



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
**State Secretariat for Education,
Research and Innovation SERI**

State Secretariat for Education, Research and Innovation SERI

Early Career Discussion on Strategy

Dr. Francesca Stocker

Scientific Advisor, International Research Organisations

scnat
swiss academy of sciences

swiss academies
reports

swiss-academies.ch

Vol. 19, No. 9, 2024

CHIPP Community Roadmap 2024

Update of Swiss Particle Physics' Community Needs for
Research Infrastructures 2029-2032 and beyond

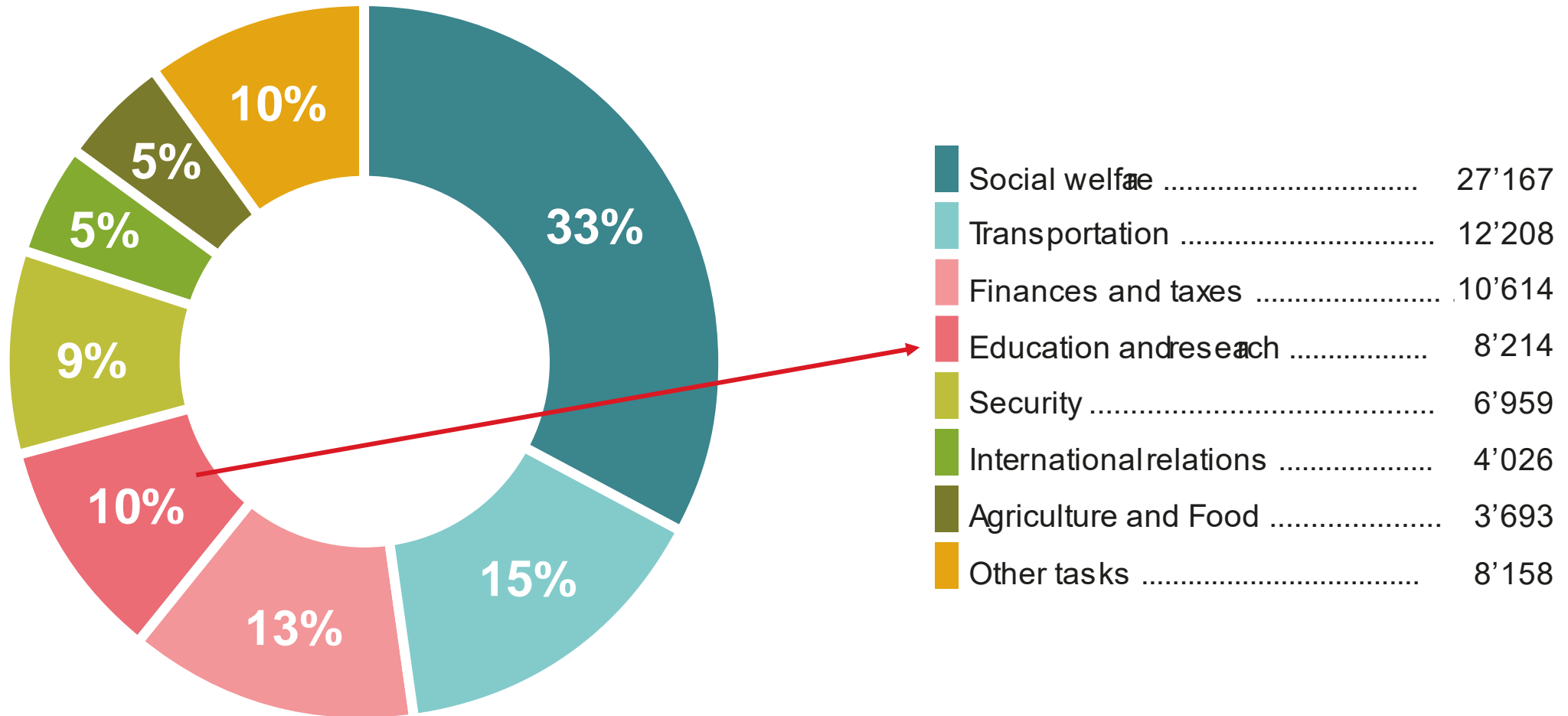




Education, Research and Innovation (ERI)

Swiss Federal Budget, expenditures by task area 2024

Total 81'039 MCHF





ERI Dispatch 2025-2028

Expenditure ceiling and guarantee credits
of CHF 30.3 billion in 12 federal decrees

ERI Dispatch
2025–2028

2025–2028 expenditure:
max. CHF 29.2 billion

- [ERI Dispatch 2025-2028](#)
- Includes (amongst other items) the budget of the, [ETH Domain](#), [Swiss National Science Foundation](#), ...
- Annual [Swiss contributions to international research organisations](#) are mostly allocated outside the ERI Dispatch. They are so-called «bound» contributions and included in the yearly federal budget.
- Swiss contributions to CERN annual budget (Total 1'255 MCHF) in 2024 amounted to **45.8 MCHF**



Switzerland and international research

- Swiss participation in international research organisations is based on «**openness**» and a «**bottom-up**» approach.
 - Membership in CERN, ESO, ILL, ESRF, European XFEL, EMBL, ESS, SKA, ESA, CTAO (2025 formal adhesion).
- The Swiss Roadmap for Research Infrastructures reports on the status and development of national and international research infrastructures. It provides an overview of future needs and planned developments in the various research areas and thus serves as a basis for the ERI Dispatch.
- The Swiss Academy of Sciences (SCNAT) , mandated by SERI, worked with various scientific communities to produce the first thematic roadmaps for research infrastructures.
- The Roadmaps provide long term strategic considerations for the different fields of research.



Switzerland and Particle Physics

- [CHIPP](#) represents the particle physics community.
- The [Particle Physics Community Roadmap 2024](#) was produced by CHIPP and provides the base for long term strategic planning in three Pillars:
 1. High-energy, high-intensity and precision frontiers
 2. Neutrino Physics
 3. Astroparticle Physics



Switzerland and CERN

- Switzerland, as Host State to CERN together with France, is supportive of a long term development of CERN, through a flagship project, meeting the needs of the Particle Physics Community.
- The Future Circular Collider Project seems to meet these needs?
→ *Eager to see results of ESPP26*
- Within the CERN Council and its subordinate governing bodies, the Swiss Delegation (SERI + Scientific Delegate, with support from other relevant federal offices and the canton of Geneva) represents the interests of Switzerland and its Particle Physics Community



Encouraging Research in Particle Physics

- ETHZ and EPFL together with the Universities are the primary actors of research in Switzerland. The Swiss Government contributes financially to ETHZ/EPFL, PSI and the Universities.
- CHART, Swiss Accelerator Research and Technology, since 2016
- CHEF, Swiss High Energy Physics for the FCC, starting 2025
- Special complementary contributions for a strategic domain



Swiss Accelerator
Research and
Technology



Encouraging Research in Particle Physics

Milestones since 2020:

- ✓ Decision by [Federal Council December 2021](#) to actively support future CERN projects
- ✓ Parliament adopts new legal basis for CERN sector plan in September 2024, [public consultation on CERN sector plan](#) January – April 2025
- ✓ [Swiss Foreign Policy Objectives 2024 – 2027](#) reaffirm Switzerland's dedication to CERN's long-term development
- ✓ Accompanying FCC Feasibility Study:
 - Tripartite Committee CH-FR-CERN
 - «Comité Suisse pour l'Evaluation du FCC» (CSEF)



What's next?

ERI Dispatch 25-28: *“Recognizing what is new and developing approaches to deal constructively with it is a task that must be carried out from the **bottom up** by the actors in education, research and innovation themselves. It is the task of politics to create the necessary freedom and framework conditions for this. The federal government determines the need for action in cooperation with the respective actors and sets specific priorities.”*

- Looking forward to receiving the final report of the FCC Feasibility Study submitted to the CERN Member States
- Eager to see the results of the European Strategy Update for Particle Physics in 2026
 - The Swiss Input to ESPP26 is an important step
 - Early involvement of the ECRs is important – it's your future. → **Let's discuss!**



Discussion

*Early Career Researchers (You) are the future of particle physics and will be (or already are) shaping the **bottom up process** in this field. I am curious to hear from you:*

- How would it impact your career choices if the next flagship facility at CERN is scheduled to start in 2045 or 2055?
- If no facility is decided within the next five or ten years, would this influence your career decision?
- What drives the choice of physics type? Will you adapt to the long-term strategic orientations that have been decided or do you hope that the strategy will adapt to your interests?