Efficiency and Cost

Why these topics

- For HL-LHC we have to become much more efficient!
  - LHCb and ALICE for Run3 (which is “tomorrow”)
  - "***Ceterum censeo Carthaginem esse delendam***”

- Less than 10 years to figure out what to do, implement it and go to production
  - All this in a rapidly changing computing ecosystem
    - Fabric layer will see large changes, more species to farm, potentially new concepts
  - While spending most effort on getting the most out of Runs 1,2,3

- → **WLCG get cracking NOW!**

Why these topics

- What metric to use?
  - We can't measure without a meaningful metric
    - Hint: CPU/Wall isn't the solution...
  - We can't optimise what we can't measure
- How to introduce change quickly?
  - For HL-LHC we have to probe many different paths to better efficiency
  - If we can't evaluate new concepts quickly we will not have a good map to guide us
- How to share knowledge and make it accessible for all?
  - Looking at the gaps and changes in computing this is bigger than the transition from FORTRAN to C++
  - As a community we have not only to pick up a few new tricks, but get deeper re-training
  - Extensive knowledge and experience exists within the community