



European Organization for Nuclear research, Switzerland

CERN, the European Organization for Nuclear Research, is funded by 20 European member states and has a yearly budget of approximately 1000 MCHF. CERN has 2600 permanent staff coming from the 20 member states.

CERN is currently constructing a new particle accelerator on the Swiss-French border near Geneva. The Large Hadron Collider (LHC) will be the world's most powerful accelerator providing research facilities for several thousand High Energy Physics (HEP) researchers from all over the world. The LHC start up is planned for 2008.

Four LHC experiments designed and constructed by large international collaborations (each with up to 2000 scientists and engineers coming from more than 250 institutes) will collect data over the next 10 years. These experiments will generate in the order of 15 Petabytes per year, to be shared with all the participating scientists looking for discoveries to understand the fundamental laws of nature.

The computing capacity required to analyse the data far exceeds the capacity needs of any comparable physics experiments today and needs the combined resources of some 200 computer centres world-wide. CERN has chosen Grid technology to address the huge data storage and analysis challenge of LHC.

CERN, "where the Web was born", has been at the forefront of computing for many years and now leads the world's largest Grid project "Enabling Grids for E-Science (EGEE)". CERN also has a long tradition of collaborating with IT industry, including via EU-supported research programmes. The IT Department currently has 280 staff, predominantly engineers, who operate one of Europe's largest Computer Centres supporting over 10,000 users.

CERN has prominently contributed to a number of EGEE-related grid projects aiming at

extending the EGEE production grid infrastructure to new geographical areas, to serve new applications domains and to support the Grid community: BalticGrid-II, D4Science, EGI_DS, enviroGRIDS, ETICS 2, GridTalk, Health-e-Child and SEE-GRID-SCI.

The project will essentially be implemented by:

- Dr Jamie Shiers, CERN representative in the PGA
- Dr Andrew Maier, Physicist, Technical staff
- {tooltip}Mr. Lukasz Kokoszkiewicz{end-texte}



Lukasz Kokoszkiewicz is a computer scientist working at CERN. He has studied at Cracow University of technology in Cracow, Poland. His main specialization is web development and web interfaces. For 8 months he worked on Gridmap applications. In enviroGrids, he is working on the gridification of SWAT. {end-tooltip}, Computer Scientist

Role in the project:

The main task of CERN is to lead the task 2.5 on the “Gridification of Applications”, especially SWAT. CERN will also make available its experience on the EGEE to help EnviroGRIDS establish its Virtual Organisation on the EGEE. CERN is also involved in task 2.2 on data storage and interoperability standards.