## ALLEA General Assembly meeting Krakow 2006

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President-Elect ALLEA

Dear Mr Past President, dear Pieter, Distinguished colleagues, Ladies and Gentlemen!

It is an honour and a very special privilege to stand here and speak in front of All European Academies. The acronym ALLEA means a lot for the modern European scientific community.

As explained already by Pieter Drenth in his opening address, the ideas of ALLEA have been formulated about 15 years ago and in 1994 ALLEA was officially established. Now 12 years later, characteristically to science, our state of knowing has been improved a lot.

It is a fascinating time we live in now. New challenges in research – particle physics, molecular biology, brain research, climate research, energy research, complexity and many more are promising and the results will give without any doubt new knowledge to mankind. Knowledge about man and nature, knowledge about society, knowledge to be used in practice. In this fast developing world, academies have an extremely important role fostering top level research, furthering critical scientific thinking in a society and promoting independence and freedom of science. These are the focal points in the future Strategic Outlook of ALLEA.

I am privileged to follow the former Presidents Professor Paul Germain, Domokos Kosary, Gerhard Gottschalk and Pieter Drenth. They have steered ALLEA together with all the member Academies to the present day. ALLEA has got a firm place in the European scientific and scholarly community. Actually the strength of ALLEA comes from the same community or in other words – from the understanding of the responsibility of scientists. Our Standing Committees and Working Groups do excellent job. Our statements are formulated after through analysis summing up the experience of member Academies. ALLEA publications reflect important findings in science policy, ethics, evaluation and other matters. All this activity is based on fundamental values that have been formulated over centuries of research. ALLEA brings together the wisdom of Academies from the 17<sup>th</sup> century on and the quest for new knowledge which is so important to every member Academy.

I have been involved in activities of ALLEA and other European institutions since 1995. In my own Academy – Estonian Academy of Sciences – the last decade has been full of changes and I have been lucky to be related to dynamical transformations of the society and academia. My own research field is mathematical physics and theoretical mechanics which have old traditions but always carry new ideas. I certainly know that one cannot take the notions from one branch of science and bring these into another. Nevertheless, sometimes I am tempted to draw the parallels from my own field to general societal activities. One such a parallel is related to conservation laws. In continuum physics these conservation laws emphasize the conservation of energy, momentum, mass etc, all spiced with the entropy inequality. The diversity of matter is in addition described by constitutive laws. One could say with a certain liberty that in research the "conservation laws" are objectivity, ethics of research and continuous quest for the new knowledge at the frontier of capability of mind. And with the same sort of liberty, education, infrastructure, funding, etc. form "constitutive laws". And even more, the quality requirement can in some sense compared with the entropy inequality – this must always be satisfied.

Another concept from my own research is fractality – the understanding that complex structures can be built by simple rules. It is my strong belief that the principal rule in academia is to support the quality of research and train young scientists. Applying this rule steadfastly we can reach dynamic research structures able to move the frontiers of knowledge. Whether we call such a system European Research Area or not – this is not so important.

But let us return to ALLEA. We know that knowledge is Europe's richest resource. Knowledge means indivisible continuum of physical and biological sciences to humanities and social sciences and other fields. But the knowledge is useless when left just in itself. There must be mechanisms of social interaction and cohesion in human institutions in order to use knowledge. This is exactly what Academies and ALLEA as a whole should take care of. We have already good experience and Pieter Drenth from whom I got the hammer just some minutes ago, has done a lot to summarize ALLEA's experience. ALLEA's key concerns have been autonomy and independence of Academies, scientific integrity and social responsibility, social and ethical view in research, quality of research and many other aspects. These views form the background of ALLEA statements. Take for example, reflections of ALLEA on the 7<sup>th</sup> Framework Programme (issued June 2005). It is not fully positive presenting also some critical remarks. One proposal, for example, was on the theme "socio-economic sciences and the humanities", calling to split it into the two themes. This is an important problem and here I am pleased to mention that EURAB has also prepared a long document on humanities and social sciences. Another point that should be stressed within ALLEA Statement on the  $7^{th}$ Framework Programme, is the problem of intellectual property rights. We have a Standing Committee to tackle this problem and thanks to detailed analysis by this Standing Committee. ALLEA is able to focus on key elements of the IPR that should be solved in the nearest future.

Speaking about the future of ALLEA, the crucial point to my mind is – how to use our potential. This potential is based on rich academic traditions in Europe, experienced researchers and dynamic young people. Yes, we could start listing up our problems and compare European indicators with those in the US, Japan or elsewhere. Here is not the place for that and I would like to focus on the challenge to use our potential. The old saying by Aristotle is "The whole is more than the sum of the parts" – concerns also ALLEA. In contemporary understanding, Aristotle was seemingly familiar with nonlinear dynamics and dissipative structures.

We have to develop our contacts with other stakeholders in the scientific community. Our unique features – institutional membership, independence, multi-science and multi scholarship character – give us the strong position. We have direct fruitful contacts with the ESF and EASAC, and also with ISE. Personally the President of ALLEA is the member of the ESF Governing Council and EASAC. These both institutions are very dynamic and reacting fast to the changes in Europe.

Just now, the ESF has formed a Task Force on Governance and Structure and I am invited to be a member of this Task Force. The idea is to improve the structure of the ESF and, exactly as I have said concerning ALLEA, to use the potential of the ESF Member Organizations. The ESF is an institution where Research Councils and Academies are under one umbrella and recently there were debates on the role of Academies who are not rich funding organizations like Research Councils. The new President of the ESF, Professor Ian Halliday has proposed to use more widely the knowledge, not the funds from Academies. In this context, for example, Forward Looks can be steered by Academies. I shall certainly inform ALLEA about the results of this Task Force.

But ESF, EASAC and ISE are not the only institutions we have to work closely. In the working document of ALLEA: Strategic Outlook: Unity in Diversity many of stakeholders are listed. Links with Inter Academy Panel and the Academies of other continents are also important, we have just discussed the possibilities to support the African Academies.

I am also a member of EURAB in my personal capacity. There is a small group in EURAB chaired by Jan Dekker, the President of EARTO, dealing with creating a broad coalition of authorities and organizations working towards Lisbon targets. EURAB as you know unites academia and industry, ALLEA unites academia. It is quite natural that I have joined this group (called shortly "Plan C") because cooperation in this direction is definitely needed. Again, this is the plan for the future together with short-term activities.

Our membership counts now 53 academies from 40 countries. Nevertheless, not all the European countries are represented in ALLEA, because of difficult transformation processes in society which still are going on. Our duty is to help them to become members of ALLEA. ALLEA should not be only a forum for the member Academies but also a driving force for a knowledge-base society in Europe in the same sense how member Academies act in member states. The motto – unity in diversity serves this mission. Our strategic outlook needs to be formulated more precisely for the future. Should we have more meetings – conferences, WG meetings or seminars? Should the Steering Committee meet more often or should the electronic communication be improved?

Ladies and Gentlemen!

From this rostrum I would like to thank KNAW and the Dutch Government for the support to ALLEA. This support has given us an able Secretariat and I would like to thank Hans Schroots and Maarten Langemeijer for their work. To follow Pieter Drenth is from one side easy and from another side – difficult. Easy, because he has influenced the ALLEA emergence as a strong institution and set up the pace. Difficult, because it will take a lot of energy to go on and meet the challenges. I have not got a limerick like Pieter yesterday but I would like to quote a mathematician from Oxford. "It takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that". This is what the Queen said to Alice.

We all strive for excellence in science and scholarship, that is why we have to run fast, but as Academies we must have the wisdom not to hurry and to know the difference between the routes and change the things. I would like to thank you all for your support – I shall do my best to serve ALLEA and the whole scientific community. I would also thank the Polish Academies for organizing the General Assembly meeting. As you understand, Krakow takes now a very special place in my heart and I am very proud that I take over the presidentship in such a cultural centre of Europe.

Thank you for attention.