ECFA EUROPEAN COMMITTEE FOR FUTURE ACCELERATORS

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Sent in electronic format only

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Dear Minister,

It was a great pleasure for the European Committee for Future Accelerators (ECFA) to visit Denmark on 12 and 13 May 2022. 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 made are addressed to both the particle physics community and the government.

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

- Denmark has a long-standing engagement in particle physics and has contributed in an important way to the establishment and development of CERN's unique research infrastructure and to establishing CERN as the world-leading laboratory in particle physics.

- Danish scientists continue to make excellent contributions to experiments at CERN. However, it is vital that they are properly supported in order to exploit the great physics opportunities, in particular in the flagship LHC experiments, and thereby to capitalise on the Danish investments and to harvest the scientific results. Based on the review carried out by our committee, we are convinced that this cannot be done without adapting the Danish funding structure.

- Increased support via the National Instrument Centre for CERN experiments (NICE) would be a possible way of providing sustainable funding through "rolling grants", and of catering for the needs of detector upgrades.

- We note that the number of PhD students and postdocs involved in the large CERN experiments is rather low, which makes it difficult for the Danish groups to maintain a visible and competitive role. If allowed to persist, this shortage of early-career researchers will, within a small number of years, lead to a crippling shortage of professors and principal investigators. It would also suggest that the unique educational possibilities offered by the international CERN environment are being

under-exploited by Denmark. We thus recommend that measures be taken to increase the number of early-career researchers in particle physics in Denmark.

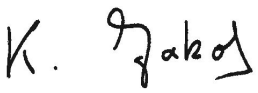
- Given the age profile of the particle physics faculty members, we recommend that the universities embark upon a strategic hiring campaign in order to safeguard the future of particle physics in Denmark.

- The particle physics community should set up an organisation that will ensure proper community representation. The community should develop a roadmap for participation in present and future particle and astroparticle physics projects.

- In order to address these issues, we recommend that a working group – involving representatives from the Ministry, the universities and the particle physics community – be set up to develop a strategic plan for particle physics research in Denmark, focussing especially on adequate funding mechanisms.

In conclusion, ECFA is highly impressed by the great efforts and contributions made by the Danish particle physicists. We hope that the weaknesses identified during our visit, which are placing the very future of particle physics in Denmark in jeopardy, can be addressed in a timely fashion, so that Denmark can fully exploit the exciting physics opportunities offered by experiments at CERN and beyond.

Yours sincerely,



Karl Jakobs
Chair of ECFA

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