Introductory remarks

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Institute of High Energy Physics
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CEPC-related Near Future Events

- **2nd USA Workshop in Washington, DC - April 22-23**
  - Reduced to a small video-only event:
    - US mini workshop on future e+e- colliders
    - April 22 from 4:00 pm to 7:10 pm CERN time (10:00 pm to 1:10 am Beijing time)
    - https://indico.cern.ch/event/896263/
- **FCPPL, 27-30 Apr 2020 in Bordeaux**
  - Postponed to Fall 2020
- **CEPC Workshop EU Edition, 4-6 May 2020, Marseille**
  - https://indico.in2p3.fr/event/20053/
  - To be postponed to next year
- **CEPC international workshop on Oct. 26-28, 2020**
  - Meeting will be in Shanghai this year. Organization has started.
- **Next CEPC Work Day: March 27**
  - Heavy Flavor Physics
  - Back on trackers:
    - Status of TPC Research and path to a decision
    - Silicon tracker project
  - Test beam proton@1.6 GeV
  - Other Physics and performance updates?

Recommendations:

1. The project leadership and IDRC should assemble a **coherent list of R&D activities**, such that the presence of gaps and overlaps can be determined and addressed

2. Each current R&D project should provide, before the end of 2019, **key information to the IDRC**:
   - The objectives of the project
   - The anticipated schedule on which the objectives will be met
   - The funding available to the project, and the leadership arrangements within it
   - The extent to which the project is a CEPC-specific development
   - Manpower resources available for the project, including type (student, faculty, engineer, etc) and FTE

We added:

Detector R&D Tasks Arrangement

1 - Vertex

2 - Tracker

2.1 - TPC

2.2 - Silicon Tracker

2.3 - Drift Chamber

3 - Calorimeter

3.1 - ECAL Calorimeter

3.2 - HCAL Calorimeter

3.3 - DR Calorimeter

4 - Muon Detector

5 - Solenoid

Detector R&D sub-projects to be identified and numbered accordingly

R&D tasks to be created
under these tasks

e.g. 3.1.1 Crystal Calorimeter

Sub-group conveners and other detector R&D proponents were asked to compile documents with required informati

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- 📄 1.1-RD-Vertex-Prototype
- 📄 2.1-RD-Tracker-TPC-v1.docx
- 📄 2.2-RD-Tracker-SiliconTracker-Prototype-v1.docx
- 📄 2.3-RD-Tracker-DriftChamber-v1.docx
- 📄 3.1.1-RD-ECAL-Crystal_Calorimeter-v1.1.docx
- 📄 3.2-RD-HCAL-PFA-DHCAL-v0.docx
- 📄 3.3-RD-calorimetry-dual-readout-calorimeter-v1.docx
- 📄 4.1-RD_Muon_Scintillator-v1.docx
- 📄 4.2-RD-muRwell-detectors.docx
- 📄 5.1-RD-LTS-solenoid-magnet.docx
- 📄 5.2-RD-HTS-solenoid-magnet.docx
- 📄 6.2-RD-MDI-Mechanics.docx

Word document template:

CEPC Detector R&D Project
1.1 Vertex Prototype

Document Responsible:	Joao Guimaraes da Costa
Last saved by on	12/13/19 5:19:00 AM
Revision number:	1

Change history

Revision	When	What changed and why
1	12/12/2019	First draft
		< Add further lines to table as required >

Readme first

i. Please do not delete or modify this section or its structure.
ii. Only change text enclosed by (and including) angled brackets "< … >".
iii. Don't change field directly, instead modify the document options, under File→ Properties (or similar)
- o Enter name of person that wrote the document in Document:Summary: Author
- o The project ID number, should follow the rules provided to you earlier. The number should be changed in Document:Custom: PBS.
- o The project name should be changed in Document:Summary: Subject.
iv. In Section *Project Objectives* provide a brief description of the project goals, i.e. why and what is being produced, for PBS item **1.1 Vertex Prototype**. If this project includes identifiable sub-projects you can indicate them in the *Sub-projects Description* Section, otherwise submit a separate document for each of them. The sub-project IDs are free for you to define.
v. Finally, remember to update the *Change History*.

6

Preliminary Documents:

CEPC Detector R&D Project
2.1 TPC Module and Prototype

Document Responsible:	Qihurong
Last saved by on	12/18/19 6:40:00 AM
Revision number:	1

CEPC Detector R&D Project
2.2 Silicon Tracker Prototype

Document Responsible:	Harald Fox, Meng Wang
Last saved by on	12/29/19 10:42:00 AM
Revision number:	1

CEPC Detector R&D Project
3.1.1 Crystal Calorimeter

Document Responsible:	Yong Liu
Last saved by Yong Liu on	12/30/19 5:56:00 AM
Revision number:	1

CEPC Detector R&D Project
3.3 Dual-readout Calorimeter

Document Responsible:	Roberto Ferrari
Last saved by Roberto Ferrari on	17/12/19 08:00:00 PM
Revision number:	1

CEPC Detector R&D Project
4.1 Scintillator-based Muon Detector Prototype

Document Responsible:	Xiaolong Wang, Liang Li
Last saved by on	12/18/19 3:15:00 AM
Revision number:	1

CEPC Detector R&D Project
4.2 muRWell detectors

Document Responsible:	Paolo Giacomelli
Last saved by Joao Guimaraes da Costa on	12/30/19 12:23:00 AM
Revision number:	1

CEPC Detector R&D Project
5.1 LTS solenoid magnet

Document Responsible:	Zhu Zian
Last saved by on	12/18/19 1:40:00 AM
Revision number:	1

CEPC Detector R&D Project
5.2 HTS solenoid magnet

Document Responsible:	Zhu Zian
Last saved by on	12/18/19 1:41:00 AM
Revision number:	1

CEPC Detector R&D Project
6.2 Interaction Region Mechanics

Document Responsible:	Microsoft Office User
Last saved by on	12/18/19 11:08:00 AM
Revision number:	1

Plan:

1 - Vertex

2 - Tracker

2.1 - TPC

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1) Collect missing documents by mid Jar

2) Compile into one single document and

provide to detector R&D committee before end of Jar

3) Discuss with committee next steps, including proposal submission procedure