

What do policy-makers expect from science advice?

Speech

by the Federal Minister of Education and Research, Prof. Dr. Annette Schavan, Member of the Bundestag,

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For release: Beginning of the speech Check against delivery. The European Academies Science Advisory Council is celebrating its tenth anniversary. Congratulations on the first decade of cooperation between the European national academies! I would like to express my thanks for the work that has been performed.

A central factor in the relationship between science and politics is the respect which policy-makers show for the autonomy of science. At the same time, it is the knowledge of experts that gives substance to political decisions and to cultural and societal progress. Policy-makers need advice that is based on scientific findings.

The national academies and cooperation between these academies represent a great opportunity for policy-makers in Europe. The national academies provide policy-makers with knowledge and findings, help to establish priorities, and supply information on the viability of potential solutions. This becomes more important as the challenges facing policymakers increase. Europe is currently experiencing difficult times. We are facing issues such as excessive public debt, demographic developments, the question of Europe's innovative capacity, and problems regarding opportunities for the younger generation. It is quite obvious that many of these problems cannot be solved simply by resorting to previous solutions. To achieve long-term viability, we need to take decisions which are sustainable over several generations. If we did not already have the national academies, we would have to invent them today.

It is not their task to provide a lobby for science. Rather, it is their task to identify options based on existing knowledge – with all the pros and cons. All knowledge is transitory. It is only valid until new facts and new findings emerge. Science advice must take this dynamism into account.

Science is not the voice of a certain group in society. It is based on facts and must not be instrumentalized. It may examine the views and interests of various groups – this is an important aspect of opinionforming in democratic societies. It may not, however,

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prescribe a certain opinion and the corresponding decision.

The art of politics is to weigh up options in order to reach decisions. Politics is concerned with public goods and values; it studies the viability of the options available with the aim of ensuring sustainable, future-oriented perspectives.

Politics and science should not try to monopolize each other. They depend on one another, but at the same time are quite distinct from one another. European science policy is responsible for ensuring that scientific work has the necessary autonomy and scope for action. Science, in turn, must ensure that policy-makers have the necessary expert knowledge at their disposal.

Against this background, it was only logical to make the following statement in the set-up phase for the national academies: "Sound recommendations are to be published in all cases in the interest of scientific independence – even if they are surprising or even inopportune for policy-makers." I actively support this approach without the slightest hesitation.

Science is committed to excellence. And the same is true of science policy. This was the guiding principle

when we established the European Research Council. The relevance of scientific findings can only be relied upon if policy-makers accept the principle of excellence.

Science advice to policy-makers also needs a public dimension. The national academies actively communicate with the public. Scientific results should be intelligible and plausible for a wide public beyond the immediate circle of policy-makers working in this area. Science communication has become increasingly important in our countries. This is demonstrated by the numerous activities which the national academies support.

We all know that there is a clear line between scientific results. on the one hand. and recommendations for policy-makers and society, on the other. In order to make this distinction, scientists must also investigate political counselling and processes. decision-making Verv often this represents a balancing act – for policy advisers as well as for us politicians. Establishing political priorities is part of our political responsibility. Giving the public the opportunity to form a well-founded opinion is a matter of concern for science as well as for politics.

Technological progress is linked with new opportunities. But it always gives rise to certain reservations. This is particularly the case when new technologies are introduced. Opportunities and risks must be weighed up. Science also needs a selfcritical approach and must avoid creating the impression of being biased. Providing scientific policy advice therefore involves accepting overall responsibility.

II.

We are currently conducting a comprehensive dialogue about the future of our individual countries and Europe as a whole. This includes a debate on our understanding of progress and prosperity, of growth and innovation. This understanding – together with the related concepts and strategies – must serve the interests of sustainable development. We have learned among other things that responsible public finances require a debt brake. Otherwise we will be securing our own prosperity more and more at the expense of generations to come. This leads us to favour an understanding of economic growth as qualitative growth – that is to say growth which is not achieved at the expense of the environment. It also leads to a new understanding of our treatment of natural resources when we talk about restructuring the energy supply systems in our countries. In Germany, it has also led us to afford greater priority to education and research in our public investments. The Lisbon strategy's target of investing 3 percent of GDP in research and development is a good example in this context.

Politics and science are linked by these key elements in the dialogue about the future. Behind all this lies a task that is deeply cultural in nature. The fact that we are conducting this dialogue in Europe is a token of the long European tradition of science. This tradition is characterized by great researchers whose work has laid the foundations for intellectual and cultural, for technological, social and economic progress. Their curiosity and their creativity have shaped the success of this continent. They have helped Europe's free democratic societies to realize their great political ideals.

Just over twenty years ago, the fall of the Iron Curtain enabled Europe to develop a new dynamism. I am confident that today's Europe can once again succeed in solving its problems and putting its economic house in order – and in doing so will demonstrate its responsibility towards future generations.

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Let me recall Dürrenmatt's drama "The Physicists". One of the lines in this play is: "The content of physics is the concern of physicists, its effect the concern of all men. Each attempt by an individual to resolve for himself what is the concern of everyone is doomed to fail." In other words, science is responsible for making its knowledge and findings available wide to а public. The rightful place of research is at the centre of our society. Jörg Hacker, the President of the Leopoldina, Germany's National Academy, has rightly said that science is the "real guiding culture". He continues that: "In view of rapid scientific progress, science should not look down on the world from its ivory tower and devote itself to its studies in isolation." Science must be aware of its responsibility for tackling the grand challenges of the future. I hope that it does demonstrate this awareness.

It is therefore a good thing that our national academies in Europe are not only working each on its

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own behalf, but have also been cooperating in the European Academies Science Advisory Council for ten years now. They work together in a way that serves the responsible forward-thinking dialogue in Europe – thus extending the range of political opportunities for action and the related viable answers to the great questions of our time.

Another thing that I expect from the national academies and the European Academies Science Advisory Council is that they should direct their attention towards young scientists, their talents and creativity, their curiosity and passion for science. It is sometimes the young who help us to venture along new paths, discover new perspectives and better understand new developments. This is why I wholeheartedly support all initiatives which give young scientists a public voice.

III.

Finally, allow me to make a few personal comments regarding developments in Germany: I am delighted that the Leopoldina, which was declared Germany's National Academy of Sciences in 2008, is so firmly established at the international level. The traditional *Länder* academies, the Berlin-Brandenburg Academy of Sciences and Humanities and the German Academy of Science and Engineering (Acatech) have helped us in Germany to successfully conduct the forward-thinking dialogue in recent years. The same applies to the innovation dialogues with Federal Chancellor Merkel, to the energy turnaround which Germany has decided to introduce, and to the important expertises provided by the Leopoldina on this issue.

Jörg Hacker reminded us in his article in the *Süddeutsche Zeitung* of 22/23 January 2011, from which I have already quoted, that Galileo in Bertold Brecht's play "Galileo Galilei" says: "As a scientist I had a unique opportunity. In my day astronomy reached the market places."

It is one of the major tasks of the national academies and the European Academies Science Advisory Council to promote science in Europe as part of European culture – in the media and in schools, in parliaments and ministries, in public debates and in the dialogues on the future.

In this vein, I would like to offer you my sincere congratulations and wish you all the best.