



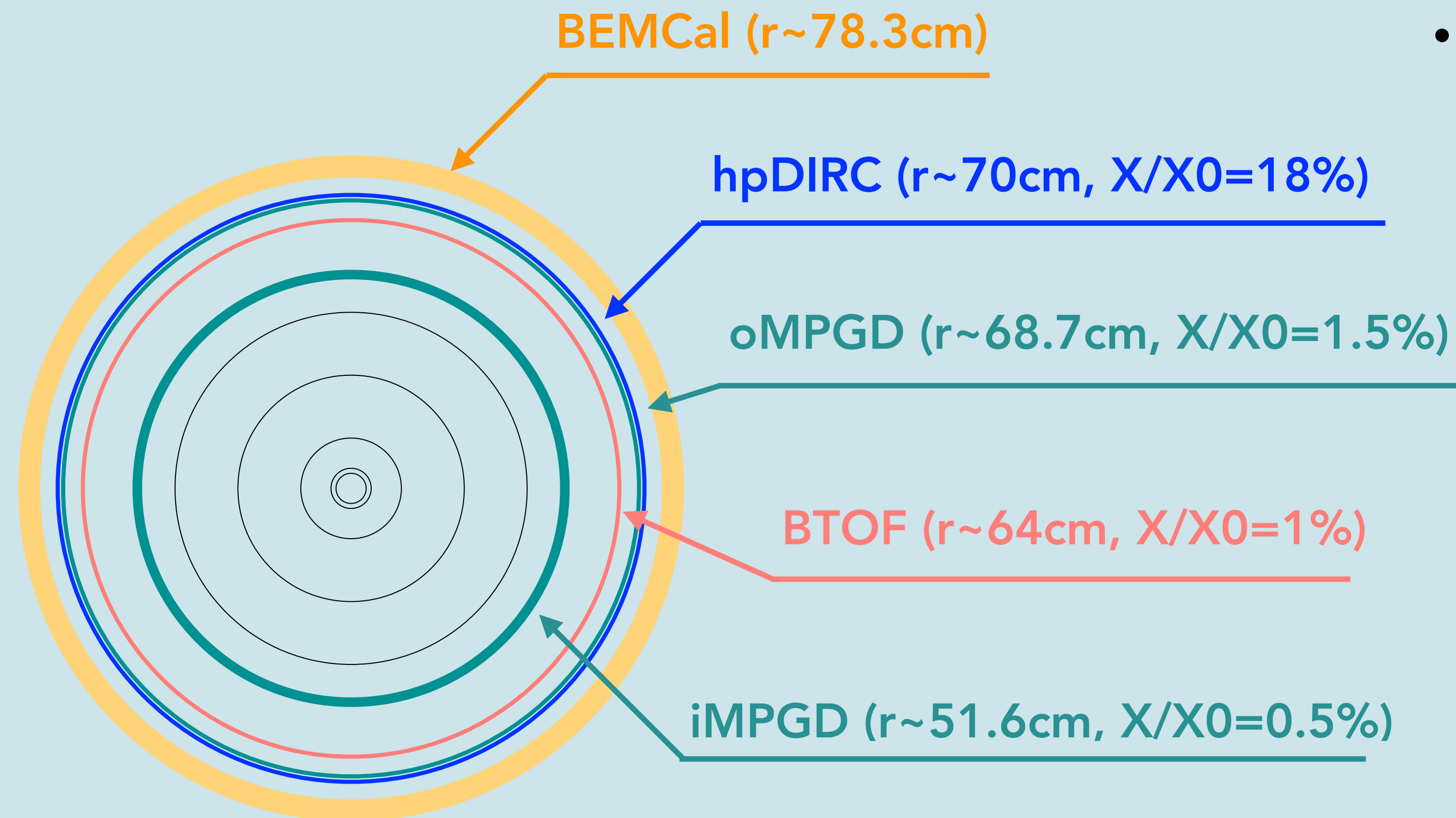
# Material budget of BTOF

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# What does the material budget affect?

- BTOF has been designed under the restriction of 1%  $X/X_0$  material budget
  - Significant impact on the developing cooling and support structure design



- **Is this small amount of material budget design really necessary?**
  - For hpDIRC?
    - oMPGD is placed just in front of hpDIRC in the latest design → Not big effects on angular determination resolution by the BTOF material
  - For BEMCal?
    - The material budget of hpDIRC in the active area is approximately 18% → Not big effects on the EMCal performance by the BTOF material

**I think we need a simulation study  
The result should be shared among designers  
TIC meeting?**