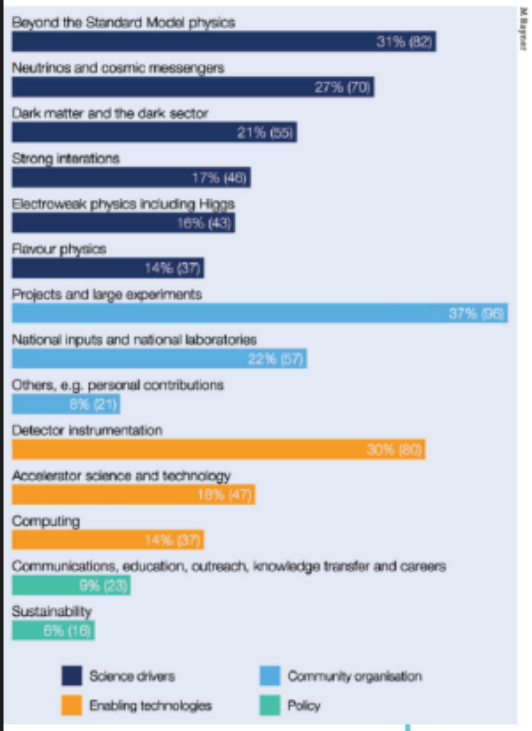
Status of the European Strategy for Particle Physics

Gregorio Bernardi, APC Paris

(based on ECFA reports)

Timeline for the update of the European Strategy for Particle Physics



266 submissions received

- *Major flagship projects*
- *Many projects in other physics areas*
- *Input from national HEP communities*
- *National labs*
- *Early career researchers*
- *…*

Deadline for the submission of main input from the community

31 March 2025

26 May 2025

Deadline for the submission of additional national input in advance of the **Open Symposium**

Open Symposium (in Venice)

23-27 June 2025

End September 2025

Submission of the "Briefing Book" to the **ESG**

Deadline for the submission of final national input in advance of the **ESG Strategy Drafting Session**

14 November 2025

We are here

1-5 December 2025

ESG Strategy Drafting Session

(Monte Verita / Ascona, CH)

Submission of the draft strategy document to the Council

End January 2026

March and June 2026

Discussion of the draft strategy document by the Council and **updating of the Strategy**

More details on ESPP web page: https://europeanstrategyupdate.web.cern.ch/

ESG Working Groups

(1) National Input, Diversity in European Particle Physics (Chairperson Calin Alexa)

- Analyse and summarise the input that will be submitted by the **national HEP communities**, incl. the final submissions on 14 Nov.

→ presentation today by Calin Alexa

(2) Project Comparison Group

(a) Project Assessment Group (Chairpersons: Gianluigi Arduini, Phil Burrows)

For projects to be considered for realisation as the next flagship project at CERN, several aspects need to be thoroughly evaluated and compared:

- Technical feasibility, R&D requirements
- Risks
- Timeline
- Cost and human resources (including estimates for the associated detectors)
- Environmental impact

External experts:
R. Brinkmann, F. Bordry,
N. Holtkamp, L. Rivkin

→ presentation today by Gianluigi Arduini

(b) Physics potential (Chairperson: Monica Dunford)

- Discussion and the comparison of the physics potential in the different physics areas is carried out by the physics working groups in the Physics Briefing Book
- A more **global comparison across various physics areas** is the responsibility of the ESG

ESG Working Groups

(3) Implementation of the Strategy / Deliverability of larger projects (Chairperson: Achille Stocchi)

Main purpose: assess how European National Laboratories and institutes can best work together with CERN to deliver large scale accelerator and detector projects.

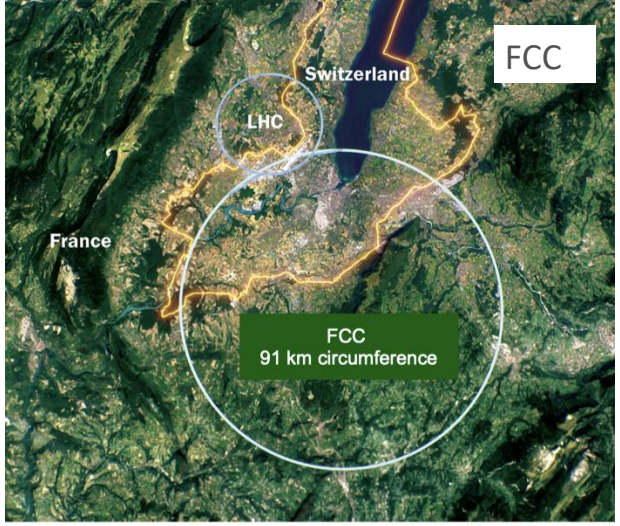
("Distributed delivery model" for CERN's next major infrastructure? New management practices and tools?
What lessons can be learnt from the recent major projects (e.g. ATLAS and CMS upgrades)?
What could be a model for international participation (beyond CERN Member and Associate Member States)?)

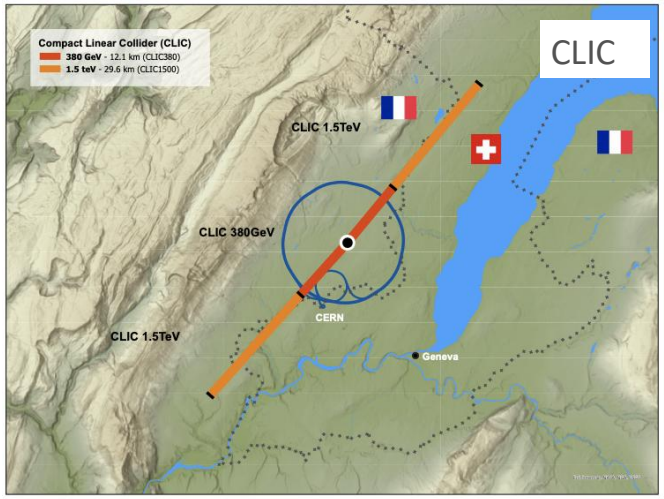
(4) Relations with other fields of physics (Chairperson: Marek Karliner)

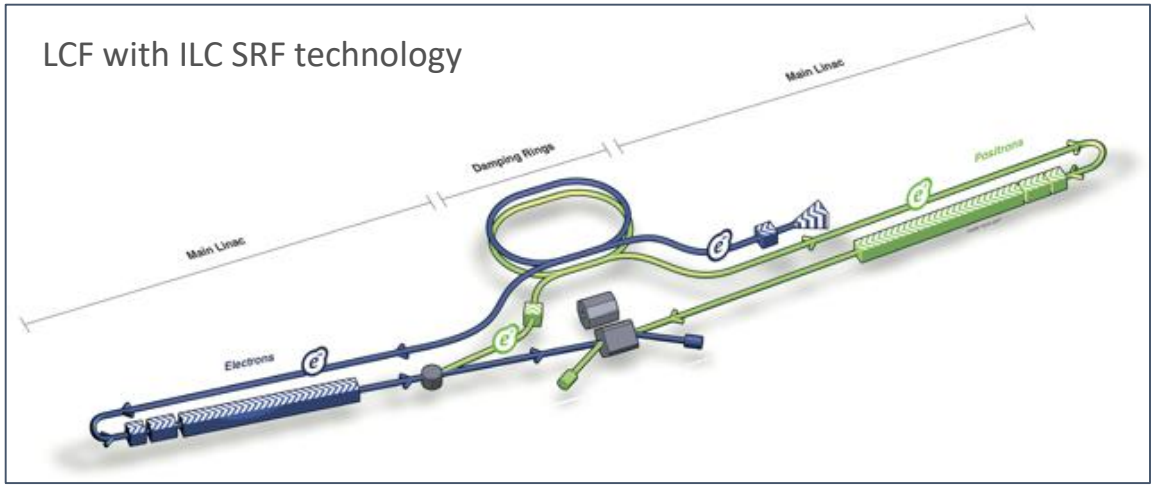
(5) Sustainability and environmental impact (Chairperson: Tadeusz Lesiak)

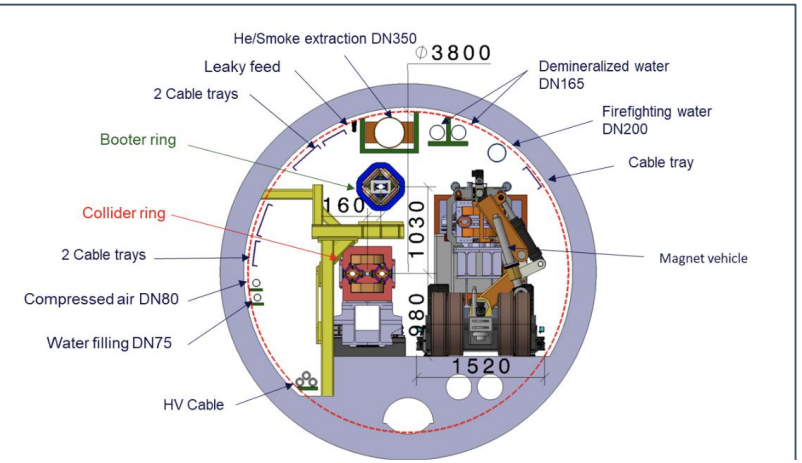
(6) Public Engagement, Education, Communication, Social and career aspects for the next generation (Chairperson: Pierre van Mechelen)

(7) Knowledge and Technology Transfer (Chairperson: Ulrich Husemann)





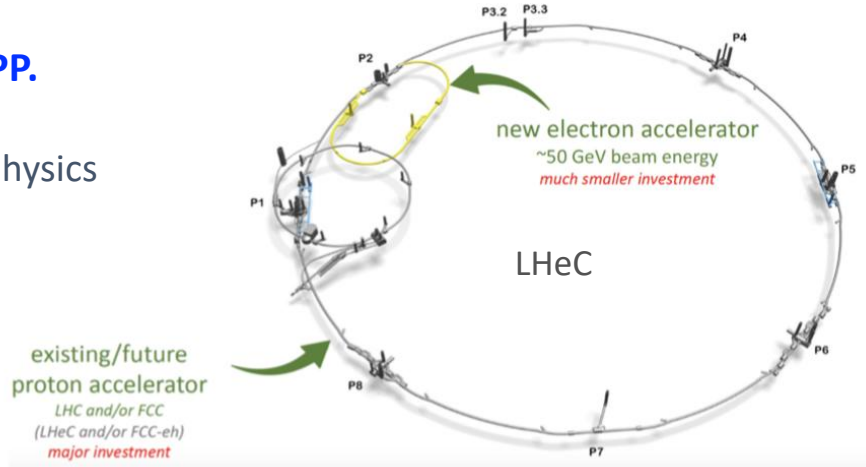


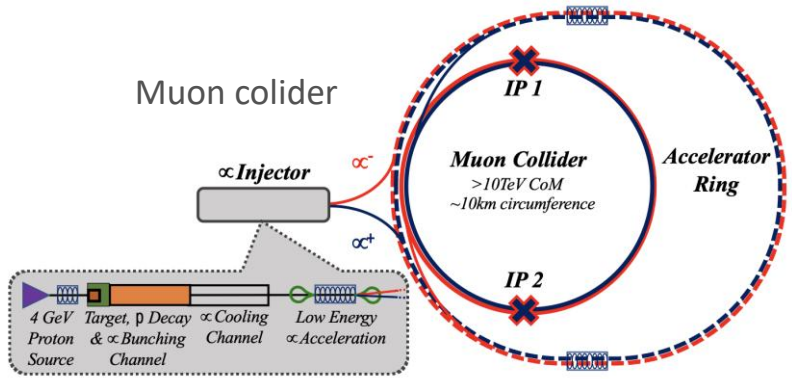


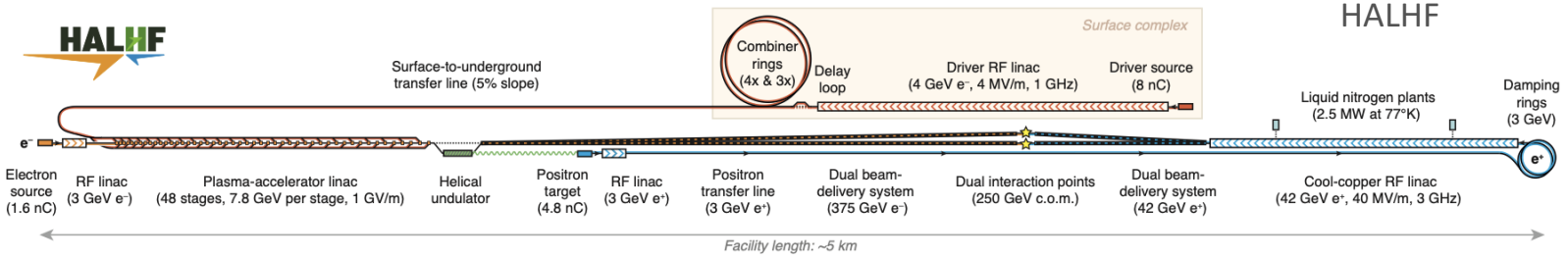
Future collider proposals submitted to ESPP.

Huge amount of R&D and design work.

Different levels of maturity, time scale, cost, physics reach/performance







	# of exp.	Z-pole (91.2 GeV)	WW (160 GeV)	Higgs (230-250 GeV)	Top (365 GeV)	Higher energy
FCC-ee	4	205 ab^{-1} (total, all IP) 4 years (of operation)	19 ab^{-1} 2 years	11 ab^{-1} 3 years	3 ab^{-1} 5 years	—
Linear collider	2	0.07 ab^{-1} 1 year	—	3 ab^{-1} 9 years	CLIC: 4.4 ab^{-1} 10 years	550 GeV: 8 ab^{-1} 10 years
LEP3	2	53 ab^{-1} 5 years	5 ab^{-1} 4 years	2.5 ab^{-1} 6 years	—	—
FCC-hh	4	—	—	—	—	84.6 TeV 30 ab^{-1}
LHeC	1	—	—	—	—	1.2 TeV 1 ab^{-1} 6 years

Status of the projects according to WG2a

Scope

	CLIC	FCC-ee	FCC-hh	FCC-hh SA	LCF	LEP3	LHeC	MC
Is the project scope well defined? Does the scope definition allow a translation into an engineering design at this stage? (N=red; Y=green, for the majority of the important subsystems=yellow)								
Does a WBS, at least high level, with sufficient granularity (down to at least 100 MCHF or better) exist? And has it an associated scope definition? (Y=green; N=red; partially = yellow)								
Summary								

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

FCC-ee

Project	Scope	TRL	R&D	Test facilities	Performance	Site preparation	Schedule	Cost	Risk
FCC-ee 91-365 GeV		4 - 7 / 6.0							

CLIC

Project	Scope	TRL	R&D	Test facilities	Performance	Site preparation	Schedule	Cost	Risk
CLIC 380GeV 1.5TeV		4 - 6 / 5.2							

LCF

Project	Scope	TRL	R&D	Test facilities	Performance	Site preparation	Schedule	Cost	Risk
LCF 250-550GeV		5 - 7 / 5.5							

Conclusions on FCC

The SAC has concluded that the project has completed its objectives to date as foreseen in the schedule (CERN/SPC/1161, CERN/3588). After a careful review of the documentation provided, the SAC confirms, based on its review of progress, that the FCC-hh accelerator with the FCC-ee as a first stage appears technically feasible.

This machine complex would be capable of taking forward a spectacular physics programme, addressing many of the open issues in the field and, in particular, providing comprehensive information on the Higgs potential, as well as opening opportunities to discover new physics.

The SAC emphasises that the FCC-hh is complemented by the FCC-ee and the full potential of the hh machine can only be delivered with high precision measurements made in ee collisions.

There are still many issues to be addressed before the project could proceed to the construction phase. This is to be expected at this stage of a feasibility study. None of the comments in this report should be taken as a criticism of the work done so far, nor as an indication that the SAC has doubts as to the feasibility of the project. On the contrary, the SAC is impressed by the progress and the steady improvement in the project designs.

Venice open symposium finished successfully

➔ Over the past years very significant progress has been made towards the realisation of the next flagship project at CERN

- FCC: Successful completion of the Feasibility Study; No technical showstoppers identified
- Overwhelming support for the integrated FCC-ee/hh programme by the HEP communities in the CERN Member and Associate Member states and beyond;

  The strong support is largely based on the superb physics potential and the long-term prospects (FCC-ee /hh)
- Discussions on the financial feasibility are ongoing (CERN management and Council)

Discussions on the prioritisation of alternative options are ongoing

- Linear colliders (LCF, CLIC) present as well mature options for a Higgs factory at CERN
- LEP3 and LHeC could be considered as “intermediate” collider projects
- The differences in the physics potential (→ Physics Briefing Book), review of the technical readiness and the final input from the national HEP communities (due by 14 Nov.) will be important ingredients in the final recommendations by the European Strategy Group

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.

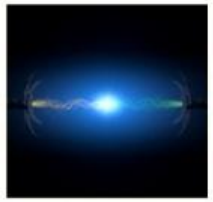
It reaffirms its aim to reach a final decision relating to the possible implementation of the FCC project possibly in 2028"

This marks a very important milestone for the future of CERN

European Commission proposal for the 2028-2034 MFF

European Commission

Moonshots



Future Circular Collider

What: Sustain Europe's leadership in particle physics by investing in CERN's next-generation collider.

How: Co-invest with other CERN countries, leveraging Horizon Europe funding.

Clean Aviation

What: Lead the world in developing the next generation of CO_2-free aircraft.

How: Develop applications from medicine to climate, solving previously impossible problems for 450 million citizens

Quantum Computing

What: Make Europe the first continent with fully integrated quantum computing in daily life.

How: Develop applications from medicine to climate, solving previously impossible problems for 450 million citizens.

Next Generation AI

What: Model the new AI on the laws of nature and grounded in physics and biology.

How: AI developed by, with, and for European scientists and industry, drawing to Europe the world's best minds.

Data Sovereignty

What: Make Europe the global leader and safest hub for critical research data.

How: Provide access to critical data for researchers, universities and companies, offering competitive advantage in tackling global challenges.

Automated Transport and Mobility

What: Advance safe, inclusive, and emission-reducing automated transport and mobility in Europe.

How: Invest in smart transport systems to improve traffic, reduce emissions, and enhance access.

Regenerative Therapies

What: Deliver breakthrough therapies to improve people's health and lives.

How: Harness Europe's scientific strengths to treat incurable diseases and personalise medicine.

Fusion Energy

What: The first commercial nuclear fusion power plant, generating safe, consistent, and reliable electricity.

How: Overcome the scientific and technological challenges necessary to put fusion on the grid in Europe by 2034.

Space Economy

What: Make Europe the leader in the space economy.

How: Develop the next generation launch vehicles such as reusable rockets, able to deploy massive cargo by 2040.

Zero Water Pollution

What: Move towards zero pollution of water in the EU.

How: Stimulate innovation to build a true water-smart economy which secures sufficient, clean and affordable water and sanitation to all at all times.

Ocean Observation

What: Achieving strategic autonomy in ocean observation infrastructure, data and information services.

How: Developing, connecting, governing and securing the next generation of European ocean observing technologies

FCC is the first of 11 "Moonshots" projects

MFF still has to be approved by the European Council (timescale: end 2027)

Physics Briefing Book

The **Physics Briefing Book** has been finalised and released to the particle physics community

Huge work by the **Physics Preparatory Group (PPG)**

CDS version: early Oct. 2025:
https://cds.cern.ch/record/2944678

arXiv version: early Nov. 2025:
https://arxiv.org/abs/2511.03883

→ *Summary presentations by Gino Isidori, Sara Bolognesi and Tommaso Boccali*

→ Next steps by the **European Strategy Group (ESG)**

CERN-ESU-2025-001
4 November 2025

Physics Briefing Book

Input for the 2026 update of the European Strategy for Particle Physics

Electroweak Physics: Jorge de Blas[1], Monica Dunford[2] *(Conveners)*, Emanuele Bagnaschi[3] *(Scientific Secretary)*, Ayres Freitas[4], Pier Paolo Giardino[5], Christian Grefe[6], Michele Selvaggi[7], Angela Taliercio[8], Falk Bartels[2] *(Contributors)*

Strong Interaction Physics: Andrea Dainese[9], Cristinel Diaconu[10] *(Conveners)*, Chiara Signorile-Signorile[11] *(Scientific Secretary)*, Néstor Armesto[12], Roberta Arnaldi[13], Andy Buckley[14], David d'Enterria[7], Antoine Gérardin[15], Valentina Mantovani Sarti[16], Sven-Olaf Moch[17], Marco Pappagallo[18], Raimond Snellings[19,83], Urs Achim Wiedemann[7] *(Contributors)*

Flavour Physics: Gino Isidori[20], Marie-Hélène Schune[21] *(Conveners)*, Maria Laura Piscopo[83] *(Scientific Secretary)*, Marta Calvi[84], Yuval Grossman[23], Thibaud Humair[24], Andreas Jüttner[7,25], Jernej F. Kamenik[26,65], Matthew Kenzie[27], Patrick Koppenburg[83], Radoslav Marchevski[28], Angela Papa[29], Guillaume Pignol[30], Justine Serrano[10] *(Contributors)*

Neutrino Physics & Cosmic Messengers: Pilar Hernandez[39], Sara Bolognesi[40] *(Conveners)*, Ivan Esteban[41] *(Scientific Secretary)*, Stephen Dolan[7], Valerie Domcke[7], Joseph Formaggio[42], M. C. Gonzalez-Garcia[80,81,82], Aart Heijboer[19], Aldo Ianni[44], Joachim Kopp[7,79], Elisa Resconi[45], Mark Scott[33], Viola Sordini[87] *(Contributors)*

Beyond the Standard Model Physics: Fabio Maltoni[8,31], Rebeca Gonzalez Suarez[32] *(Conveners)*, Benedikt Maier[33] *(Scientific Secretary)*, Timothy Cohen[7,28,78,*], Annapaola de Cosa[34,*], Nathaniel Craig[35], Roberto Franceschini[36], Loukas Gouskos[37], Aurelio Juste[38], Sophie Renner[14], Lesya Shchutska[28] *(Contributors)*

Dark Matter and Dark Sector: Jocelyn Monroe[54,46], Matthew McCullough[7] *(Conveners)*, Yohei Ema[7,†] *(Scientific Secretary)*, Paolo Agnes[47], Francesca Calore[48], Emanuele Castorina[22], Aaron Chou[49], Monica D'Onofrio[50], Maksym Ovchynnikov[7,†], Tina Pollmann[19], Josef Pradler[59,86], Yotam Soreq[52], Julia Katharina Vogel[53] *(Contributors)*

Accelerator Science and Technology: Gianluigi Arduini[7], Philip Burrows[51] *(Conveners)*, Jacqueline Keintzel[7] *(Scientific Secretary)*, Deepa Angal-Kalinin[55], Bernhard Auchmann[76,7], Massimo Ferrario[3], Angeles Faus Golfe[21], Roberto Losito[7], Anke-Susanne Mueller[56], Tor Raubenheimer[57], Marlene Turner[7], Pierre Vedrine[40], Hans Weise[24], Walter Wuensch[7], Chenghui Yu[58] *(Contributors)*

Detector Instrumentation: Thomas Bergauer[59], Ulrich Husemann[56] *(Conveners)*, Dorothea vom Bruch[10] *(Scientific Secretary)*, Thea Aarrestad[34], Daniela Bortoletto[54], Shikma Bressler[60], Marcel Demarteau[61], Michael Doser[7], Gabriella Gaudio[62], Inés Gil-Botella[63], Andrea Giuliani[21], Fabrizio Palla[64], Rok Pestotnik[65], Felix Sefkow[24], Frank Simon[56], Maksym Titov[40] *(Contributors)*

Computing: Tommaso Boccali[64], Borut Kersevan[26,65] *(Conveners)*, Daniel Murnane[66] *(Scientific Secretary)*, Gonzalo Merino Arevalo[63], John Derek Chapman[27], Frank-Dieter Gaede[24], Stefano Giagu[67], Maria Girone[7], Heather M. Gray[66], Giovanni Iadarola[7], Stephane Jezequel[68], Gregor Kasieczka[15], David Lange[69], Sinéad M. Ryan[70], Nicole Skidmore[71], Sofia Vallecorsa[7] *(Contributors)*

Theoretical Overview: Eric Laenen[19,83,85]
Reviewers: Anadi Canepa[49], Xinchou Lou[58], Rogerio Rosenfeld[72], Yuji Yamazaki[73]
Editors: Roger Forty[7], Karl Jakobs[74], Hugh Montgomery[75], Mike Seidel[28,76], Paris Sphicas[7,77]

Towards the recommendations on the next CERN flagship project

(i) Physics Potential

Physics Briefing Book (→ 30 Sept. 2025) ✓

→ Assessment of overall Physics Potential **(ESG Working Group 2b)** **(still ongoing)**

(ii) Project assessment

Technical feasibility, required R&D, risks, timeline, costs and human resources (including estimates for the associated detectors), environmental impact

(**ESG working group 2a)** ✓

(iii) Final input by the National HEP communities

(→ 14 Nov. 2025, **ESG WG 1**) ✓

ESG WG1 meeting

C. Alexa (RO), A. Canepa* (USA), B. Kliček (HR), P. Kokkas (GR), E. Laenen (NL),
M. Lancaster (UK), S. Malvezzi (LNF), L. de Paula* (BR), C. Roy (FR), J. Schieck (AT)

117th Plenary ECFA Meeting 21Nov.2025

On behalf of the ESG WG 1, we present the results from the analysis of the latest national inputs received by November 14, 2025.

Q1: What is the preferred large-scale post-LHC accelerator at CERN?

Q2: What is the preferred alternative, if the preferred option is not feasible?

Q3: What is the preferred alternative, if the preferred option would not be competitive?

China Position

- CAS decided to recommend the STCF proposal to the next step for consideration for the (2026-2030) five-year plan.

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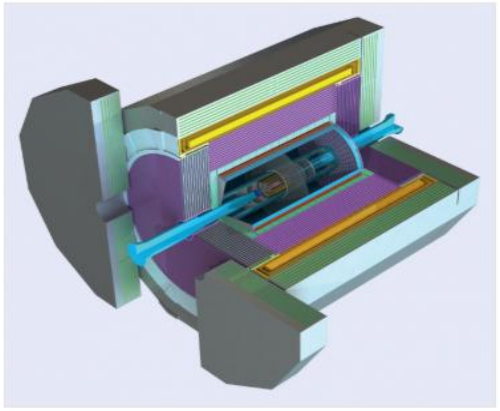
POLICY | NEWS

CEPC matures, but approval is on hold

26 October 2025



Mature design The CEPC Study Group has published a technical design report for its reference detector. Credit: CEPC Study Group 2025 arXiv:2510.05260

In October, the Circular Electron–Positron Collider (CEPC) study group completed its full suite of technical design reports, marking a key step for China's Higgs-factory proposal. However, CEPC will not be considered for inclusion in China's next five-year plan (2026–2030).

"Although our proposal that CEPC be included in the next five-year plan was not successful, IHEP will continue this effort, which an international collaboration has developed for the past 10 years," says study leader Wang Yifang, of the Institute of High Energy Physics (IHEP) in Beijing. "We plan to submit CEPC for consideration again in 2030, unless FCC is officially approved before then, in which case we will seek to join FCC, and give up CEPC."

Japan's responses to the three Key Questions

(i) *What is the preferred large-scale post-LHC accelerator for CERN?*

A **Higgs factory** project, in particular the **FCC-ee** or the **LCF**.

(ii) *What is the preferred alternative, if the preferred option is not feasible?*

The **LCF** would be regarded as the prioritized alternative if the FCC-ee is chosen as the most preferred option in Europe.

(iii) *What is the preferred alternative, if the preferred option would not be competitive?*

No specific alternative views yet in case the preferred option, either FCC-ee or LCF, was not competitive.

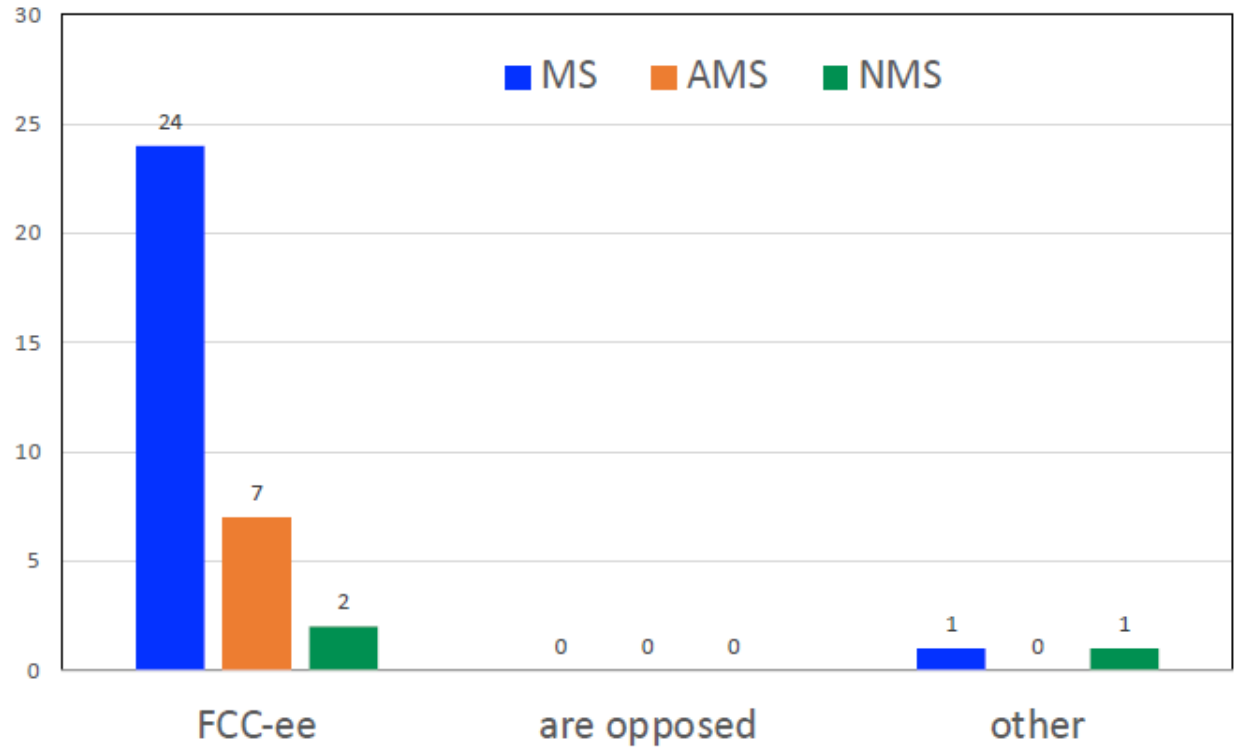
Let us continue working toward the realization of a Higgs factory while keeping the Linear Collider option valid.

We do not give up on the ILC, even though many challenges remain ahead of us.

USA Position

- The U.S. strongly supports FCC as the preferred option and intends to contribute to its development pending appropriate domestic approvals.
  - The level and nature of U.S. contribution to FCC is planned to be provided by a future targeted panel convened by DOE.
  - **A strong, coherent and an unambiguous recommendation by the ESG will significantly aid to move the discussion on the scale of the U.S. contribution forward**.
- Discussions on alternative options are complex and depend on the challenges facing the preferred option. Best left to ESG and the associated working groups.
  - It should be noted that **challenges may persist even beyond a CERN Council decision**, and into the planning and implementation phase. As with any major project, planning should include consideration of a long-term R&D strategy to address the challenges and to mitigate the risks.
  - Investments in long-term R&D that aligns with the preferred option is the best option to address the long-term challenges.
  - Current U.S. agency priorities align well with such long-term R&D initiatives and would continue the mutually beneficial collaboration between the U.S. and CERN.

Q1 What is the preferred large-scale post-LHC accelerator at CERN?



MS

Austria	FCC-ee
Belgium	FCC-ee
Bulgaria	MC
Czech Republic	FCC-ee
Denmark	FCC-ee
Estonia	FCC-ee
Finland	FCC-ee
France	FCC-ee
Germany	FCC-ee
Greece	FCC-ee
Hungary	FCC-ee
Israel	FCC-ee
Italy	FCC-ee
Netherlands	FCC-ee
Norway	FCC-ee
Poland	FCC-ee
Portugal	FCC-ee
Romania	FCC-ee
Serbia	FCC-ee
Slovakia	FCC-ee
Slovenia	FCC-ee
Spain	FCC-ee
Sweden	FCC-ee
Switzerland	FCC-ee
United Kingdom	FCC-ee

AMS

Brazil	FCC-ee
Croatia	FCC
Cyprus	
India	
Ireland	
Latvia	FCC-ee
Lithuania	FCC-ee
Pakistan	FCC-ee
Turkey	FCC-ee
Ukraine	FCC-ee

NMS

Japan	FCC-ee or LCF
USA	FCC-ee

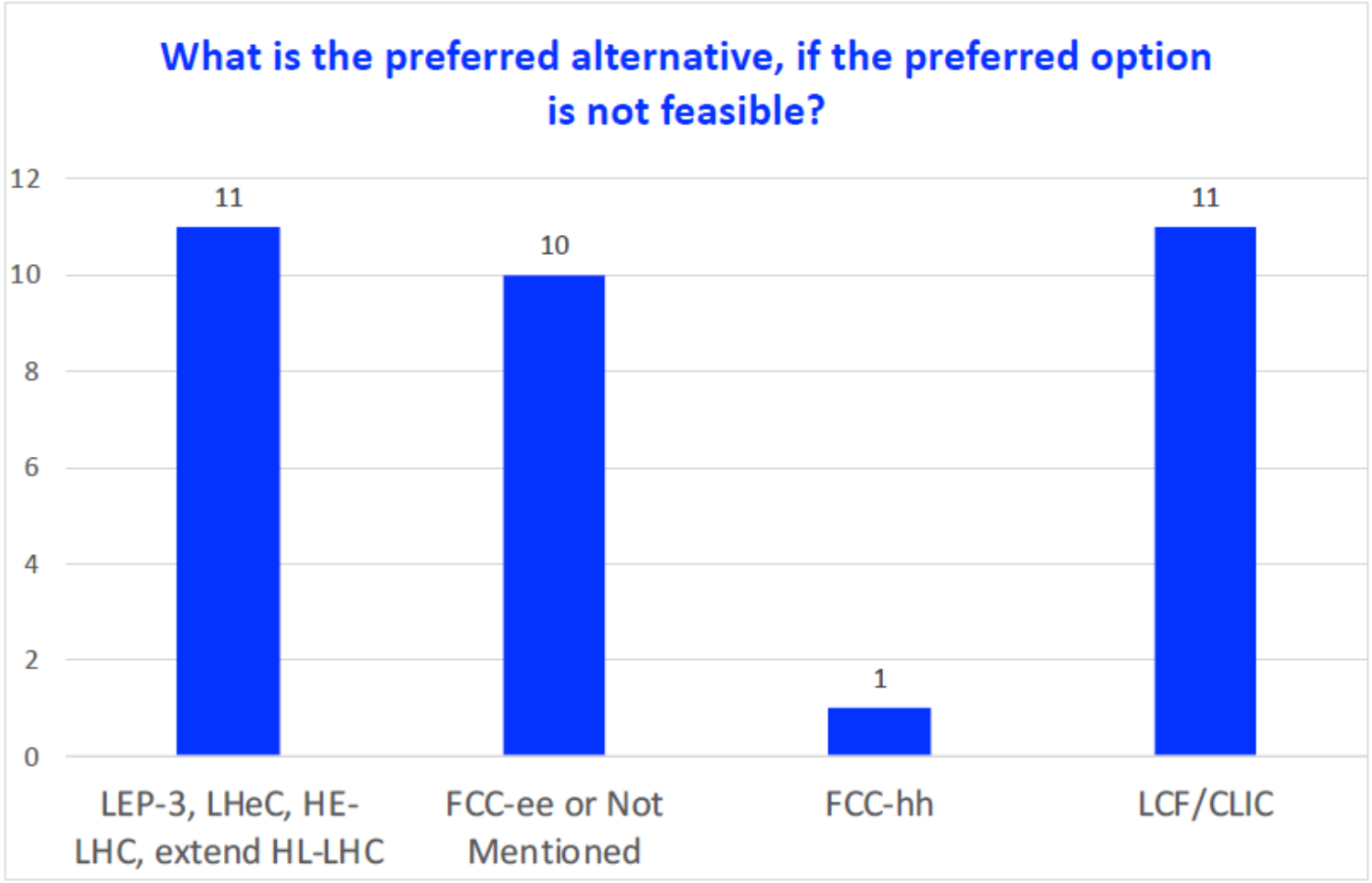
- MS: 23 submitted new NIs, for FR and EE the previous NI was used.
- AMS: 5 submitted new NIs, for HR, PK the previous NI was used.
- NMS: AU, JP and USA submitted new NIs.

What is the preferred alternative if the preferred option were not feasible?

	Member States	Q2	What is the preferred alternative, if the preferred option is not feasible?
1	Austria	LC	in case the FCC-ee is not feasible, we strongly recommend a linear collider (LCF based on CLIC)
2	Belgium	FCC-hh	"- if the necessary funding cannot be secured to realise the FCC-ee by the 2040s, the longer-term goal of achieving the FCC-hh may still remain attainable - Among alternative intermediate steps, the LEP3 project appears the most natural choice"
3	Bulgaria	FCC-ee / CLIC	In the case when the Muon Collider is not feasible or not competitive, the largest support gains the FCC-ee machine, closely followed by the support for CLIC
4	Czech Republic	FCC-hh	we would support developing a direct FCC-hh option realizable on a longer timescale
5	Denmark		"-We therefore propose as our plan B that, should the funding of FCC-ee not be possible within the contributions from the CERN Member States supplemented by external contributions, the start-up of FCC-ee could be postponed for a limited number of years in order to spread the expenditures over a longer period"
6	Estonia	LCF	"Our second choice is a linear collider."
7	Finland	LCF	"A Linear collider at CERN"
8	France	LCF	"In absence of FCCee , a linear e+e− collider facility (LCF) at CERN would be the next best option for a Higgs factory."
9	Germany	LCF	"In case China proceeds with the CEPC on the announced timescale, a Linear Collider at a centre-of-mass energy of 250 GeV is not considered competitive; it would need a minimum energy of 550 GeV to be considered as a flagship project; see Sect. 3.2.3 of our statement."
10	Italy		"we again do not see linear colliders such as LCF or CLIC as feasible alternatives [...] Should financial constraints emerge at this stage in the discussion of Europe's next high-energy physics project, we consider it essential to ensure that adequate funds are secured for the construction of the tunnel required for the FCC project. [...] In parallel, investment in vigorous R&D on high-field and high-temperature superconductor technology should be bolstered, to support the design and construction of the magnets required for the FCC-hh, a next-generation machine that represents the future of our research domain"

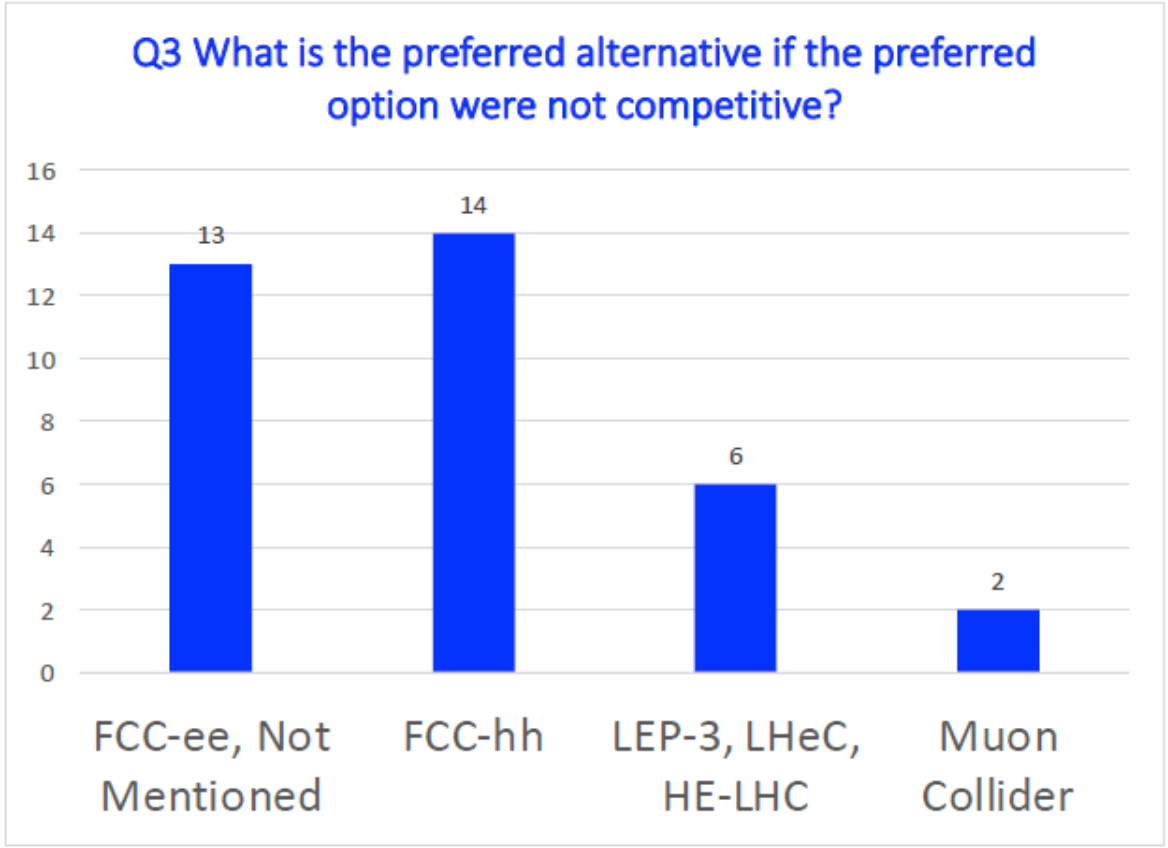
* for FR and EE the previous NI was used

Q2 What is the preferred alternative if the preferred option were not feasible?



Austria	LCF / CLIC
Belgium	LEP3, LHeC, FCC-hh
Bulgaria	FCC-ee / CLIC / FCC-hh
Czech Republic	FCC-hh
Denmark	FCC-ee
Estonia	LCF
Finland	LCF
France	NM (not mentioned)
Germany	LCF
Greece	LEP-3 + FCC-hh / LCF (or CLIC) + FCC-hh
Hungary	NM (not mentioned)
Israel	NM (not mentioned)
Italy	FCC-tunnel (+R&D)
Netherlands	LHeC and/or LEP3
Norway	LCF/CLIC
Poland	LCF (no recommendation)
Portugal	LEP-3,LHeC,LCF,FCC-ee/hh
Romania	FCC-ee
Serbia	LEP-3/LHeC + FCC-hh
Slovakia	LHeC
Slovenia	FCC-ee
Spain	LCF, LHeC, LEP3
Sweden	LCF
Switzerland	FCC-ee
United Kingdom	Extend LHC + LHeC, (LEP3, LC)"

Q3 What is the preferred alternative if the preferred option were not competitive?

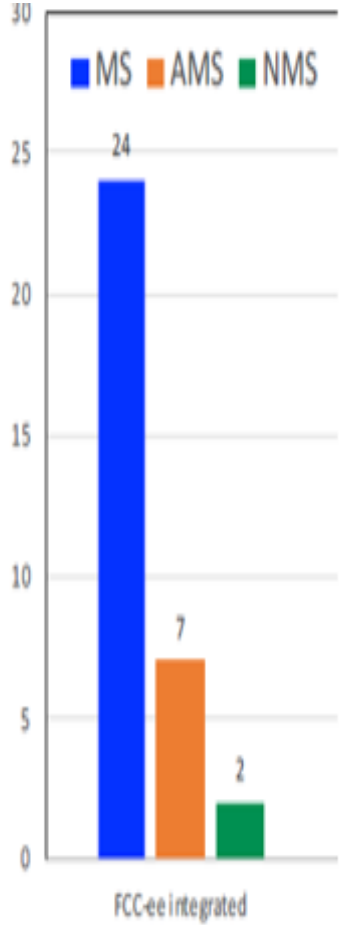


FCC-ee

based on LHC

Austria	FCC-hh
Belgium	LHeC, FCC-hh
Bulgaria	FCC-ee,CLIC,FCC-hh
Czech Republic	FCC-ee
Denmark	FCC-ee
Estonia	NM (MC)
Finland	FCC-hh
France	NM
Germany	FCC-hh/LCF550
Greece	NM
Hungary	NM
Israel	NM
Italy	FCC-hh
Netherlands	FCC-hh, MC
Norway	CLIC, FCC-hh
Poland	FCC-ee/hh
Portugal	LEP3,LHeC,LCF,FCC-ee/hh
Romania	FCC-ee
Serbia	FCC-hh, LEP3, LHeC
Slovakia	FCC-hh, LHeC, FCC-eh, FCC-eA
Slovenia	FCC-ee
Spain	NM
Sweden	NM
Switzerland	FCC-hh
United Kingdom	FCC-hh

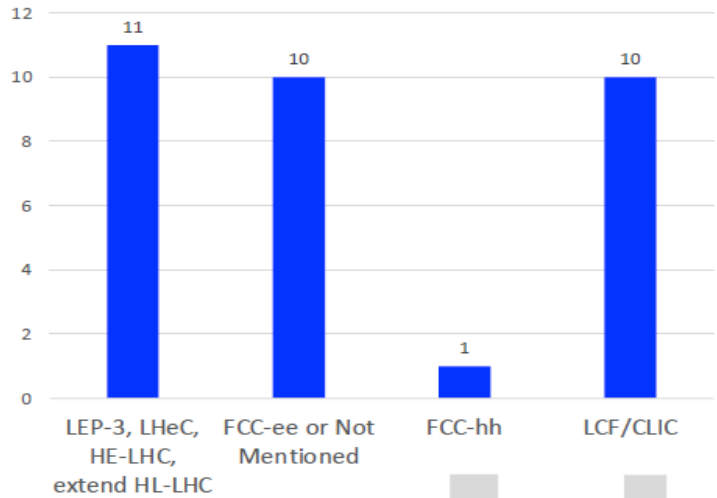
Q1: What is the preferred large-scale post-LHC accelerator at CERN?



FCC-ee

FCC-hh

Q2: What is the preferred alternative, if the preferred option is not feasible?



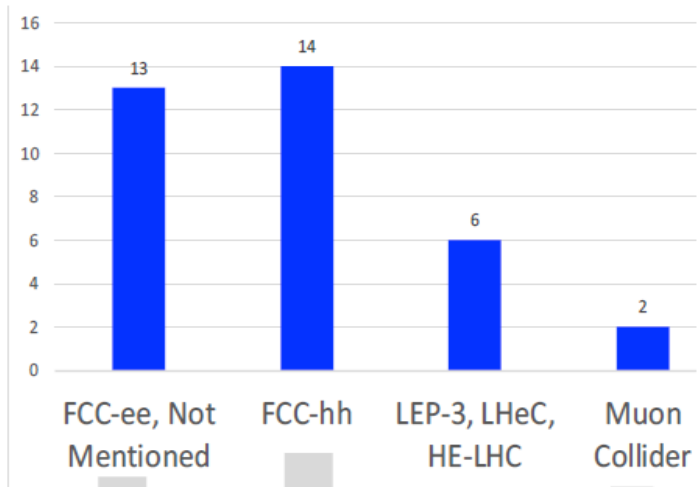
based on LHC

FCC-ee

FCC-hh

Linear Collider

Q3: What is the preferred alternative, if the preferred option would not be competitive?



FCC-hh

based on LHC

Muon Collider

Towards the recommendations on the next CERN flagship project (cont.)

- **ESG Strategy Drafting Session, 01 – 05 Dec 2025**
  in Ascona / Monte Verità

  → ESG recommendations;

  Will be submitted to the CERN Council

- **Update of the European Strategy for Particle Physics by the CERN Council**
  (Discussions in March 2026, final meeting in Budapest in May 2026)

- Final deliberations on **project approval** by the CERN Council during 2027/2028

Technically, the FCC project is progressing very well.

Financially, the discussions are on-going

We also have to convince the general public, cf. the next talks and Friday morning sessions