

Thoughts on Turnkey Task

1.1

Graeme Stewart (standing in for others...)

Caveat Emptor...

- I am standing in for André and Pere here who are unavailable today
- I have not had time to discuss any details with other partners yet
- I hope this sets out a stall for what can be achieved in the Turnkey software stack area

Task Focus and Deliverables I

- ‘Mechanical’ building of the Key4hep stack, with supporting infrastructure (GitHub, Spack, Travis/Jenkins, Build Machines, Tests)
 - Fits very well with current CERN Software Process and Infrastructure group activities
 - Deployment to CVMFS (probably to /cvmfs/sw.hsf.org)
- Integration of core components, such as Geant4, ROOT, DD*, Gaudi, PODIO
 - Develop integration tests
 - CERN can support via EP R&D activity
- Development of EDM4hep (ongoing discussions converging nicely) as a common baseline EDM
 - CERN, DESY, IHEP all involved for all future experiments

Task Focus and Deliverables II

- FCC software stack consolidation
 - Particularly focused on FCC-ee studies
 - CERN and INFN strengths
 - Focus on full chain physics studies (validated)
- LC software stack consolidation and conversion to Key4hep
 - DESY and IHEP expertise
 - CERN via CLIC
 - Focus on full chain physics studies (validated)

Partners and Effort

- CERN
 - Excellent synergy with SPI and EP R&D, no issue with matching
 - Could be the lead institute
- DESY
 - Frank to comment
- INFN
 - Tommaso to comment
- IHEP
 - Good alignment with CEPC plans as we know them
 - IHEP would be collaborating institute as they cannot take EU funds

57 person-months of work would fit with carefully scoped deliverables and milestones; EU funding approximately 127k€