

ATHENA Answers to DAC Questions (received on 12/22, 2021)



ATHENA Collaboration

Questions received

- About **Tracking**, TR1-4
- About **Calorimetry**, CA1-2
- About **PID**, PID1
- About **Electronics/DAQ**, EL1-6
- About **Auxiliary Detectors**, AX1
- About **Magnet**, MA1
- About **Costs**, CR1

➤ **Questions PID1 and AX1**, requiring comparative cost considerations with respect to the YR, **have been cancelled** because no cost estimate are included in the YR (E. Kinney's e-mail on 12/24,2021)

➤ The Athena **answers to all the other questions** are included in the following slides

MAGNET

MA1

Q: Please explain why the magnet costs are not escalated from FY21\$?

- A new 3T magnet is part of the long lead items of the EIC project, therefore it is on a fast-track procurement and design schedule to be completed by CD-2/3A in April 2023.
- The timescale between the costing in 2021 Dollars and the actual execution is at the level of 1-2 years. It was therefore decided not to include this correction to cover the escalation of the magnet costing.
- Magnet costing table: Appendix C of proposal – Table C.16
- What is provided below is the level of escalation under those conditions:
 - ⦿ Growth rate: 3.5%
 - ⦿ Time scale: 1-2 years
 - ⦿ Magnet costing in FY21: \$28.7M
 - ⦿ Escalation for 1 year: Escalation factor $1.035=(1+0.035)$ / Escalated amount: \$29.7M
 - ⦿ Escalation for 2 years: Escalation factor $1.071=(1+0.035)^2$ / Escalated amount: \$30.7M