

T2.1 Code Audits – as per DoA

Goals:

- Set performance baseline for optimization work and progress monitoring
- Identify performance bottlenecks

Method:

- Two performance audit campaigns (M3-M15, M27-M36)
- Actual performance audit and analysis done by POP3
- Target EuroHPC systems such as Leonardo, Lumi, ...
- Main effort is organizing POP campaigns and preparing codes for analysis



T2.1 Code Audits – Issues

- POP3 has not been funded.
ChEESE will have to do code audits on its own.
- Good: ChEESE has sufficient expertise in code auditing (BSC, HLRS are in POP)
- Problem: main effort shifts to collecting performance data and doing analysis
- Suggestions:
 - Continuous effort throughout project rather than 2 distinct campaigns
 - More effort for code owners to collect performance data
 - Very light-weight initial audit for POP metrics. Code audit only where necessary.
How to prioritize?



T2.1 Code Audits – suggested next steps

- **Code owners** select EuroHPC system for audit
 - <https://edocs.hlr.de/nextcloud/s/GCegBo7kw2NeJcg>
 - Passwd: "ChEESE-2P-T2.1"
- **Code owners** request benchmark access and build code
- **HLRS / BSC** install tools on EuroHPC systems
- **HLRS / BSC** organize small internal workshop on instrumenting codes with tools
- **Code owners** obtain traces
- **HLRS / BSC** do initial audit; might need prioritization of codes

