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Geneva, 5 June 2023

Dear Minister,

It was a great pleasure for the European Committee for Future Accelerators (ECFA) to visit Norway on 28 and 29 April 2023. The purpose of the ECFA visits, which are made to each of CERN's Member States in turn, is to assess particle physics and related disciplines in the country concerned and to suggest improvements. The recommendations are addressed to both the particle physics community and the government.

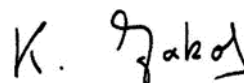
Please find below a brief summary of our observations and recommendations together with a more extensive letter in which we elaborate on these points.

- The Norwegian particle physics community is strongly engaged in and makes very significant contributions to today's particle physics research programme, with a strong focus on CERN. We were pleased to see excellent contributions to the flagship ATLAS and ALICE experiments at the Large Hadron Collider.
- We appreciate that the Norwegian Centre for CERN-related research (NorCC) is well established. Such a centre is essential for the successful and efficient physics exploitation of large, long-term high-energy physics experiments.
- CERN as a laboratory is in general well used. However, efforts should be made to raise the proportion of Norwegians with staff positions at CERN.
- The funding situation for other, non-CERN-based, experimental activities and theory activities is much less solid. In particular, the resources for astroparticle physics activities are insufficient, which severely threatens the sustainability of ongoing research in this field. The theory community seems to be hampered by a lack of adequate support from the universities and appropriate funding opportunities.
- On the technology side, we note with satisfaction the significant Norwegian participation in detector and accelerator R&D activities, including successful examples of cooperation with industry and a track record of genuine intellectual leadership in some important aspects of plasma acceleration. The Norwegian contributions to grid computing remain a flagship activity.

- We appreciate the plans of the particle physics community to establish a “Norwegian Roadmap” for particle physics. Such a process, aimed at defining a focused programme, would be beneficial and would maximise the overall impact of Norwegian participation in international experiments.
- A serious concern for the future of particle physics in Norway is the age profile of the principal investigators, with many colleagues close to retirement age. Short- and long-term hiring plans are urgently needed in order to secure future participation in and physics exploitation of the large CERN experiments, which have been established with significant Norwegian investment.
- Furthermore, we also share universities’ concerns that applications to science teacher education and to physics bachelor programmes have been declining in recent years. This is worrisome and, if it persists, the strong needs of a twenty-first century society in science- and technology-related areas may not be covered.

In conclusion, ECFA is greatly impressed with the high quality of the activities of the Norwegian particle physics community and their contributions to and achievements in many international science projects.

Yours sincerely,



Karl Jakobs
Chair of ECFA

cc: Professor Mari Sundli Tveit, Chief Executive, Research Council of Norway
Professor Øyvind Frette, Chair of NorCC Governing Board
Professor Alexander L. Read, Representative of Norway to Restricted ECFA