





ECR input to the ESPPU Takeaways from the ECFA ECR panel

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French ECFA ECR representatives

(*: now "pro persona" panel member)

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Context - the ECFA ECR panel

The voice of young European researchers in HEP matters & can be heard through the ECFA ECR panel

- ECFA: European Committee for Future Accelerators;
- ECR: Early Career Researchers:
 - Non-permanent position or < 10 years after PhD.

Panel:

- Since the last Update of the European Strategy for Particle Physics, a panel was formed (see mandate here):
 "to discuss all aspects that contribute in a broad sense to the future of the research field of particle physics.
 In its advisory role to ECFA, the panel reports to ECFA on a regular basis"
- There are up to 3 representatives per country, here is an example for France (see here for more infos):
 - Bruno ALVES, Postdoc, CMS (mandate ending)
 - Giulia DI GREGORIO, Staff, ATLAS
 - Louis PORTALES, Staff, CMS
 - Léa-Maria RABOUR, PhD student, CMS

Context - ECR input to the ESPPU

- ~100 page white paper, 55 recommendations for the future of particle physics
- → Based on a widespread survey (~800 participants)
 - O(100) ECRs contributed to drafting (discussions + editors)

Recommendations related to:

- Community building, leadership & recognition
- Careers, wellbeing & DEI
- Communication & outreach
- Future projects
- Summarized into 10-page input to the ESPPU
 - presented at the June Open Symposium in Venice
 - Process & content nicely summarized by Abdelhamid

• White paper endorsed by the ECFA ECR panel

- Now in the process of organising practical follow-ups on the recommendations
- Extracted a shortlist to prioritize: ~17 recommendations with short-, medium-, or long-term applicability
- Some highlights in the next slides

Early Career Researcher Input to the European Strategy for Particle Physics Update: White Paper Fifty-five recommendations for the future of our field

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Endorsed by the ECFA ECR Panel

27th of March, 2025

This document, written by early career researchers (ECRs) in particle physics, aims to represent the perspectives of the European ECR community and serves as input for the 2025-2026 update of the European Strategy for Particle Physics. With input from a community-wide survey, it highlights key challenges faced by ECRs - career stability, funding access and long-term research opportunities - while proposing policy recommendations and targeted initiatives. It underscores the importance of practices fostering diverse, equitable, inclusive and healthy workplaces, as well as of stronger ECR communities and highlights how effective communication and interdisciplinary collaborations reinforce the societal relevance of particle physics and promote continued support for large-scale and long-term projects. Finally, the future of both collider and beyond-collider experiments is addressed, emphasising the critical role of ECRs in shaping future projects

The ECR contribution is formed of two parts: the ten-page executive summary submitted as input to the European Strategy for Particle Physics Update and, as backup document, this extended white paper providing additional context.

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Recommendation shortlist – short term

- A future flagship collider should be developed to further the progress of particle physics. The ESPPU should urge the CERN Council to make a timely decision on the next flagship collider, ensuring that every member of the community feels invited to contribute to the project. [Rec.4.1, 4.8]
- A concrete plan for particle physics in Europe between the end of the HL-LHC and the next major flagship project should be defined as soon as possible. (Rec. 4.18)
- The ESPPU should provide a roadmap for beyond-collider (BC) physics to complement the collider program, including the innovative usage of non-particle physics facilities for fundamental physics research. (Rec. 4.17, 4.18)
- ECRs advocate against a significant change in the budget split between collider experiments and BC experiments. (Rec. 4.12).

Recommendations on setting up the European experimental HEP program in the years to come.

Note: while surveyed ECRs demonstrated a slight preference for the FCC integrated program, it was deemed not statistically significant enough to express full support for it, but there is an overall strong support for having a flagship collider in Europe.

Recommendation shortlist – short term

- The work of ECRs on non-research projects, such as outreach or mentoring, as well as their active involvement on collaboration boards and in the organisation of events, should be encouraged and receive adequate recognition and support. Strong career mentoring should also be available. (Rec. 1.7, 1.14, 2.3, 2.4, 3.2)
- A positive workplace environment is needed to retain ECRs in the field. We thus propose that:
 - supervisors should receive mandatory supervision training, (Rec. 1.13)
 - all institutions and events should have clearly publicised codes of conduct with zero tolerance for any form of harassment (Rec. 1.18, 1.19), and
 - DEI offices should be established or maintained in all institutions, such as the ones at CERN (Rec. 1.17, 1.20)

Recommendations on work environment

Note: while these matters are very country-/lab-dependant, the ECFA ECR panel can work on providing recommendations for the representatives to push for in their own countries

Recommendation shortlist – medium term

- Career support must be provided for ECRs working in BC physics and in small and/or short-timescale experiments. (Rec. 1.8)
- ECFA should form a dedicated panel on future BC experiments and facilities, and ECRs should receive training on particle physics research done at non-collider facilities. (Rec. 2.7, 4.17)
- European laboratories should assign greater value to R&D activities, despite their potential low-publication nature, and greater recognition and support to the ECRs involved in such work. (Rec. 4.7)
- Given that the majority of ECRs will eventually leave academia, ECR training programs should integrate skills transferable to industry, and supervisors should be required to explicitly outline such skills in their project proposals. (Rec. 1.9)

On skill recognition

- France might be one of the "good pupils" on this already, but anyway relevant
- The storytelling of particle physics research should emphasise the role of future experiments as particle observatories, rather than focusing solely on their potential for particle discovery. (Rec.3.9)

On outreach & communication

- ECFA ECR panel could contribute to the sharing and development of existing outreach effort
- Also suggest needs/interest for related training

Recommendation shortlist – Long term

- Postdoctoral positions should not be shorter than two years. 'Bridge' contracts of a few months are acceptable as long as they are not chained. (Rec. 1.2)
- While diversifying one's research portfolio through geographical mobility is generally positive, the emphasis on long-term mobility should be lowered to reduce the disruption to researchers' lives and promote inclusivity. (Rec. 1.3)
- A dedicated BC funding scheme should be put in place to strengthen the European BC community. (Rec. 4.16)

On contract durations & mobility

Probably difficult to act on, but interesting to think about

How to be involved

ECFA ECR panel is setting up working groups to discuss these matters

- Used to be "panel-only" discussions only, but now trying to achieve more transparency & involvement
- Starting from January, anybody interested is invited to follow "open sessions" of the ECFA ECR panel meetings
 - These meetings will be announced through a few different channels:
 - General ECR panel announcements: <u>ecfa-ecr-announcements@cern.ch</u>
 - French ECR mailing list: <u>ecfa-ecr-france@cern.ch</u>
 - CERN email is *not* required to subscribe (through <u>here</u>)
 - Subscription is opened to all, and very welcome!
 - We are mandated to talk on behalf of the French ECR community, so your inputs are critical

While we have channels for Europe-wide discussions, our handles at the French level are somewhat limited

- Our "French ECR" list mostly covers ECR tied to CERN
 - Any way to have a more central/general list (e.g. directly from IRFU+IN2P3)
- No other discussion forums. Would we want one? (e.g. Mattermost, but also CERN-centered)
- ECR events (à la JRJC)? Regular(ish) meetings?

Discussion time

- Feel free to react on any of the points raised in the slides, or to raise your own
- ECRs in the audience (or on zoom) will be given priority