

# Progress in mechanical design of CEPC detector TDR

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## Work Goals and Work Progress --- Write Ref-TDR (After completing the design )

### Three options --- Pre-assembly point Installation Plan

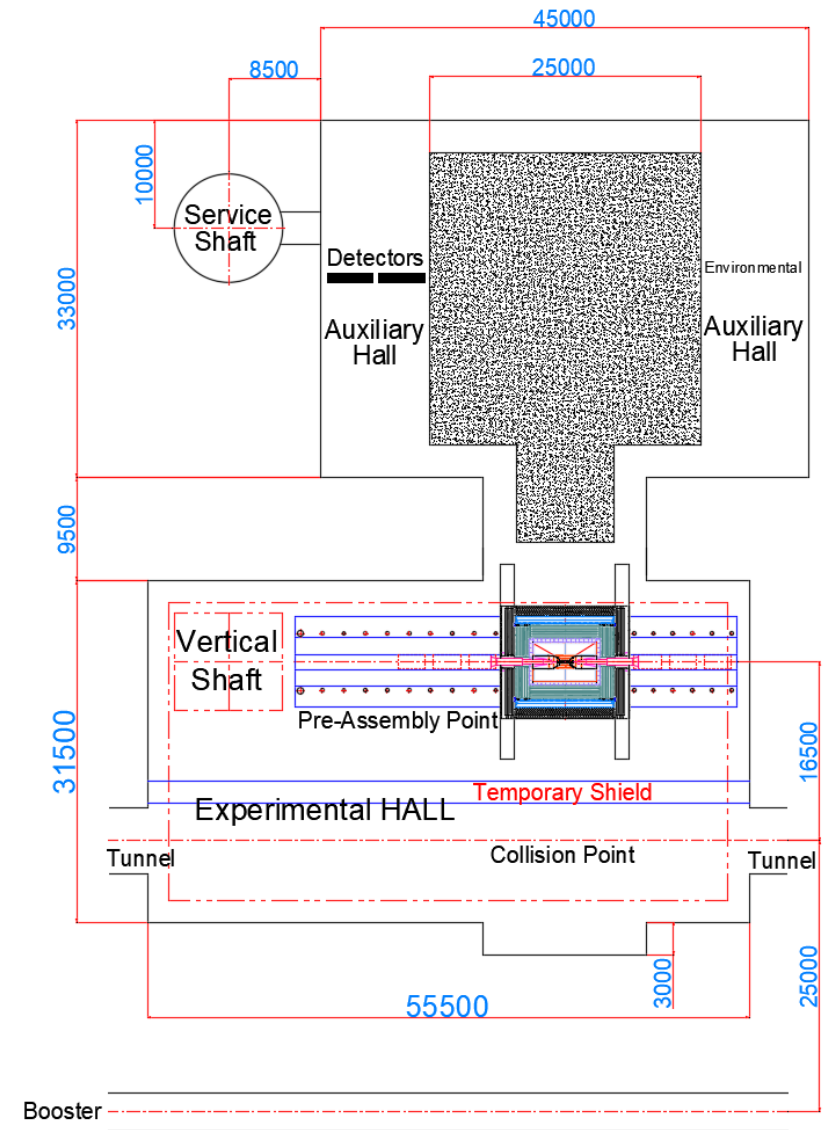
1. Experimental Hall, Auxiliary Hall, Ground Halls
2. Experimental Hall, Auxiliary Hall
3. Experimental Hall

Question :

1. Cooling design
2. Cooling system design

### Work Plan or Work Arrangement

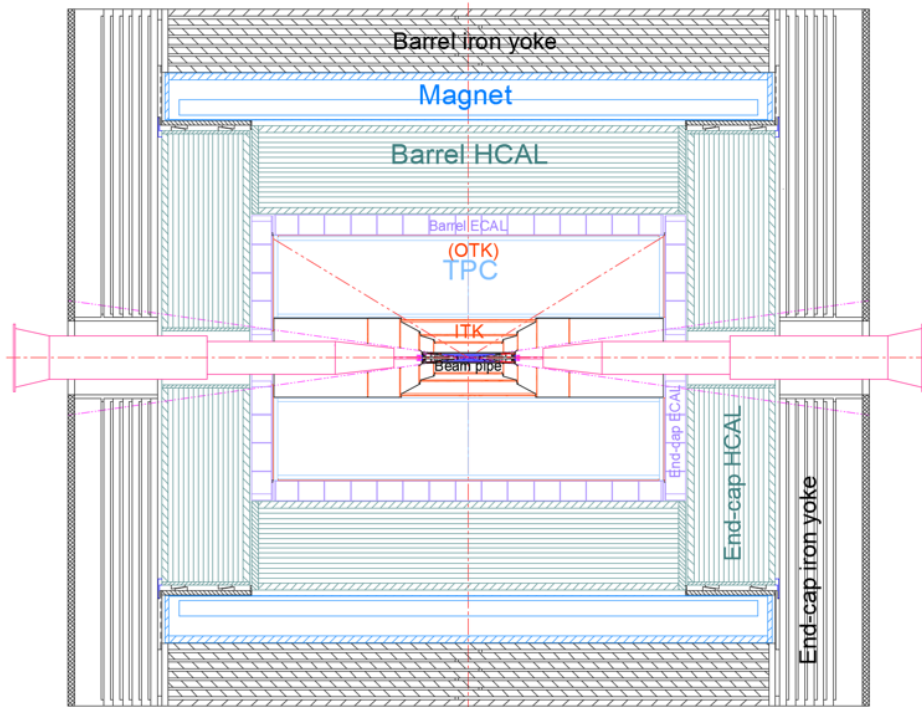
1. Cool structure design --- Calculation, Pipeline layout  
(每个子探测器机械工程师 与 探测器和电子学的交流)
2. Cooperation units for cooling design (Prepare in advance...)
3. cryogenic system ( ? )
4. 与王铮,魏微多次交流.....
5. Ground Halls (黄河设计院)
6. 写作人员



Pre-assembly point Installation Plan

# Progress in Sub-detector --- Design Regular meetings (November 25)

## 1. Determined --- Cooling medium :



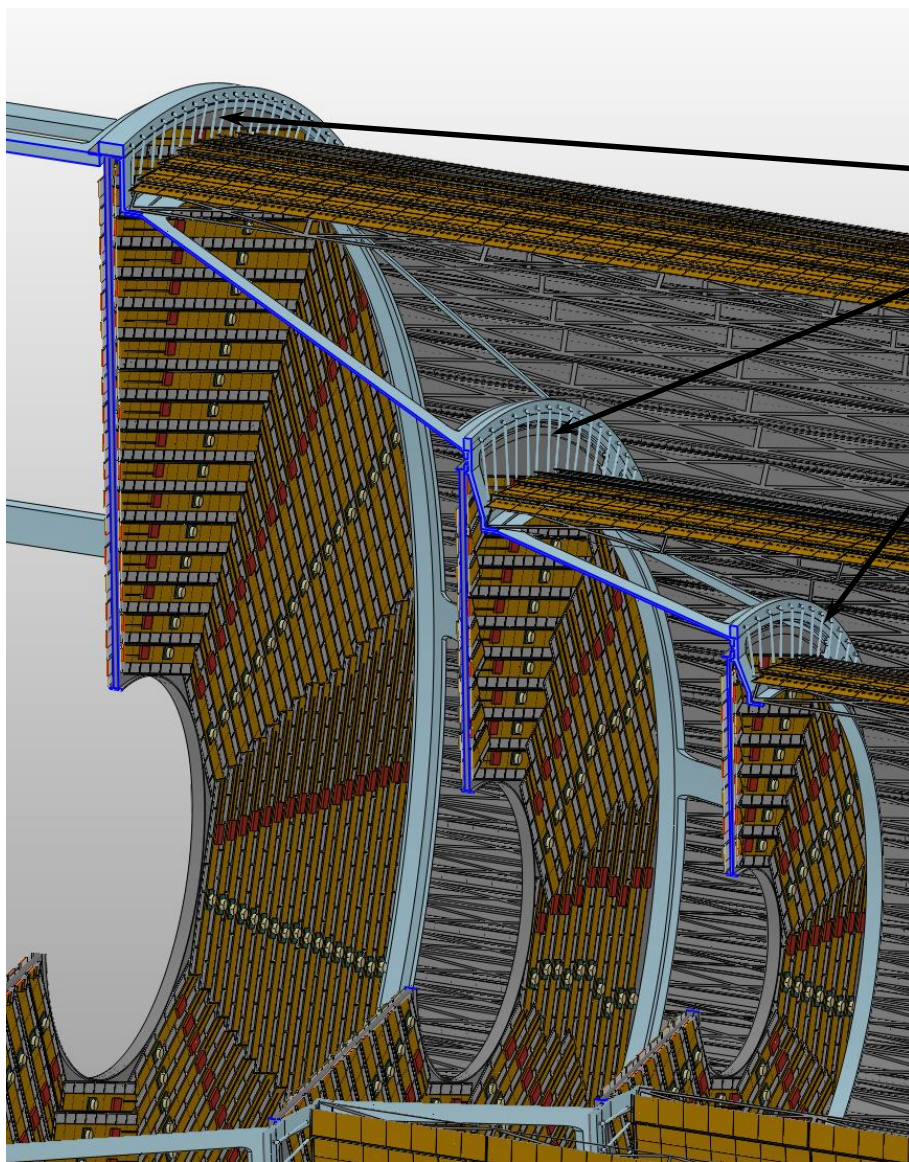
## From innermost to outmost :

Air	H <sub>2</sub> O	H <sub>2</sub> O	?
Vertex	ITK	ECAL	LumiCAL
	TPC	HCAL	
	OTK		
	CO <sub>2</sub>		

## 2. Undetermined --- ECAL Crystal Strip Size :

10 X 10 or 15 X 15

## Progress in Sub-detector --- Design Regular meetings (November 25)



Pipeline layout

### 1. Progress of Pipeline layout :

Progress :  
Only barrel Pipeline layout

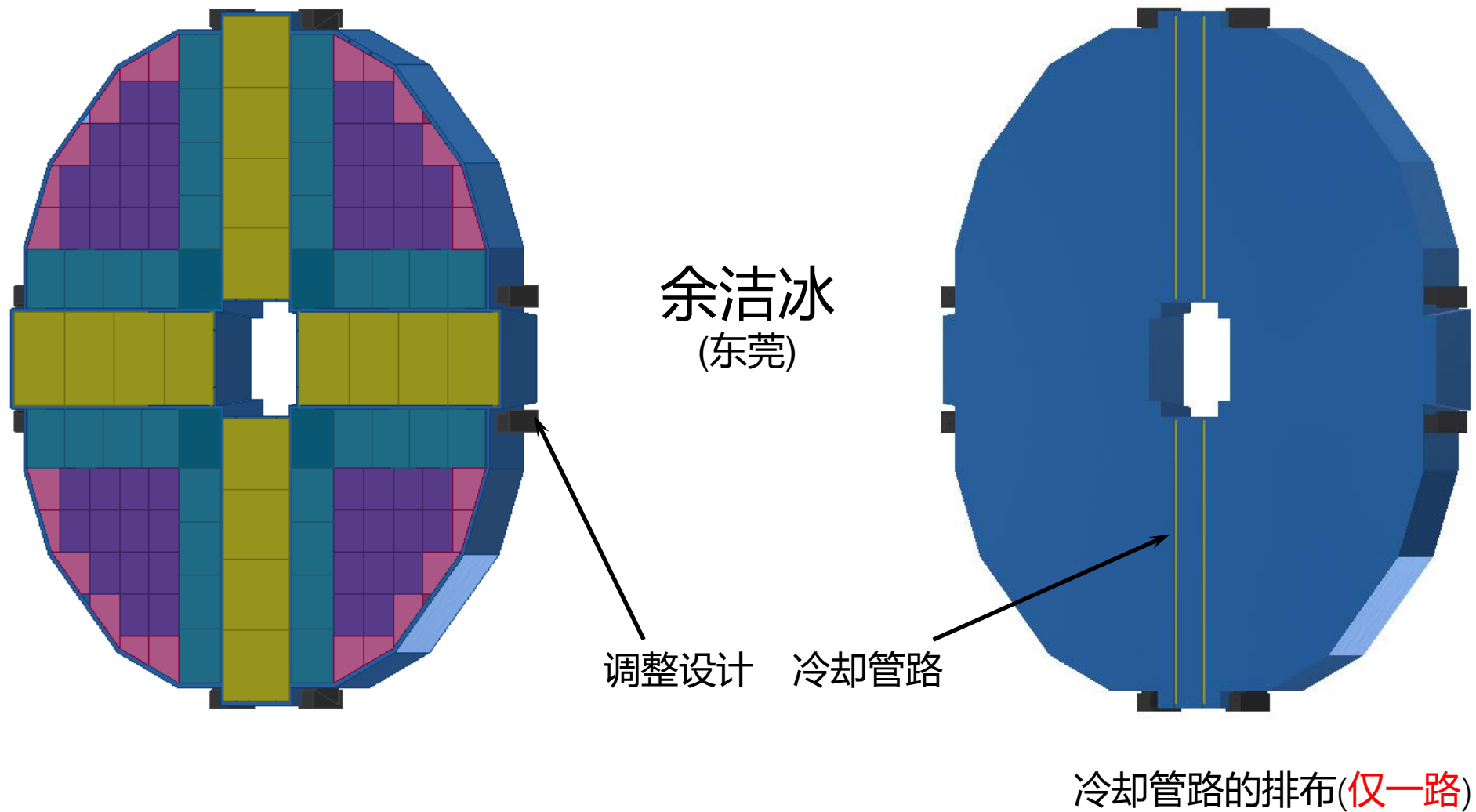
工作安排:

1. 每个子探测器根据实际情况给出最优管道排布
2. 根据每个子探测器的管道排布, 优化总体排布

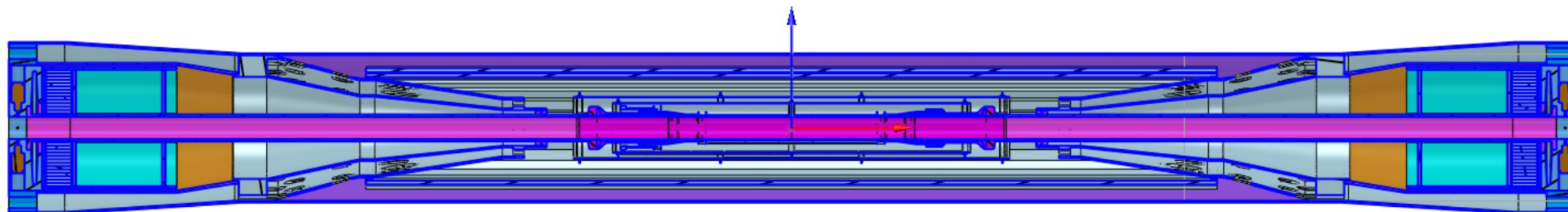
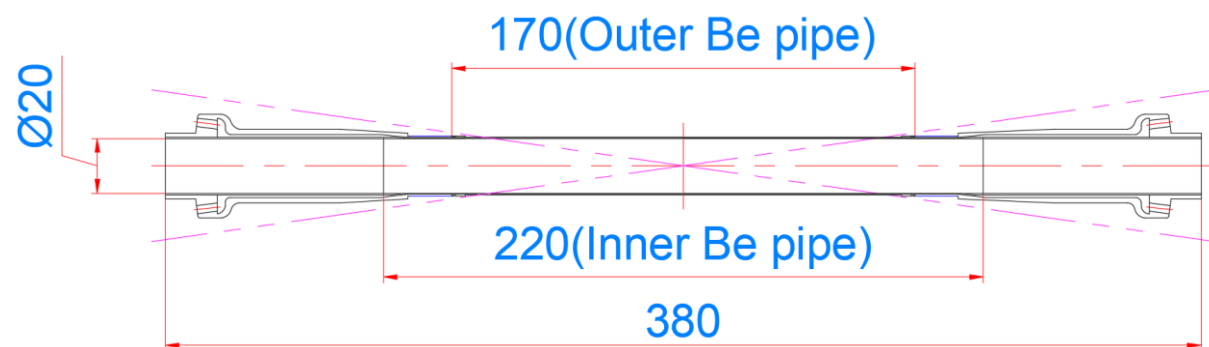
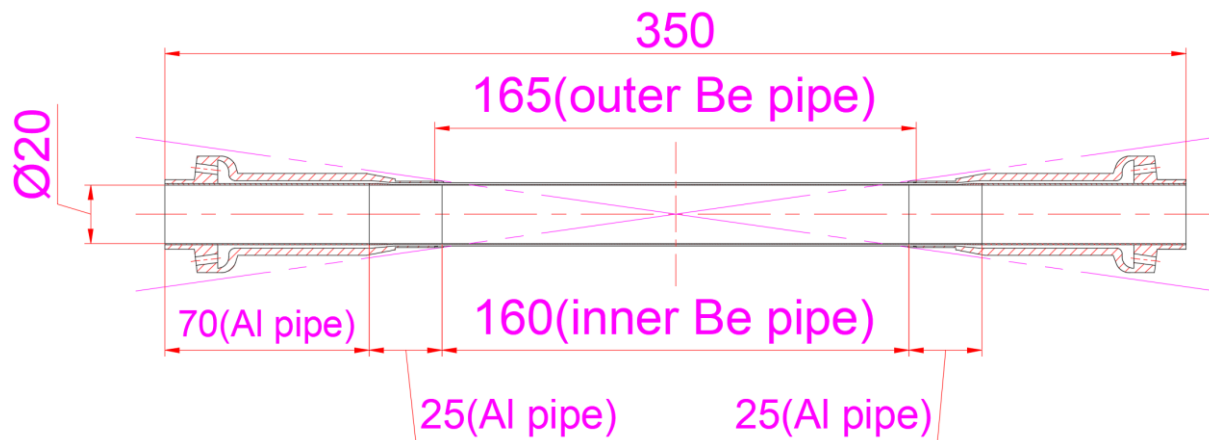
和管线空间 → **调整轴向空间**

Progress in Sub-detector --- Design Regular meetings (November 25)

## 2. Progress of ECAL:



## Progress in Sub-detector --- Design Regular meetings (November 25)



### 3. Progress of Beampipe:

HOM HEAT : (changed)

Reason : (Length of Be pipe)

160(210)mm to 220mm

工作安排:

付金煜(负责)和何龙岩(配合)完成Beampipe设计  
(BPM, Vertex, LumiCAL)