ECFA guidelines for collecting input of European HEP community for 2026 update of European Strategy for Particle Physics

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# Timeline for the update of the European Strategy for Particle Physics

**Deadline** for the Council appointment of the **Deadline** for the Open submission of final members of the PPG and submission of main national input in advance Submission of the draft **Symposium** decision on the venue for the input from the strategy document to of the ESG Strategy **Open Symposium** community the Council **Drafting Session End September 2024** 23-27 June 2025 31 March 2025 **14 November 2025 End January 2026** December 2024 **End September 2025** March and June 2026 1-5 December 2025 26 May 2025 Council decision on the Submission of the **Deadline** for the **ESG Strategy** Discussion of the draft strategy venue for the ESG submission of additional "Briefing Book" to document by the Council and **Strategy Drafting Drafting** the **ESG** national input in updating of the Strategy Session advance of the Open Session **Symposium** 

During the RECFA / PECFA meeting in Frascati in July guidelines for collecting the input of the European high-energy physics community for the 2026 update of the European Strategy for Particle Physics were made.

The final version of the guidelines have been posted on the ECFA web site:

https://ecfa.web.cern.ch/ecfa-guidelines-collecting-input-european-high-energy-physics-community-2026-update-european

See also a quick summary of all this in the article in the CERN bulletin:

https://home.cern/news/news/knowledge-sharing/updating-european-strategy-particle-physics

#### ECFA suggestions to normalise the community input to the ESPP

- 1) Organization of national and/or regional meetings
  - a. 2 two national "town-hall" meetings
    - i. First meeting between end of March 2025 and Open Symposium end of June
      - i. deadline for comments by 26 May 2025
    - ii.Second meeting after the release of the Briefing Book end of September 2025
      - i. deadline of 14 November 2025.
  - b. The meetings to be co-organised by the RECFA delegate and country's representative in ESG (same person for some countries).
  - c. Meetings to be guided by a set of "standard questions"
  - d. November 2024 Plenary ECFA meeting to further guide and assist with this process.

#### ECFA suggestions to normalise the community input to the ESPP

- 2) ESG: "The Strategy update should include the preferred option for the next collider at CERN and prioritised alternative options to be pursued if the chosen preferred plan turns out not to be feasible or competitive".
- → It is imperative that the European HEP community provides explicit feedback on both the preferred and alternative options for this "next collider at CERN", which will be the Laboratory's next flagship project, and an explanation of any specific prioritisation.c

#### ECFA suggestions to normalise the community input to the ESPP

#### 3) Questions to be considered:

- a. Which preferred next major/flagship collider project for CERN?
- b. most important elements in response to 3a)?
  - i. Physics potential
  - ii. Long-term perspective
  - iii. Financial and human resources: requirements and effect on other projects
  - iv. Timing
  - v. Careers and training
  - vi. Sustainability

## 3) Questions to be considered:

- c. Should CERN/Europe proceed with the preferred option set out in 3a) or should alternative options be considered:
  - i. if Japan proceeds with the ILC in a timely way?
  - ii. if China proceeds with the CEPC on announced timescale?
  - iii. if the US proceeds with a muon collider?
  - iv. if there are major new (unexpected) results from the HL-LHC or other HEP experiments?

### 3) Questions to be considered:

- d. Beyond the preferred option in 3a), what other accelerator R&D topics (e.g. high field magnets, RF technology, alternative accelerators/colliders) should be pursued in parallel?
- e. What is the prioritised list of alternative options if the preferred option set out in 3a) is not feasible (due to cost, timing, international developments, or for other reasons)?
- f. What are the most important elements in the response to 3e)? (The set of considerations in 3b should be used).

## 4) Other questions to be considered:

- 4) "The Strategy update should also indicate areas of priority for exploration complementary to colliders and for other experiments to be considered at CERN and at other laboratories in Europe, as well as for participation in projects outside Europe."
- → Most useful if national inputs explicitly includes the preferred prioritisation for non-collider projects
- **→** Specific questions to address:
  - a. What other areas of physics to be pursued, and with what relative priority?
  - b. Most important elements in response to 4a)?
    - The set of considerations in 3b should be used).
  - c. To what extent should CERN participate in nuclear physics, astroparticle physics or other areas of science, while keeping in mind and adhering to the CERN Convention?

Please use the current level and form of activity as the baseline for comparisons.

## Follow-up

The RECFA delegate and country's representative in ESG will sit together and suggest a plan for actions in due time, including fixing the 2 national preparatory meetings.