News from ECFA

Dinko Ferenček
Ruđer Bošković Institute

CROHEP Meeting
February 18, 2025

ECFA and its mission

ECFA = European Committee for Future Accelerators

- Aims, activities, membership and organizational structure of ECFA defined by its Terms of Reference
- Its core mission is long-range planning of European high-energy facilities: accelerators, large-scale facilities and equipment
- ECFA consists of Plenary ECFA, Restricted ECFA, Chairperson and Secretary and permanent or ad hoc working groups
- Participating countries: all European CERN Member States and Associate Member States

ECFA composition

- Chairperson and Secretary
  - Responsible for day-to-day running of ECFA
- Plenary ECFA
  - Decides on all ECFA activities, approves appointments, reports, admission of new members, makes recommendations to outside organizations, etc.
  - Members nominated by their countries for a maximum term of **6 years**
- Restricted ECFA
  - Composed of **1 member** per participating country, assists and advises the Chairperson and the Secretary, acts as the communication channel to each participating country
  - Members nominated by their countries for a maximum of **two 3-year terms**
- Early-Career Researcher (ECR) Panel
  - Has advisory role to ECFA
  - Generally composed of PhD students and postdocs, either with a non-permanent contract or with up to 8 years after obtaining the PhD
  - Up to **3 members** per participating country for a maximum of **two 2-year terms**

ECFA activities

Taken from ECFA Terms of Reference:

1. regular meetings of Restricted and Plenary* ECFA;
2. ad hoc symposia and conferences sponsored or organized by ECFA;
3. study groups, set up by ECFA, or jointly with other organizations, for special problems;
4. demographic studies of the high-energy physics community and resources in the ECFA participating countries, repeated at regular intervals, by means of visits** to the participating countries by Restricted ECFA;
5. monitoring of the ongoing implementation of the European Strategy for Particle Physics in the CERN Member States under activity (4), presentation of corresponding status reports to the European Strategy Session of Council.

*Plenary ECFA meets twice a year
**Typically 4 country visits per year

Croatian representatives in ECFA

Plenary ECFA:

Croatia	Dr Vuko Brigljevic Dr Dinko Ferencek Dr Damir Lelas	Appointed July 2020 Appointed July 2024 Appointed July 2024

Restricted ECFA:

Croatia	Dr Dinko Ferencek	Appointed July 2024

ECR Panel:

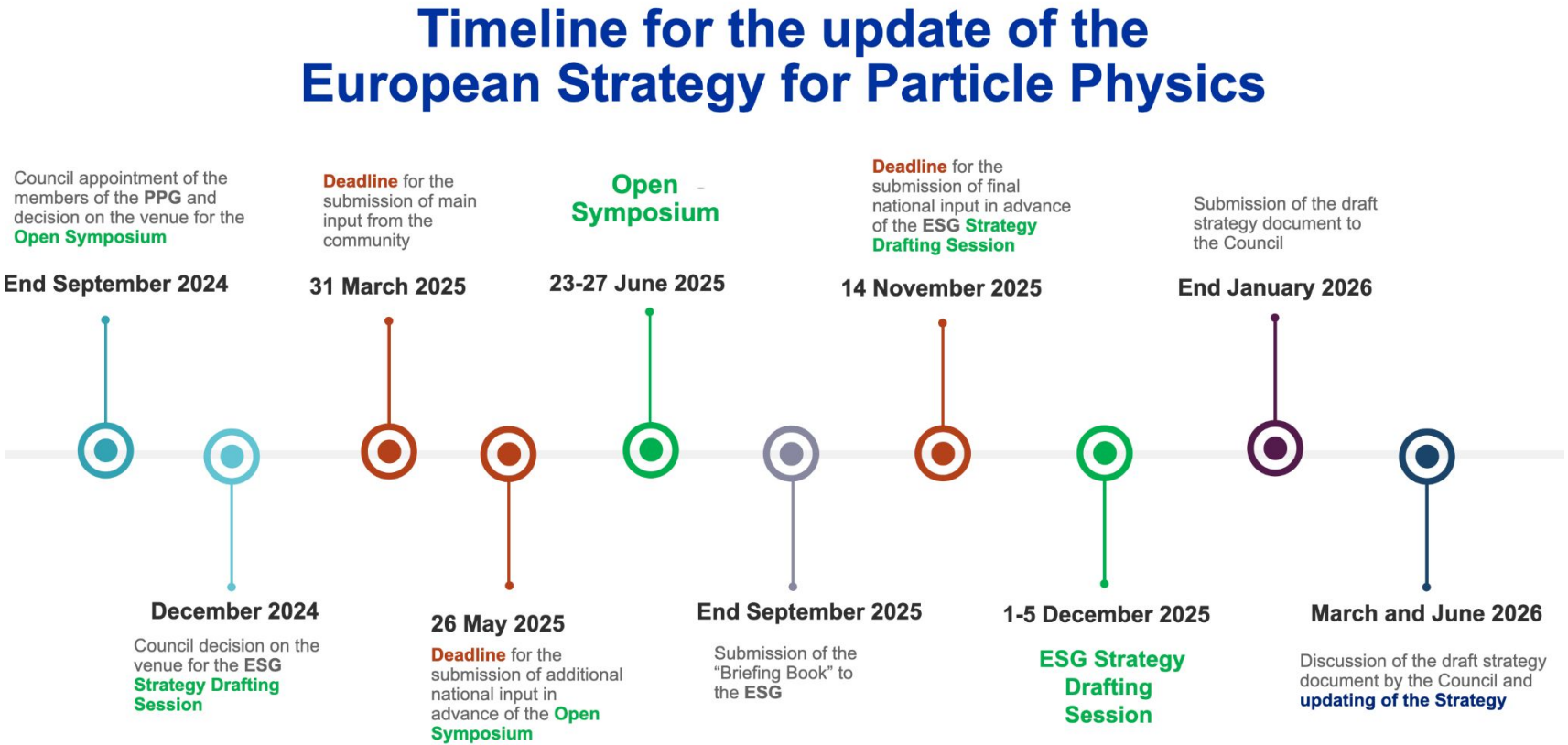
CROATIA	Lovro Ana Antonija	DULIBIĆ ŠĆULAC UTROBIČIĆ	PhD student PhD student Research Associate	Theory CMS DRD1 Collaboration	07.2024 - 06.2026 07.2024 - 06.2026 07.2024 - 06.2026

ESPP update

ECFA assisting is the update of the European Strategy for Particle Physics by:

- Providing guidelines (e.g. for national inputs)
- Nominating experts for various working groups
- Through studies performed and/or reports produced by its panels
  - ECFA HET Study Panel
  - ECFA Detector Panel

ESPP update


Timeline for the update of the European Strategy for Particle Physics
Council appointment of the members of the PPG and decision on the venue for the Open Symposium
End September 2024
December 2024
Council decision on the venue for the ESG Strategy Drafting Session
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
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
1-5 December 2025
ESG Strategy Drafting Session
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

Demographics of European Particle Physics

Demographics of European Particle Physics

ESPP 2026 Secretariat

January 7, 2025

The ESPP 2026 Strategy Secretariat believes that the strategy process would be better informed from moderately accurate information on the numbers of participants in particle physics.

The questionnaire below is intended to be completed by each of the ECFA Member States and the responses collected will not be distributed: only the total numbers Europe-wide, per category below, will be shared outside the secretariat. In all questions that follow, counts refer to averages in each country over ~three years, and not instantaneous in the present year.

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Theoretical Physics

1. How many University/Higher Education Faculty and Research staff are there in your country? We would first like to count people. Units: Heads
   We understand that depending on the country and the institution, the extent of the teaching and administrative duties varies. We would therefore like you to also estimate Research FTEs. Units: FTEs.

2. How many Master and Ph.D. students are working with the above faculty in particle physics? Please quote the numbers separately for PhD and Master students. Units: Heads

3. How many physicists at Laboratories/Research Centers are working in theoretical particle physics? Again, we recognise that some may have administrative duties. Units: Heads.
   We understand that depending on the country and the institution, the extent of the administrative duties varies. We would therefore like you to estimate Research FTEs. Units: FTEs

4. How many post-doctoral researchers are participating in the field? Units: Heads.

Experimental Particle Physics

5. How many University/Higher Education Faculty and Research staff are there in your country? We would first like to count people, including those that are sharing their research time with projects in nuclear and/or astroparticle physics. Units: Heads

   Please indicate the number of people working:
   (a) Only in particle physics. Please split the particle physics numbers into accelerator-based and non-accelerator-based particle physics.
   (b) Both in particle physics and astroparticle physics.
   (c) Both in particle physics and nuclear physics.
   We understand that depending on the country and the institution, the extent of the teaching and administrative duties varies. We would therefore like you to also estimate Research FTEs for (5a, 5b, 5c). Units: FTEs

6. How many Masters and Ph.D. students are working with the above faculty in particle physics? Please quote the numbers separately for PhD and Master students. Units: Heads.

7. How many Laboratory experimental physicists are working on particle physics? Again, we recognise that some may have administrative duties. Units: Heads.
   We understand that depending on the country and the institution, the extent of the administrative duties varies. We would therefore like you to also estimate Research FTEs. Units: FTEs

8. How many post-doctoral researchers are participating the field? Units: Heads.

Accelerator Physics

9. How many University/Higher Education Faculty and Research staff are there in your country?. We would first like to count people. Units: Heads
   We understand that depending on the country and the institution, the extent of the teaching and administrative duties varies. We would therefore like you to also estimate Research FTEs. Units: FTEs

10. How many Masters and Ph.D. students are working with the above faculty in accelerator physics? Please quote the numbers separately for PhD and Master students. Units: Heads

11. How many Laboratory physicists are working in accelerator physics? Again, we recognise that some may have administrative duties. Units: Heads.
    We understand that depending on the country and the institution, the extent of the administrative duties varies. We would therefore like you to also estimate Research FTEs. Units: FTEs

12. How many post-doctoral researchers are participating in the field? Units: Heads.

Technical Staff (Not administrative support)

13. How many technical or support staff are involved in particle physics projects? Here we recognise that technical staff both in universities and large laboratories may move from project to project and from field to field. We therefore ask for your estimate of the yearly full-time equivalents averaged over a period of 3-5 years: Units: FTEs
    Please indicate the number working in
    (a) detector mechanical fields
    (b) detector electronics fields
    (c) accelerator technical fields
    (d) computing (for particle physics)

    Please separate
    a) Fully Qualified Engineers
    b) Technicians

Demographics of European Particle Physics

- Plan to profit from the recently updated STI and CERN cooperation report in relation to the 5-year associate membership visit of a CERN technical mission

Demographics of European Particle Physics

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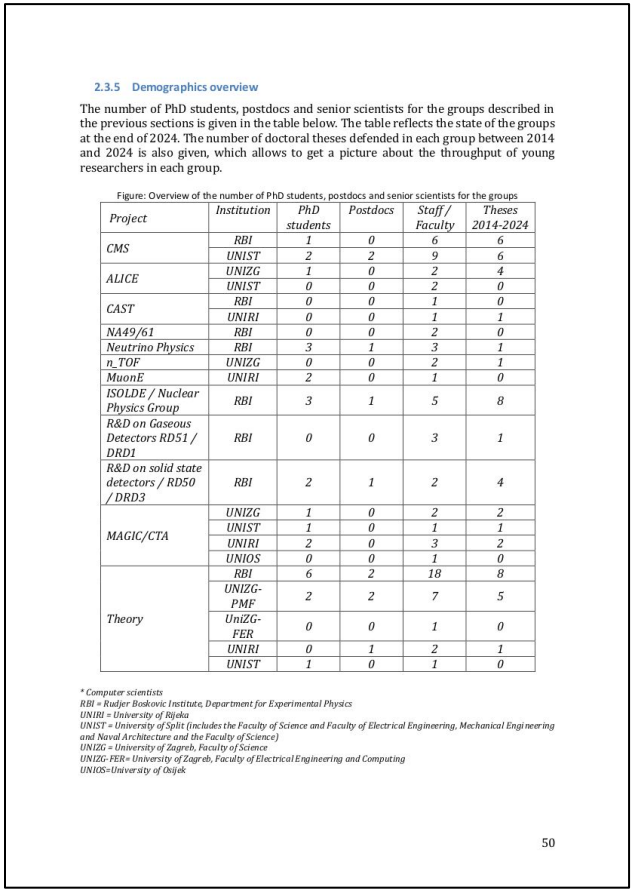
- The report contains a page on demographics



2.3.5 Demographics overview

The number of PhD students, postdocs and senior scientists for the groups described in the previous sections is given in the table below. The table reflects the state of the groups at the end of 2024. The number of doctoral theses defended in each group between 2014 and 2024 is also given, which allows to get a picture about the throughput of young researchers in each group.

Figure: Overview of the number of PhD students, postdocs and senior scientists for the groups

Project	Institution	PhD students	Postdocs	Staff / Faculty	Theses 2014-2024
CMS	RBI	1	0	6	6
	UNIST	2	2	9	6
ALICE	UNIZG	1	0	2	4
	UNIST	0	0	2	0
CAST	RBI	0	0	1	0
	UNIRI	0	0	1	1
NA49/61	RBI	0	0	2	0
Neutrino Physics	RBI	3	1	3	1
n_TOF	UNIZG	0	0	2	1
MuonE	UNIRI	2	0	1	0
ISOLDE / Nuclear Physics Group	RBI	3	1	5	8
R&D on Gaseous Detectors RD51 / DRD1	RBI	0	0	3	1
R&D on solid state detectors / RD50 / DRD3	RBI	2	1	2	4
MAGIC/CTA	UNIZG	1	0	2	2
	UNIST	1	0	1	1
	UNIRI	2	0	3	2
	UNIOS	0	0	1	0
Theory	RBI	6	2	18	8
	UNIZG-PMF	2	2	7	5
	UniZG-FER	0	0	1	0
	UNIRI	0	1	2	1
	UNIST	1	0	1	0

* Computer scientists
RBI = Ruđjer Bošković Institute, Department for Experimental Physics
UNIRI = University of Rijeka
UNIST = University of Split (includes the Faculty of Science and Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture and the Faculty of Science)
UNIZG = University of Zagreb, Faculty of Science
UNIZG-FER= University of Zagreb, Faculty of Electrical Engineering and Computing
UNIOS=University of Osijek

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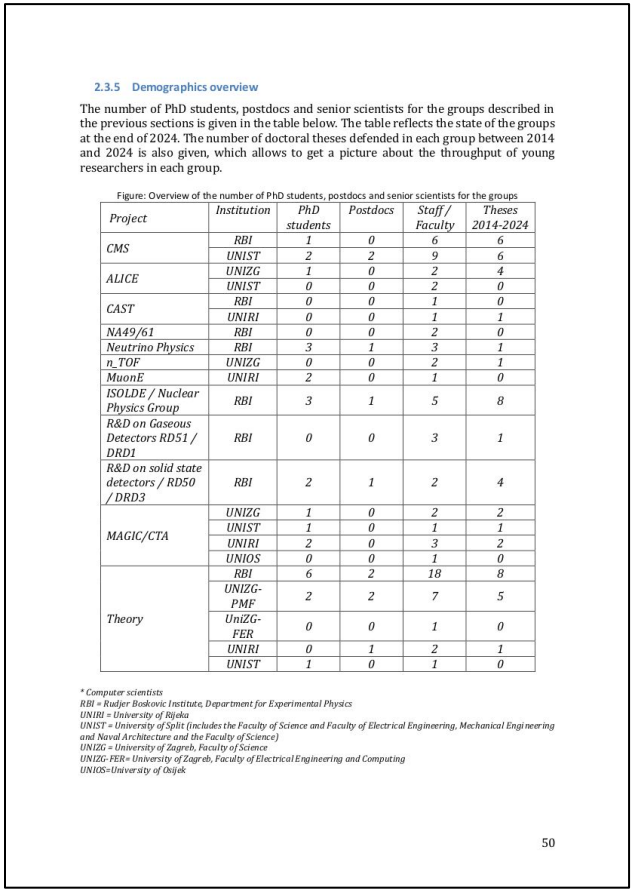
Demographics of European Particle Physics

- Plan to profit from the recently updated STI and CERN cooperation report in relation to the 5-year associate membership visit of a CERN technical mission
- The report contains a page on demographics
- For research FTEs will assume a flat 50% for faculty at universities and a flat 80% for staff scientists at institutes (unless there are strong objections)



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Thank you for your attention!