



Neutrinos@CERN, Physics Beyond Colliders and the ESPP 2026 Update



Contact:
eppsu2024-strategy-secretariat@cern.ch

Guidelines for submitting input for the 2026 update of the European Strategy for Particle Physics

Cover page (1 page)

Each document submitted should carry a single cover page containing no more than the title, the contact person(s) and an abstract.

Comprehensive summary (maximum 10 pages)

The submitted document must be no more than 10 pages long (excluding the cover page) and must provide a comprehensive and self-contained summary of the input. It should address:

- scientific context,
- objectives,
- methodology,
- readiness and expected challenges,
- timeline,
- construction and operational costs (if applicable).

Back-up document

Additional information and details can be submitted in a separate back-up document, which can be consulted by the Physics Preparatory Group (PPG) if clarification on any aspects is required. But the back-up document is not a mandatory component of the submission.

Format and deadline for submission

The cover page and the comprehensive summary are to be submitted in portable document format (pdf) by 31 March 2025. The back-up document should have a cover page with the same title and contact persons and with the words "Back-up Document" added. A dedicated submission portal for both documents will be made available via the ESPPU website.

Distribution

All the documents submitted will be forwarded to the PPG and the European Strategy Group (ESG). Unless explicitly requested otherwise, they will also be made public. The option not to make a given document public will be available upon submission via the dedicated portal.

ESPP 2026 Update

- 10-page input document
 - scientific context
 - objectives
 - methodology
 - readiness & expected challenges
 - timeline
 - construction & operational costs
- can be backed by longer document(s)
 - (not guaranteed to be read)
- advisable that projects prepare their own input
- deadline: March 31, 2025
- submission: <https://indico.cern.ch/event/1439855/>

PBC and ESPP 2026 Update

- PBC in the process of preparing a summary document for ESPP update
- Summary of all PBC-related projects
- Dedicated discussions of FPF, NA61/SHINE, SBN, SHiP etc.
- Dedicated neutrino physics section
- Dedicated Hidden Sector section



CERN-PBC Report-2025-xxxx

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Summary Report of the Physics Beyond Colliders Study at CERN

*R. Alemany-Fernandez¹, M. Au¹, G. Arduini^{*1}, L. Bandiera^{??}, D. Banerjee¹, H. Bartosik¹, J. Bernhard¹, D. Boer^{&.30}, J. Boyd¹, O. Brandi^{??}, M. Brugger¹, O. Buchmüller^{9.35}, F. Butin¹, S. Calatroni¹, C. Carli¹, N. Charitonidis¹, P. Crivelli^{??}, D. Curtin^{??}, R. T. D'Agnolo^{??}, G. De Lellis^{??}, O. Denisov^{??}, B. Döbrich⁸, Y. Dutheil¹, J. R. Ellis^{39.1}, T. Ferber³², M. Ferro-Luzzi¹, T. Galatyuk^{??}, D. Gamba¹, C. Gatti³⁶, S. Gilardoni¹, A. Glazov¹⁵, E. Granados¹, E. Gschwendtner¹, P. Hermes¹, J. Jaeckel^{*.13}, M. A. Jebrancik¹, Y. Kadi¹, F. Kahlhoefer^{+1.14}, F. Kling¹⁵, M. Kowalska¹, M. W. Krasny^{34.1}, M. Lamont¹, P. Lenisa³⁸, M. Mackowiak-Pawlowska^{??}, A. Martens³³, M. Ovchinnikov¹, Y. Papaphilippou¹, J. Pawlowski^{??}, M. Perrin-Terrin²⁴, L. Ponce¹, M. Pospelov^{+20.21}, S. Redaelli¹, G. Rumolo¹, A. Rybicki^{??}, G. Schnell^{*.26}, I. Schulthess^{??}, S. Stapnes¹, F. Terranova^{??}, S. Ulmer^{??}, C. Vallée²⁴, M. van Dijk¹, M. Wing³⁷,..... (Please check affiliation, see list in the sections - to be finalized)*

Abstract

Summary of the activities so far, ongoing efforts, perspectives and international context.

Geneva, Switzerland

January 22, 2025

→ cf. Gianluigi's talk yesterday

PBC and ESPP 2026 Update

- PBC in the process of preparing a summary document for ESPP update
- Summary of all PBC-related projects
- Dedicated discussions of FPF, NA61/SHINE, SBN, SHiP etc.
- Dedicated neutrino physics section
- Dedicated Hidden Sector section
- Ideally, provide update of physics benchmarks (including new ones) as was done for previous Strategy Update
- Unrealistic/difficult due to short time



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- Dedicated neutrino physics section
- Dedicated Hidden Sector section
- Ideally, provide update of physics benchmarks (including new ones) as was done for previous Strategy Update
- Unrealistic/difficult due to short time
- Overall length O(100p)
- Executive summary as main input



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nu@CERN and ESPP 2026 Update

- To trigger discussion:
 - what are the plans of the various projects
 - have asked to have some short contributions following after this before discussion
 - is there a need/wish for “endorser”
 - is there a common theme/effort to be conveyed
 - should there be a common neutrino document
 - e.g., summary of all the projects discussed
 - who would take the lead in preparing it
 - what should be the message



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**Summary Report of the *Neutrinos@CERN*
Study at CERN**

nu@CERN and ESPP 2026 Update

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can upload files to be shared
only amongst participants
(invisible to outsiders)



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**Summary Report of the *Neutrinos@CERN*
Study at CERN**

14:00	Wrap up	Claude Vallee
	40/S2-C01 - Salle Curie, CERN	14:00 - 14:30
15:00	Discussion and input to ESPPU	
16:00	40/S2-C01 - Salle Curie, CERN	14:30 - 16:30
	Summary document	
	40/S2-C01 - Salle Curie, CERN	16:30 - 17:00