Reunion FCC-contacts

vendredi 19 sept. 2025, 09:00 → 10:30 Europe/Paris

Description https://cern.zoom.us/j/63821720960?pwd=Lmzwev6i9IfNLIUW4JZaByonTVQ2sL.1

09:00 → 09:25 **News + FCC-contacts. Evolution vers la phase pre-TDR. Quelle position pour le plan B ?** 25m

Orateur: Gregorio Bernardi (APC Paris CNRS/IN2P3)

09:25 → 09:45 **Préparation FCC-France 12-14 Novembre APC (+FCC France-Italie en 2026 ?)** 20m

09:45 → 10:05 **Next steps / Tour de table des EoI et des Labos** 25m

Orateurs: Bogdan MALAESCU (LPNHE, Paris, FRANCE), Catherine Biscarat (L2I Toulouse, CNRS/IN2P3, Université de Toulouse), Farès Djama (CPPM), Gaelle Boudoul (IP2I/AICP (CNRS/IN2P3)), Giovanni Marchiori (APC Paris), Jean-Baptiste De Vivie De Regie, Marco Delmastro (LAPP), Nicolas Morange (IJCLab), Stephane Monteil (Laboratoire de Physique de Clermont - UCA/IN2P3), Suzanne GASCON-SHOTKIN (IP2I Lyon/Université Claude Bernard Lyon 1), Vincent Boudry (Laboratoire Leprince-Ringuet, CNRS/IN2P3, École polytechnique), Ziad EL BITAR (IPHC)

Etat Budgets, RH, Demandes RH, NSIP. Grey Book....

FUTURE CIRCULAR COLLIDER

Outline

- Outcome of the SPC/FC review meeting and next steps
- ESPPU Briefing Book
- Replies to the FSR referee questions and comments
- Forthcoming events

SPC / FC review meeting : SPC closeout report (excerpt)

CONFIDENTIAL

General Comments, Executive Summary

- Responses to Charge Questions:
  - The Feasibility Study has largely satisfied the deliverables. The FCC-ee phase is especially well characterised and sets a basis for the transition to development of a TDR. For the FCC-hh considerable progress has been made in areas such as the High Field Magnets and the integration with the FCC-ee machine has been achieved. No fundamental problems have been found.
  - Given the status of the Feasibility Study, the SPC recommends that the continuation of the work should be supported in 2026 at the level discussed in the approved MTP, and subsequently.
  - In the discussions of the Funding Models, which are driven by financial considerations, appropriate weight should be given to the physics implications of the options.

Coming PED workshops

- FCC-ee workshop on vertex detector R&D
  - Pisa, 30-31 Oct 2025, https://agenda.infn.it/event/47923/overview
- FCC-ee workshop on TDAQ
  - CERN, 6 November, https://indico.cern.ch/event/1583755/
- FCC-ee kick-off workshop on Flavours
  - CERN, 19-21 November, https://indico.cern.ch/event/1588013/overview
    - Site soon to be accessible.
- FCC PED (a.k.a. Physics) Workshop
  - Munich, 26-31 January, see Christophe's presentation
  - Indico page being built: https://indico.cern.ch/event/1588696/
- Anything else?

Venice open symposium finished successfully

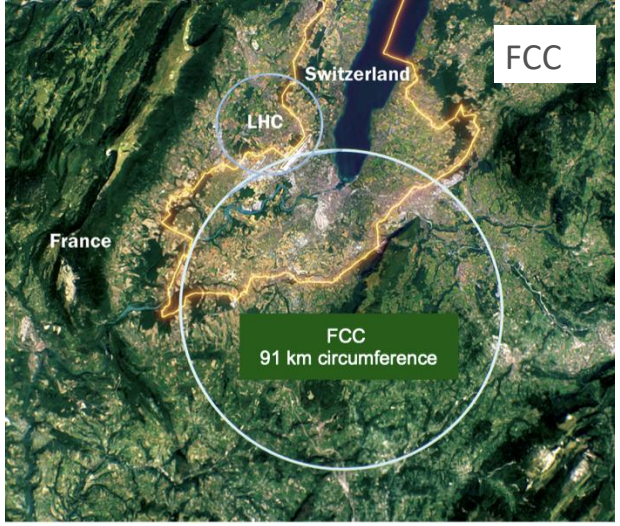
➔ Over the past years very significant progress has been made towards the realisation of the next flagship project at CERN

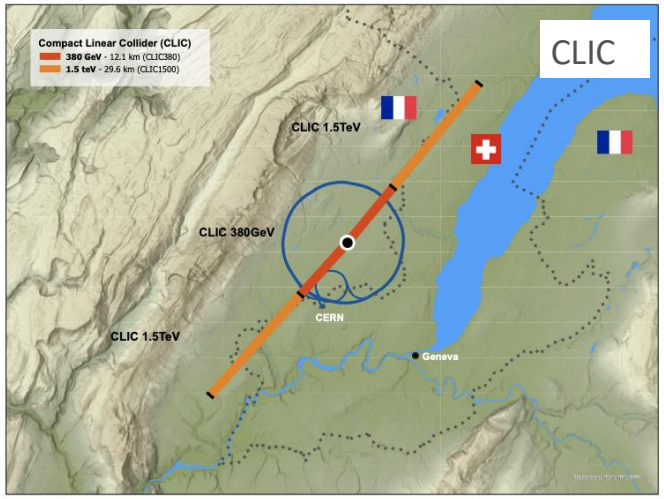
- FCC: Successful completion of the Feasibility Study; No technical showstoppers identified
- Overwhelming support for the integrated FCC-ee/hh programme by the HEP communities in the CERN Member and Associate Member states and beyond;

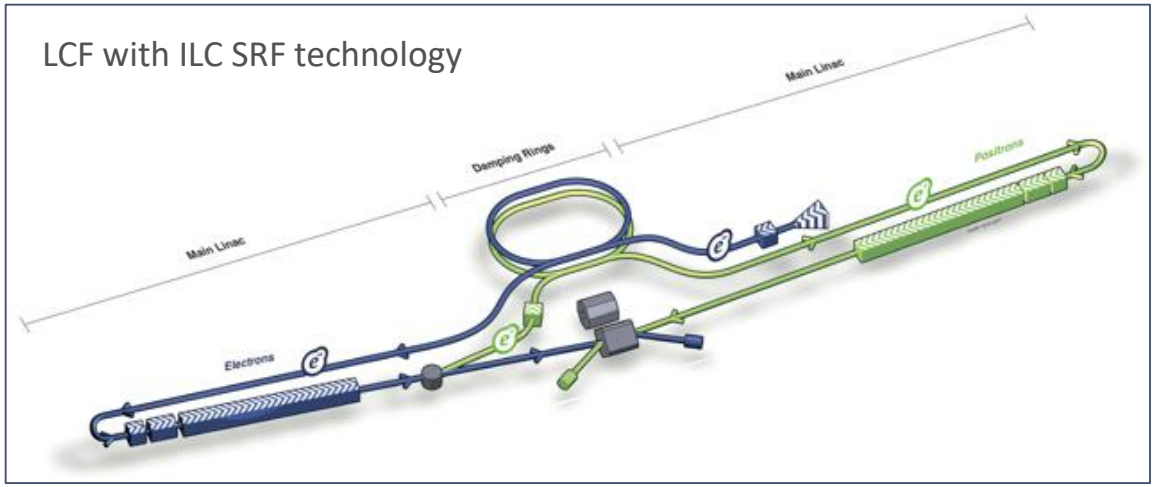
  The strong support is largely based on the superb physics potential and the long-term prospects (FCC-ee /hh)
- Discussions on the financial feasibility are ongoing (CERN management and Council)

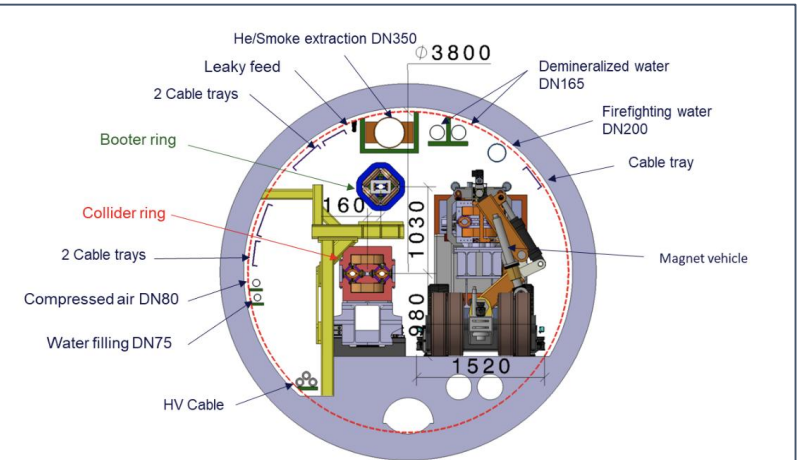
Discussions on the prioritisation of alternative options are ongoing

- 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





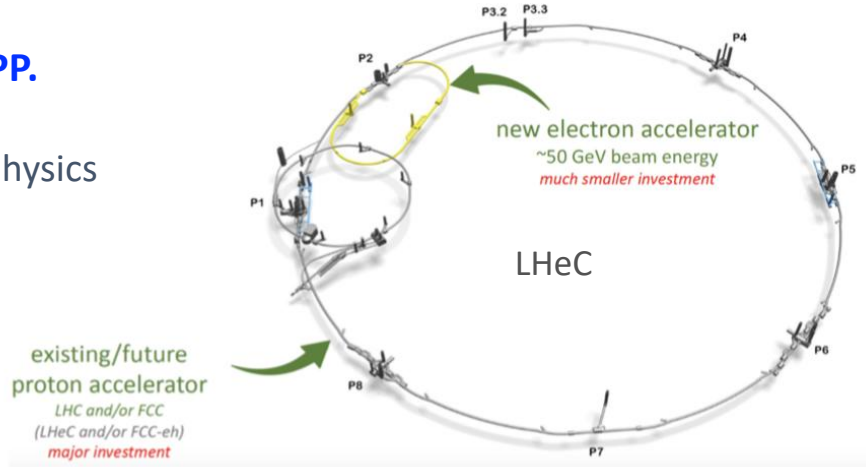


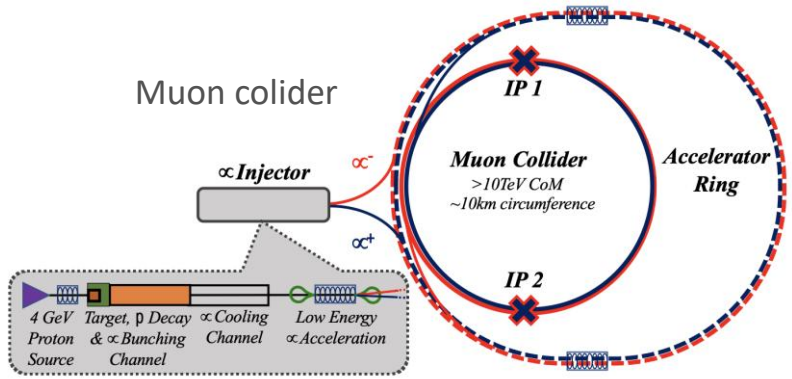


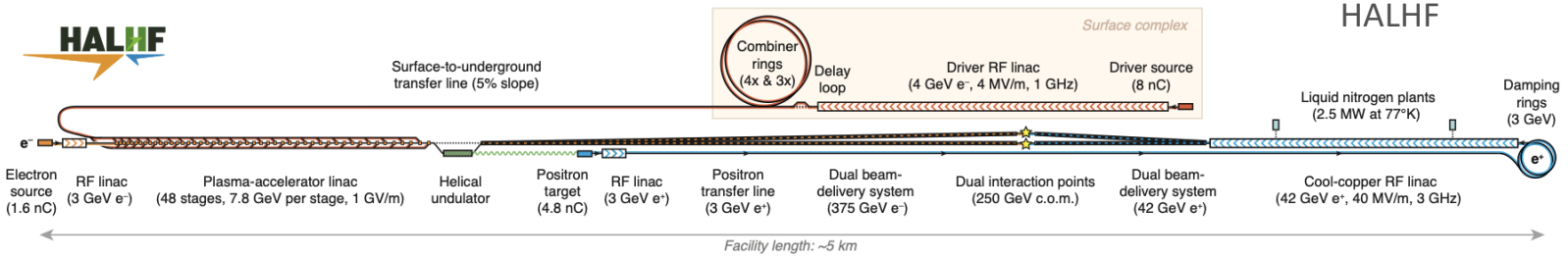
Future collider proposals submitted to ESPP.

Huge amount of R&D and design work.

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



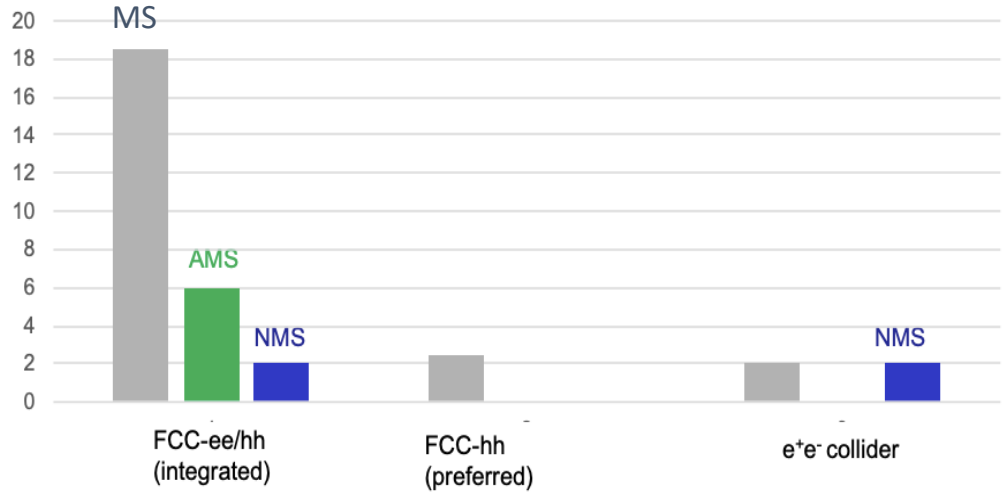




	# of exp.	Z-pole (91.2 GeV)	WW (160 GeV)	Higgs (230-250 GeV)	Top (365 GeV)	Higher energy
FCC-ee	4	205 ab^{-1} (total, all IP) 4 years (of operation)	19 ab^{-1} 2 years	11 ab^{-1} 3 years	3 ab^{-1} 5 years	—
Linear collider	2	0.07 ab^{-1} 1 year	—	3 ab^{-1} 9 years	CLIC: 4.4 ab^{-1} 10 years	550 GeV: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

National input to the ESPP

Preferred option



FCC-ee/hh (integrated)	MS: Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Israel, Italy, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland, (United Kingdom) AMS: Brazil, Croatia, Lithuania, Pakistan, Slovenia, Ukraine NMS: Canada, USA
FCC-hh preferred (but accept ee first)	Czech Republic, Serbia, (United Kingdom)
e^+e^- collider	MS: Austria, Bulgaria NMS: Australia, Japan

K. Jakobs, CERN Council, 20th June 2025

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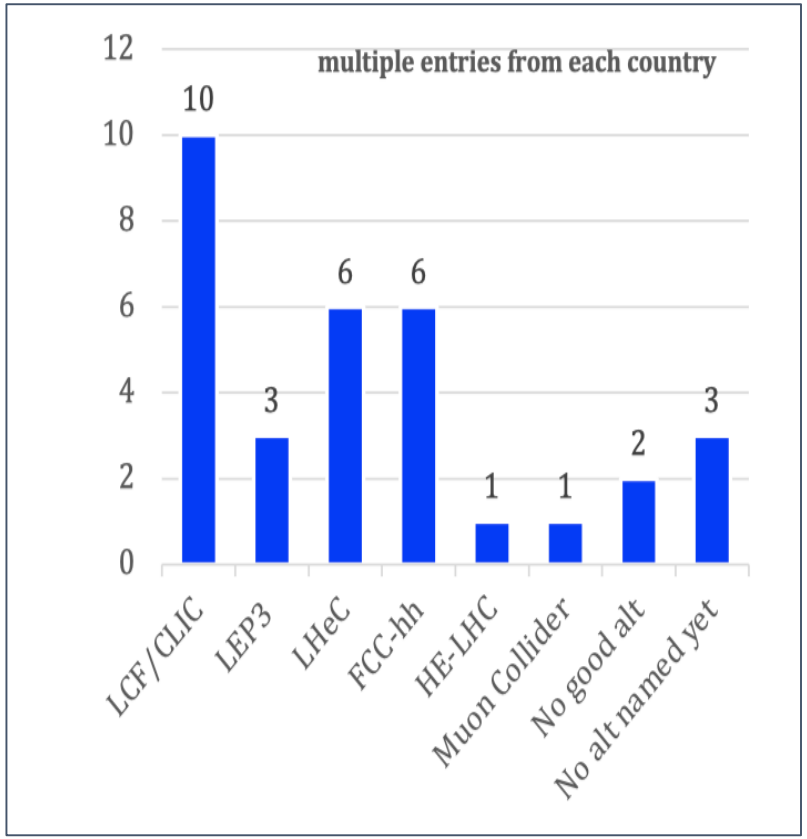
Alternative if preferred option not feasible



Publicly available at: https://indico.cern.ch/event/1439855/contributions/
Summary compiled by European Strategy Group

Position of big countries on options B, if option A is not feasible

UK:
If FCC is unaffordable or technically unfeasible: In this case, a Linear Collider Facility is an less expensive alternative route to an e+e− Higgs factory at CERN, can be realised on the same timescale or even sooner, and provides attractive possibilities for future energy upgrades.
If CEPC is realized promptly: In this case, efforts could be increased to realise FCC-hh on a shorter timescale; discussion would be needed on the technical roadmap required and the commercial availability, cost, and field-strength of magnets, and the corresponding collision energies that could be achieved. An alternative would be to build a Linear Collider Facility at CERN with initial collision energy > 500GeV, as a complementary facility to CEPC. If major non-European collider projects proceed then the UK community would wish to collaborate on them. However, the next flagship collider at CERN should be complementary to major efforts elsewhere, and not an identical type of project.

ITALY: No option B given, concentrate on option A. Irrespective of competing projects worldwide, ensuring that Europe remains at the forefront of HEP. If highly pressing geopolitical situation, we may proceed directly with the construction of the hadronic FCC-hh

GERMANY: If China proceeds with CEPC on the announced timescale, physics results from this machine are expected to become available about 10 years earlier… **CERN then has to aim for a complementary and competitive next flagship collider project at higher energies: either a hadron collider** with magnet technology expected to be available at the end of the HL-LHC, **installed in a tunnel of about 90 km circumference, or a linear e+e− collider facility with a centre-of-mass energy of initially at least 550 GeV**
If financial problem for FCC: **an e+e− Linear Collider is an attractive alternative path towards a Higgs factory.**

US: Given the uncertainty in the execution of any plan and the scope of international participation, **a CEPC inclusion in the next 5-year Plan of China should not immediately influence the ESG recommendations or CERN's direction to proceed with FCC-ee**. *The developments in China should be carefully monitored over the next several years and an appropriate strategy should be developed should China demonstrate its intent to move forward with CEPC construction.*

Switzerland: "FCC" always mean "FCC-ee followed by FCC-hh". No change in the google sheets, except added "FCC anyway" in the column "Preferred option not feasible"

LEP3 Day (28 May 2025)

Indico agenda: https://indico.cern.ch/event/1546804/

C. Anastopoulos[1], R. Assmann[16], A. Ball[2], O. Bruning[3], O. Buchmueller[4], T. Camporesi[5,15], P. Collier[3], J Dainton[6,14], G. Davies[4], J.R. Ellis[3,7], B. Goddard[3], L. Gouskos[8], G. Hall[4], M. Klute[9], M. Koratzinos[10], G. Landsberg[8], K. Long[4], L. Malgeri[3], F. Maltoni[11,17], F. Moortgat[3], C. Mariotti[12], S. Myers[3], J.A. Osborne[3], M. Pierini[3], D.R. Tovey[1], D. Treille[3], T.S. Virdee[4], N. Wardle[4], M. Zanetti[13]

Contact person: T. Virdee (t.virdee@imperial.ac.uk)

Imperial College London

LEP3

Summary

We support (FCC-ee + FCC-hh) as the preferred option for CERN's future

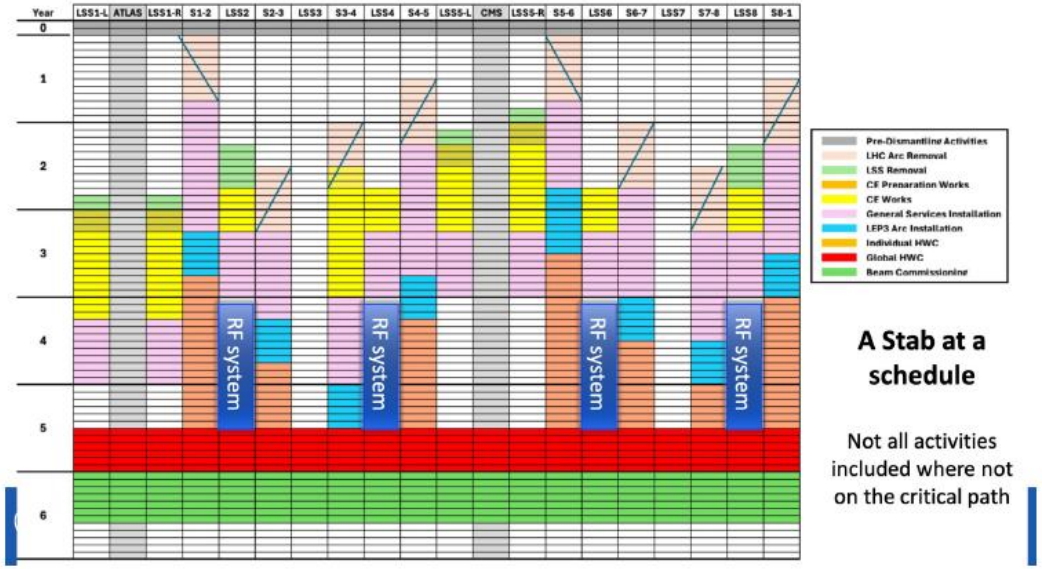
ESPP requests an alternative/ backup option for the preferred one.

An e^+e^- collider in the LHC tunnel, referred to here as LEP3, is proposed as an a backup option

- Compared to the linear e^+e^- colliders proposed, LEP3 provides similar luminosity for ZH production, higher luminosity at lower energies and options for multiple experiments, all at much lower cost. *(Note: no top thresh., m_W to 1 MeV, five times less integrated lumi at the Z pole)*
- LEP3 is a reasonable (perhaps the best) backup option
- Leaves room (time, budget, resources) for further development of THE machine that can probe directly the energy frontier at a constituent $\sqrt{s} \sim 10$ times LHC. *(Note: with the muon collider in the US, this leaves FCC-hh as the only option, whose cost after LEP3 is about the same as FCC-ee+hh.)*

No showstoppers have yet been identified, and we consider this proposal to be sufficiently interesting to deserve further study. We have identified important areas that would require deeper investigation before CERN could commit to LEP3.

2 IPs (ATLAS, CMS)



A Stab at a schedule

Not all activities included where not on the critical path

Estimated cost

Cost Element	2 new Xpts	2 Exist Xpts
Accelerator	2705	2705
Injectors and Transfer Lines	295	295
Technical Infrastructures	435	435
Experiments	130	60
Civil Engineering	165	165
LHC Removal/LEP3 Installation	140	140
Total CERN (MCHF)	**3870**	**3800**
Expteriments non-CERN User Community Contribution (MCHF)	900	270

Is LEP3 an acceptable plan B ?

- Mail sent to some of the national inputs authors

Begin forwarded message:

From: Tiziano Camporesi <Tiziano.Camporesi@cern.ch>
Subject: **Update to ESPP submission**
Date: 16 September 2025 at 09.59.11 CEST
To: ***

Dear ***,
I am writing to invite a discussion within your community regarding a possible update to your national submission to the ESPP process.
We are a small group of concerned physicists who believe it is important to consider a realistic "Plan B" in case the preferred option, FCC-ee, cannot be realized. At present, there seem to be no obstacles to FCC-ee beyond financial feasibility.
LEP3, which would reuse the existing LHC tunnel while integrating two decades of progress in the design and operation of e^+e^- colliders, could provide a competitive research program ranging from the Z pole to W and Higgs factory physics.
In our proposal, we clearly state that FCC-ee remains by far the preferred option, and our performance estimates for LEP3 are scaled from FCC-ee studies. These indicate that LEP3 could remain competitive with other proposed alternatives. Nevertheless, we acknowledge that further dedicated studies are required to fully establish its feasibility.
For this reason, we would like to suggest that your updated national submission in November include a statement along the lines of:
"We encourage continuing the studies to explore the physics potential of possibly more cost-effective options like LEP3."
We believe such an inclusion would help promote the necessary studies to ensure readiness for the go/no-go decision on FCC in 2028.
To clarify the potential cost for CERN, we have prepared an annexed table that lists the studies we consider essential to solidify the LEP3 proposal over the next three years. The table also highlights which studies overlap with ongoing FCC-related work. As you will see, the cost of the additional dedicated studies related specifically to LEP3 is minimal.
I would be very grateful if you could consider supporting this request in your submission update.
With best regards,
Tiziano Camporesi

Item	Need MCHF Financial Over 3 yers	Need (FTE Yrs) Staff Over 3 years	Synergy w FCC-ee
HTS sc Magnets (HTS)/power distribution	10	10	Y
LTS sc Magnets (HTS)/power distribution	5	5	
Norm magnets (Develop upon a "go" decision))			
Lattice and Optics studies	3	6	Y
(low emittance, beam pipe diameter, ..)			
Synchrotron Radiation absorbers/shielding	1	3	Y
Power distribution			
RF (adaptation to 4-cell only after "go-no go" decision)			Y
Integration (CRMs, klystrons, ...	2	3	
Power Couplers	4	9	Y
Other Studies			
Radioprotection related	0.5	1	
Consolidation of Shutdown Schedule	0.5	2	
Modification of Cryogenic lines	0.5	2	
Cost estimate	0.5	1	
Shutdown activities	0.5	2	
Booster Beam Bypass/Beam Transfer	0.5	1	
Crossing angle and MDI	0.5	1	
W energy calibration and instrumentation	1	1	Y
Civil Engineering (injector)	0.5	1	
Totals	**30**	**48**	

..... 3: Financial and FTE needs over the next three years i.e. up to the point of FCC "go-no go" decision.

- The proposed statement is incorrect and dangerous
  - We do not believe that LEP3+FCC-hh is more cost-effective than FCC-ee+FCC-hh
    - The FCC-hh tunnel and infrastructure adds 9 BCHF to the LEP3 cost on the way to FCC-hh
    - UvdL did not promise 3 BCHF for LEP3, and private donors probably won't support LEP3
  - LEP3 instead of FCC-ee comes with the high risk that FCC-hh will never be built
  - The higher √s and luminosity of FCC-ee are essential (thus reducing the LEP3 case)

FCC-hh Sensitivity with different running scenarios

Higgs SM precision

Higgs couplings

Coupling precision	100 TeV CDR baseline	80 TeV	120 TeV
$\delta g_{H\gamma\gamma} / g_{H\gamma\gamma}$ (%)	0.4	0.4	0.4
$\delta g_{H\mu\mu} / g_{H\mu\mu}$ (%)	0.65	0.7	0.6
$\delta g_{HZ\gamma} / g_{HZ\gamma}$ (%)	0.9	1.0	0.8

Higgs self-coupling precision at 80 TeV ➔~ 3-4%
assuming same detector performances

BSM reach

WIMP DM still in reach at 80 TeV

Scenario name	Energy	Lumi/year	DM/ Compress EWK 3.0 →	Change in stop mass limit [TeV] 12.5 →	Change in Z' limit [TeV] 40→
F12LL	72 TeV	950 fb^{-1}	~2.6	~9.6	~30
F12HL	72 TeV	2000 fb^{-1}	~3.2	~10.4	~32
F12PU	72 TeV	1300 fb^{-1}	~2.8	~10.0	~31
F14	84 TeV	950 fb^{-1}	~2.8	~10.8	~34
F20	120 TeV	370 fb^{-1}	~2.5	~12.6	~42

Preliminary conclusions:

For Higgs physics and lower mass new resonances,
a higher luminosity can make up for a lower energy.
For higher masses searches, it is as expected harder
But going for 84 TeV is now the default choice

FCC-hh timelines

Milestone	Date
Conceptual design study	2014-18
Definition of placement scenario	2022
Feasibility Report ready	2025
Main technologies R&D completion	**2054**
Technical Design Report ready	2054
Latest Project Approval	**2054**
Environmental evaluation & project authorization processes	2054-2058
Industrialisation & magnet production	2054-2069
Civil engineering – collider	2060-2068
FCC-ee dismantling	2063-2064
TI installation – collider	2065-2069
Accelerator installation – collider	2068-2072
HW commissioning – collider	2071-2073
Beam commissioning – collider	2073
Physics operation start	**2074**

FCC-hh timeline as a second phase after FCC-ee.

Milestone	Date
Conceptual design study	2014-18
Definition of placement scenario	2022
Feasibility Report ready	2025
Latest Project Approval	**2033**
Environmental evaluation & project authorization processes	2026-35
Main technologies R&D completion	**2037**
Technical Design Report ready	2037
Industrialisation & magnet production	2038-2053
Civil engineering – collider	2037-2046
TI installation – collider	2043-2050
Accelerator installation – collider	2046-2052
HW commissioning – collider	2049-2053
Beam commissioning – collider	2054
Physics operation start	**2055**

Fastest possible FCC-hh timeline as a stand-alone project.

Some conclusions on FCC-hh

- FCC-hh, supported by the results of an e+e- Higgs Factory has an outstanding physics program even if running at 84 TeV, both on the Higgs and on the searches for new resonances which can reach masses of ~34 TeV.

- FCC-hh as FCC's 2nd stage, possibly based on HTS magnets, could start operation in ~2074

- If another Higgs Factory (e.g. CEPC) would be built and ready well before 2045, FCC may go directly to FCC-hh based on 14T Nb_3Sn magnets and could start operation in ~2055, with a centre-of-mass energy ~85 TeV, as a standalone project.

- The cost of FCC-hh is estimated to be 19B CHF (after the ~16B CHF of FCC-ee).
  If going directly to FCC-hh the cost will be about 27B CHF, but on a timeline 10 years longer

- The ESG will propose by ~December what will be its plan B, since by now it is widely assumed that FCC-ee will be plan A, but plan B is still wide open.

FRANCE (community)

If the construction of an e^+e^- collider comparable to the FCC_{ee} is not firmly established outside of Europe:

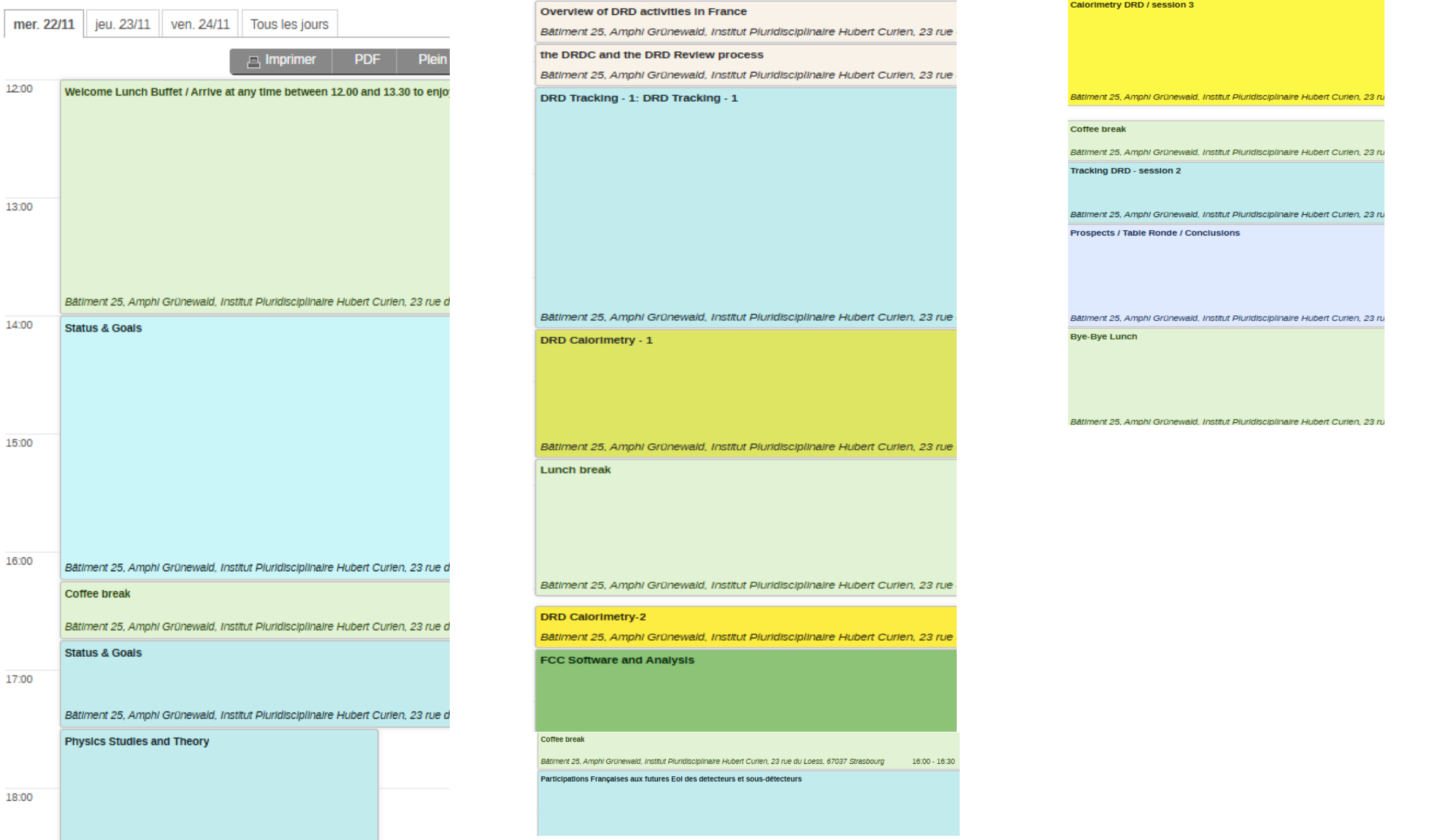
- In absence of FCC-ee, a linear e+e- collider facility (LCF) at CERN would be the next best option for a Higgs factory. Somewhat limited statistics at the HZ cross-section peak and a much smaller luminosity at the Z-pole are in part compensated by the possibility to reach at least $\sqrt{s}$ = 500 GeV, allowing a clean observation of the $e^+e^- \rightarrow \nu\nu H$ process, of the top threshold, and a first determination of the Higgs-boson self coupling.
- Energies of $\sqrt{s}$ = 1–3 TeV, as enabled by CLIC technology, would significantly improve these measurements and allow detailed studies of vector-boson scattering. The LCF program could be complemented by a dedicated, high-luminosity Z factory, possibly re-using existing infrastructure at CERN.
- As a last-resort fall-back, LEP3 offers an instantaneous luminosity five times less than FCCee and an energy range limited to about $\sqrt{s}$ = 240 GeV.

If the construction of an e+e− collider comparable to the FCCee is firmly established outside of Europe, and ahead in schedule:

- The LCF would provide sufficient scientific complementarity only if it covers the entire energy range between the $t\bar{t}$ production threshold and the TeV scale on a reasonable timespan.
- Or, the strategy could be the earlier development of a high-energy hh/eh program, ideally in a 91km tunnel@$\sqrt{s}$=85 TeV
- If a new tunnel is not feasible, a collider such as the HE-LHC could be a fallback alternative…
- Both the FCC-hh and the HE-LHC should be complemented by an electron-hadron collider such as the LHeC….it could run in the early 2040's and use improved acceleration techniques based on ERL that will help achieve the sustainability requirements and benefit to future e+e− colliders.

Next time we can compare FCC-hh and LCF in more details if there is CEPC
(LHeC and LEP3 would not be competitive)

Préparation FCC-France 12-14 Novembre APC (+FCC France-Italie en 2026 ?)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Tous les jours
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Welcome Lunch Buffet / Arrive at any time between 12.00 and 13.30 to enjo
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 rue d
Status & Goals
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 rue d
Coffee break
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 rue d
Status & Goals
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Physics Studies and Theory
Overview of DRD activities in France
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 rue
the DRDC and the DRD Review process
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DRD Tracking - 1: DRD Tracking - 1
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DRD Calorimetry - 1
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Lunch break
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DRD Calorimetry-2
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 rue
FCC Software and Analysis
Coffee break
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 rue du Loess, 67037 Strasbourg
16:00 - 16:30
Participations Françaises aux futures EoI des detecteurs et sous-détecteurs
Calorimetry DRD / session 3
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 ru
Coffee break
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 ru
Tracking DRD - session 2
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 ru
Prospects / Table Ronde / Conclusions
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 ru
Bye-Bye Lunch
Bâtiment 25, Amphi Grünewald, Institut Pluridisciplinaire Hubert Curien, 23 ru

Next steps / Tour de table des EoI et des Labos

Orateurs: Bogdan MALAESCU (LPNHE, Paris, FRANCE), Catherine Biscarat (L2I Toulouse, CNRS/IN2P3, Université de Toulouse), Farès Djama (CPPM), Gae Boudoul (IP2I/AICP (CNRS/IN2P3)), Giovanni Marchiori (APC Paris), Jean-Baptiste De Vivie De Regie, Marco Delmastro (LAPP), Nicolas Morange (IJCLab), Stephane Monteil (Laboratoire de Physique de Clermont - UCA/IN2P3), Suzanne GASCON-SHOTKIN (IP2I Lyon/Université Claude Bernard Lyon 1), Vincent Boudry (Laboratoire Leprince-Ringuet, CNRS/IN2P3, École polytechnique), Ziad EL BITAR (IPHC)

Préparation des EAP

COUT VOYAGE	MUNICH Phys wkshop 1300	HELSINKI FCC-week 2000	FCC-France Paris 500	FCC-meet CERN 300	other ? wkshop 0	TOTAL (kE) TOT	& FCC-FR & info.	TOT with COL H		Prévisions Physiciens: 15% FTE ou plus en 2026 FTE = FTE.FCC+FTE.DRD reliés à FCC (ALLEGRO, SEED etc...) * = including stages L3,M1 encadrés(+0,1FTE). M2 déclarés séparéments	Physiciens entre 5 et 10%	tot FTE over .15 (phys)	total FTE (phys)
APC+FCC-FR	3900	6000	2500	1500	0	18,9	5000	18,9		GB(0,7*), GM(0,4*), AM(0,5),TF(0,5),CDD(0,5)	MB(0,1)	2,4	2,5
CPPM	1300	2000	1000	1500	0	5,8		5,8		FD(0,35*)	MB(0,1),EM(0,05)	0,4	0,6
IJC Lab	1300	2000	500	0	0	3,8		3,8	I-allegro	NM(0,4*), ZH(0.5)	LS(0,1),DF(0,1)	0,9	1,1
									I-grainita	JL(0,35*),MHS(0.3),DK(0.3)	YA(0,05),SB(0.05)	1,0	1,1
IPHC	2600	2000	1000	2400	0	8		8,0		ZE(0,5), JA(0,2), CPJ (0,5), EM(0,5), SS(0,2)	AB(0,1), JB(0,1)	1,9	2,1
IP2I	5200	6000	2500	1500	0	15,2		15,2		GB(0.6), DC (0.6),SG(0.48), JD(0.3),CV (0.3), AS (0.5), 2*m2(2*0.2)		3,18	3,18
LAPP	2600	4000	1500	300	0	8,4		8,4		MD(0,3*), ZW(0,5), OA(0.2), RG(0.2), m1(0,3)	CB(0,1), JL (0.1)	1,5	1,7
LLR	2600	0	1000	300	0	3,9		3,9		VB(0,35*), pd(0,1), m2(0,3)	RS(0,1)	0,7	0,9
LPC	2600	2000	1000	2400	0	8		8,0		RM(0,2), SM(0,2), WW(0,1), LM(0,1),MY(0,5),HC(0,2)	TM(0,05)	2,0	2,0
LPNHE	2600	2000	500	300	0	5,4		5,4		BM(0,3), AB(0,6)		0,9	0,9
LPSC	1300	0	500	1200	0	3		3,0		M2(0,2),JD(0,1)		0,3	0,3
L2IT	0	0	0	0	0	0		0,0		CB(0,15)		0,2	0,2
TOTAL-2024						80,4		80,4	0			15,1	16,4

Tableau 2025 — rouge: permanents — vert: non-permanent

(all included) M2 declarés sépararéments: 0,2 FTE ou 0,4 s'ils continuent en thèse (M2T) — bleu: IT — violet: theo

FTE-exp-perm	FTE-exp-non	verif	LABO	tot FTE	FTE	Status	Lab	initials	Name	Field / study
	0,5	2,5	APC	2,1	0,5	PHD	APC	AL	Alexis Maloizel (phd2)	ZH: couplings+ALLEGRO
0,7					0,7	*	APC/IN2	GB	***Bernardi Gregorio***	ZH: mass/x-section
0,4					0,4	*	APC	GM	**Marchiori Giovanni**	ZH: couplings+ALLEGRO
	0,4				0,4	M2T	APC	m2-APC	M2-APC (Tom Fournier,GB)	ZH: mass/x-section
0,1					0,1		APC	MB	Bomben Marco	DRD3
0,35		0,6	CPPM	0,6	0,35	*	CPP	FD	**Djama Farès**	Physics studies
0,1					0,1		CPP	MB	Barbero Marlon	Vertex detector
0,1					0,1		CPP	LF	Feligioni Lorenzo	BSM Physics
0,05					0,05		CPP	EM	Monnier Emmanuel	Lar Calo
0,4		1,1	IJCLab	4,1	0,4	*	IJC	NM	**Morange Nicolas**	Lar Calo
0,35					0,35	*	IJC	JL	Lefrançois Jacques	Grainita
0,1					0,1		IJC	DF	Fournier Daniel	Lar Calo
0,1					0,1		IJC	LS	Serin Laurent	DRD
0,1					0,1	IR	IJC	RC	Chiche Ronic (IR)	Lar Calo
	0,5				0,5		IJC	ZH	Huang Zuchen (CDD)	Lar Calo
0,3					0,3		IJC	MHS	Marie-Hélène Schune	Grainita
0,4					0,4	IR	IJC	GH	Giulia Hull (IR)	Grainita
	0,3				0,3		IJC	DK	Klekots D. (PhD)	Grainita
0,05					0,05		IJC	SB	Barsuk Sergei	Grainita
0,1					0,1	IR	IJC	DB	Breton Dominique (IR)	Grainita
0,1					0,1	IR	IJC	JM	Maalmi Jihane (IR)	Grainita
0,25					0,25	IT	IJC	CDG	Dominguez-Goncalves Carlo (IT)	Grainita
1					1	IR	IJC	CDD	CDD ANR (IR)	Grainita
0,05					0,05		IJC	YA	Amhis Yasmine	physique

RH : IJCLAB

Nom	Activité	ETP 2025	ETP 2026
Nicolas Morange	Allegro ; Physique	0.30	0.30
Zuchen Huang (CDD)	Allegro	0.50	0.50
Daniel Fournier	Allegro	0.10	0.10
Ronic Chiche (IT)	Allegro	0.10	0.10
Laurent Serin	DRD	0.10	0.10
Marie-Hélène Schune	Grainita	0.30	0.30
Jacques Lefrançois	Grainita	0.35	0.35
Giulia Hull (IT)	Grainita	0.30	0.40
Ianina Boyarintseva	Grainita	0.35	0
Yasmine Amhis	Physique	0.05	0.05
D. Klekots (PhD)	Grainita	0.30	0.30
Sergey Barsuk	Grainita	0.05	0.05
Dominique Breton (IT)	Grainita	0.05	0.10
Jihane Maalmi (IT)	Grainita	0.05	0.10
Carlos Dominguez-Goncalves (IT)	Grainita	0.10	0.25
CDD IR (ANR)	Grainita	0	1.00
		TOTAL : 3.00 FTE	**4.00 FTE**

RH : APC

Nom	Activité	ETP 2025	ETP 2026
Gregorio Bernardi	Allegro ; Physique	0.70*	0.70*
Marco Bomben	Tracking	0.10	0.10
Tom Fournier	Allegro ; Physique	0.25	0.50
Giovanni Marchiori	Allegro ; Physique	0.40*	0.40*
Alexis Maloizel	Allegro ; Physique	0.50	0.30
CDD	Allegro ; Physique		0.50
Luc Poggioli	Allegro ; web		0.50
		TOTAL : 2.0 FTE	**3.0 FTE**

RH : LPNHE

Nom	Activité	ETP 2025	ETP 2026
Alain Blondel	X	X	X
Bogdan Malaescu	x	X	x
		TOTAL : x FTE	**x FTE**

RH : IPHC

Nom	Activité	ETP 2025	ETP 2026
Jeremy Andrea	X	X	X
Jerome Beaudot	x	X	x
		TOTAL : x FTE	**x FTE**

- Jeremy Andrea : DR (0.2 ETP).
- Jérôme Baudot : PR (0.1 ETP)
- Auguste Besson : MCF (0.1 ETP).
- Ziad El Bitar: DR (0.5 ETP).
- Emmanuel Medernach : IR (0.5 ETP).
- Serhiy Senyukov : IR (0.5 ETP)
- CPJ (0.5 ETP)

RH : CPPM

Nom	Activité	ETP 2025	ETP 2026
FD	X	X	X
…	x	X	x
		TOTAL : x FTE	**x FTE**

RH : LAPP

Nom	Activité	ETP 2025	ETP 2026
MD	X	X	X
…	x	X	x

- Marco Delmastro (DR2, Coordinateur LAPP FCC-PED; Higgs + ALLEGRO)
  - ✓ 20% en 2025, même en 2026
- Olivier Arnez (CPJ USMB; Higgs + ALLEGRO)
  - ✓ 10% en 2025, même en 2025
- Zhibo Wu (postdoc IN2P3 2024-2026; ALLEGRO)
  - ✓ 50% FCC en 2025 (50% ATLAS)
  - ✓ Contrat se termine même en Novembre 2025
  - ✓ Demande nouveau postdoc FCC/ATLAS en DIALOG pour 2026
- Renaud Gaglione (IR électronique, ALLEGRO)
  - ✓ 10% en 2025, même en 2026
- Claire Bourdarious (CR, Communication FCC)
  - ✓ 10% en 2025, 50% en 2026
- Jessica Leveque (DR, FCC SEED)
  - ✓ 0% en 2025, activité en train de se clarifier, projection ~10% en 2026
- Stage M1 à pourvoir en 2026
  - ✓ ~4 mois, mesures électrodes ALLEGRO

TOTAL 2025 : 1 FTE
PROJECTION 2026: 1.5 FTE + stage

Untouched….

Expt Theo

RH IP2I Lyon (2024, 2025)

Statut	Nom	FCC-PED	GRAM	AIDAINNOVA / T-CALO	T-MRPC	Total Futurs Collision.
Permanent	G. Boudoul	40%, 55%	1%, 5%			40%, 60%
	D. Contardo	20%, 20%	15%, 15%			35% 35%
	S. Gascon	25%, 25%				25%, 25%
	M. Gouzevitch	5%, 5%				15%, 0%
	G. Grenier	10%, 10%		30%, 30%	5%, 5%	45%, 45%
	I. Laktineh	10%, 10%		15%, 15%	15%, 15%	35%, 35%
	L. Mirabito	10%, 10%		5%, 5%	15%, 15%	25%, 25%
	G. Cacciapaglia	25%, 0%				25%, 0%
	A. Deandrea	20%, 20%				20%, 20%
	L. Darmé	10%, 10%				10%, 10%
	N. Mahmoudi	15%, 15%				15%, 15%
	F. Nortier	0% 40%				0%, 40%
Postdoc/ CDD	J. Xiao	10%, 10%				10%, 10%
	NN (‘mixte’)	5%, 30%				5%, 30%
Doctorant	E. Jourd’huy (D3)	10%, 0%				10%, 0%
	T. Pasquier (D2)	10%, 10%		65%, 0%	10%, 75%	85%, 85%
	W. Vaginay (D1)	20%, 85%				20%, 85%
	C. Verollet (D1)	5%, 30%				5%, 30%
	Total Project (FTE)	2.40, 3.80	0.15, 0.20	1.10, 0.45	0.40, 1,05	4.20, 5.45

RH: LPSC

Nom	Activité	ETP 2025	ETP 2026
MD	X	X	X
…	X	X	x

Évolution 2025:

- Contributions simulation + analyses à discuter avec le recrutement CPJ
  (JBdV , CPJ ~ 2×10% + en principe augmentation progressive, FM ~ 5% ?)

- Intérêts contributions techniques :

  → Service mécanique (SERM): participation DRD6 (et 7, 8)
  Structures mécaniques (D. Grondin)
  « Thermal integration » (J. Giraud)
  « micro-cooling » (P. Delebecque)

  → Service électronique: plus générique que FCC
  WADPAT (F. Rarbi, FM)

RH: LPC LLR

Statut	LPC
Permanent	Hervé Chanal (MCF) Romain Madar (CR) Stéphane Monteil (Prof) Magali Magne (IE) David Picard (IE)
Postdoc/CDD	Yingrui Hou (CNRS) Mike Yeresko (ATER)
Doctorant	Tristan Miralles (MESRI) Lars Roehrig (DFG)

LLR	2024 / 2025
R. Salerno (DR)	10 % / 5 %
V. Boudry (CR)	40 % / 40 %
C. Charlot (DR)	10 % / 10 %
U. Bassler (DR)	15 % / 50 %
J.C. Brient (em)	15 % / 15 %
H. Videau (em)	10 % / 10 %
ANR T-Calo	5 % / 30 %
ANR Calo5D	5 % / 30 %

TOTAL : 1.1 / 1.8 FTE

Demande de ressources RH pour 2026.

APC
CPPM
IJC Lab
IPHC
IP2I
LAPP
LLR
LPC
LPNHE
LPSC
L2IT

Rappel postes obtenus 2024

1) Postdoc mixte IJCLab ATLAS-FCC-Allegro
2) Postdoc mixte IP2I CMS-FCC-Tracking

Rappel demandes 2025

1)	CR mixte	ATLAS-FCC-Allegro	APC
2)	Postdoc mixte	LHCb-FCC	LPCA, CPPM
3)	Ph.D. mixte	ATLAS-FCC	APC, CPPM
4)	CPJ mixte	ATLAS-FCC	LPSC

NEW demandes 2026

1)	CR mixte	ATLAS-FCC-Allegro	APC
2)	Postdoc mixte	LHCb-Grainita	IJCLab
3)	Ph.D. mixte	ATLAS-FCC	CPPM
4)	CPJ mixte	CMS-FCC	IP2I