

ILIMA Board Zoom Meeting, 4 March, 2021 15:00(CET)

Attendants: Taka Yamaguchi, Helmut Weick, Yuri Litvinov, Wolfgang Plass, Natalia Kuzminchuk, Hans Geissel, Christopher Kozhuharov, Phil Walker, Iris Dillmann, Gregory Lane, Roman Gernhaeuser, Zygmunt Patyk, Baohua Sun, Meng Wang, Klaus Blaum

1. Membership:

IMP Board member change: Meng Wang for Xin-Wen Ma;
New member: Wolfram Korten (but not yet board member)

2. Previous minutes: Taka reported. It was approved by members.

3. Current status of the planned storage rings at GSI-FAIR

IMS commissioning: 8.2.2021-16.2.2021

Yuri: isochronous mode checking and established, first step done; in May, 3-4 days for ESR team for further optimization;

Slowing down in the ESR is efficient.

CR is delayed to 2027, at least by 2 years.

4. FAIR review / Collaboration Agreement

Wolfram is preparing a construction MOU for each sub-collaboration.

Agreement for ILIMA collaboration: Natalia is working on.

5. 2020 G-PAC approved experiments

3 proposals submitted, and 1 approved. The experiment is scheduled in May this year.

+ Discussion on the possibility for remote participation?

Rather hard, but will look into.

6. Financial planning / common funds

Helmut: report the CR time plan, machine funded but not building;

Council decision needed in 11. 2021,

11.2021	Council Decision
01.2022	Start construction (pit)
09.2025	Technical building infrastructure ready
11.2025	CR Installation West section (ToF)
05.2027	CR ready for beam

This will cause serious delay; no high priority for the CR and ILIMA procurement.

Yuri: ask about the progress for budget;

Helmut: TOF budget (yes). All the budget issue for CR depends on council decision. around 70 Million Euro in total.

About ILIMA funding, Basic part from Germany; Heavy ion detector funded from Canada.

ILIMA Funding

Based on German funding promised in 2012 (PMA).

	2005 based for RRB	x 1.4207 MSP-RN*	x 1.5929 FAIR escal. 2022	
Schottky pickup:	287.7	442.3	543.7	k€
ToF detectors:	293.7	443.0	530.4	k€
Heavy-ion det.:	32.1	90.0	104.7	k€
DAQ:	53.6+39.3+33.6	76.0	incl. above	
Sum:	740.0	1051.3	1178.7	k€

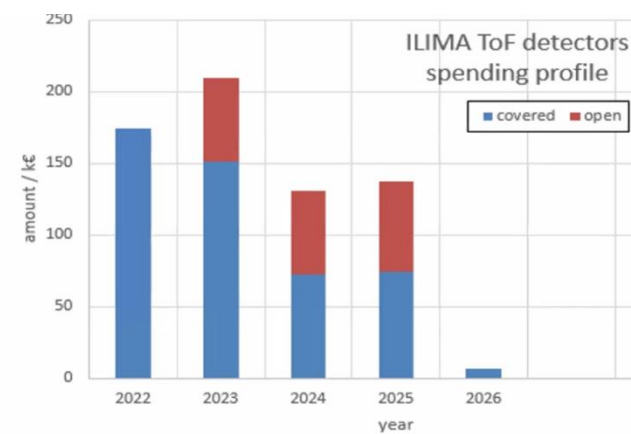
* MS-Project Residual Needs + committed

Other sources: grant in Canada

TOF: black is covered by Germany, while red (~178 k Euro) is open still. Funding should be found to fill the gap.

ToF Time Plan

date	year	milestone	what to do	milestone	covered	open	
15/09/21	2021	M4	procurement (chamber+magnet)	award	12.4		
15/01/22	2021	M6	Conceptual design review	CDR	37.3		
	2022			FDR	37.3		
15/04/22	2022	M7	FDR (chamber+magnets)				
15/12/22	2022	M9	FAT (chamber + magnets)	FAT	136.7		
	2023		buy valves + flanges 1		54.61		
15/08/23	2023	M10	assembly at GSI until FAT=SAT-A		24.9		
	2023		discrepancy Warenkorb to full		39.36		
	2023		buy valves + flanges 2		6.8		
	2023		first power supply, feedthroughs		25.79		
	2023		buy pumps + gauges 1			57.46	
	2024	M4b	buy pumps + gauges 2			57.46	
	2024		pay detector parts 1st batch		44.37		
	2024		Step motors, controller, drive case		28.44		
15/09/25	2025	M10b	tests with detector in one magnet				
	2025		buy cables + sources		54.61		
	2025		all power supplies		19.72		
	2025		oscilloscope + racks (controls + DAQ)			62.58	
15/08/26	2026		SAT-Ba install. phase I,				
	2026		cables		6.83		
25/04/26	2026		delivery of ToF parts to CR				
					sum /k€ =	529.07	177.49



- 7. TDR finished -> tender, delayed by at least 1 year;
- All three TDRs approved by ECE;

From TDR to Construction

- All three TDRs approved by ECE, public (without costs) → WWW
- Detailed Specs, approved for ToF, Schottky, prepared for Heavy-Ion Detectors, Decapole specs made by BINP,
- In-kind contract for ToF, in preparation for Schottky. Grant approved in Canada for Heavy-ion detectors Decapole in CR cost book (approved by Council, Eol by BINP)
- ToF tender prepared, order approved, but put on hold (>1 year). two separate lots (magnets, chambers) $\Sigma = 248.5$ k€
- Searching for space to assemble, test ⇒ common funds?
- Trying to fix funding gap (mainly for ToF)

8. Schottky pick-ups:

Yuri: a beam time test of a transverse prototype for CR in TU Darmstadt (electron beam) in ~ 2 months, to test the response.

9. ToF detectors:

Helmut: Even after finishing building the detector, there are questions on where to store, where to test. Those have to be adjusted according to the time line of CR (delayed by 2 years).

Iris: Can one test ToF or Schottky pick-up at ESR?

Yuri: Not feasible.

10. Other detectors:

Iris: DAQ, heavy ion detector from TRIUMF ready, and wait for test at GSI. New detector ready in next year

11. Conferences and workshops:

Iris: a small workshop for neutron capture using storage ring; TRIUMF, Los Alamos, FRIB.

12. Any other business

PhysicsBook@HESR under preparation: Iris and Yuri;

+ Beam time schedule next year?

2021 beam time mostly fixed and now is running in time.

Not sure for 2022. (Middle of January to June)

All the approved experiments should be finished before next summer, then there will be a new GPAC in 2023.

It is time to think about the next GPAC (2022).

Much competition for ring experiments

Most experiments approved have not been done due to the COVID virus. Resubmission of experimental proposals should think about the feasibility.

13. Date of next ILIMA CB meeting

about half a year later (Nustar Week 2021)? or, a short meeting after the council meeting in Nov.?