



Europäische Akademie

zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen
Bad Neuenahr-Ahrweiler GmbH

Direktor:
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Newsletter

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Editorial

Like every scientific institution the Europäische Akademie is based upon its constitution which defines and designs the scientific activities. The Europäische Akademie is a „gemeinnützige Gesellschaft mit beschränkter Haftung“, i.e. a non-profit company with limited liability. Its shareholders are the Bundesland Rheinland-Palatinate and the German Aerospace Centre (Deutsches Zentrum für Luft- und Raumfahrt e.V. – DLR). The company's bodies are the management and the Shareholders' Assembly. The Europäische Akademie has a managing director who represents the company in sole power in and out of court. At the same time he is the (scientific) director of the academy and the managing director of the company.

The Shareholders' Assembly controls the legality, the expediency and the economic efficiency of the managing director's actions. It establishes the principles for the controlling of results of the scientific studies. The shareholders have set up a Managing Committee as an advisory support. The Managing Committee consists of one member delegated by the Bundesland Rheinland-Palatinate out of the scope of the Ministry of Science, Education, Research and Culture, one member out of the scope of the Ministry of Finance and two members sent out by the DLR. The Shareholders' Assembly has installed a Scientific Advisory Board with ten members. This gremium has to consult and assist the Europäische Akademie in the elaboration of research objectives as well as in the professional evaluation of sponsored projects.

The Newsletter will report regularly about the consultations and decisions of the Europäische Akademie's bodies. PH

Focus

The (hidden) Scope of Science and Technology Assessment

Gerd Hanekamp

Technology Assessment (TA) or Science and Technology Assessment (STA) to use a more adequate term for the venture envisaged is sometimes accused of its provinciality in methodical terms. This impression may well arise in view of the hermetic nature of the corresponding methodical discussions. Additionally, these discussions are, contrary to the importance they concede to interdisciplinarity, not interdisciplinary themselves. Here an attempt is made to open the discussion and to include different strands of thought that will be helpful to solve many problems STA sees itself confronted with.

Governance

STA can basically be understood as political consulting. This, however, does not mean that STA is confined to giving advice exclusively to politicians, nor does it mean that advice is given to everybody involved in the 'political system', to the exclusion of those outside the system. The scope of the addressee rather has to include all those involved in political decision-making in the sense of *governance*. Everybody involved in the governance process, i.e. everybody participating in this process is a (potential) addressee for STA.

In order to establish what governance is intended to mean, let us assume a simple picture of democratic representation: A representative party is elected by the people and a government is formed which executes the policies set up by this body. Those citizens, not being representatives, do not take part in the political process between elections. Seen in this way, participation is exclusively representative and formal. The

political process is unbiased and professional. STA is exclusively concerned with policy *issues*.

The picture just sketched is a high-school textbook version of representative Western democracies. But, of course, there are also associations, NGOs, civil action groups, the media, public opinion, to name the most important extraneous factors, which are missing in this scenario. There is lobbying, there are demonstrations, there is civil disobedience, public opinion sets its own agenda, certain events are covered by the media, others are not, et cetera. The picture is, in fact, far more complicated. Not only the elected representatives are involved in policy-making but also anybody who is interested and willing to invest time and money. This engagement can be temporary or long-lasting, it can be expensive in terms of time and money or inexpensive, it can be conventional or unconventional, et cetera. All forms of participation described by the terms: representative/direct and formal/informal are present.

It is more complicated not only because of this multiplicity but also because questions of legitimacy arise that were taken for granted in the simple picture initially described. In the latter case, questions of legitimacy exclusively concern the representative system, generally installed by a constitutional act. In fact, the legitimacy of all actions aiming at influencing the political process has to be discussed. For this there are two common paradigmatic approaches that can be characterized as elitist or participatory, respectively. The elitist sees the extraneous influences as disturbing the political process, for the participationist they are its basic elements. The elitist sees the system as formally established and refers to the qualified specialists who do their work within the government. The participationist is driven by the idea of direct democracy, where everybody should have a say about everything that concerns them.

Both positions, in their extremes, neglect certain traits of modern mass democracies, such as the structural transformation of the public sphere, the size of their population, the heterogeneity of customs and beliefs, the complexity of certain policy decisions, the motivation of citizens to actually participate, et cetera. Under these conditions it is clear that we need specialists in policy-making, on the one hand, but that we cannot expect citizens to sit still and do their personal book-keeping until the next election, on the other hand.

In this scenario STA has a correspondingly wider scope of tasks to fulfill. It is not only concerned with governance *issues* but also with governance *procedures* and thus with procedural design and procedural assistance. The more traditional tasks of providing specific knowledge and the 'public opinion' about particular issues are widened and so, therefore, is the horizon for the assessment of STA itself. The status of this work cannot be determined *eo ipso* but needs a wider view. What is at stake is the governance system as a whole, being the framework for particular decisions that are to be dealt with either exclusively by government specialists or by involving others. The discussion needs to be conducted on a societal level and cannot be decided upon presumptuously within methodical discussions.

Business Ethics

To take the governance issue seriously means to take into account more actors in STA than is traditionally the case, es-

pecially those that are usually deemed inappropriate recipients of this type of advice. For example, in many cases, companies need to be integrated in a strategy being developed in the course of STA. For STA this means that it can profit from taking into account the reflections of the discipline 'business ethics' involved in the effort to reach specific business decisions as well as decisions involving the framework in which businesses operate. This framework exists at company level as well as on larger scales from sectoral to global. It can be explicit and implicit. The concept of governance obviously can be and should be applied in an analogous manner here. It has an important bearing on the way business ethics is expediently exercised.

Let us consider three different types of business ethics: empiricist, functionalist and fundamentalist approaches. Empiricists discuss problems people have when acting in a business environment in terms of their values. Since everybody has their own set of values empiricists do not 'believe in ethical theories'. The approach best suited for their work is to write case studies that fictitiously confront people with real world problems. Functionalists start with the fundamental rules of a market economy as principles. They discuss which type of morals are consistent with these. They rate economical principles higher than 'ethical theories'. Fundamentalists on the other hand start with a set of ethical rules and analyze the expedience of 'economic principles' from there. They persistently oppose the view that framework rules should be taken for granted within an ethical discussion.

All three positions in their extremes neglect the dependence of the availability of the rules and norms on the specific context and do not take into account the capacity of the addressees to reflect moral conflicts. Empiricists deny the importance of these rules and norms for their work since it is not possible to extract general advice for business people from them; the framework is too complicated and the ethical principles too abstract to be useful. Functionalists forget that the ends the economic system is confronted with as well as the people that constitute it have changed. And finally, fundamentalists do not see that it is sensible, however tentatively, to take a relevant framework for granted when applying business ethics in a concrete case. They likewise overlook that a set of basic ethical rules is not sufficient for the ends business ethics is supposed to

serve concerning business decisions and even framework decisions within a business.

Business ethics can profit from the narrow-mindedness of each of these fictitious protagonists. From the empiricist it can be learned that the baseline has to be simple in order to make a difference in business life and that case study work is helpful to make people sensitive to conflicts concerning the actors' morals in business life; from the functionalist that frameworks are a good thing to determine the relevant context and the relevant types of measures taking them only tentatively for granted; from the fundamentalist that not the 'systems' are the methodical baseline but the individuals constituting them and that the corresponding frameworks are not fixed but available on the respective relevant scale of discussion.

In terms of the new relevance of companies for STA this type of business ethics means that these can take an active part within the implementation of concrete measures. STA has to say farewell to the image of the firm being trapped within a framework that does not leave space for ends other than those set by the framework. Firms in the new scenario can take a new role in societal transformation over cascading availabilities of frameworks that still today are taken as excuses.

Sustainable Development

The concept of sustainable development as introduced by the World Commission on Environment and Development (WCED) at first glance parallels the endeavours of STA. Long-termism has been at the heart of STA right from the beginning. However, it also has confronted STA with the desideratum to reevaluate certain concepts that had been discarded or semantically repositioned. Today we prefer the term scenario instead of prognosis or use prognosis meaning not foresight but scenario-based educated guess. The STA of sustainable development now again seems to need stronger concepts especially in the attempts to establish reliable modeling.

A short look at the history of the concept, however, might help to clarify what exactly is needed here. The concept of sustainability was first used in a resource economic framework as sustainable yield for renewable resources – originally in forestry. Already the integration of non-renewable resources overburdens the concept since the reserves of those is necessarily diminished when used. By incorporating the ends, the use of these resources is ser-

ving as a means, this problem can be overcome. If, for example, the yield per unit of a certain stock in terms of its use is growing fast enough to allow for a constant *use-specific stock* a sustainable use is possible.

Meanwhile this (so far sensible) extension strategy has led to a proliferation of aspects (e.g. ecological, social, economic) to be accounted for. There are even attempts to construct a set of indicators that, independent of a particular question or problem, allows for the qualification of certain developments as sustainable. Apparently all this is supposed to lead to a concept of sustainable development that is the operationalization of the WCED-use of the word starting with the resource-economic concept.

If, however, the WCED-use is understood as simply giving a sense of direction to political decisions this attempt might rather be hypostasis instead. In its fullest scope the determination of a sustainable development would solve the task the political system is installed for, the balancing of all policy-making areas. Thus, an integrating use clearly overburdens the concept trying to incorporate the performance of the whole political system, i.e. integrating environmental, economical and social ends in policy-making.

This short excursion suffices to realize that the new desire for ultra-long-term planning in terms of the old concept of prognosis as foresight is at least partially self-invented. A workable concept of sustainable development is necessarily contextual and must be adequate for a specific task. The sense of direction given by the WCED must be understood as deciding in view of long-term effects and developments as best as possible, i.e. as long-term as we have reliable knowledge. Thus, the abandonment of the old concept of prognosis in this type of context stays untouched.

The methodical interdisciplinarity alluded to in the previous sections is a precondition to finding answers to the questions STA is confronted with today.

Dr. phil. Gerd Hanekamp, Dipl.-Chem., is a staff member of the Europäische Akademie. He coordinated the project group "Sustainable Development and Innovation in the Energy Sector" and is a coauthor of the respective study report. One example of how the approach to STA described above can be made fruitful is this recently published memorandum. The executive summary will just shortly be available as a separate publication. Dr Hanekamp is also the managing editor of the Academy's journal "Poiesis & Praxis".

Working groups

Reasoning Goals of Climate Protection. Specification of art. 2 UNFCCC

The working group held its 4th meeting in Greifswald from 9th to 10th October 2002. The working group discussed draft papers on conflicting views and potentials for compromises in climate politics as well as on the relevance of technical options with respect of art. 2 UNFCCC. A questionnaire for investigations into the factual positions of actors was prepared in view of the 8th Conference of the Parties of the Convention in New Delhi. Recently, an expertise on the juridical term of "danger" concerning human interference with the climate system – to be considered here – was conducted by Professor Dr. M. Schröder (Trier).

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Embryo Experimentation in Europe

The 8th meeting of the project group took place in Warsaw from 21st to 22nd September. The project group welcomed Professor Rafael Pardo Avellaneda as newly associated member. In his capacity as director of the BBVA Foundation, Pardo Avellaneda is currently running a survey on European public opinion towards biotechnology, cloning and stem cell research and will provide the sociological expertise to the project. Based on a presentation of the questionnaire, the group discussed the underlying sociological aspects in the debate on human embryo research in Europe. Besides this topic different outstanding problems regarding the biological background, medical needs, legal requirements and the general challenges of the ethical discussions on human embryo research in Europe were discussed.

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Technology Assessment in Europe; between Method and Impact (TAMI)

The first year of the two-year EU-project TAMI has almost reached its end. TAMI has been successful in fulfilling its work plan within both groups: "Method" and "Impact".

The Method group (Dr. Michael Decker, Professor Dr. Armin Grunwald, Dr. Danielle Bütschi, Mr. Rainer Carius, Dr. Peter Machleidt, Mr. Soeren Gram, Mr. Stef Steyaert and Mr. Rinie van East) discussed and agreed upon a common European TA-definition and quality cri-

teria for TA. The next step will be to create a common reference system connecting special TA-issues to recommended methods.

The Impact group agreed upon a common "impact typology" based on project results and on the production of a series on working papers on: "Evaluation of the public debates", "Organised interests in decision-making", "The institutional context of TA" and "Framing cultural differences that affect impact assessment". The Impact group members are: Dr. Miltos Liakopoulos, Dr. Leonard Hennen, Mr. Lars Klüver, Dr. Sergio Bellucci, Professor Tomasz Szapiro, Dr. Luis Sanz, Dr. Laura Cruz, Dr. Theo Karapiperis, Mr. Robby Berloznik, Mr. Jan Staman and Professor David Cope.

On the organisational side, TAMI was able to enlarge the number of participants (from 10 to 12 members) and is glad to announce that the Rathenau Institute, The Netherlands, and the Flemish Institute for Science and Technology Assessment (viWTA), Belgium, have now joined the project as associate members. Both institutes provide valuable expertise in both Method and Impact groups and their contribution is of great benefit to the project.

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News

Alfried-Krupp-Wissenschaftskolleg Greifswald

Professor Dr. Carl Friedrich Gethmann wurde vom Kuratorium der Stiftung „Alfried-Krupp-Kolleg Greifswald“ in den Wissenschaftlichen Beirat der Stiftung berufen und von den Mitgliedern zum Vorsitzenden gewählt.

Expert Meeting on Environmental Noise

The Europäische Akademie will organise an international and interdisciplinary expert meeting on environmental noise which will be held in Bad Neuenahr-Ahrweiler from 12th to 13th December 2002. Special interest will be paid to aircraft noise, since it may work as a public relevant paradigm case: air-travel is a growing source of noise, but simultaneously it is to be seen as a core element of modern mobility endowed with a high economic potential.

Experts on the relevant views will be: Dr. Dietmar Wurzel, DLR, Germany; Professor Dr. Rainer Friedrich, Universität Stuttgart, Germany; Gilles Paque, European Commission, Belgium; Professor Dr. Barbara Griefahn, Universität Dortmund, Germany; José María Guilmón Viamonte, AENA, Spain and Professor Dr. Klaus Kornwachs, BTU Cottbus, Germany.

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Book Series

The 17th and 18th volumes of the Europäische Akademie's book series „Wissenschaftsethik und Technikfolgenbeurteilung“ were published recently:

C.F. Gethmann, S. Lingner (Hrsg.): Integrative Modellierung zum Globalen Wandel. Band 17, Springer-Verlag, Berlin, 2002, ISBN 3-540-43253-1

U. Steger et al.: Nachhaltige Entwicklung und Innovation im Energiebereich. Band 18, Springer-Verlag, Berlin, 2002, ISBN 3-540-44295-2

Lectures

Carl Friedrich Gethmann

25.10.02 „Warum sollen wir überhaupt etwas und nicht vielmehr nichts?: Konferenz „Ursprung des Sollens“ des Forums für Philosophie (Frankfurt a.M.)

04.11.02 „Ethische Aspekte des Handelns unter Risiko“: Kongreß „eurosafe 2002“ der Gesellschaft für Anlagen- und Reaktorsicherheit“ (Berlin)

25.11.02 „Lassen sich Katastrophen rational bewältigen?“ 12. ZUFO Umweltsymposium „Epidemien und Seuchen: Eine Herausforderung für Wissenschaft und Gesellschaft?“ (Universität Münster)

06.12.02 „Der Ursprung des Sollens“: Philosophisches Seminar der Universität Bonn

Stephan Lingner

18. 09.02 „Klimawandel: Das Problem von Vorhersage und Vorsorge“. 38. Sitzung des HGF-Programmausschusses „Systemanalyse und Technikfolgenabschätzung“, Wissenschaftszentrum (Bonn)

15.10.02 „Natural attenuation. Legitimate instrument or excuse for business as usual? (Poster paper). European Conference on Natural Attenuation (DE-CHEMA), 15 – 17 Oktober (Heidelberg)

Jeantine Lunshof

12.10.02 „Terminale Sedierung – Kommentar aus ethischer Sicht“. 4. Kongress der Deutschen Gesellschaft für Palliativmedizin „Qualität und Fortschritt in der Palliativmedizin“ (München)

Felix Thiele

29.11.02 „Stellungnahme aus ethischer Sicht“: Symposium des Studium-Generale der Universität Mainz „Pränatal-/Präimplantationsdiagnostik – ein unlösbares Dilemma?“

New Publications

Michael Decker

„Robotik. Perspektiven für menschliches Handeln in der zukünftigen Gesellschaft“, in: *Technikfolgenabschätzung. Theorie und Praxis*. Nr. 2, 11. Jahrgang, Juli 2002, 107 – 114

Carl Friedrich Gethmann

“Participatory Technology Assessment. Some Critical Questions“, in: *Poiesis und Praxis* 1 (2002), 151 – 159

Stephan Lingner

(in cooperation with A. Grunwald) „Nachhaltigkeit und integrative Modellierung“, in: C.F. Gethmann, S. Lingner (Hrsg.): *Integrative Modellierung zum Globalen Wandel*. Springer-Verlag, Berlin, 2002, 71 – 106

Jeantine Lunshof

„Terminale Sedierung – Kommentar aus ethischer Sicht“, in: *Zeitschrift für Palliativmedizin*, 3. Jahrgang, S1, Oktober 2002, 529

Personalities



Dr. Doris Schroeder, PhD, studied management/economics and philosophy/politics in Aachen before undertaking PhD research at the Universities of Manchester and Birmingham in the UK.

Her first career was in management, as a strategic planner for Warner Music, Germany. Since obtaining her PhD in philosophy in December 1998, she has worked as a research fellow at the Centre for Professional Ethics, Preston, UK and as a philosophy lecturer at Lancaster University, UK. She currently holds a Senior Lectureship at the Centre for Professional Ethics.

Dr. Schroeder is a founder member of the Society for Applied European Thought, an Honorary Research Fellow at the University of Birmingham and she was Vice-President of the Association for Legal and Social Philosophy in Britain in 2001. Her research interests include: political theory, ethical theory and food ethics. Her university teaching is predominantly in the area of formal logic / critical thinking.

From August to November 2002, Dr. Schroeder was a research fellow affiliated with the project “Functional Food” at the Europäische Akademie in Bad Neuenahr-Ahrweiler.

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