

LARGE-SCALE RESEARCH INFRASTRUCTURES

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Abstract

The European Physical Society initiated and plans to operate a Large Facility Technology Network (LFTN). Many fields of physics require large-scale facilities for their research, such as astrophysics, geophysics, high-energy physics, fusion, and areas where high brightness sources of neutrons, ions or photons are required. Europe is in the prominent position to be equipped with a chain of excellent facilities and is about to realise new ones within them ITER, the first fusion reactor. In many of these cases, scientists – often physicists – are given project management responsibility utilising their scientific background and their membership in an international science community. The LFTN should be of use for people working at the interfaces of physics, technology and project management. The network should bring together the practitioners, the project managers and chief engineers of such projects and it should facilitate the exchange of ideas, problems, solutions, and expertise in the engineering and managerial development of major physics facilities. The basis of the network is a repository organised by the Institute for Science Networking at the University Oldenburg. This repository gives access to project description with a functionality to get information on critical technologies, management structures and tools, qualified consultants, experts for design reviews, industry experience, quality control aspects, licensing issues in international cooperation, test equipment, available manpower and others.

A parallel workshop is organised during the SOFT conference. In this workshop, various scientific projects from research or industry present themselves, the project goals, and – where available - the overall achievements, indicating major technological challenges, successful operational structures and analyses in the spirit of lessons-learned. Also the LFTN repository will be introduced.

This talk will summarize the essential results from the workshop.