

CEPC Input to the European Particle Physics Strategy Update 2018-2020

Addendum: The Planning of CEPC

The Chinese government has established a program to host China initiated international large science projects. A call for proposals is expected in early 2019. After a selection process, the Ministry of Science and Technology will cultivate 3-5 seed projects by 2020, from which 1-2 projects will be approved for construction. China will continue to identify and support further large science projects in the future. This program provides a natural path for the realization of the CEPC.

The current priority of the CEPC project is to secure its position as one of the seed projects of this program. The official approval of the CEPC project, at the earliest, could happen in 2022. The accelerator construction could start soon after the approval. At the same time, a call for detector Letters of Intent is planned. Two detectors will be selected and the International collaborations will be formed accordingly. The collaborations should deliver their Detector Technical Design Reports within two years after the starting of the construction of the accelerator.

In November 2018, the CEPC Conceptual Design Report was released and the CEPC International Advisory Committee provided its recommendations. According to which, the accelerator study group should complete its Technical Design Report by 2022. Meanwhile, collaborative R&D work on each of sub-detector systems will be the focus. To achieve this goal, two International Committees will be established. The first is an Accelerator Review Committee that advises on all matters related to the accelerator design and R&D including the Machine-Detector Interface and upgrade capabilities. The second is a Detector R&D committee that reviews and endorses the Detector R&D proposals from the international community, such that the international participants could apply for funds from their funding agencies and make effective and sustained contributions.

International collaboration is vital for the CEPC project. Active collaborations have been established between the domestic CEPC study groups and multiple international research institutions. Through these collaborations, many key challenges of the CEPC detector design and physics studies have been identified and being addressed through dedicated R&D programs.

A new organization structure is proposed to promote and accommodate the future international participation, see Figure 9. This structure reflects the discussion at the 2018 CEPC workshop and takes into account the

recommendations of the International Advisory Committee. It is intended for the period from 2019 till the construction.

In this structure, all the building blocks will integrate the international participation. The Institution Committee writes the bylaws and makes major decisions on organizational issues. The national representatives interface with the National Funding Agencies and the corresponding institutions are represented in the Institution Committee. Supported by the Accelerator Review Committee and the Detector R&D Committee, the Project director is responsible for the coordination of studies at each group.

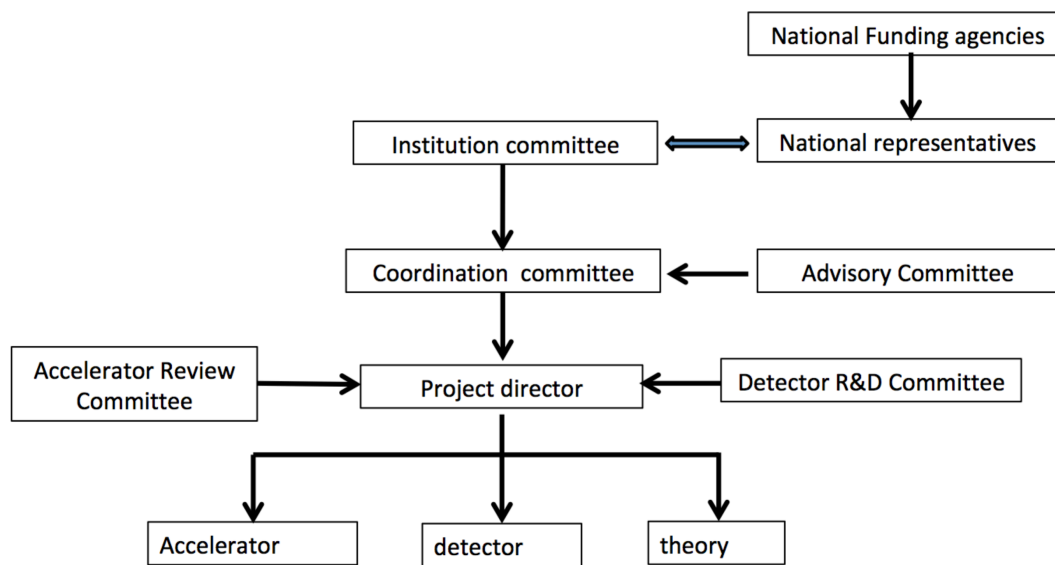


Figure 9, The planned international organization from 2019 till the construction

The organization will evolve with time. In the construction and operational phase, the organization will naturally evolve to include the council representing the participating countries and the host lab management who provide supervision to this project.

Though the CEPC project is initiated by and to be hosted in China, it is envisioned to be an international project. The organization and the management of the project will reflect the international participation of its stakeholders. The successful international participation played a critical role in the delivery of the CEPC conceptual design, and it will certainly become more important in the future.