Welcoming at the "2nd International Symposium on Observation of the Continental Crust through Drilling" on October 4, 1985, in Seeheim

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You are an international group of prominent earth scientists interested in the deep structures of our Earth's crust. To address you in English on behalf of a German institution, the Deutsche Forschungsgemeinschaft (DFG), is therefore both an honour and a challenge. As an introductory remark in German I found only one relevant quotation. It comes from a poet who lived some 200 years ago. Novalis (1772 - 1801) wrote:

"Der ist der Herr der Erde, der ihre Tiefen mißt."

("To become master of the earth you have to measure its depths.")

This naturally illustrates - even two centuries ago - the importance of geophysicists during our symposium. But why and where they should investigate these depths and what their measurements mean, they normally have to ask geologists and I wish to include mineralogists, petrologists and geochemists under this umbrella - in spite of the fact that they are mostly separated carefully in German earth science departments. Geologists need "mente et malleo", i.e., ideas of and rocks from these depths. Of course they can find some of them on the surface of old shields or young mountains, but they have been altered there and are not suitable for many relevant measurements. Therefore, all earth scientists need drillers to open these depths for direct measurements, to produce a crust lab in the inner space as a brother of different outer space labs, and, additionally, to bring fresh rocks, fluids and gases to our surface laboratories.

Having these objectives including fluids in mind my second quotation cannot be misunderstood:

"Solidum petit in profundis."

This obviously is the other international language, Latin, and means: "In the depth" you have to look for solid knowledge, an inscription in the coat of arms of the Danish Aarhus University. To look into the depth is to look to the base, to basic science, too. We are grateful that strengthening basic science will be considered to possibly form also a part of the EUREKA program. To study the European Earth's crust and the processes therein may not have a quick pay off as perhaps industrial or marketing efforts but this study may be very important for a longer period of time.

There is no time now to look into depth to illustrate the history of the German deep drilling plans and the role of the Deutsche Forschungsgemeinschaft therein. These plans originated in the Geocommission of our Senate in 1977. It may be interesting that these ideas were influenced by the Deep Sea Drilling Project from the beginning. Our earth scientists were fascinated by the
historical successes of this international scientific experiment based on:

1. new ideas and hypotheses,
2. careful geophysical preparations,
3. a tool to drill, and
4. finally the experience that big science and technology is partly necessary in earth sciences, too.

Up to the present day both activities can benefit from each other. Down-hole measurements in mid-ocean ridge drill holes will face similar high temperatures as geothermal or very deep drilling. Geophysical profiles with their problems and results do not end at the coast. And this is valid for both sides, the ocean and the continent. You see I am a great specialist, but to be honest, I learned this during discussions within the Executive Committee of Ocean Drilling Program (ODP) in Bonn, just one week ago.

Our Geocommission produced a memorandum in 1981 to promote continental deep drilling in Germany (Mitteilung XI) and we are grateful to the Bundesministerium für Forschung und Technologie (BMFT) that in the same year we received money for presite surveys. Now more than 250 scientists were or are engaged in this type of research. During these preparations some 40 proposed and possible drill sites were discussed. 4 of them became of top interest. But in November 1983 a workshop in Neustadt at the other side of the Rhinegraben reduced - with the help of international reviewers - the number of candidates to two, in eastern and western South Germany. As you will see, research to prepare the final choice is going on.

Parallel to these activities the Deutsche Forschungsgemeinschaft (DFG) tried and still tries to contribute to all of these scientific problems by other programs.

1. We established priority programs as, e.g., "Vertical movements of the Rhenish Shield (1976 - 1982)" or, directly to be combined with our subject, "Continental Deep Drilling". A new one will be devoted to the evolution of the Lower Continental Crust. Additionally we learned from the special collaborative program 48, "Earth crust" in Göttingen (1969 - 1980).

2. We helped in intensifying international contacts as in the International Lithosphere Program and we sponsor the International Council of Scientific Unions (ICSU), International Union of Geodesy and Geophysics (IUGG) and International Union of Geological Sciences (IUGS). We are involved in the European Geotraverse (EGT) under the umbrella of the European Science Foundation (ESF), providing both central money, financing direct research projects and finally helping European Science Foundation (ESF) to replace its president.

All these activities could not have been initiated and followed without the help of many personalities, their engagement, scientific knowledge and diplomatic skills. I would like to mention only four of them: Professor Closs and Illies who died untimely and Professor Vidal and Dr. Goerlich who retired officially, but fortunately remain full of energy. I look back with you and I am grateful for