View of Early Career Researchers

ErUM-Pro Strategy Workshop
KET Annual Meeting 2025

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On behalf of the yHEP association

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Introduction

- Representing early career researchers
  - Includes everybody without permanent contract
    - PhD students, Postdocs, Junior Research-Group Leaders, etc.
- Goal: Assessing and improving situation of non-permanent scientists
- Concerns/issues generally encompass:
  - Working conditions
  - Visibility
  - Sustainability
  - Contract durations
  - Travel culture
  - Payments
  - …

Objectives

- Recognise improvements made in the previous funding cycles:
  - Standard PhD positions: 67% TV-L E13
  - Schedule of last ErUM-Pro timeline was ideal
    - Notifications well in time, i.e. at least 3 months before start of project
  - Young scientists included in evaluation of ErUM framework program

- Purpose of this presentation:
  - Reminder to preserve previously made improvements
  - ECR perspective on desired structural improvements for next funding cycle
  - General suggestions for the content of ErUM-Pro funding program

Visibility on ErUM-Pro Applications

- Currently, only one applicant per institute allowed on ErUM-Pro applications
- Ideally, everyone contributing to the application should be listed
- Could allow for one applicant and multiple co-applicants
  - Follows good scientific practices
  - Allows for transparency in the application
  - Each co-applicant responsible for their respective section of application
    - Improves visibility and increases prestige of the funding

Funding Timelines

- Funding notification timelines
  - ErUM-Pro was on time, but ErUM-Data again delayed
    - Timely notifications important, in particular for international researchers
    - Visa/Permit extensions dependent on work contracts
    - Worsens the already bad situation with residence permits
- On a larger scale, longer funding periods desired
  - Particle physics projects generally in the order of decades
  - Three year funding periods unsuitable for these long-term projects
  - Frequency of re-application too high, with uncertainty of continuity

Extensions for Long-Term Absence

- Funding is project based ⇒ Does not account for situation of personnel
- ECRs hired on project funding might have long-term absence
  - Parental leaves, sickness, etc.
- In such cases, resources (workforce/funds) are reshuffled by project leader
  - This works when funds from multiple projects are available
  - Not an option for people with only one project in hand (e.g. ECRs)
  - Completion of one project should not depend on the availability of other projects
- Should allow for a mechanism for extending the project for such cases

CERN Expatriate Allowance

- CERN allowance last revised in 2018 from 1,350€ to 1,500€ per month

- Rise in consumer prices since July 2018:
  - Switzerland: 6.2% increase [source: BFS]
    - In addition, CHF→EUR conversion higher by 25.6%
    - Effectively 33.4% increase when seen in EUR
  - Germany: 24.6% increase [source: DEstatis]
  - France: 19% increase estimated till September 2026 [source: TradingEconomics]

- Another revision needed in CERN allowance to match inflation
  - At least 20–30% increase, i.e. 1,800–2,000€ per month

Retention of Technical Expertise

- Development and operation of experiments depends on expertise
  - Acquired over many years of technical experience
  - Not well recognised for permanent positions in academia (e.g. professorships)
- Necessary to retain experts possessing this knowledge base and expertise
- Provisions for long-term (technically-oriented) positions
  - Protect the acquired knowledge base and avoid losing experts
  - Encourage participation in technical activities

Reduced PhD Positions

- PhD researchers play a crucial role in the completion of projects
  - Responsible for significant fraction of scientific results
- Developments were made in PhD contracts: 50% → 67% TV-L E13
  - Necessary step to preserve affordability for PhD researchers
    - Expensive housing in university cities, general inflation
- Meanwhile, funding amount for salaries has remained static
  - Results in 25% reduction in PhD positions
  - Reduced person power bound to cause delays in project timelines
- PhD graduates primary source of highly qualified personnel for economy
  - Compensating reduction of PhD positions = Investment in German innovation

Diversity, Inclusion and Equal Opportunities

- Substantial fraction of young international researchers
  - Industrial jobs often demand/prefer knowledge of German language
  - Retain a skilled and highly-qualified workforce in Germany
  - Efforts towards integrating international ECRs (e.g. with language courses)

- Promote equal opportunities for researchers with children
  - Childcare provided at events (conferences/workshops/…)
  - Provisions to cover costs for childcare in travel allowances

- Facilitate access to mental health workshops and professionals

Funding for Physics Analyses

- Very limited funding offered for physics analyses in the past cycles

- Should not be low priority for fundings
  - R&D for instrumentation, methodologies, software necessary
  - However, core of the field is fundamental research
  - PhD graduation close to impossible only with service / technical tasks
  - Also critical to build an academic career

Sustainability

***"As scientists and as part of our society, the German HEP community is committed to building a sustainable future. Our research activities and research infrastructure must aim to minimize resource consumption and negative impacts on the environment, while exploring how research and development through our international collaborations can further contribute to the UN Sustainable Development Goals."* — KET Input to 2026 Update of ESPP**

- Prioritise sustainability in call and decision
  - Dedicated funding for sustainability campaigns in experiments
  - Reward projects with genuine efforts towards sustainability

- Compensation for carbon emissions
  - Included while building travel budget estimates
  - Considered in cost estimates for events (conferences/workshops/…)

Alignment with European Strategies / Roadmaps

"Experiments in such diverse areas that offer potential high-impact particle physics programmes at laboratories in Europe should be supported, as well as participation in such experiments in other regions of the world." — 2020 Update of ESPP

"The pursuit of new research directions should be encouraged and links with fields such as cosmology, astroparticle physics, and nuclear physics fostered." — 2020 Update of ESPP

- Funding decisions aligned with European strategies and roadmaps
  - Crucial to support big experiments and projects
  - Equally important to diversify across projects/experiments
  - Must also support efforts to explore new directions and possibilities

Summary

ErUM-Pro is the prime source for ECR development on projects in particle physics (even if not as prestigious as other grants, e.g. ERC, DFG, etc.)

- From the ECR point-of-view:
  - Generally, ErUM-Pro well organised (if running as per schedules)
  - Supporting ECR applications (as PI or co-PI) would increase prestige
  - Decisions should promote sustainability and align with European strategies
  - Funding for physics analyses desirable
  - Periodic reconsiderations of allowances to account for inflation
  - Build safeguarding mechanisms for exceptional cases

Thank you!!

Backup