

FINANCE COMMITTEE 6-7 NOVEMBER 2001

MAIN POINTS OF DISCUSSION CONCERNING THE LHC PROJECT

The Chairman of Finance Committee Brigitte Sode-Mogensen summarized the meeting by remarking on the positive atmosphere. The discussion was critical but constructive with all delegations expressing strong support for the LHC project. This was illustrated by the approval of the important cryogenic line contract by Finance Committee. However, the Member State delegations needed continued sharpening of focus and clarity of information from the management. There should be no more surprises.

LHC COST REVIEW

Dr Lyn Evans presented updated information of the LHC cost review. Detailed figures were given for the cost to completion of the Large Hadron Collider. They are listed in the table below :

LHC COST-TO-COMPLETION (PROTOTYPING EXCLUDED) IN MCHF

		Cost estimate at 2001 prices	Additional cost at 2001 prices	Cost-to-completion	% increase
	Machine	2339	412	2751	17.6
1	Magnet system	1474	174	1648	11.8
2	Cryogenic system	324	34	358	10.5
3	Radio-frequency, beam cleaning, beam observation, controls and other systems	160	29	189	18.1
4	Transfer lines, beam injection & beam dumping	114	5	119	4.4
5	Civil engineering for accelerators	140	55	195	39.3
6	Services and installation	127	55	182	43.3
	Final integration		60	60	
	Experimental Areas	254	63	317	24.8
7.1	Civil engineering	194	36	230	18.6
7.2	Infrastructure	60	27	87	45.0
	TOTAL Accelerator and Experimental Areas	2593	475	3068	18.3

SPENDING ON PROTOTYPING WORK

The costs for the prototyping work were also presented and are listed here :

	Total cost MCHF
Magnetic system ¹	100.5
Cryogenic system ²	25.8
Other systems ³	16.6
TOTAL	142.9

(1) Includes: short magnet models, dipole prototypes, cryostat prototypes, quadrupole models, test & measurement facilities, tooling, superconducting cable & test facility, power converter prototypes & measurement facilities.

(2) Includes: three 100m long test cells of the cryogenic distribution line, prototypes of various components (quench valves, turbines, insertions).

(3) Includes: vacuum : prototype beam screens, COLDEX tests, beam position monitor prototypes, fast high-current/high-voltage switch prototypes, accelerating cavities, couplers.

Dr Evans also informed Finance Committee that there would be a possible delay in the delivery of some the superconducting cable needed for the LHC.

FUNDING SCENARIOS

The DG presented initial scenarios of models for adapting the financial profile of the laboratory to the cost increase of the LHC project.

These scenarios included :

- . more focused activity of the Laboratory on the LHC and savings
- . Organisational measures
- . Prolongation of the debt repayment period
- . Additional contributions, in particular for items not foreseen in 1996

Several Member State delegations made it clear that there could be no extra contributions to the Laboratory's budget and encouraged the Management to look at all possibilities for identifying savings within the Laboratory.

EXTERNAL REVIEW BOARD

The President of Council, Prof. Maurice Bourquin, supported by the Director General announced that, at a special meeting of the Committee of Council on 21 November, the creation, mandate and composition of an External Review Board would be discussed. A provisional schedule of the reporting of such a review board would be: first Interim Report, February 2002 and Final Report, June 2002.

TASK FORCES

Prof. Maiani announced the creation of four internal Task Forces (later extended to five) with responsibility of examining improvement in efficiency and identifying opportunity for economy.

The Task Forces are :

Task force 1. - Research programme

D. Schlatter, L. Camilleri, F. Gianotti, W. von Ruden + J. Lefrançois (Orsay)
Direct and indirect costs of individual Programmes/Experiment in EP and IT Divisions (CERN share, including contributions from other Divisions) including R&D for future programmes. Cost-Benefit analysis of stopping /delaying/ descoping these Programmes/Experiments, both from Resources and Physics perspective. Identify duplications inside research.

(Liaison: R. Cashmore)

Task force 2. - Organisational Structure

H.Wenninger, T. Camporesi, T. Lagrange, Ph. Bryant, T. Petterson + external member Prof. Ger van Middelkoop (NIKHEF)

Proposals for changes in the structure of CERN, to increase efficiency, to reduce duplications and to adapt to LHC era.

(Liaison: J. May)

Task force 3. - Industrial Support and Contracts

K.H. Kissler, D. Blechschmidt, P. Ciriani, A. Kurz + external member Dr. Alexander Gamp (DESY)

Proposals for savings and new cost control procedures in the area of Industrial Support and Contracts (all major industrial support contracts, blanket orders, signature rights.)

(Liaison: J. Van der Boon)

Task force 4. - Personnel

J. Ferguson, P. Schmid, V. Hatton, F. Bordry, P. Geeraert + external member Andreas Pritzker (Paul Scherrer Institute)

Contracts policy, outsourcing/in sourcing, mobility. (Liaison: A. Naudi)

Task force 5. - Accelerator Sector

S. Myers, J.P. Delahaye, P. Lebrun, external member D. Lewis (Amersham International UK)

Concrete proposals for changes in the structure of the Accelerator Sector with the aim of focusing it to the LHC era and maximising its efficiency. (Liaison: C. Wyss)

THE FUTURE

The Director General explained a Roadmap to a final plan for the financing of the LHC to completion.

6 November 2001	Finance Committee meeting presentation of the facts and scenarios of the way forward.
21 November 2001	Committee of Council discussion of establishment of External Review Board.
13 & 14 December 2001	Committee of Council and Council – First proposal of a plan.
March 2002	Committee of Council – First draft of the Long Term Projection

	(2003 – 2012) of financing the Laboratory.
June 2002	Committee of Council and Council – The Medium Term Plan and the Long Term Projection are presented.