## CERN Wishes for Task 2.2 and 2.3

## Task 2.2: Geometry toolkit for HEP

- Build on the existing geometry packages from Geant4 and ROOT
- The idea is to converge on a Common Geometry Primitives library and adapt ROOT and Geant4 to it
  - This represents most of the code (~80%) and therefore most of the maintenance effort
  - Full support for Visualization and Persistency
  - Development of new and more sophisticated shapes fulfilling ILC, LHC needs (e.g. 'union of many' and others)
- Development and adaptation of standard tools such as overlap checker, optimization, etc.
- Possible extensions and development of interfaces for Reconstruction and Fast Simulation applications

## Task 2.3: participation in PFA

- Participation in further development of Pandora PFA
- With particular emphasis on high energies
- Will include studies of Pandora on the basis of future test beam data using a tungsten-based HCAL