

Benno List, <u>Christophe Grojean</u>, Christian Schwanenberger, Jenny List 40th Future Colliders @ DESY meeting 28 Nov., 2025





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### **Upcoming events etc**

- ESG drafting session, 1-5 Dec., 2025, Ascona.
- Linear collider @ CERN, 7-9 Jan., 2026 <a href="https://indico.cern.ch/event/1439509">https://indico.cern.ch/event/1439509</a>
- IAS Hong-Kong Program on Fundamental Physics, 12-16 Jan., 2026 <a href="https://indico.global/event/15407/">https://indico.global/event/15407/</a>
- FCC Physics Workshop, Munich/Garching, 26-30 Jan., 2026 <a href="https://indico.cern.ch/event/1588696/">https://indico.cern.ch/event/1588696/</a>
- FCC Week 2026, 8-12 June, 2026, Helsinki
- next FC@DESY meetings: Dec. 12

#### **Recent events: ESPPU/ECFA**

- Various national meetings in preparation of ESG drafting sessions
- KET annual meeting, 20-21 Nov., 2025, Bad Honnef: <a href="https://indico.desy.de/event/50011/">https://indico.desy.de/event/50011/</a>
- ECFA plenary meeting, 20-21 Nov., 2025, CERN: <a href="https://indico.cern.ch/event/1567662/">https://indico.cern.ch/event/1567662/</a>
- CERN Council meeting to review FCC feasibility study, 6-7 Nov., 2025, CERN: https://cds.cern.ch/record/2948315
- Physics Briefing Book
  - Available on CERN CDS: <a href="https://cds.cern.ch/record/2944678">https://cds.cern.ch/record/2944678</a>
  - V2 (EFT fits updated): <a href="https://arxiv.org/abs/2511.03883">https://arxiv.org/abs/2511.03883</a>
  - 319 pages, 10 main chapters (EW, Strong Interactions, Flavour, Neutrinos and cosmic messengers, BSM, Dark matter and Dark sector, Accelerator and technology, detector instrumentation, computing, theory)
  - 4 authors from DESY: F.D. Gaede, T. Humair, F. Sefkow and H. Weise, 1 author from UHH: S.O. Moch
- WG2a (Project comparison accelerators): Available on CERN CDS: <a href="https://cds.cern.ch/record/2947728">https://cds.cern.ch/record/2947728</a>
- WG2b (Project comparison physics): Report not yet available but see F. Maltoni's presentation @ ECFA: link
- Future Colliders Comparative Evaluation Working Group Report: https://arxiv.org/abs/2511.20417

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### Status of the projects according to WG2a

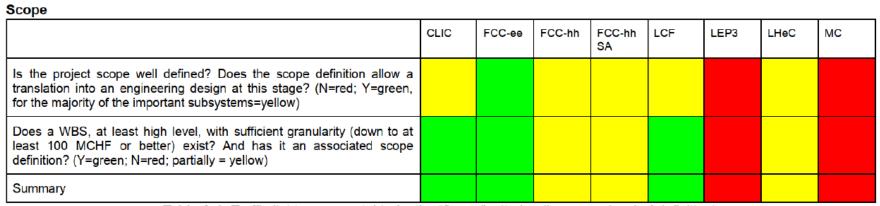


Table A.1: Traffic-light summary table for the "Scope" criterion (i.e. scope level-of-definition).

FCC-ee
CLIC
LCF

Project	Scope	TRL	R&D	Test facilities	Performance	Site preparation	Schedule	Cost	Risk
FCC-ee 91-365 GeV		4 - 7 / 6.0							
Project	Scope	TRL	R&D	Test facilities	Performance	Site preparation	Schedule	Cost	Risk
CLIC 380GeV 1.5TeV		4 - 6 / 5.2							
<b>.</b>						Site			5
Project	Scope	TRL	R&D	Test facilities	Performance	preparation	Schedule	Cost	Risk
LCF 250-550GeV		5 - 7 / 5.5							

Recent events: ESPPU/ECFA



November 7, 2025: CERN Council's conclusions on the FCC Feasibility Study

"The CERN Council restated its commitment to maintaining CERN as a world leader laboratory in science and technology.

It considers that the FCC would provide the platform for a visionary physics programme addressing many of the open questions in particle physics, notably on the Higgs boson, that are critical to understanding the foundations of the Standard Model and to opening up opportunities for discovering new physics beyond the Standard Model, while at the same time driving the development of new technologies that will have a significant positive impact on society.

The Council concluded that the Feasibility Study provides the basis for the FCC studies to continue and that the funding scenarios presented and the financial pledges obtained so far provide the basis for the continuation of the work towards securing the full financial commitments required for approval of the FCC project.

The Council recognised that more work is required in particular on the territorial implementation, environmental impact and risk management, as well as on reducing the cost uncertainties, securing the necessary financial resources and on communicating the technological, scientific and societal benefits of the project.

It reaffirms its aim to reach a final decision relating to the possible implementation of the FCC project possibly in 2028"

This marks a very important milestone for the future of CERN