Address of Welcome

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1. It is a great pleasure and honour for me to speak to the participants of the 24th International Conference on High Energy Physics 1988 in Munich on behalf of the Federal Government and the Federal Research Minister Dr. Heinz Riesenhuber. I welcome the opportunity to present to you a few thoughts on the area of high energy physics, on its importance in research, and on Government support for it.

It is, of course, a special pleasure for me to convey to you the greetings from Bonn as a German delegate to the Council of the European Organization for Nuclear Research CERN and its Council President and because I am through my official position connected with the German research centre DESY and the German “users groups” both of CERN and DESY.

I was greatly impressed by the preparations for this Conference, which were made by the Organizing Committee under the leadership of Professor Buschhorn, who was assisted by the International Advisory Committee. However, even more impressive are now the number and international mix of the participants and the quality of the scientific presentations. Let me congratulate you all on this Conference.

2. Among all the sub-sectors of physics, high energy physics is characterized as elementary particle research by the fundamental nature of its questions. It is big science because it needs large-scale equipment. and it is cooperative research because of the uniform character of its organization and because of the international cooperation in the construction and scientific utilization of its equipment.

Figure 1 shows the investment cycles in the almost thirty years’ history of the German DESY laboratory, Tables 1 and 2 the international cooperation in the construction and utilization of its new accelerator storage rings HERA as well as the two experiments ZEUS and H 1.

It is only natural that a discipline which is as highly visible as high energy physics should be the subject of controversy – both in the scientific community itself and among science policy-makers. It is an entity which, as Friedrich Schiller says of one of his heroes, ERNST DUKE OF WALLENSTEIN, is “von der Parteien Haß und Gunst verzerrt”, a subject distorted by the parties’ hatred and favour.

High energy physics, like other science disciplines, must allow itself to be asked critically whether yields justify costs. In response to this criticism it can point above all to the quality of its scientific and technological achievements, to the brilliance of its experiments and research results. These features are what greatly attracts young physicists and engineers up to this day, many of whom will later on use the knowledge and skills they have gained in industry or in other positions in the public science sector.
Convincing performance, attractiveness for scientific training, but above all the seriousness and depth of the questions, which are chosen by the scientific community itself, combined with sound project proposals, their sound management – at least in costs –, and great personal commitment on the part of researchers are forming the stable and continuous basis and justification of public support for high energy physics.

According to the new CERN census, the USA currently spends just under 0.15 permille of its gross domestic product (GDP) on high energy physics research. The 14 European CERN member states on average spend just under 0.25 permille (Fig. 2).

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**Fig. 1: Investments at DESY**

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**Fig. 2: Total cost of High Energy Physics per gross domestic product (GDP).**