

A Center of Excellence for Exascale in Solid Earth



ChEESE

Centre of Excellence for Exascale in Solid Earth

10 new High Performance Computing Centres of Excellence (CoEs) have been created under H2020 e-Infrastructures. Among these, ChEESE is a 3-year project targeting at Solid Earth (SE) for the upcoming pre-Exascale (2020) and Exascale (2022) supercomputers.

15 Exascale Computational Challenges

ChEESE will address 15 scientific, technical and socio-economic Exascale Computational Challenges (ECC) in the domain of SE.

12 Pilot Demonstrators

ChEESE will develop 12 Pilot Demonstrators (PDs) and enable services oriented to society on critical aspects of geohazards like hazard assessment, urgent computing, and early warning forecast.

10 Flagship codes

10 different SE open source European codes have been selected in ChEESE

- 4 in computational seismology: EXAHYPE, SALVUS, SEISSOL, SPECFEM3D
- 2 in magneto hydrodynamics: PARODY_PDAF, XSHELLS
- 2 in physical volcanology: ASHEE, FALL3D
- 2 in tsunami modelling: T_HYSEA, L_HYSEA

Integrate

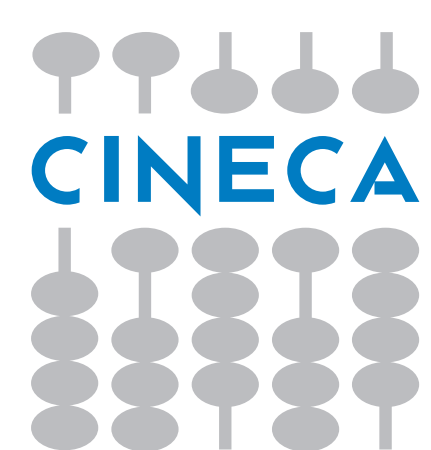
ChEESE will integrate around HPC and HAD European institutions in charge of operational geophysical monitoring networks, tier-0 supercomputing centers, academia, hardware developers, and third-parties from SMEs, Industry and public governance bodies (civil protection), and pan-European infrastructures, such as the European Plate Observing System (EPOS) and EUDAT.



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Partners:



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