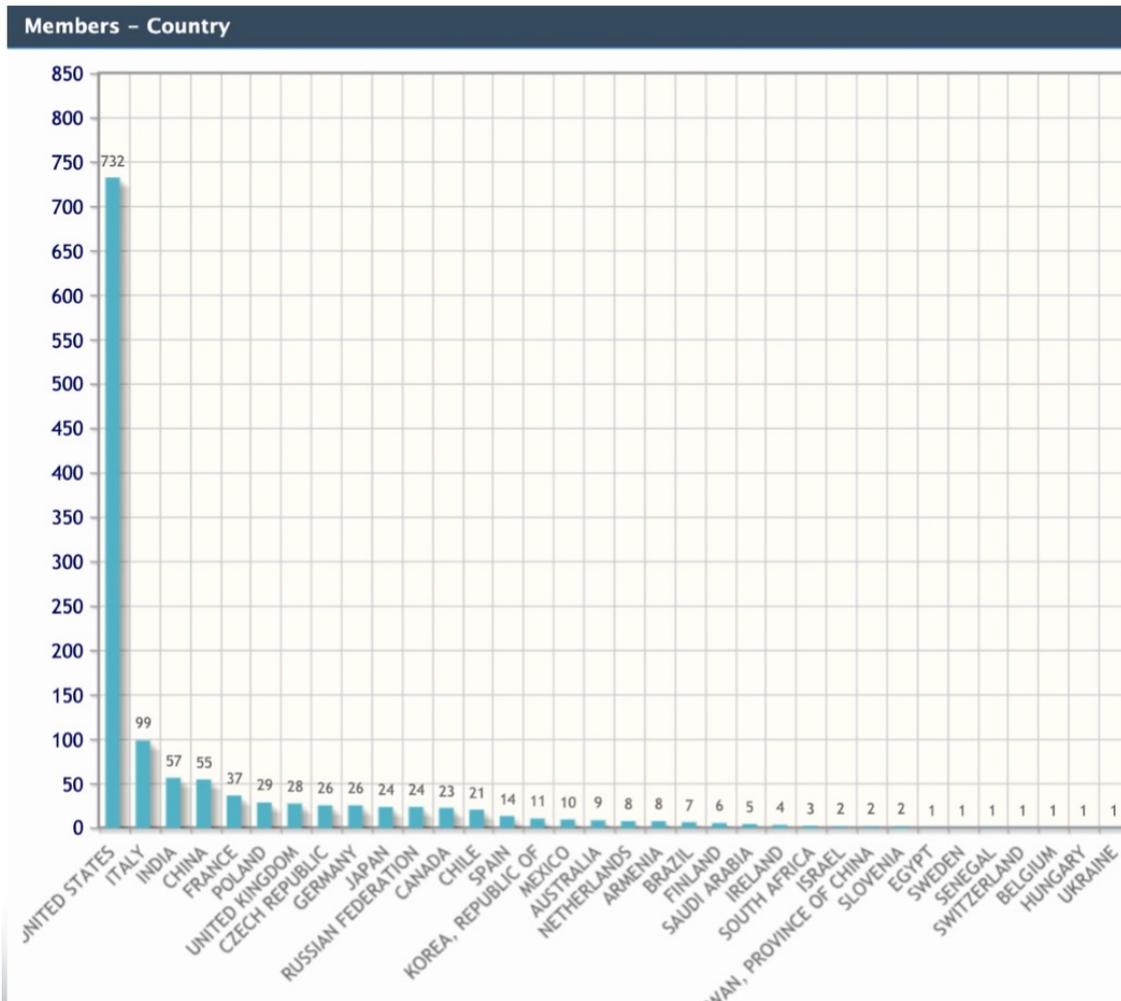
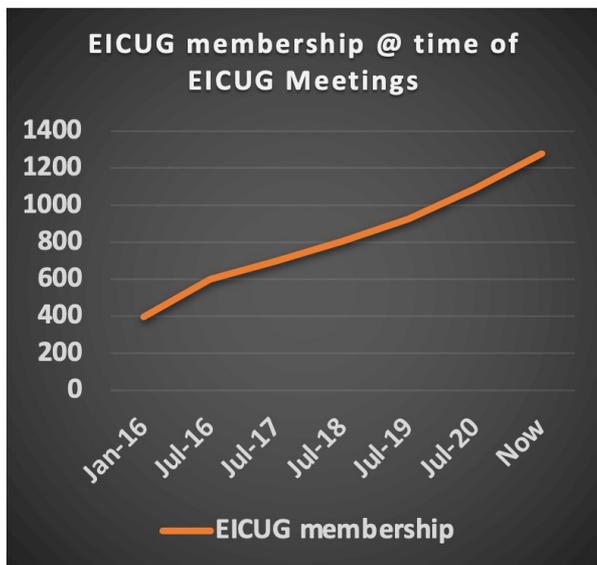
... very strong assumption that this is going to happen ...

Current User Group Demographics

The EIC User Group: EICUG.ORG

Formed 2016

May 9, 2021: 1278 collaborator
34 countries, 257 institutions



Current Initiatives on collaboration proposals

Note: only one detector is funded through the DoE project and international pledges through 2020 EoI process did not give confidence that funding is in place for a second.

- EIC@IP6 → ATHENA (by far the biggest, aimed at current STAR IP)
- ECCE (investigating 1.5T magnet, larger crossing angle, ... bits of sPHENIX ... not necessarily @ IP8)
- CORE (smaller group around Jlab aiming to be second detector)
- IR2@EIC (not a detector proposal; initiative to define physics of second IR - focused on lower \sqrt{s})

This is likely to evolve ...

Things are moving fast ...

- Essential for UK be prominent in the largest project
- Important to maintain links to other initiatives
- Our person-power is currently limited

Upcoming Meetings

... enough to completely fill your diary:

EICUG Remote Meeting

May 20, 2021

07:00AM (PDT) / 10:00AM (EDT) / 04:00PM (CEST) / 11:00PM (JST)

Agenda:

Directory of presentations: Click [here!](#)

- (1) 10:00AM - EICUG Updates / News (15+5min.): Bernd Surrow
- (2) 10:20AM - Final phase of YR (10+5min.): Thomas Ullrich
- (3) 10:35AM - EIC Project Status update (15+5min.): Jim Yeck
- (4) 10:55AM - EIC detector proposal presentations:
 - CORE (15+5min.): Pawel Nadel-Turonski
 - ECCE (15+5min.): Tanja Horn
 - EIC@IP6-->ATHENA (15+5min.): Yulia Furlotova
- (5) 11:55AM - EICUG-wide WG / Coordination groups(20min.)
 - Computing (5min.): Jerome Lauret
 - Software (10min.): Markus Diefenthaler
 - Polarimetry (5min.): Dave Gaskell / Elke Aschenauer
 - Proposal: Physics / Detector R&D WGs (5min.): Silvia Dalla Torre / Bernd Surrow
- (6) 12:20PM - Snapshot of EICUG Summer 2021 Meeting (5+5min.): Narbe Kalantarians / Miguel Arratia
- (7) 12:30PM - Feedback / Questions: ALL

Regular ATHENA
Meetings
(and similarly for ECCE)

User Group (today)

Annual summer meeting
scheduled for 2-6 August

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
9:00		Incl				
10:00				SIDIS		
11:00		Excl	org			
12:00		PID	Tracking		Bi-weekly	all WG
1:00		far-forward	Pols/HF			
2:00						
3:00						
4:00						
5:00						

Some Questions / Discussion Points

- How does UK organise itself to be best positioned for influence (and funding)?
- Do UK colleagues know that the EIC is very likely to be the world's next collider? → How do we grow larger community?
- How best to engage with funders?
- Engagement with theory community (IPPP W/S 21-23 Sept?)
- What about accelerator science?
- Shall we do this regularly? (eg once per month?)