European Communities

EUROPEAN PARLIAMENT

Working Documents

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MOTION FOR A RESOLUTION

tabled by Mr SABY

pursuant to Rule 47 of the Rules of Procedure

on the creation of a European scientific computer centre

PE 83.747

English Edition

The European Parliament,

A. whereas there are several scientific and technical research centres which have proved their worth (ESO particle physics, ESA space exploration), if would be advisable for the Community to help to promote a European computer centre for this pupose. There is at present no concentration of large-scale computing facilities in Europe comparable with those that exist in some American centres (Los Alamos, Lawrence, Livermore, etc.),

B. whereas such a centre could serve three purposes:
   1. Basic research and mathematical modelling,
   2. Scientific spin-off benefiting the European computer industry,
   3. Creation of a European computer centre,

C. whereas basic research and mathematical modelling have become an undeniable necessity and the need for large-scale computer facilities for advanced research is increasingly acute, in such diverse fields as pure mathematics and biology,

D. whereas some physical phenomena have been discovered mathematically (Solitons),

E. whereas the need for numerical experimentation is particularly acute in the field of hydrodynamics, where non-linear phenomena use modelling and require the largest existing computers,

F. whereas most of the serious problems confronting research workers in the fields of astrophysics and the earth sciences are of a hydrodynamic nature,

G. whereas research workers in the different disciplines in Europe all too often have little or no access to vector numerical facilities (of the CRAY I type),

H. whereas some Member States generally do not have the financial means to equip such centres and will therefore fall irretrievably behind the others.

European research workers must therefore be able to improve their knowledge by means of advanced mathematical modelling, which can only be done by means of a centre equipped with large-scale computers,

I. whereas large computer centres must of necessity be accompanied by very sophisticated software and the interfaces needed by users,

J. whereas the development of software would be the necessary corollary to the creation of a European computer centre,

K. whereas such an establishment, served by teams of very high-level technicians would provide a considerable impetus to the European computer industry,

L. whereas it could develop its own research into computer architecture, software and new languages, and it would therefore be useful to involve the main European manufacturers,

M. whereas such a centre could provide further training for top computer engineers by means of a school attached to the centre,

N. whereas the fact that Europe does not currently design or manufacture super-computers is disturbing; and whereas those that exist (CRAY I, CYBER 205) are American and forecasts for the next six years concern only an American machine, CRAY II, and a Japanese machine,

O. whereas such a centre could expand and lead in the relatively long term to the creation of a European network with off-shoots of a more modest nature but equipped with efficient terminals operating in the different European towns,

P. whereas the nature of informatics and telematics is such that it could be located in regions which are fairly disadvantaged in terms of science, technology and industry,

Q. whereas this proposal could considerably reduce isolation and bring together many scientific communities,

R. whereas such a European computer centre should include facilities for visiting research workers and provide them with a rich scientific and technical environment, hence the need for a centre that fulfils these criteria,

Invites the Commission and the Council

1. To promote a European scientific computer centre;

2. To locate this centre in Toulouse in view, firstly, of the existence in the region of teams of computer experts capable of developing this type of computer either on the basis of American componants (CRAY I) or through collaboration at European level, and, secondly, of the existence of numerous users who need this type of large-scale ultrarapid vector computer (hydraulics, aerodynamics, satellite pictures, astronomy,etc.) whose very high-level research teams collaborate with the major laboratories in these fields;

3. To supplement the efforts already made in the establishment of a major inter-university computer centre in Toulouseand its current expansion to include a new computer building on the campus of the Paul Sabatier University;

4. To facilitate scientific cooperation with Spain and Portugal as part of enlargement by creating such a centre;

5. To include in the Commission programme for the use of this very sophisticated equipment time for research teams from the different countries of the Community;

6. To take into account that such a centre would enable the Pic du Midi observatory, which is in a unique location in Europe for stellar study and exploration, to expand its activities.