21st January 2025



Early Career Researchers' Input and draft section for ESPP input document

young High Energy Physicist association

German strategy workshop in preparation of the ESPP update 21.01.2025, Bad Honnef

Michael Lupberger on behalf of the yHEP MB

Outline

- Recap: ECR activities during the process
- National and international input options and decisions
- Last time's statement
- Collection of keywords
- Identification of main topics
- Proposal for a paragraph on ECR relevant topics



Recap: ECR activities during the process



yHEP's self-given duty during the process: Facilitate ECR participation

- General attitude: ECRs are part of the German HEP community
 - ⇒ Contribute to the general discussion, engage with KET in organisation
 - ⇒ Part of organisation committees for all workshops
 - ⇒ Dedicated sessions for ECRs to prepare and exchange internally
- Own ECR sessions
 - Bonn workshop (¹/₂ day + collection of thoughts on a Future Collider in community document)
 - DESY workshop (¹/₂ day + collection of keywords for ECR paragraph afterwards)
 - Online drafting session (3,5h)



9 W

¹/₂ day yHEP session: Most relevant topics from community document:

- Physics
- Global collider landscape
- Process organisation and committees
- Diversity of physics programm
- Society participation
- Sustainability

nogramm	
WEDNESDAY, 22 MAY	CERN Physics Beyond Collider Program 15+5 minutes
yHEP Session https://desy.zoom.us/j/67945812976	Speaker: Gunar Schnell (HERMES (HERMES Experiment)) Protocerniz024_PB
Meeting-ID: 679 4581 2976 Kenncode: 869975	6 Discussion
Welcome Speakers: Prof. Lutz Feld (RWTH Aschen), Michael Lupberger (University of Bonn) Prof.CatCERN_Practica Intro yHEP Session	Image: Speaker: Gudrun Haindimaier (Austrani Institute of Technology) Image: CERN_Boint_Haindimaier
Physics Introduction 35+15 minutes Speaker: Phillip Bechtle (university of Banm) Pier_FutureCollider	8 Environmentally responsible research at CERN 15+5 minutes Speaker: Sonja Kleiner (CERN) D: 22_05_2024_CERN
3 The Global Landscape for Future Colliders 30+15 minutes Speaker: Jenny List (FTX (FTX SLB))	Discussion Discout yHEP Ses_
B list_yHEP_collider_i_	4

vHEP Session

https://desy.zoom.us/j/67945812976

From Strategy Discussions to Decison-Taking for Large Projects

Meeting-ID: 679 4581 2976 Kenncode: 869975

30+15 minutes

Speaker: Karl Jakobs (University of Freiburg)

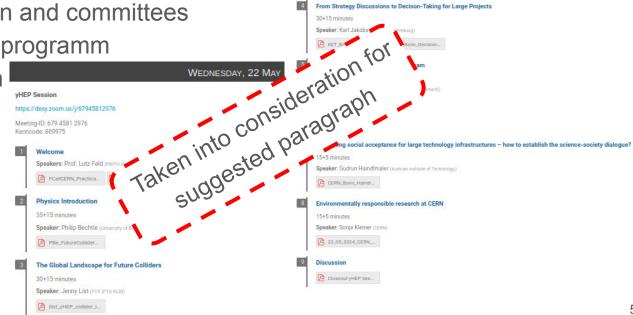
KET_Bonn_Decision.. RET_Bonn_Decision..



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YHEP association

yHEP talk: Present outcome from community consultation

What criteria would a Future Collider have to fulfil such that you would be enthusiastic about it? Wish list for a future collider

Summary

A Future Collider young researchers are excited about fulfils these criteria:

- Lepton collider capable to reach HH/tt threshold; precision physics case given
- Is wanted by society and fits it in the mid-to-end-21st century (sustainability, ...)
- Is able to use game-changing new acceleration technologies in an upgrade
- Gets into operation < 10 years after HL-LHC and offers a career perspective
- Has a positive societal balance by minimised impact to climate & environment
- Improves ECR prospects in large collaborations & allows balanced PBC prog.
- Is build at CERN or with strong CERN involvement

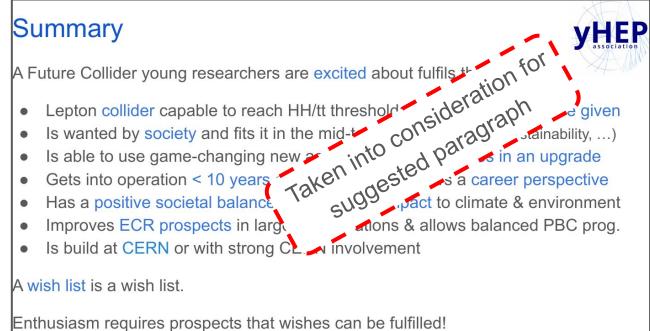
A wish list is a wish list.

Enthusiasm requires prospects that wishes can be fulfilled!



yHEP talk: Present outcome from community consultation

What criteria would a Future Collider have to fulfil such that you would be enthusiastic about it?



Recap: DESY workshop



1/2 day yHEP+German ECFA-ECR delegates: Refresh, decide, discuss & prepare

- Decision on how German ECRs want to provide input. Options:
 - <u>With the KET statement as</u> part of the German community
 - With an own German ECR input document
 - <u>With the ECFA-ECR input</u> on European level
- Discussion: Opinions/preferences among ECRs are similarly diverse as in the whole community

Welcome and introduction	Michael Lupberger
Auditorium (Bdg. 5), DESY	08:30 - 08:35
Bonn workshop recap	Leonhard Reichenbach et al. 🤞
Auditorium (Bdg. 5), DESY	08:35 - 09:00
Europen strategy process organisational aspects	Heiko Lacker et al. 🔞
Auditorium (Bdg. 5), DESY	09:00 - 09:25
Options for yHEP input to ESPPU	Jan-Hendrik Arling et al. 🤞
Auditorium (Bdg. 5), DESY	09:25 - 09:40
	09:40 - 11:40
Auditorium (Bdg. 5), DESY	
	05.40 - 11.40
Summary and closeout	11:40 - 12:00

ECFA European Committee for Future Accelerators

Initiative to formulate a dedicated input from European ECRs into EPPSU

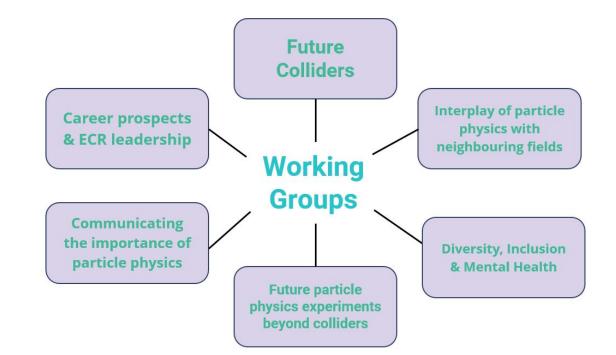
- organised by ECFA Early Career Researchers Panel together with other ECR communities
- targeted to reflect input from all European* ECRs[†]
- input shall focus on ECR relevant issues (not a regular national input document)
- process started in September 2024 followed by dedicated events along
 - ECR session @ <u>3rd ECFA Workshop in Paris</u>
 - <u>ECR Workshop on EPPSU @ CERN</u> adjacent to the <u>Plenary ECFA meeting</u>

*: Focus on ECRs employed in European institutes, but input beyond Europe appreciated †: Non-permanent position or <10 years after PhD



Identified ECR topics clustered in working groups

self-organization within groups via conveners with regular meetings



Content from

Jan-Hendrik Arling

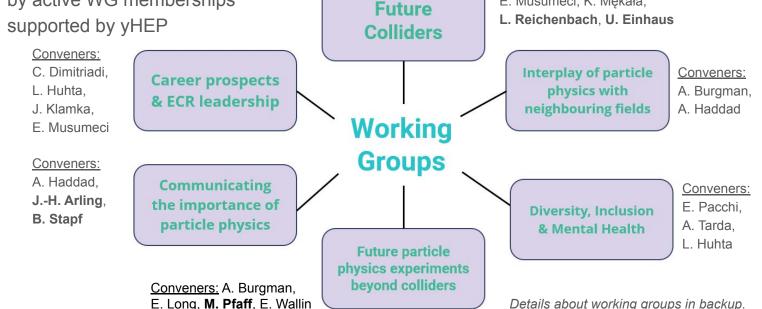
(ECFA-ECR)

Identified ECR topics clustered in working groups

- self-organization within groups via conveners with regular meetings
- strong contributions from German ECRs in the process
 - by convener roles 0

0

by active WG memberships 0



11

Content from

Jan-Hendrik Arling

(ECFA-ECR)

Conveners: A. Ilg, A. Gallen,

E. Musumeci, K. Mekała,

Roadmap for ECR White Paper input for EPPSU

- December January: Circulation of ECR input survey
 - @ all ECRs: still open till 27th January <u>here</u>!
- End of January: Completion of the first overall White Paper draft
 - Targets a comprehensive white paper with all working group inputs plus survey analysis
 - From that draft an executive summary within the defined EPPSU input scope
- Mid-February 2025: Circulation of White Paper in community
 - Feedback from External Advisors (Snowmass ECRs, previous ECFA ECRs, some selected seniors)
- 20th February: One-day symposium/workshop open to all ECRs
 - Hybrid event at CERN to discuss about the survey results and the White Paper draft
 - @ all ECRs: please register by 13th February <u>here</u>!
- Mid-March 2025: Endorsement and submission to EPPSU

Last time's statement



Formulate the paragraph addressing dedicated ECR subjects in the German input Statement of last update:

The research conditions must guarantee the maintenance and further evolution of expertise during the long project lifetimes and be attractive for junior scientists.

An outstanding European research landscape in particle physics is the basis to ensure scientific progress and the attractiveness of the field. In order to guarantee the continuity and evolution of indispensable expertise in computing, software, detectors and accelerators the personnel structures must be adapted to the long-term duration of projects. Young scientists are often the source of new ideas and have the cutting-edge competence in many areas. Their scientific and technical contributions should be given high visibility and they need promotion and predictable career prospects.

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Topics identified: expertise, attractiveness, career conditions/promotion/visibility \rightarrow 4 main topics

contracts.

prospects/long-term

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career prospects/long-term contracts,

After DESY workshop: Collection of keywords



New paragraph: Collection of keywords in slido



⇒ Full statements (sometimes sentences, connected words) taken into account 16

After DESY workshop: Collection of keywords

YHEP association

New paragraph: Collection of keywords in slido



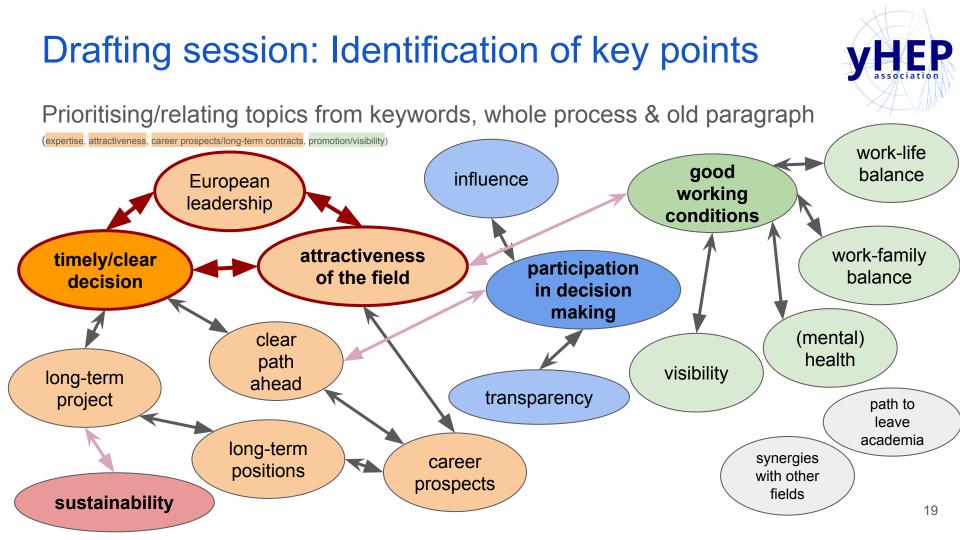
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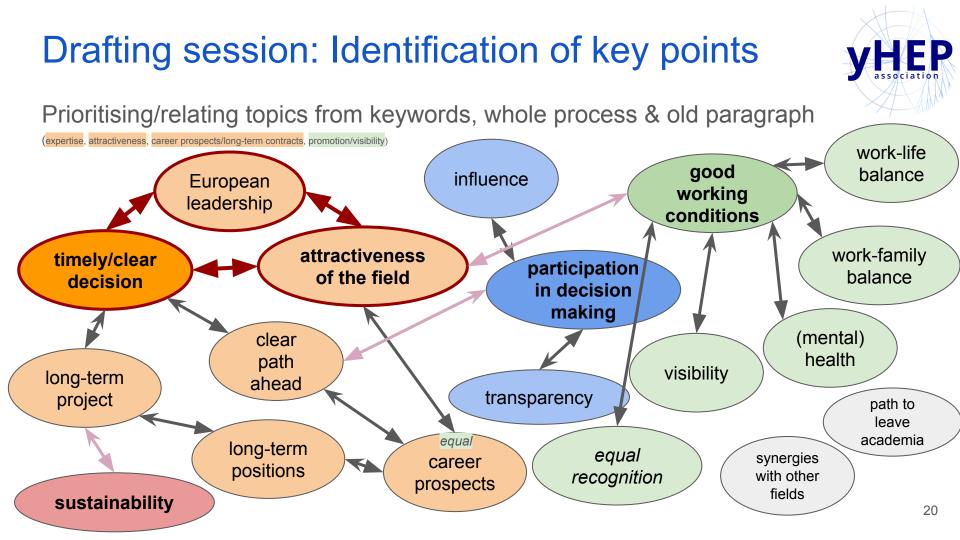
Drafting session: Notes



Formulate the paragraph addressing <u>dedicated ECR subjects</u> in the German input Notes:

- Whole German statement max. 10 pages, focus on strategic decisions TBD
 Keep ECR statement short
- Our paragraph should focus on mainly <u>ECR specific topics only</u>
- Other paragraphs with relevant ECR topics:
 - Sustainability
 - Diversity
 - Outreach
- ⇒ Transferred some input of general interest to other section paragraphs:
 - Improve and expand communication with society to gain support for a next flagship project at CERN → Outreach
 - Sustainability, HOWEVER: Highly relevant to ECRs \Rightarrow has to be touched





Drafting session: Sorting into a text



Taking into account relation between subtopics and links between main topics:

For ECRs, a timely, transparent decision on future projects, coupled with sustainability and clear career perspectives, is essential to secure the field's long-term success and appeal.

To ensure the attractiveness of the field of European particle physics, a timely decision on the next flagship project is critical for ECRs.

Long-term positions are necessary to retain the critical expertise of ECRs to realise long-term projects. These are only enabled by a clear path towards such projects.

The decision-making along this path should be transparent and comprehensible. As the ones who will carry out a future collider project, ECRs desire corresponding participation in this process. In particular, sustainability throughout the life cycle of all future projects is a core priority of ECRs. Good working conditions remain a significant aspect of attractiveness of a career in our field for ECRs, in particular scientific visibility, work-life and family balance as well as the proactive handling of (mental) health issues.

The career prospects and recognition of expertise should be equal among all working areas of our field [e.g. accelerator physics, computing, detector development, data analysis or theory].

Suggestion for ECR paragraph by yHEP



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BONUS

Future Colliders

Conveners: A. Ilg, A. Gallen, E. Musumeci, K. Mękała, L. Reichenbach, U. Einhaus

- Input on Selection Criteria: Define essential criteria for selecting a future collider
- Proposal ranking: Query preference of collider proposals and related questions
- Significance: Emphasize the importance of a future collider
- Process transparency: Advocate for a transparent selection and decision-making process

Future Particle Physics Experiments beyond Colliders

Conveners: A. Burgman, E. Long, M. Pfaff, E. Wallin

- Prominent role: Ensure non-collider experiments remain significant in Europe's particle physics agenda
- ECR community forum to:
- Strengthen coherence and provide a collective voice for the community
- Foster collaboration among non-collider projects

Interplay of Particle Physics with Neighboring Fields

Conveners: A. Burgman, A. Haddad

- Cross-Disciplinary Exchange: Diverse interactions to foster progress in particle physics
- Support for Experts transitioning between disciplines
- Facilitate Cross-Field Idea and Tech Exchange
- Collaboration: Emphasize cross-disciplinary efforts on shared research questions

-Ontent from

Communicating the Importance of Particle Physics

Conveners: A. Haddad, J.-H. Arling, B. Stapf

- Valued Communication Skills: Communication skills are as important as technical expertise in the field
- Mentorship Program: Linking senior researchers down-to high school students
- Raising Awareness of current work and future projects
- Broad Outreach: Target audiences from university students to the general public

Career Prospects and ECR Leadership

Conveners: C. Dimitriadi, L. Huhta, J. Klamka, E. Musumeci

- Attractive career prospects for ECRs:
- Appealing career paths by providing clearer paths to permanent positions and enhancing job security
- Training for versatile skills (academic and industry) plus mentorship programmes
- Ease of Transition for engineers and technical experts into HEP
- ECR leadership with dedicated funding to achieve inclusive decision-making from ECRs (like in EPPSU)

Diversity, Inclusion & Mental Health

Conveners: E. Pacchi, A. Tarda, L. Huhta

- Attractive career prospects for ECRs:
- Appealing career paths by providing clearer paths to permane

• ...

-Ontent from