

IMCC Annual Meeting

DESY – May 16, 2025



International Collaboration Board Meeting summary

Nadia Pastrone



Agenda - Goal



18:00	ICB chair report	Nadia Pastrone
18:15	IMCC Project Leader: key points to CB + ESPP progress	Daniel Schulte
18:30	MuCol Project Leader	Roberto Losito
18:40	Steering Board chair: key points to CB	Steinar Stapnes
18:50	Report from the US	Tova Ray Holmes
19:00	Preparing for the ESPPU Symposium - discussion	All
19:10	Funding & Collaboration growth - how to proceed	All
19:20	AOB	

Minutes (thanks to Alexia) of previous meeting to be approved

The international collaboration



*Crucial/Strategic time to meet - discuss and plan to enlarge and strengthen the **collaboration!***

Lively interested community contributing at different level with the ESPPU ahead

Very OPEN ICB:

- ✓ SL and deputies – SB full committee – IMCC and MuCol Coordination Committee
- ✓ Institutes – MoC signed/considering
- ✓ Institutes – EU MuCol beneficiaries/associated
- ✓ US laboratories Other Countries?

Memorandum of Cooperation to be signed by all institutes sharing the goals of the international project

22 COUNTRIES

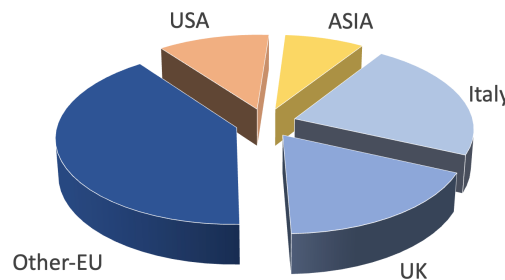
~ 85 institutes joined so far IMCC

Memorandum of Cooperation

will be signed by a few more institutes

~ 75% of the total interested to join

REVISION on-going



ESPPU input backup large document

<https://doi.org/10.48550/arXiv.2504.21417>

450 authors: 26 COUNTRIES → 131 institutes

More on the ICB next steps



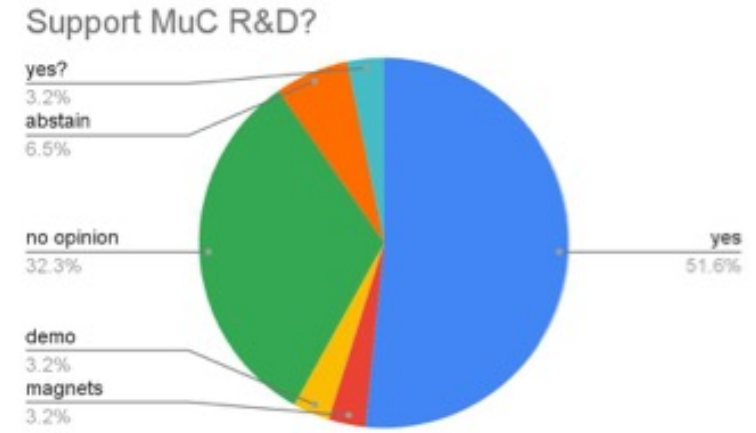
✓ we need to discuss more on how to better prepare for the **ESPPU Symposium**

- ➔ can we agree on the main points to stressed and outlined loudly?
- ➔ who is attending?

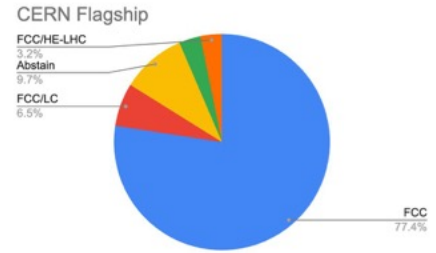


✓ tomorrow we reserved a slot to discuss **Funding & Collaboration growth - how to proceed**

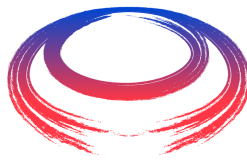
- ➔ national/regional funds - how do we better coordinate?
- ➔ how to contact new institutes/countries? Synergies?



Federico Meloni

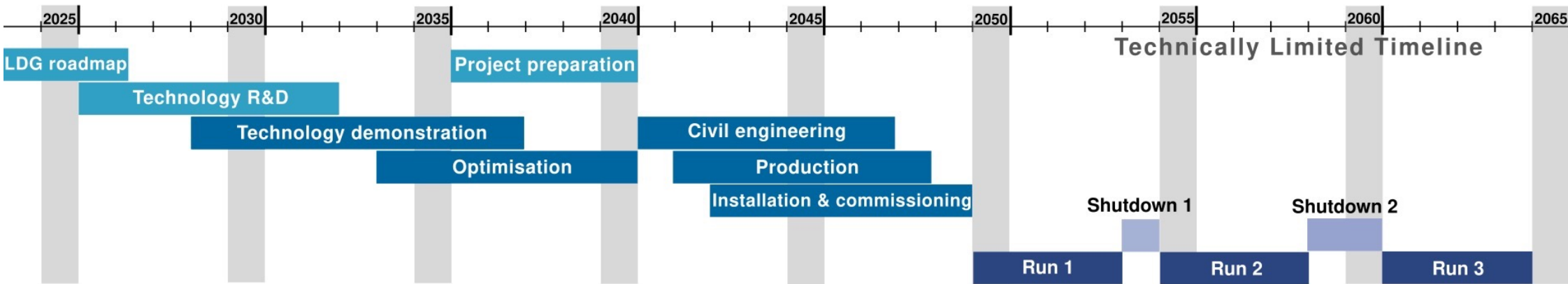


Timeline & R&D Resources need



International
Muon Collider
Collaboration

Muon Collider



Year	I	II	III	IV	V	VI	VII	VIII	IX	X
Accelerator Design and Technologies										
Material (MCHF)	1.6	3.2	4.8	6.4	9.6	10.8	12.0	12.0	12.0	12.0
FTE	47.1	60.6	75.0	85.0	100.0	120.0	150.0	174.6	177.2	185.1
Demonstrator										
Material (MCHF)	0.6	2.2	3.9	5.4	7.8	15.1	25.9	32.4	31.8	12.6
FTE	9.5	11.0	12.5	29.2	29.7	30.5	25.5	27.7	26.7	25.5
Detector										
Material (MCHF)	0.5	1.1	1.6	2.1	2.1	2.1	2.1	2.6	3.1	3.1
FTE	23.4	46.5	70.0	93.0	93.0	93.0	93.0	116.4	139.5	139.5
Magnets										
Material (MCHF)	3.0	4.9	10.1	10.0	11.0	13.4	11.7	7.2	6.6	4.7
FTE	23.3	28.4	36.4	40.9	44.3	47.1	46.2	37.7	36.1	29.4
TOTALS										
Material (MCHF)	5.7	11.4	20.3	23.9	30.6	41.4	51.7	54.2	53.5	32.4
FTE	103.3	146.5	194.0	248.1	267.0	290.6	314.8	356.3	379.4	379.6

From LDG Review - February 2025

Conduct an Independent Review of Scope, Schedule, and Costs: An urgent, independent evaluation is needed to assess the overall scope, timeline, and budget of the Muon Collider R&D program for the **period 2026-2036**. This review will be crucial to ensure that funding requests for this R&D phase are well-justified and aligned with project objectives.

Totals:
Duration 10 years

Accelerator: 300 MCHF material, 1800 FTEy
Detector: 20 MCHF material, 900 FTEy

POINTS TO BE NOTED:

- Our present estimate require careful revision/planning
➔ how to we face/collect the estimated needed resources?

EU - MuCol project

- Steadily progressing and reporting
- crucial to the Design study support on different activities



Report from US

- **Dedicated US submission** to ESPPU summarizing plans and strategy discussing:
- Advocacy for strong and sustained support for Muon Collider efforts in Europe
- Interest in hosting the demonstrator and potentially the collider in the US
- USMCC formation and its connection with international efforts
- Collaboration aim is to **serve US-specific purposes** while **working together with IMCC**
- **~ 200-250 members → 30-40 FTE**
- **@ August** 2nd annual **US Muon Collider Meeting**
and **Muon Collider Accelerator school** **welcomes international students**
- USMCC leadership elected by summer
- Continuing work on US-CERN Muon Collider agreement

More on the ICB organization improvements



From the past ICB:

- ✓ chair mandate requires to be revised before the end of 2025 and approved in due time
- ✓ all institutes should proceed to register on CERN Grey Book

IMCC included as: **“Experiments and Projects under Study”**

<https://greybook.cern.ch/experiment/detail?id=IMCC>

From the recent Input document submission:

- ✓ we should keep an updated authors' list by institute with correct data

**Thanks for any advice/suggestions to improve
on any item and better communicate among institutes!**