Costing

ATLAS example
How ‘flat budget’ are we?
Cost components

1. Hardware
2. Infrastructure
3. Network
4. Operation
   a. Electricity/fluids/...
   b. People

- ATLAS has accounting available for items 1 and 4.b
Hardware cost

- In view of costing Run 2 computing model
- ATLAS International Computing Board organised in 2013 a survey of hardware cost and replacement profile over next years at ATLAS Tier 1 and Tier 2 (~70% of sites answered)
- Limitations:
  - Cost does not include operation
  - It is only RAW hardware cost (for tape include drives)
  - Does not include heavy investments like tape robot
Cost evaluation should include replacements
Cost of various components

![Graph showing the cost of various components from 2014 to 2017. The x-axis represents the years 2014 to 2017, and the y-axis represents the cost in CHF. The diagram compares the costs of T1 and T2 CPU, T1 and T2 Disk, and T1 Tape.]
‘Flat budget’

![Graph showing flat budget costs from 2014 to 2017 with a pie chart indicating cost distribution for 2017: T1 - Disk 31%, T2 - CPU 28%, and T1 - CPU 16%.]