

Ladies and gentlemen, dear colleagues,

It is a great pleasure and an honor for me to address you on the occasion of this Maastricht symposium on the Empowerment of European Universities.

The perspective I take in this contribution is that of a national research council, a research funding organization. Using our national situation as a case I would like to signal some challenges to research policy. (As a medium sized country international cooperation comes naturally to us and of course the European dimension will be key in my address.)

Obviously the European national research funding organizations and research performing organizations, should not operate in isolation and a good understanding *of* and *with* the European universities is vital. I will come back to this in the course of this presentation.

CERN

Let me start by telling you a brief anecdote to illustrate my personal European background. I spent the Summer of 1972 in Geneva. It was the summer I turned 22 and it was the summer during which 'Europe' for me became a matter of course. I participated in the summer student programme of CERN, the European laboratory for particle physics. CERN is a European

Intergovernmental Research Organization, with presently 20 member states, that has been established after the second world war in order to rebuild scientific capacity in post war Europe. Never before did I learn so much in such a short period of time, than in that Summer of 1972. As a student from Nijmegen University in the Netherlands I had access to lectures by famous scientists from universities all over Europe. Not only did I learn a great deal, this experience was inspiring for the rest of my life as was case for my fellow students from Germany, France, the UK, Italy, Sweden etc. etc. It was clear that European cooperation can lead to a world leading laboratory. It was clear that European cooperation brings added value. CERN is a prime example of successful implementation of an agreed joint strategy, that led to contributions to a central budget. Implementation of the strategy and spending of the budget is entrusted to a director-general. Although I will be the first to admit that the CERN model is perhaps not applicable to all European research challenges it does show that it is legally, financially, politically and most importantly *practically* possible to create and implement a truly European and, indeed international research policy

The Netherlands Organisation for Scientific Research - NWO

Back to our national situation. As the chairman of the Netherlands Organisation for Scientific Research, NWO, the

main research council in the NL, my most important challenge is to support excellent research and to ascertain adequate funding from the national budget. NWO is an independently governed organisation, that is important. But it depends on government funding. It is important to note this because this can also lead to challenges. The NWO policy is based on a strategic plan that is renewed or updated every four years.

- Its main goal is supporting talented researchers and 'bottom-up' research initiatives. About 85% of the NWO budget is spent on research conducted at the Dutch universities – so NWO's strategy and that of the universities should be consistent and they should reinforce each other. There are various platforms on which the interactions between NWO and the universities are ensured. The dialogue is important and dynamic. Exactly how the universities should position themselves in this dialogue, from a position of strength, is one possible important outcome of the process started by this symposium. In any case: adequate research capacity at the universities is a pre-requisite for a successful NWO strategy.

Further priorities in this strategy are:

- Investing, with partners, in themes inspired by society's needs
- Encouraging and facilitating knowledge utilisation
- Strengthening international cooperation within and outside of Europe

- Promoting access to high-quality research facilities
- Strengthening the role of NWO's research institutes (so strictly speaking NWO has also a research performing branch)

Every new strategic plan is presented to the government for comments. Here comes the current challenge. The new Dutch government has, a year ago, formulated very strong indications as to reinforce funding of research that is considered to be particularly relevant for the earning power of companies in nine so called economic top areas. I will not enter into detail here, but it is very important to accommodate this explicit emphasis in research policy in a responsible way. The policy does not come with additional public funds for NWO or the universities. The goal is a research agenda that provides incentives for additional private funding of research. The agenda setting is in progress and should be completed in a few months' time. It is very hard to judge who is in the lead, but the process illustrates a critical attitude (of the private sector) towards - if not a lack of confidence in - the publicly funded research system, including the universities. It also illustrates, relevant in the context of this meeting, that a common understanding of the role of our universities and the desired level of 'empowerment' is urgently needed. Let me, for completeness, mention the designated economic top areas: chemistry; life sciences; energy; agrofood; horticulture; high tech systems and materials; water; logistics; creative industry. It is clear that

these areas should not exclusively define the research agenda, not even within the designated areas themselves. For example: there are more research areas in chemistry than those that are considered economically relevant now. And how about the social sciences and the humanities and astronomy etc. etc. The universities should be empowered with a strong and credible voice in working out the details of this policy.

Interesting detail of this new policy of our government is that the aim is also to successfully establish links with European research policy. With European funding! However when choosing these nine priority areas the focus was on the needs of Dutch industry and ignored the European grand challenges. As we speak we are trying to find a better match.

Private funding of R&D should, according to criteria agreed at the European political level, amount to 2% of the GNP. In the Netherlands we fall short of this goal by a rather large margin. A more realistic goal may therefore be 1.5% and the effort of the government to stimulate private funding by 'catalyzing' it through publicly funded research is certainly worthwhile. However, at the same time public funds also fall short of the aimed for 1% of GNP (by about 15%) so there is no room for 'diverting' public funds for the benefit of the agendas of private companies. In fact, our government has reformulated these 'Lisbon criteria' by stating that the goal is 2.5% of the GNP, without specifying a split between public and private.

Before turning to 'Europe', let me discuss the role of research institutes in the NWO strategy. NWO runs eight research institutes. Their research fields are physics, astronomy, mathematics and informatics, sea research, and, outside the natural sciences: criminology. They are not in competition with university research. They should reinforce it and provide a platform for national cooperation, in particular with and between university groups. They serve a national interest. They provide infrastructure, a framework for a coordinated scientific strategy, a national point of contact for international collaboration etc. Some universities are keen on taking over these institutes. I see no advantage in that, I believe the institutes are more secure under the umbrella of the national research organisation as they have a national role. Assigning the institutes to certain universities would make these universities climb on the ladders of several international rankings. But then, what do these rankings actually mean, what is their value, what can be read off from them?

Europe

So far I have mainly emphasized the national, Dutch, dimension of research policy. In the Netherlands the universities are the major performers of publicly funded research. 85% of the research NWO funds is performed at the universities

(we have 14 of them). The universities combine teaching and research, a powerful combination. In Europe, the collective research funding and research performing organisations have a total budget that roughly amounts to 90% of the total public European research budget, the remaining 10% is provided through the research budget of the European Commission. About 40% of the current Framework programme benefits the research programs at the European universities.

A large number of European research organisations has recently founded a new organisation, Science Europe. Its aim is to efficiently harmonize national research strategies with the EU research strategy and vice versa. Science Europe has established a small office in Brussels. Although its main aim is to interact effectively with the commission and the European bureaucracy Science Europe also works on effective cooperation between the national research organisations themselves on the basis of a common road map. And it will, in the future, facilitate a forum for European researchers to discuss their science and their plans (a task to be taken over from ESF, the European Science Foundation, that will then cease to exist). Science Europe is keen to search the dialogue with the European organisations of universities such as the EUA (European Universities Association) and LERU (League of European Research Universities). We believe the ERA – European Research Area - can only be achieved if we work together. We share a lot of basic values and ideas and for relevant cases our joint voice should be of major influence to EU research policy.

European research policy is less prone to national political situations. It would be beneficial to us all if national research policies would be better aligned with those at the European level.

Incidentally: collaboration between national research councils, going as far as putting research funds in a common pot for example, is still rare, an exception rather than a rule.

What should we do to strengthen European research?

The European Research Council, established under the 7th Framework Program of the European Commission, has successfully organised funding schemes based on excellence. It is reminiscent of national schemes, based on competition. In a very competitive selection the best researchers win research grants. The success rate is an important indicator for the competitiveness and quality of their universities.

I will not attempt a comprehensive analysis of European research policy here, but it should be ensured that the various initiatives are taken up by (and fit the strategies of) the European universities. Joint Programming of Research, the European Institute of Technology, its Knowledge and Innovation Centres, to name but a few.

The new European framework programme for research and innovation, Horizon2020, is taking shape now. My message to national governments is to take note and create synergy between national policies and European ones. So now is the time to establish or re-establish the role of European universities in this programme. Horizon2020 is based on three strategic objectives:

- excellent science (ERC, post-doc programmes, research infrastructures, support for future and emerging technologies)
- industrial leadership
- societal challenges

Clearly, these strategic objectives should reinforce each other. Let me explicitly mention the six categories of societal challenges identified by the EU: health, demographic change and wellbeing; food security, sustainable agriculture and bio-economy; secure, clean and efficient energy; smart, green and integrated transport; climate action, resource efficiency and raw materials; inclusive, innovative and secure societies.

European universities should be empowered to optimally participate in reaching the strategic goals of their countries and of Europe. In the future Europe should get a larger emphasis than the national agendas. Now it is still the other way around.

The aim of this meeting is to find ways of monitoring and measuring the effectiveness of EU national university policies by scoring their results compared to the strategic goals. For European universities these strategic goals should of course also have a strong European dimension along the lines of the framework programmes of the Commission, referred to above.

I would like to open a parenthesis here. European universities should also be scored on their Open Access policy. Open Access publishing of scientific papers is beneficial for science itself, for scientific cooperation, for interdisciplinary research, for outreach. The transition to Open Access publishing whilst maintaining the highest quality standards could be greatly eased if the European universities would collectively and actively support, no demand it.

It should be clear from the above that I personally strongly favor an adequate empowerment of European universities. Exactly which criteria should be developed and how the strategies and performances of the universities should be scored shall be further developed by the NGO Empower European Universities. It is obvious that the European strategic objectives of the present and the forthcoming framework programme should be leading in assessing their strategies and their impact.

The case for a truly united Europe is stronger than ever. Amidst a world population of 7 billion less than 10% inhabits the

countries of the EU. Common policies, including common university policies are necessary for Europe to maintain its wealth and wellbeing. More authority, more decision making, more power will have to be entrusted to a central authority, to 'Brussels'. Paradoxically, recent political developments (the financial crisis, the Eurocrisis) tend to point national politicians into the opposite direction. But scientific cooperation can direct Europe into the right direction again, with the European universities in a leading role. Common scientific goals bring scientists together, science brings nations together. Let us reinforce Europe in that area and the rest will follow...

Conclusion

European public research funding is mainly channeled through national research organisations, but an increasingly important role is played by the funding provided by the European Commission. European countries gauge their scientific performance by measuring the success rate of their researchers in the European competition, in particular the ERC. This provides a first and most important indicator for scoring European universities:

- scientific excellence.

A second indicator is provided by their effectiveness in contributing to achieving the strategic goals of

- societal relevance (addressing the grand challenges) and

- economic competitiveness (of European companies in the global context)

At the same time it is very important that national strategies align with the European one, allowing the universities to optimally contribute to both.

How to quantify the extent to which the European universities successfully meet these challenges is one of your goals and requires the expertise and methodology of economists. I am looking forward to the recommendations.

Implicit in all this, but not explicitly addressed here, is the task of the universities in training the scientists of tomorrow and in adapting their curricula according to changing needs.

The most successful universities should, in due course, be eligible for direct European funding. This is a far reaching conclusion, rather a vision for the future, perhaps just a conviction. May the work of the NGO Empower European Universities contribute to developing objective measures and organisational structures to further a sustainable and effective and world class European university system.

Thank you for your attention.