

ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE
CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

Action to be taken

Voting Procedure

FOR COMMENTS	SCIENTIFIC POLICY COMMITTEE 219th Meeting 17/18 September 2001	-
FOR COMMENTS	FINANCE COMMITTEE 286th Meeting 19 September 2001	-
FOR COMMENTS	COMMITTEE OF COUNCIL 248th Meeting 20 September 2001	-
FOR DECISION	COUNCIL 119th Session 20 September 2001	-

PROPOSAL FOR BUILDING THE LHC COMPUTING ENVIRONMENT

This document introduces the "LHC Computing Grid project" and its "Phase 1 of Technology Development and Tests leading to a Production Prototype" as discussed by the Scientific Policy and the Committee of Council in several sessions and in all Committees in the June 2001 session. All Committees gave general support to this project, requesting additional information.

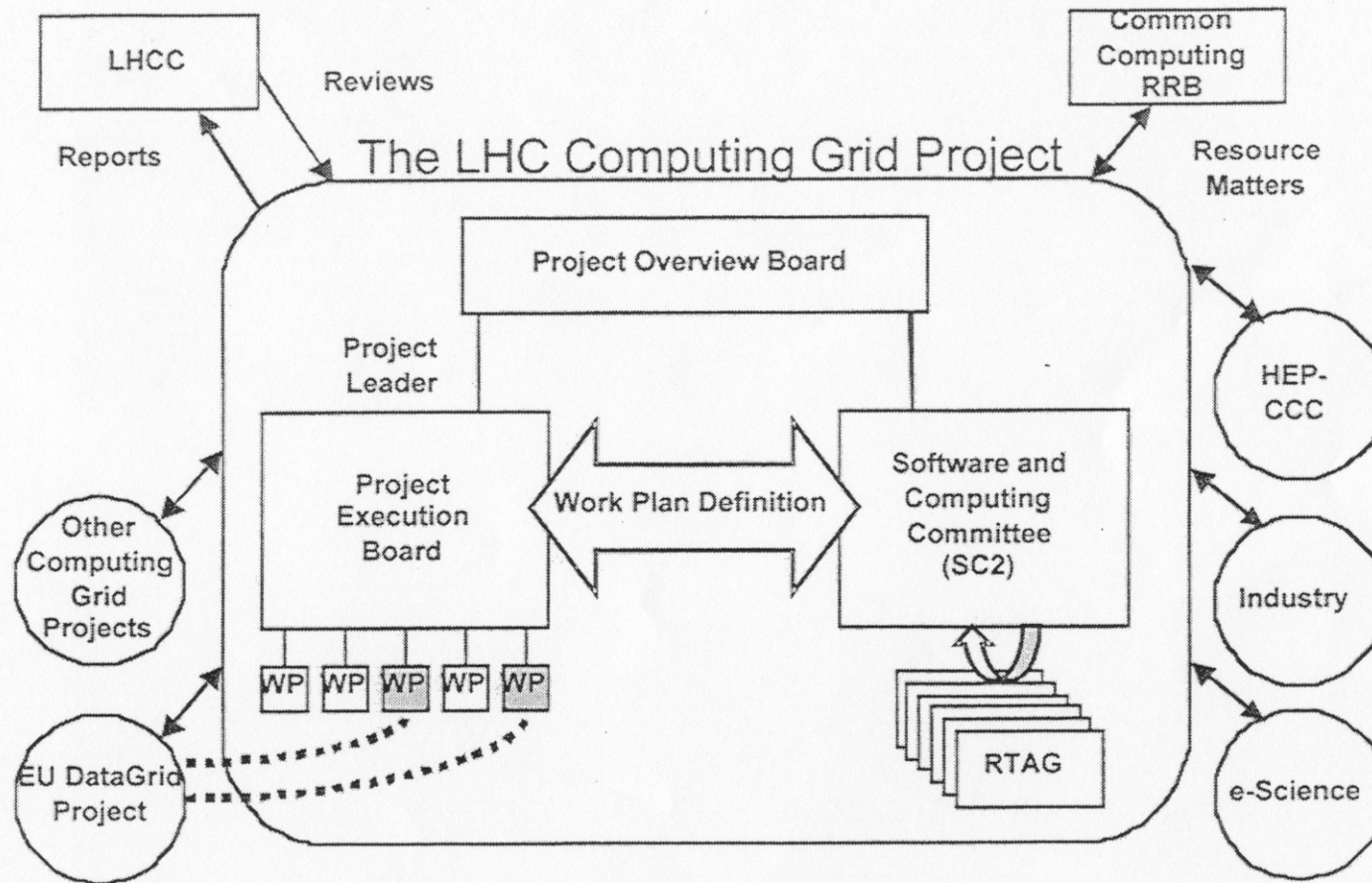
The document concentrates on the CERN part of the global infrastructure and in particular on its first phase. It indicates the project goals, its organisation and its interaction with ongoing Grid projects and other external relations.

The document describes the additional resources required at CERN for phase 1 of the project together with a plan to provide these resources through special contributions from Member States.

Summary - Additional Resources needed

	<i>R&D Phase (Phase 1)</i>				<i>First Production System (Phase 2)</i>			<i>Maint- enance</i>	<i>Total R&D</i>	<i>Total First</i>	
	<i>year</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2001-04 (Phase 1)</i>	<i>System 2005- 07 (Phase 2)</i>
Services required at CERN											
Additional personnel (person-years)	16	41	42	50	50	50	46	21			
Cost if employed as CERN staff (MCHF)	2.4	6.2	6.3	7.5	7.5	7.5	6.9	3.2	22.4	21.9	
Additional materials (MCHF)	2.1	6.6	10.1	10.7	30	33.4	32.4	22.6	29.5	95.8	
Service funding required at CERN (MCHF)	4.5	12.8	16.4	18.2	37.5	40.9	39.3	25.8	51.9	117.7	
<i>and in addition</i>											
Interface of experiments' Core Software to common Infrastructure											
Additional s/w professionals (person-years)	6	6	6	6	6	6					

Figure 3: Organisational Structure of the LHC Computing Grid Project



The CERN LHC GRID Computing project

- Strong support of CERN based management for LHC computing project
- The prototype phase should be a prototype of the distributed computing model
- Need of strong concertation with
 - LHC experiments
 - GRID projects with special role to DATAGRID
 - Tier1 centers

Present view of French involvement

- Manpower at CERN
 - 5-10 young engineers
 - 2-3 experienced engineers from HEP labs
 - ~2 computing scientists
- Tier1 in Lyon (20-30% size of Tier0 at CERN)
- Manpower in France (subcontracting)