

ECFA

European Committee for Future Accelerators



Plans of the ECFA Early Career Researchers

Lourdes Urda

(École Polytechnique/LLR/CNRS)

on behalf of the ECR Spanish representatives

01/07/2024

Jornadas de la Red Española de Futuros Colisionadores

ECFA Early Career Researches (ECR) Panel

- **Objective:** Discuss all aspects broadly contributing to the future of particle physics research.
- **Organising Committee:** Jan-Hendrik Arling (DESY), Arnau Moranco Tarda (Niels Bohr Institute), Holly Pacey (University of Oxford) & Marko Pesut (University of Zürich)
 - ✓ Responsible for organizing and chairing meetings.
 - ✓ Handles outside correspondence with the ECR panel.
- **Contact:** ecfa-ecr-organisers@cern.ch
- **Current Spanish representatives:**
 - Carla MARIN BENITO (LHCb postdoc) - carla.marin.benito@cern.ch
 - Paula MARTINEZ SUAREZ (ATLAS PhD student) - paula.martinez.suarez@cern.ch
 - Lourdes URDA GOMEZ (CMS postdoc) - lourdes.urda@cern.ch

Mandate ECFA ECR

- **Advisory Role:** Regular reports to ECFA, with an annual report at Plenary ECFA meetings
→ Next one is in [Frascati 4-5 July 2024](#)
- **Membership:**
 - ✓ Includes PhD students and postdocs (up to 8 years post-PhD) with non-permanent contracts (at least one PhD and one postdoc)
 - ✓ Up to three members per ECFA country and major laboratory for a 2-year term, extendable by another 2 years.
- **Meetings:**
 - Two plenary (tele-)meetings per year
 - Activities organized by a smaller group within the panel: working groups, and [studies for early-career researchers](#)

Studies for ECR

This is why I am joining this meeting

...

Last March, the per-country ECR representative panels were asked to organize a **Future Collider event for Early-Career Researchers** this year to enter the next update of the European Strategy for Particle Physics (ESPP)

Future colliders for ECR event

- Event Background: ECFA ECR working group on [future colliders organized an event at CERN in September 2023](#).
 - Showed high interest of ECRs in future colliders (~100 participants in person + ~100 on ZOOM)
- Goal: Bring the discussion on future colliders to individual ECFA member countries.
 - Address country-specific aspects such as **funding** and **career paths** for ECRs.
 - Foster discussions in Spain towards the next update of the ESPP (2026-2027)
- Target Audience:
 - **Primarily ECRs**, but also include seniors for input on topics like funding.
- Support Provided: A [blueprint](#) is available outlining the structure of a future colliders event.
 - Event should cover all future collider options, even if focusing on a specific proposal.



Future colliders for ECR event in SPAIN

- Date:
 - ✓ It will be held during the next [XVI CPAN DAYS in Madrid \(19-21 Noviembre 2024\)](#)
 - ✓ It will potentially cover the first half-day of the meeting → to be confirmed!
- Structure:
 1. We would like one Early Career Researcher of each institution to present their position/opinion/plans/strategy towards Future colliders and the ESPP + one senior to talk about funding.
 2. Presentation of the results of a **SURVEY** that we are spreading within the HEP Spanish community.
 3. Open discussion between ECR and seniors.

ECFA SPAIN 2024 SURVEY

ECFA

European Committee for Future Accelerators



ECFA SPAIN 2024

In 2020, the [latest update of the European Strategy for Particle Physics](#) was approved by the CERN Council. One of its twenty strategy statements emphasizes that an electron-positron Higgs factory is the highest-priority next collider. Studies on this and other colliders are in full swing worldwide. Moreover, the next update of the European Strategy is expected for 2026-2027, and the update has been moved up, with the Spanish input needing to be submitted by early 2025. Given the long timelines of these projects, we believe it is of paramount importance for [Early Career Researchers](#) (ECRs) to participate in an informed way in the many discussions currently taking place about the future of our field. The aim of this survey is to poll the Spanish High-Energy Physics community on this subject. An initial overview of the results will be presented at the [Spanish network for future colliders meeting](#) in Valencia (1-2 July, 2024), and ultimately, the final outcomes and conclusions will be shown at the [XVI CPAN](#) in Madrid (19-21 November, 2024), where we especially encourage ECRs to attend and participate in the discussions.

There are 29 questions in this survey.

THIS SURVEY IS ANONYMOUS.

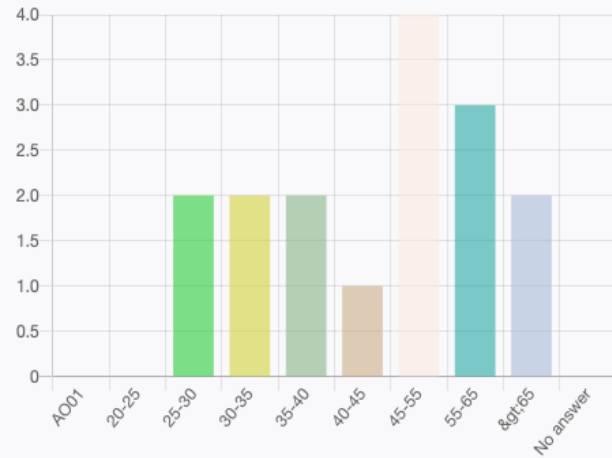
The record of your survey responses does not contain any identifying information about you, unless a specific survey question explicitly asked for it.

If you used an identifying access code to access this survey, please rest assured that this code will not be stored together with your responses. It is managed in a separate database and will only be updated to indicate whether you did (or did not) complete this survey. There is no way of matching identification access codes with survey responses.

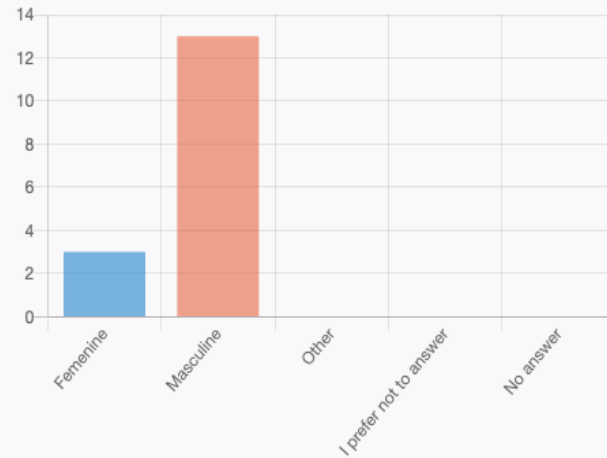


First glance at the results (~16 people)

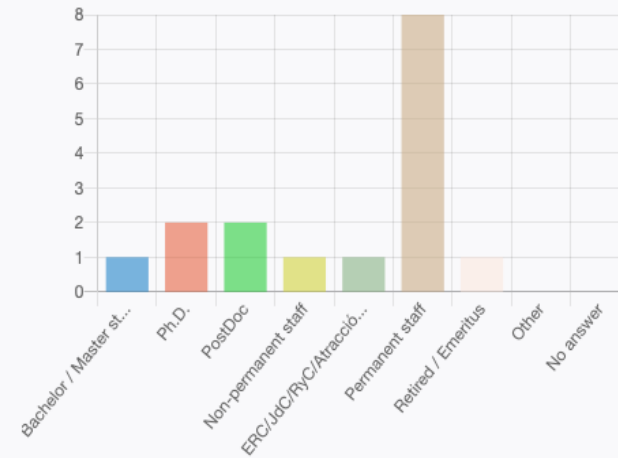
Age group you belong to



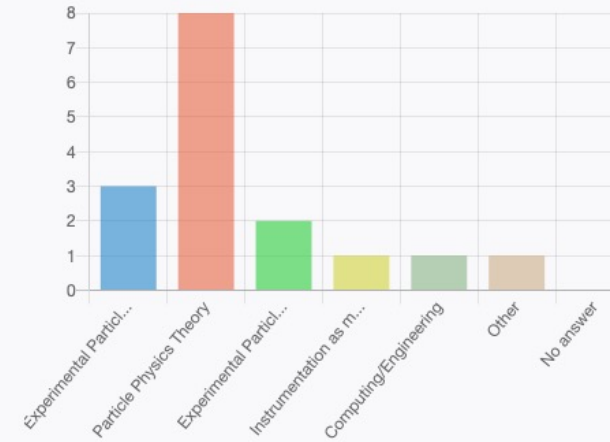
Gender you identify yourself with



Which is your current career stage?



Which are your current research activities related to?

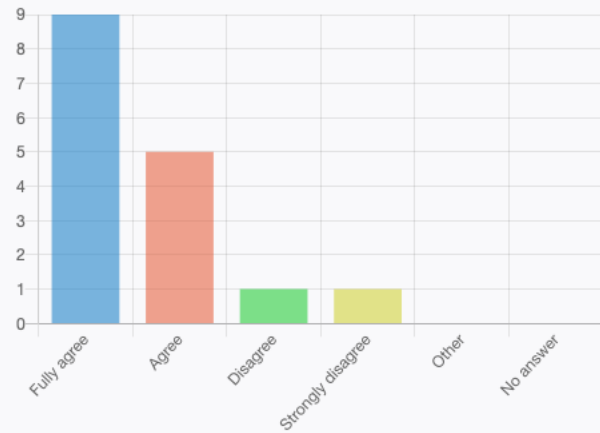


Please, notice the characteristics of the sample!

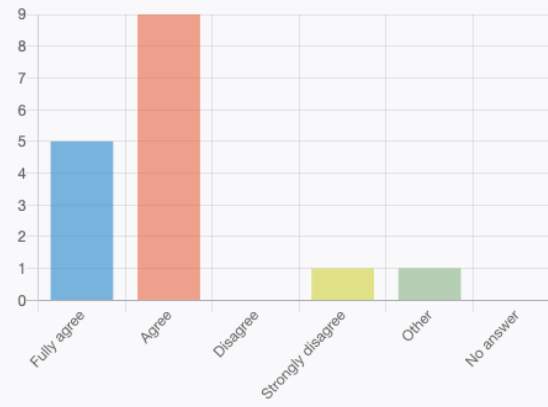
- Many incomplete responses compared to complete ones:
 - It could be that people are saving incomplete versions along the way.
- We need to emphasize completing the survey more after this meeting:
 - Especially the youngest researchers

First glance at the results

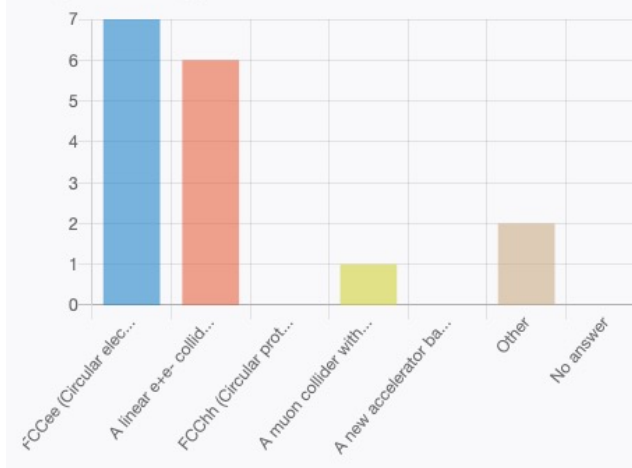
Does the world need a next generation of particle colliders beyond existing machines (LHC, RHIC, DAFNE...)?



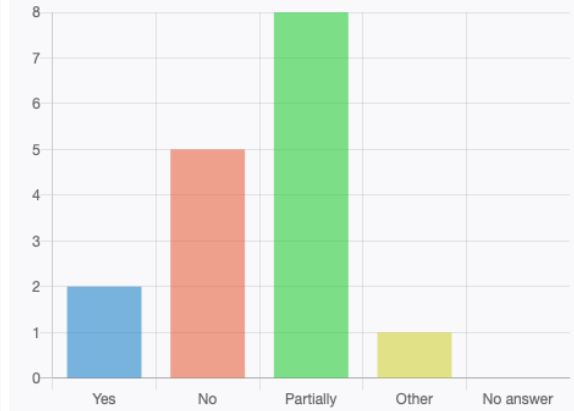
Is the scientific return of an electron-positron Higgs/Top/EW factory commensurate with the construction cost (~5,000-10,000 millions €) ?



Which collider should CERN build after the HL-LHC?



Would you be willing to work nearly full time of a project connected to a future collider, while the decision on the next machine is still pending?



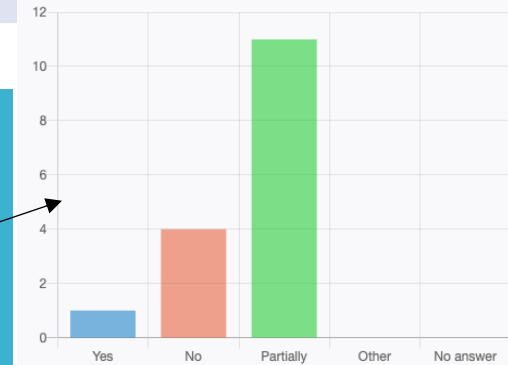
The survey is intriguing... So far the participants of the survey support "another collider," willing to spend considerable money, but quite divided on which machine is best (FCCee vs Linear), and not everybody wants to work on them until one is approved!

Ideal timeline

Jornadas de la Red Española de Futuros Colisionadores



Do you think Early-Career people, who will become senior by the time of those possible future facilities, are well-informed about the current discussions in the future of high energy physics?



July 2024

August / September / October 2024

November 2024

December 2024

Fill the [survey](#) 🏖️, please !



We will prepare a document outlining the Spanish position towards the next update of the European Strategy for Particle Physics, expected for 2026-2027, to share with ECFA ECR future colliders committee.

Conclusions



- [Fill out the survey](#) → all of us! Whether you're early-career or not-so-early-anymore career individuals.
- Let's make a special effort to **motivate the youngest researchers**. *(Could we hold a raffle at CPAN?)*
 - Personally, I offer to help if you find it useful: *I am happy to join any of your weekly group meetings for 5 minutes to speak with the students and explain the purpose and objectives of the survey (please contact me at lourdes.urda@cern.ch!).*
- Share with us any **email list** you think are useful to reach the whole community (specially the ECR): cms-young-spain@cern.ch (CMS members of Spanish institutes with age up to 40 years old), atlas-inst-es-all-access-active-members@cern.ch, spanish-gang@cern.ch ... (do you know more?) Please, share them with us!
- Let me (or Marcel) know if any of the questions can be improved or reformulated.
- Feel free to **use any empty space in the survey to share your opinions** on important topics that you feel have not been addressed.
- Got some e-mails from CMS and ATLAS ECR people to expand the survey broadly within CERN.

We are asked to give our position by early 2025 → to enter the update of ESPP 2026-2027.

Merci!