

Brussels, May 17, 1979

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SPEECH BY DR. GUIDO BRUNNER, MEMBER OF THE EC COMMISSION
AT THE OCCASION OF THE LAYING OF THE FOUNDATION STONE
FOR JET, 18 MAY 1979, IN CULHAM

Excellencies,
Ladies and Gentlemen,

it gives me a great pleasure and encouragement to welcome all of you and I should like to thank particularly the invited guests for being here today. This is an important event in the history of the European Community. The implementation of the Joint European Torus project is the result of years of difficult negotiations whose outcome was finally successful.

Indeed, success was not easy to achieve. You and I still remember the countless meetings, discussions and difficult negotiations we had to pass through in order to launch this important project. Since 1974, when I assumed the responsibility for the Community's research policy I have constantly stressed in all these difficult discussions the fact that JET's contribution to the future solution of Europe's energy problems will be absolutely vital. For a long time I had the impression that we were taking part in a dialogue of the deaf. Then the Ministerial Meeting of the 25 October 1977 gave the decisive signal

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for the launching of the JET programme.

I am convinced that in many quarters this decision has restored confidence into the ability of the Europeans to share their common future. I am not saying this in order to praise the Commission. I am underlining this important decision because in taking it, the Europeans recognized the reality of Europe and in particular the creativity of its scientists and researchers. In laying the foundation stone for this project I am not only giving up the responsibility for an important financial and intellectual investment : I am entrusting you with the Community's belief in its own future and with the hope of the Europeans that some day this vital effort will significantly reduce the dependence of Europe on external energy supplies.

The Community has now charted its main course for energy policy over the coming years. There are encouraging developments in this area. But it is not all going to be plain sailing.

Let us consider today's dramatic situation in the energy field. Uncertainties and risks now face us in this sensitive sphere. Iran and the effects of Harrisburg illustrate the precarious nature of our energy circumstances.

The immediate difficulties arising from the Iranian crisis have illustrated all too clearly the urgency of the longer-term energy situation, and the dangers inherent in the Community's position. Iran stands for the ultimate demise of the oil economy.

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Before the Iranian crises, we thought that the limits of incremental world oil supply would be reached in the middle or late 1980's. On this basis, we had up to 10 years to diversify out of oil, and to build up the contribution from coal and nuclear. Now, the problem is even more pressing. Unless we can make radical inroads into our oil dependence in the next two or three years, we are going to face serious trouble. This will consist of physical constraints on the economy, and of rapidly increasing energy costs.

Harrisburg, on the other hand, means postponing the application of a potential and important alternative to oil as a form of energy. After Harrisburg we may not, to the extent we had planned turn to conventional fission technology. Unrest has us in its grip again.

There will be more delays. Unless we are very careful we will find ourselves tumbling into an energy gap whilst the base for new economic growth is being pulled from under our feet.

Thus, in the medium term, the scope on the energy supply side is limited. Coal production and consumption have been languishing since 1973. Neither in oil or gas production have we much room for manoeuvre in the next decade. So our priority now must be energy saving - particularly oil. That is why the recent community decisions to set limits on oil consumption in this year, and on oil imports in 1985, are so important.

It is essential that we implement strong practical measures, so that these limits are not broken.

In the longer term, however, in spite of all the uncertainties, the picture is more hopeful. Not only should we by then have put in place really solid energy savings programmes, but the scope on the supply side will be greater. Much depends on farsighted research and development work begun in this or even earlier decades.

Both at Community and national level, we have seen an increase in research and development work on the new forms of energy. It is vital that these abundant and clean sources are exploited to the full. Progress is encouraging, and major programmes are under way in the main fields of solar energy on a domestic and industrial scale, geothermal energy in specific areas, and on new uses for coal through gasification and liquefaction.

Although it may be prudent not to rely on these technologies for more than 5 or 6 % of our total energy demand in the year 2000, that share would represent an important contribution in absolute terms - about equal to present day UK oil production from the North Sea.

Nuclear fusion as a commercial reality is even longer term, but it requires intense efforts now. This brings me to the heart of today's proceedings : The Fusion Programme of the Community and JET.

The Fusion programme is a long-term cooperative project. It embraces work carried out in the Member States and in the States associated with the project. It is designed to lead in due course to the joint construction of prototypes with a view to their industrial-scale production and marketing.

The realisation of this objective depends on the outcome of much complex scientific and technological research. This task is certainly technically more difficult than putting a man on the moon and is clearly of more direct significance.

The main objectives of the thermonuclear Fusion Programme are the construction of JET and the preparation of the next step - The Post-JET device. This involves the

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solution of several problems both in the field of physics and of fusion technology. Several intermediate-size devices, mainly of the tokamak type, each one designed to answer some specific question, will be operated in the associated laboratories. Thus JET, the flag ship of the Community programme, will be supported by a powerful fleet of specialised tokamaks.

The Community has established and maintained a position in the forefront of the world fusion programme in spite of the fact that the USA annual fusion budget is larger than the European one. The USSR budget is still larger. It is essential to maintain this competitiveness and with the completion of the JET machine the Community will have one of the most powerful experimental devices of this kind in the world. If JET is successful this will put the Community well along the path towards the solution of its energy problem.

Today is a day where the national member organisations of the Joint Undertaking can look back with some pride at what they have achieved together with EURATOM. The common endeavour has led to this historic day. The symbolic laying of the foundation stone will be the start of a successful scientific and engineering programme which will help solve Europe's energy problems.

Before I lay the stone I wish to congratulate the JET Council, the JET Executive Committee and the Director of the JET Joint Undertaking and in particular the project team for the progress achieved so far. I should also like to thank all persons and institutions who have contributed.

Finally a special thanks to the United Kingdom Atomic Energy Authority Culham Laboratory for the support they have given the project.

Since I have referred to JET as the "flagship" of the Community programme, and to a "fleet" of Tokomaks, I shall conclude in nautical vein. Good luck and success to the good ship JET and to all who sail in her !

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Brussels, May 18, 1979

FOUNDATION STONE FOR JET IN CULHAM/U.K.

(Résumé of speech by Mr. Brunner at the laying of the foundation stone for JET on May 18, 1979, in Culham/U.K.)

Dr. Guido Brunner, Member of the Commission of the European Communities in charge of Energy, Research, Science and Education, laid today the foundation stone for the main experimental building of the Joint European Torus (JET) project at Culham, Oxfordshire, U.K.

In his speech, Mr. Brunner pointed out that the launching of JET project constitutes one of the most important events in the history of the European Community. The implementation of the Joint European Torus project is the result of years of difficult negotiations whose outcome was finally successful. In their meeting of October 25, 1977, the ministers of the European Community gave the decisive signal to start the JET program. JET's contribution to the future solution of Europe's energy problems will be absolutely vital.

Mr. Brunner underlined that this project shows how the Europeans are getting more and more conscious of their common aims, in particular of their chances only to succeed in joint undertaking in complex and expensive fields, such as nuclear fusion projects, by combining their financial resources and the creativity of their scientists and researchers. He lays the foundation stone for the most important experimental construction of the European Community in expressing the hope of the Europeans that some day this vital effort will significantly reduce the dependence of Europe on external energy supplies.