

Welcome

by the President of the Helmholtz Association

Professor Dr. Walter Kröll

to the Annual General Assembly of the Helmholtz Association

held at the Concert Noble in Brussels on 7 December 2004 at 18.00

Research Crosses Borders – Helmholtz in Europe.

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I welcome you all most cordially to Brussels for the Annual General Assembly of the Helmholtz Association. To my knowledge we are the first major research organisation in Europe to come and hold our Annual General Assembly here. Why? Allow me to quote Roman Herzog, the former Federal President of Germany. The Charlemagne Prize was awarded to him in 1997 in recognition of his services for Europe; in his acceptance speech, he said: "**For centuries now Europe has been a continent of freedom with a thirst for knowledge and a desire for discovery, with an enterprising nature and, above all, a creative will to act.**" By holding our Annual General Assembly in Brussels we commit ourselves: to Europe and the qualities that Herzog mentioned; they are the driving force behind our actions. With our thirst for knowledge and our desire for discovery we want to play our part in shaping the **European Research Area**. Because it forms the basis and the prerequisite for the Lisbon Process. Lisbon aims to turn Europe into the most competitive and most dynamic knowledge-based economic region in the world. We offer Europe much in order to play an active part in achieving this goal ... and we expect much.

Dear Guests, I am delighted that you are all here today. Some of you know us well, others perhaps not yet. And so I will briefly introduce the Helmholtz Association.

## **Who are we?**

In short: we are 24,000 staff working in 15 national research centres whose mission is to engage in strategically-oriented top-rate research. Our scientists contribute to solving the grand and pressing challenges which society, science and industry face. They work in six fields: Energy, Earth and Environment, Health, Key Technologies, Structure of Matter, Transport and Space. In order to investigate the systems of great complexity in these fields, our scientists use high-performance large-scale facilities and scientific infrastructures and they cooperate with national and international partners. Whether mobility or energy supplies, whether climate change or infectious diseases – our role is to address grand challenges by great efforts. This is why our strategy is to concentrate resources so that we can live up to our motto: **achieving more together**. This means engaging in cross-border partnerships and creating strategic alliances: Alliances in which various and differing institutions take part at national, European and international level. Because only if we address the grand challenges in this way will we be able to achieve breakthroughs at the outer limits of knowledge and build bridges between knowledge and innovative application.

Three years ago we started a far-reaching reform process. Its goal is to improve our performance, to raise the quality, efficiency and competitiveness of our research. Our scientists drew up strategic programmes in all six research fields to this end. These programmes were then reviewed by internationally distinguished experts in a competition-based process. They made recommendations on the financing and on the contentual focus of our programmes. Towards the end of this year, we reached a milestone in this reform process: with all our 30 programmes having been evaluated by more than 360 experts. As from 2005, all Helmholtz research will be organised and financed in accordance with this system. That is our way of concentrating our energies and resources and of extending our strengths. This also enables us to position ourselves as an attractive and strong partner in the national, European and international research landscape. You now know in brief what drives us.

## **What do we contribute to the European Research Area?**

First of all substantial resources. Above all the competence and creativity of the people who work in our research centres. Plus an annual budget of more than 2 billion euros. And unique large-scale facilities and the know-how needed to design and build such large facilities and infrastructures for the international Science Community. Our partners also benefit from this. In our research field Structure of Matter alone, the large-scale facilities are used annually by

around 7000 scientists, more than half of them coming from abroad – from Europe and around the world.

In addition to our resources we bring our know-how for the development and the management of high-quality projects and experiments into many, in some cases major European research projects. The researchers from our centres, who will present the European dimension of their work through typical examples today, will be able to describe this in more illustrative detail. It wasn't difficult to find these examples. Because the European commitment is an integral part of Helmholtz research's strategic focus. The figures show this. The Helmholtz Centres are currently taking part in around 270 projects under the 6th Research Framework Programme; more than 40 major projects are being coordinated by Helmholtz scientists. All in all, we have been able to raise around 170 million euros of research funding from the framework programme.

But it is not only our resources, know-how and active commitment that we bring to Europe. We also contribute the experience which we have gained with our own reform process. In the Helmholtz Association we are currently experiencing first hand what can be gained when research funding is strictly bound to the criterion of excellence and when the focus is on strategically-oriented research: clarity of goals, efficiency, profile and visibility. And that – as I understand it - is also the objective in Europe: it is about concentrating efforts and resources on key fields in which, working together, outstanding achievements can be made.

### **So what do we expect from European research policy?**

Above all that its funding instruments achieve just that goal: the best in Europe concentrate their energies and resources in order to work together to successfully tackle the grand challenges. Because only then will European research be able to perform its key role in the Lisbon Process with success. There is cause to doubt whether the EU countries will reach their stated goal of raising public and private spending on research and development up to 3% of the gross domestic product by 2010. However, the consequence of this must not be to abandon the goals of the Lisbon Process. Rather, the answer must be a greater effort to overcome the current difficulties on the part of all involved. This means that state and industry must clearly increase their spending on research. But in addition we need suitable boundary conditions, funding instruments, procedures and organisational structures so that these resources can be put to more effective and efficient use.

It is our conviction that to achieve this, research funding in Europe must concentrate on strategically particularly important well selected areas and on projects which meet the strict criteria of scientific excellence and innovative technology. Particular attention should be given to regions that are characterised by the productive mixture of scientific-technological expertise, dynamic entrepreneurs and venturesome financiers. Because, as experience has shown, these often act as a seedbed for innovative technologies. Beyond that, the next Research Framework Programme should, as far as possible, continue the work of its predecessor with simplified and more transparent procedures. A frequent shift in paradigms squanders too many resources and drowns the European research community in administrative work.

Projects, instruments, programmes. That's the close-up picture. But what do we see when we look beyond? **What is our vision?** How is the continent actually developing, the continent that thirsts for knowledge, that desires discovery and that has a creative will to act? What do we see when we think about the European Research Area in 20 years' time?

Let me outline the key elements of my vision. I see the world's Number 1 address for research: an area that attracts the best scientists, a place where outstanding people work together in a highly motivating research and innovation promoting climate. I see the researching Europe as the lead partner in major international research projects and as the strongest competitor in fields that are decisive for technological progress and innovation. It is the region in which major problems of our modern societies are solved. Where solutions develop for a feasible balance between ecology and economy, for the treatment of the major and still unconquered diseases, for the sustainable energy supplies of the future, for mobility and communication. In short: It is the place where the world's best, most competitive and dynamic research shapes our knowledge-based society. A society that founds its civilisation on knowledge, that feeds its culture from knowledge and that drives forward its industry with knowledge.

In order to turn this vision into reality, in order to creatively shape the European Research Area, we need research strategies with a long-term orientation: for the major fields in which Europe wants to play an outstanding role. All stakeholders, that is the member states, the EU, science and research, and industry, need to work together to draw up and implement

these strategies. It is decisive that they define common goals and that each of them commits itself reliably to delivering its own specific contribution to achieve these goals.

I know full well from my own personal experience that such a process of strategy-building can succeed. A few years ago I was actively involved in the process of elaborating an ambitious vision for European aeronautics research. Its title: Meeting society's needs and winning global leadership. From this vision we developed a strategic Research Agenda. In line with this agenda, national and European research now work hand-in-hand in order to position themselves together successfully in the international competition. An exemplary model which in principle can be transferred to other key areas of European research, not only in creatively shaping the process but also in setting the overriding goals.

Hermann von Helmholtz, the man who gave our Association its name, once said: "The more the individual researcher is compelled to narrow down his field of work, the more he feels the need not to lose the context of the whole. From where else should he draw the energy and the joy for his arduous work? If not from the conviction that he supplies a building brick for the great unity of science in the service of the moral purposes of humanity." Old-fashioned words from the 19th century. Indeed. But the meaning is still valid today. The Helmholtz Association wants to supply building bricks for the great unity of science in Europe. Meeting society's needs.

It is the stakeholders who will decide the destiny of the European Research Area. Politics is a very important one among them. We are pleased and honoured by the fact that two prominent representatives are here today and will address us: Dr. Janez Potočnik, the new Research Commissioner, and Ulrich Kasparick, the Parliamentary State Secretary in the German Federal Ministry of Education and Research. After their speeches we will move on to concrete European research. Helmholtz scientists will present examples of their work. And finally we will confer the Erwin Schrödinger Prize on a research team from our centre in Karlsruhe. Science and politics, insight and influence: we need both. The intelligent combination of them is a secret of success ... for more than a hopefully interesting European evening.