

CONFIDENTIAL

CERN/FC/3466  
Original: English  
28 August 1991

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

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FINANCE COMMITTEE

Two-hundred-and-thirty-eighth Meeting  
Geneva - 25 September 1991

PROPOSAL FOR THE AWARD OF A CONTRACT  
FOR THE SUPPLY OF IBM COMPATIBLE PERSONAL COMPUTERS  
FOR ENGINEERING SUPPORT, COMPUTER-AIDED DESIGN AND  
MANUFACTURE (CAD/CAM), EXPERIMENT AND ACCELERATOR  
CONTROLS

This document concerns the award of a contract for the supply of IBM compatible personal computers for engineering support, computer-aided design and manufacture (CAD/CAM), experiment and accelerator controls.

The Finance Committee is invited to agree to the negotiation of a new contract with OLIVETTI for the supply of personal computers, for an estimated amount not exceeding 4 000 000 Swiss francs to cover CERN's requirements for the two-year period until the end of 1993.

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1. INTRODUCTION

- 1.1 In recent years there has been significant use of personal computers of the IBM-compatible type, primarily in the technical areas at CERN, e.g. in engineering design for accelerator control and program development.
- 1.2 It has been CERN's policy to obtain such computers from established Member-State manufacturers with considerable experience in production and in software and hardware development in order to establish close technical links with the research and development departments of the chosen supplier. Additional objectives are rationalization of the personal computer line, enhancing compatibility and reducing the resources needed for hardware, software and applications support.
- 1.3 At its February 1988 meeting, following competitive tendering, the Finance Committee agreed to the negotiation of a contract with OLIVETTI for the supply of personal computers for an amount of up to 1 700 000 Swiss francs, to cover CERN's requirements for 1988 (CERN/FC/3120). Further approvals were given in December 1988 (CERN/FC/3120/Add.) and in April 1989 (CERN/FC/3120/Add.2) for additional estimated amounts of 1 500 000 and 500 000 Swiss francs respectively to cover CERN's requirements until the end of October 1989.
- 1.4 Subsequently, at its October 1989 meeting, following extensive market review and tendering, the Finance Committee agreed to the negotiation of a further contract with OLIVETTI for the supply of a range of personal computers and ancillary peripheral equipment for an amount of up to 1 300 000 Swiss francs to cover CERN's requirements for the two following years (cf. CERN/FC/3255). These machines and associated peripheral equipment were primarily for use in technical areas, e.g. in engineering support, computer-aided design and

manufacture (CAD/CAM), program development and control systems for accelerators and experiments. They were also to be used for office automation functions in the technical sector and within groups with a particular concentration of this type of personal computer.

- 1.5 Owing to an increase in requirements, stemming from the need for more expensive high-end systems on which to run more sophisticated applications, an amendment to this contract was requested and this was approved by the Finance Committee in October 1990 (CERN/FC/3361) for an additional estimated amount of 1 700 000 Swiss francs to cover requirements until the end of 1991. The total amount of the contract was thus 3 000 000 Swiss francs.
- 1.6 At the time of the last contract extension, the Finance Committee was informed that a review of the market in IBM-compatible personal computers would be carried out in 1991 and would be followed by a competitive tendering procedure should Olivetti's conditions be unfavourable.

## 2. CURRENT STATUS

The technical and price review of the market mentioned above was conducted between February and July 1991, following technical specifications drawn up by a committee of major users as well as equipment forecasts for the next two years from all the Divisions. The result of this review is illustrated in the table below and shows that Olivetti still quotes the lowest prices for the equipment range that CERN requires and fulfils the technical and commercial requirements for European suppliers, as stated in paragraph 1.2.

In view of this result, competitive tendering was not considered to be necessary, given that Olivetti not only submitted the lowest tender but that in addition any move to a different supplier would increase the current support costs.

SUPPLIER	NORMALISED COST
Olivetti (Switzerland)	1.00
Philips	1.04
Tulip	1.06
Bull	1.24
SIFI (Olivetti France)	1.25
Siemens	1.39
Hewlett Packard (Switzerland)	1.49
Research Machines	1.58
Compaq	1.62
IBM (Switzerland)	1.65
Nokia	1.74

### 3. REQUIREMENTS

The continuing needs of the Organization are primarily for equipment in technical areas, e.g. for program development, experiment and accelerator controls, engineering support, computer-aided design and manufacture (CAD/CAM) requiring powerful systems with fast processors, large memory requirements, high resolution screens and associated peripheral equipment. Personal Computers from Olivetti are also used in some minor office automation functions in groups with a particular concentration of this type of personal computer. A high level of technical service, assistance and collaboration is required from the supplier owing to the increasing complexity of the equipment and the need to integrate it into the existing experiments, accelerator control equipment, engineering groups, networks and other areas of activity around the CERN site.

#### 4. PROPOSAL

It is therefore proposed to negotiate a new contract with Olivetti to cover needs over the coming two-year period in equipment for experiment and accelerator control, for improved performance, increased functionality and to replace ageing systems. This also includes additional requirements needed in engineering-related activities for CAD/CAM and program development. The amount requested for the contract based on Divisional estimates is 2 000 000 Swiss francs per annum for two years, although, the actual expenditure will clearly be dictated within this limit by the funding levels available to the groups concerned.

#### 5. RECOMMENDATION

The Finance Committee is invited to agree to the negotiation of a new contract with OLIVETTI for the supply of personal computers for an estimated amount not exceeding 4 000 000 Swiss francs to cover CERN's requirements for the two-year period until the end of 1993.

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