

Primo meeting nazionale ePIC Italia - Bologna, 27-28 giugno 2024

### ePIC Italy AGM

P. Antonioli (INFN Bologna) - D Elia (INFN Bari)

(not a talk but operational slides to steer the discussion)

### Item list



- ePIC Italy bylaw
- ePIC Italy mailing list
- war plan for eRD applications (and PED)
- war plan for preventivi 2025 including meeting with INFN referees
- INFN CSN3 grants for bachelor/master students
- action points on outreach (and post-Simone talk)
- WG Marta (chair) Salvatore, MarcoR Marcella Umberto Susanna Antonio Nicola Simone
- AOB -→ "blue sky" discussion → input for Domenico

### Communications

**EICUG SC elections** 

- the future of the European school on the physics of the EIC
- ePIC Italy agenda

### ePIC Italy bylaw



Our bylaw was approved on 7/11/2019 in Bari at first GN (posted on the Indico of this talk)

• it has many generic references to EIC that should be now updated. There are also other obvious changes to be done. (no mention to ePIC!) and the collaboration is called "EIC"

#### 3 Collaborazione EIC Italia

- 4 La collaborazione "EIC Italia" è costituita dall'insieme dei gruppi di ricerca INFN interessati a
- 5 partecipare alla sperimentazione presso Electron-Ion Collider negli USA. La definizione di gruppo
- 6 di ricerca in tale contesto è quindi collegata all'esistenza della specifica sigla di CSN3 (attualmente
- denominata EIC NET) presso una unità INFN.
- after 6 years of operations and having morphed to a full-fledged experiment (in R&D and construction though) we might want to change also *other* things, let's say more substantial.

#### Proposal agreed after discussion

- in July or later (September?) Pietro/Domenico circulate (just to CEI) a revised version covering the trivial changes only (and we hopefully approve them by e-mail or in a quick mail. There is no need to rush, however, in the sense we need to do that by 31/12/2024 (the sigla starts formally 1/1/2025)
- later (when?) we have a substantive discussion on other changes, if needed, with also a discussion during a general meeting. When to do that is really up to Domenico, but we agreed it should happen in the first part of his mandate
- we use this meeting to collect, however, biriefly first suggestions about potential substantial changes (if any)
- IDEAS aired: revise/cancel (?) executive board, include coordinators of detectors, make computing stuff official

# ePIC Italy mailing lists



#### **Existing INFN maling lists (list likely incomplete):**

eic\_net-mcsupport, eic\_net-pid, eic\_net-school, eic\_net-school-iac, eic\_net-tracking, eic\_net\_all, eic\_net\_executive\_board, eic\_net\_referee, eic\_net\_resp, eic\_net\_staff, sipm4eic-electronics, sipm4eic-caratterizzazione, drich-testbeam?

#### Thoughts:

- we need to simplify
- when we really need an Italian-only dimension? Remember we are part of DSC in ePIC.... (INFN based or BNL based?)
- physics?

#### **Proposal**

**keep at least three (or six) lists INFN-based** (not BNL based), others?

RN must handle the first three, for the others let's agree on "epic-" initial tag and every detector/subsomething decides

- epic-italy-all
- epic-italy-staff
- epic-italy-resp
- epic-italy-drich, epic-italy-mpgd, epic-italy-svt, (epic-italy-computing?)
- epic-italy-outreach
- epic-italy-mcsupport??
- epic-drich-sipm, epic-drich-electronics, epic-drich-testbeam ?? → do what you want but use tag epic-
- epic-<sezione>-all, epic-<sezione>-staff

NO OBJECTIONS, PA/DE will act during Summer....

PLAN

# eRD applications (and PED + generic)





What are we discussing about? → 1.3 M€ during last 6 years

eRD deadline: 1st July

PED "no deadline"

generic R&D: unknown deadline

but as INFN we need then to converge in just one CD deliberation, and "external funds" sigla (per year)

### (the example of FY24)

Detector R&D and Pr	oject Engineering ar			
SoW Contact	Progetto EIC	Totale	Focus	Sezioni
BA	eRD111	45000	SVT integration	PD BA PV TS
ВО	PED	65000	SiPM eng.	BO CS
FE	eRD102	140000	dRICH proto	FE BO
GE	eRD110	30000	LAPPD	TS GE
PD	eRD113	45000	SVT sensor	PD BA PV TS
RM2	PED	30000	2D uRWELL	RM2
ТО	eRD109	60000	Alcor e RDO	то во
Totale		415000		
Generic R&D				
SoW Contact	Progetto EIC	Totale	Focus	Sezioni
GE	genRD-03	10200	SciGlass+SRO	GE
FE	genRD-08	75000	press. vessel	FE TS LNS
Totale		85200		

(my <u>current</u> understanding of FY25)

- Use Lehigh (and before) to engage Rolf for PED
- Finalize PED proposal by September

- ➤ If we have all clear by end of September, we can have money by January
- ➤ Note we might need larger amount of money to "start" assegni in 2025 (minimum 2 years)

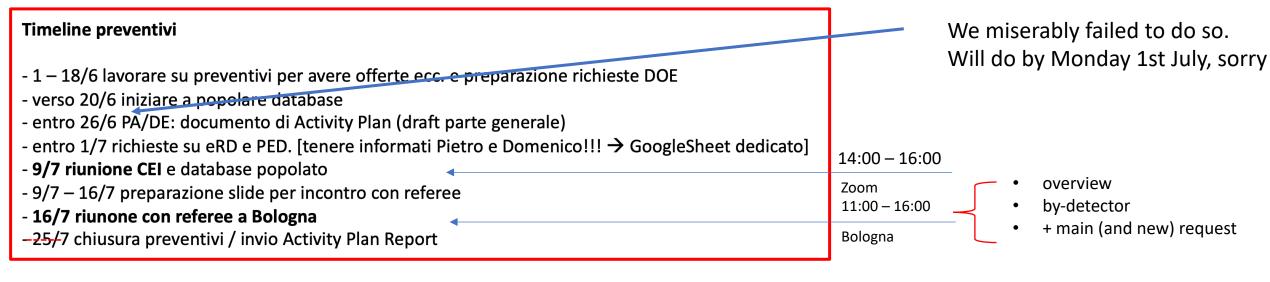
WHAT DO YOU THINK?

WE AGREED THIS PLAN eRD102 and eRD110 applications done by Marco, Fabio and Davide. Check with Rolf/Elke on PED.



### database preventivi closes 24th July

- ultimate date for ePIC responsabili locali is 18th July: → insert by 9/7!!!
- (from 18 to 24 you can still insert "preventivi cartacei, pezze d'appoggio" but not requests)
- Pietro and Domenico keeps 19-20 July for last checks (and interactions with RL as needed)
- 21 July we fly to Lehigh
- 23 July we press the button



Instructions for requests about missions (trips to ePIC/EICUG meeting in July 2025 + ePIC Jan 2025) → to follow Check also CEI meeting slides 29/05/2025

PLAN AGREED

Please send all messages to me and Domenico as default

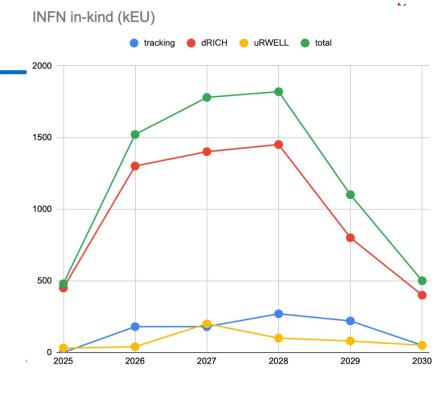
## preventivi 2025 (II)

to flatten we need to keep the core items high in 2025 big uncertainty is ALCOR engineering run, and we now know MWP run is delayed high probability of ALCOR e.r. not in 2025, what to do?

- → impegno
- → RDO components?
- → something from SVT or MPGD?

#### What do you think?

- We agreed monitor gas money cannot be anticipated in one shot in 2025
- TORINO must know **very soon** if "ordini" can be done in 2024 for packaging anyway and for ER in 2025 even if actual design will be passed to foundry in 2026
- Annalisa/Domenico to understand if we have other expendables in 2025....



- remember to tag DRD!!!!
- request money for meetings in Italy within Italian groups (in addition to Annual meeting): no generic requests
- NDB 2024 in September (BO RM1 and may be TS)

# The big summary of the financial plan



EIC_NET	INFN R8	בח.			Total R&D	Tot VTD		INF	-N in-l	kind (kEU	١		DoE fund	40 (KEII)		TOT YTD
				Т	TOTAL INCE	101 111								· , ,	<u> </u>	
Year	tracking	dRICH	uRWELL	SRO			Year	SV	Т	dRICH	uRWELL	TOT	eRD	PED	Construction	
2019	0	19	0	5,5	24,5	24,5	2019						58,9	0	0	58,9
2020	0	33,5	0	6,5	40	64,5	2020						53,4	0	0	112,3
2021	0	72	0	6	78	142,5	2021						58,8	0	0	171,1
2022	0	149,5	0	0	149,5	292	2022						244	0	0	415,1
2023	0	198,5	0	6	204,5	496,5	2023						360	45,5	0	820,6
2024	15	349	5	15	384	880,5	2024						373,5	87	0	1281,1
ePIC								INFN In-Kind (kEU)								
							Year	sv	Т	dRICH	uRWELL	тот				
2025	60	200	20		280		2025		0	450	30	480				
2026	40	100	30		170		2026		180	1300	40	1520				
2027					100		2027		180	1400	200	1780				
2028							2028		270	1450	100	1820				
2029							2029		220	800	80	1100				
2030							2030		50	400	50	500				
									900	5800	500	7200				
								То	tal IK	C (EU)	7200					
								Ео	l Targ	et (total)	7200					

excluding missions request should land in 450+280 = 730 (not 850...) let's see think about DRD items: BA BO FE RM-TV TS. [TO?]

#### Borse INFN per laureandi (triennali e magistrali).



Cari Responsabili Nazionali,

come negli anni passati, chiediamo la vostra collaborazione per le proposte di progetti per le borse di studio per gli studenti triennali (2 settimane) e magistrali (3 mesi). Nella riunione CSN3 di giugno cercheremo di definire il numero di borse da mettere a bando e avviare l'iter. Ricordiamo che, in accordo con i regolamenti INFN, una volta pubblicate le graduatorie, i vincitori/le vincitrici devono iniziare il tirocinio entro sei mesi. Per l'edizione dello scorso anno, le graduatorie sono state pubblicate a gennaio (di quest'anno).

for us potential at JLAB, BNL, CERN, LNS

triennali not an option for us in US but CERN may be

Il numero massimo di progetti che ogni sigla può proporre sono:

- fino a 2 progetti per sigle con meno di 20 fte;
- fino a 3 progetti per sigle tra 20 e 40 fte;
- fino a 1 progetti per sigle con più di 10 fte.

Ogni progetto può essere proposto da più sedi della stessa sigla (il laboratorio ospitante invece deve essere uno) e può ospitare anche più di uno studente, se il lavoro da svolgere presso la struttura lo permette.

A titolo di esempio, trovate i progetti dell'anno scorso alle pagine

https://web.infn.it/csn3/index.php/it/uncategorised/294-programmi-di-ricerca-per-le-borse-di-studio-per-laureandi-triennali https://web.infn.it/csn3/index.php/it/uncategorised/295:programmi-di-ricerca-per-le-borse-di-studio-per-laureandi-o-neolaureati-magistrali

Vi preghiamo di inviarci le vostre proposte, sulla base dei moduli allegati, entro il 26 luglio.

> U 2 attachments 83.3 KB

Our proposal: JLAB (GEM-muRWELL or SRO?) BNL (SiPM?) or CERN (SiPM via DRD), CERN (SVT?)

AGREED
Annalisa/Marco/Domenico
to coordinate

RL: Send me/Domenico proposals by 8th July

ePIC Italy AGM





Titolo del progetto:	Sviluppo rivelatore di vertice a silicio per futura sperimentazione a esperimento ePIC (BNL, USA)
Esperimento/sigla proponente	EIC_NET
Laboratorio ospitante	CERN
Contact person presso il laboratorio	Alex Kluge
Periodo previsto:	Febbraio 2024 – Ottobre 2024
Sezioni e tutor	BA Domenico Elia e Domenico Colella
proponenti:	PD Rosario Turrisi
Descrizione attività (max 1000 caratteri)	L'esperimento ePIC all'Electron-Ion Collider (EIC) presso BNL in USA, da installare entro Ottobre 2030, si avvarra' di un rivelatore di vertice (SVT: Silicon Vertex Tracker) fortemente innovativo, basato sulla tecnologia in sviluppo presso la Collaborazione ALICE al CERN per i nuovi layer del rivelatore di vertice (ITS3). Si tratta di rivelatori di vertici realmente cilindrici, costruiti con chip al silicio di grandi dimensioni e bassa potenza



The call for these grants is **highly competitive**: 4 grants in total over more than 20 "themes" High ranking in exams + top CV (Erasmus, etc.) + "mini-publications" Example: 2024 call. (but 2025 will be out I guess in August or September)

https://web.infn.it/csn3/index.php/it/uncategorised/295:programmi-di-ricerca-per-le-borse-di-studio-per-laureandi-o-neolaureati-magistrali

### Programmi di ricerca per le borse di studio per laureandi o neolaureati magistrali 2023

Programmi di ricerca per le borse di studio per laureandi o neolaureati magistrali, bando n. 26101 del 2023 (disponibile a questo link)

- Calibrazione e ricostruzione di tracce con l'ITS dell'esperimento Alice e caraterizzazione di struture di test di ITS3
- Studio della produzione di adroni con quark charm e delle loro correlazioni con adroni leggeri con l'esperimento ALICE
- Nuove metodologie per la ricostruzione degli adroni strani con ALICE
- Charm and multi-charm baryon measurement with Machine Learning techniques in ALICE
- Calibration and simulation of POLYFEMO detector
- Data analysis of the photodisintegration of 112Sn in the astrophysical p-process
- Sviluppo di nuovi sistemi di rivelazione per neutroni, gamma e particelle cariche da utilizzare in reazioni fra ioni pesanti alle energie di Fermi
- Sviluppo di un sistema di tagging per fasci radioattivi prodotti con tecnica inflight
- Sviluppo rivelatore di vertice a silicio per futura sperimentazione a esperimento ePIC (BNL, USA)
- Misure di sezioni d'urto di reazioni nucleari di interesse astrofisico
- Misura dell'energia ed identificazione della massa dei frammenti nucleari con il calorimetro di FOOT
- Test e performance di tracciatori sottili
- Partecipazione e analisi dati campagna AGATA presso LNL
- Studio della forma dei nuclei in misure di Eccitazione Coulombiana
- Studio della probabilità di sopravvivenza alla fissione per gli attinidi prodotti in reazione di trasferimento multiplo di nucleoni
- ☐ Study of octupole nuclei in the neutron deficient Uranium isotopes for the search for a permanent Electric Dipole
- Misure di sezioni d'urto nucleari di interesse astrofisico in LUNA
- Sintesi e caratterizzazione con tecniche nucleari di bersagli solidi ad alta purezza per esperimenti di astrofisica nucleare
- Studio e caratterizzazione del nuovo rivelatore di piano focale di MAGNEX
- Studio e caratterizzazione del prototipo di rivelatore Gamma
- Caratterizzazione spazio-tempo risolta dell'emissione X di un plasma a confinamento magnetico di interesse

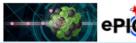
### the future of the European EIC school



### Highlight from 2023: EIC School!



### Our best investment for the future







- nice mix of experimental and theoretical communities
- 28 participants: 2 from India (+1), 1 from Poland, 1 from Germany, 3 "from fisica applicata + chemistry", the rest (22) from INFN at large (participants: 33%F – 67%M, lecturers: 40%F – 60%M, organizers: 45%F – 55%M) – 3 undergraduates
- excellent synergies among Universities and groups, good sponsorships, a superthank to Abhay and CFNS



















### the future of the European EIC school



- IAC decided to have it every second year
- two bids received from France and Spain
- IAC selected Spain (the school will be at Albergue juvenil Argentina in Benicassim, region of Valencia in June 2025
- C. Van Hulse and F. Celiberto LOC leaders
- exact date to be announced at Lehigh

Abbhay/Marco and myself in contact with Charlotte (+ Framcesco)

IAC reshuffling plus serious IAC bylaw on the making (Pietro/Abbhay leading)

Please remember CFNS school and other opportunities (already expired, sigh)

https://indico.cfnssbu.physics.sunysb.edu/event/111/





# ePIC Italy agenda



22-27 July EICUG – ePIC meeting

17-20 September CSN3

27 September (11:00-13:00) EIC\_NET general meeting

12-13 November EIC RRB (BNL)

13 December (11:00-13:00) EIC\_NET general meeting January 2025 ePIC meeting in Frascati

any thoughts? should we move annual meeting from June to...

- June is good to avoid clashes with classes
- Try fine tuning with other collaborations agenda
- Not being too close to deadlines but keep middle of the year
- Enlarge the time: two full days
- Choose location earlier (September/October)
- Apply a fee by default

format? meetings by detector?
the international dimension of our DSC (dRICH?)

## Blue Sky Exercise

PI

- [...]
- O(40) FTE let's think about CSN3 committee members (P)
- improve our capability to attract students (D)
- are we (still) reaching out potentially interested colleagues around us? (P)
- ePIC Italia web pages and "gruppo3" section in the local INFN pages: (D)
  - keep everything up-to-date and ... "attracting", also connected to the previous points
  - ePIC Italia web pages: think if we exploit all functionalities, have all contents we like/might need (eg links, documents)
- let's be serious "about synergy with theoreticians" (P)

#### (and juniors don't be shy...!)

[the file was not saved properly so we lost notes taken here in this last page..

Domenico/Pietro remember we were tired and we discussed mainly about the points above.

MarcoR said something is cooking for theo/exp. exchanges and we said this should go to the to preventivi. Anything else?