EUROPÄISCHE AKADEMIE
zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen
Bad Neuenahr-Ahrweiler GmbH
Direktor: Professor Dr. Dr. h. c. Carl Friedrich Gethmann

NEWSLETTER

AKADEMIE-BRIEF • NO 93 OCTOBER 2009

EDITORIAL

The Europäische Akademie GmbH plays host to several types of events to make the results of its work accessible to the interested public and the world of science and politics. So, in autumn 2009 and spring 2010 a number of events took and will take place such as conferences and the presentation of a memorandum:

- Autumn Conference "Concepts on animal welfare. Interdisciplinary perspectives", SETA-Hotel, Bad Neuenahr-Ahrweiler, 8–9 October 2009;
- Presentation of the memorandum "Das optimierte Gehirn" on chances and risks of neuroenhancement, Berlin-Brandenburgische Akademie der Wissenschaften, Berlin, 12 October 2009;
- Spring Conference "Sichere Stromversorgung und erneuerbare Energien" on security of electricity supply and renewable energies and its compliance with long-term CO2 reduction targets, Wissenschaftszentrum Bonn, 24–26 March 2010.

The Sponsors' Club of the Europäische Akademie will host two more lecture events this year:

- Lecture "Kreissparkassenvortrag" on the possibilities of the human brain and its behavioural control, Arp Museum, Remagen-Rolandseck (together with the Kreissparkasse Ahrweiler), 5 November 2009;
- Lecture "Ahrtalgespräch" on the financial crisis and its consequences (together with the City of Bad Neuenahr-Ahrweiler), Town Hall, Bad Neuenahr-Ahrweiler, 18 November 2009.

The academy's Newsletter will regularly report on these events.

KM/FW

FOCUS

Beyond providing information
Technology Assessment as a contribution to societal and political opinion forming

Frans W. A. Brom, The Hague

What makes a technology assessment (TA)-project successful? At the Rathenau Instituut we learned that communication is an indispensible element of a TA-project. This is not as simple as it sounds. Of course, it is clear that reliable and accessible information has to be generated. This, however, is in itself not enough. Information does not find its way to the media, society and politicians on its own. This is why we focus on communication and interaction in our TA-projects. In this respect, it is crucial to ask which contribution is to be made to the formation of social and political opinions. What is to be added? The results of a TA-project are of interest for the media only if there is something at stake. For getting attention a perspective needs to be formulated which can be disputed. In order to stimulate social debate and formation of political judgements, we need to evoke objections and at the same time remain scientifically and socially reliable.

1. Three steps in TA

Science and technology have a substantial impact on society. This impact is therefore reflected on and discussed in technology assessment. The task of the Rathenau Institute (RI) does not confine TA to analysing the impacts of science and technology on society, but also of contributing to the social debate and formation of political judgements relating to this impact. Therefore our TA-projects focus on both utilizing the opportunities provided by technology and supporting the formation of democratic decisions on these technological possibilities. This is done in three steps:

- making scientific and technological developments clear,
- involving society in these developments, and
- initiating social and political discussion on those developments.

1.1 Making developments clear

The first step concentrates on making scientific and technological developments clear. Science and technology usually develop outside of society: in the laboratory, at universities or in companies. Often citizens do not realize that or how a development will affect them. Sometimes social groups are unprepared for the arrival of a new technology. Furthermore, citizens – as individuals or groups – have different views on science and technology. The institute's objective is to broaden political and social opinions by making developments in science and technology clear to relevant stakeholders, and by showing various perspectives on these developments.

One example: New or rapidly developing areas such as recent brain research can have a major, instantaneous impact on society or raise fundamental questions. Brain scientists are discovering more and more about how our memory works, our emotions and how we decide what is good and bad. This knowledge is now surfacing in the courtroom. Should judges take it into account? Should the police and the judicial system be allowed to use this knowledge, as they now use DNA material?

Brain scientists, criminal law experts and police and legal representatives recently met to discuss the judicial system and cognition. The participants exchanged knowledge and experiences on brain measurements, lie detection, the action of our memory and interrogation techniques that are to lead to more objective tests and psychiatric reports. The RI aims to contribute to setting the agenda for social and political discussions by identifying and describing the significance and effects of these developments.

1.2 Involving society

The second step focuses on involving society in these developments. Developments become relevant when they impinge on the lives of citizens. That is why the RI's contribution to social debate and political opinion cannot be limited simply to providing the relevant information. The institute's task also comprises conceptual clarification of developments, revealing the different perspectives of stakeholders and citizens, and the organization of interaction between these perspectives, the political body and society in general. A frequent recurrent question with regard to TA-projects therefore is: 'Who should be concerned by this development?'.

One example: The emergence of health-promoting equipment outside the medical domain – for example as a gadget – may have a big influence on the nature of health care. Personalization in medicare and wellness and the overlap between the two domains establishes a consumer market for 'medical devices'. Such a market asks specific competences of patients and consumers – as well as of care-providers and technicians. Discussions with patients and consumer organisations about the issues evolving from the introduction of these devices are a *conditio sine qua non* of TA in this field.

2. Initiating social discussion

Next to describing the developments and involving society, our projects focus on initiating societal and political debate. This is crucial for a politically-oriented TA. In our societies social discussions are not driven from one central point. Social debates have their own (media) dynamics. A debate does not arise in response to an appeal for debate. Societal discussion only arises if there is something at stake. For the RI the challenge lies in formulating a perspective which can be disputed. We need to evoke objections and at the same time remain scientifically and socially reliable. For different types of impact this leads to different discussions.

2.1 The objectives

One way of making the impacts of a technology clear is focusing on the objectives aimed at. Science and technology are directed at solving problems such as combating diseases that seem invincible, or bridging large distances by exchanging information by computer. In these cases, science has social significance because of the intended positive consequences. Discussions focus on questions like "Is the future desirable?" or "Does the technology concerned actually bring this desirable future closer?". The role of TA in these cases is to assess the driving images of the technology developers (vision assessment) and to imagine reasonable futures as focussing points of societal discussion.

2.2 The 'side effects'

The consequences of these developments, though, often go much further. They may have effects, or 'side effects' we did not foresee, or do not want. For example, nanotechnology – the processing of materials at the molecular and atomic level – yields revolutionary new materials. Some synthetic nanoparticles may, however, lead to health and environmental risks. Negative and undesirable consequences give science a negative social significance.

TA activities may then focus on containing the undesirable aspects. This may consist of interaction between the different parties that will be affected by the side effects and of putting research on the agenda so that specific side effects can be analysed. In our report "Ten lessons for a nanodialogue" (2008) our main message was that any lack of government initiative in addressing the risk issue can only undermine the legitimacy of the broader societal dialogue about nanotechnology. And since such a broader dialogue is necessary we have emphasized the importance of an adequate risk governance strategy. In contributions to the social debate, we have also repeatedly pointed out that the potential risks of artificial nanoparticles form the Achilles heel of nanotechnology. With such a message, however, it is important not to be taken into a scare-creating media discussion. As we defend in the "Ten lessons", the communication of risks and uncertainties is difficult, but the communicative impact of neglecting these issues is more detrimental. Without any proper attention for risks and uncertainties these will be in the focus of the media, and rightly so.

2.3 Concepts and relationships

Besides desirable and undesirable consequences, science and technology also have another, often less direct, impact on society: it changes the relationships between people and the images with which we think about these relationships.

New technologies can contribute to new balances of power and inequalities, through knowledge monopolies, intellectual ownership or standard setting. As a result, the relationship between citizens and government can also change. Technological processing of information, screening and profiling may not only affect privacy, but may also lead to issues regarding power, institutional reliability and protective security systems. Technology can change the relationships between people and institutes fundamentally.

The conceptual frameworks within which we think about people and their relationships are also changing due to technology. The use of medical technologies for 'human enhancement', for instance, has consequences not only for our future health care but also for the human self-image; and striving to perfect or improve healthy people raises questions about the relationship that people have with their own (vulnerable) bodies. Human enhancement brings up questions about what it means to be human; and questions like that will, when debated in public or in the policy arena, often lead to deadlocks. These general debates are necessary, but they are not enough. Several human enhancement technologies already bring about problems for society, for example in the field of health care or the allocation of research funds. We therefore also focus on emerging social practices, like the use of the prescription drug Ritalin by students and employees wanting to be able to focus better. By identifying the problems and options in these specific developments, we try to offer new approaches or insights to prevent or escape from such deadlocks, as some of the technologies do need to be debated in order to establish regulations.

3. TA's contribution

One task of technology assessment is not only to examine the effects and social significance of scientific and technological developments, but also to support society in coping with these impacts. Active participation of the public in debates on science and technology is an important element of societal learning and coping strategies. We should engage the public, experts, policy and political decision-makers at an early stage and involve them in exploring and discussing the benefits, risks, and ethical and social consequences of technological developments. In modern media societies, the media are indispensible for this involvement. Therefore, TA needs to include communication as an indispensible element of its activities.

In order to do so, providing information is not enough. For getting media attention one needs to formulate something which can be disputed. The core question for the communication of a TA-project is to show that there is something at stake, something worthwhile to discuss, without losing scientific and social reliability.

***Professor Frans W. A. Brom, Ph.D.**, is Head of the Department of Technology Assessment at the Rathenau Instituut of the Royal Academy of Sciences and the Arts in The Hague.*

PROJECT GROUPS

Radioactive waste. Technical and normative aspects of its disposal

■ The project group had its fourth meeting in Hannover on 15 September 2009. The main goal of this meeting was to discuss an input by Professor Ortwin Renn on the question why and in how far participation of the public in decisions on disposals of radio active waste is of importance. In some countries, e.g. in Finland and in Sweden, where there is a solution to the question on the whereabouts of highly radioactive wastes or seems to be in reach at least, there has been an intensive participation of the public. In one of the next meetings it will be discussed how much weight the participation and the vote of the contemporaries can have when it has to be balanced with the interests of generations to come.

Another topic of the meeting was the significance of confidence for a succeeding long-term policy. The next meeting will take place on the 18 December 2009 in Bad Neuenahr-Ahrweiler.

A report on this project was recently published in: Technikfolgenabschätzung – Theorie und Praxis (TATuP), 2/2009: http://www.itas.fzk.de/tatup/092/kamp09a.pdf

CONFERENCES

Trier colloquium on energy supply and environmental protection

■ On 31 August and 1 September 2009 around 120 experts from academia and practise discussed current questions on the political, economic and legal implications for reshaping energy systems and policies in Europe, therefore becoming ready to face the future. The conference was organised by the Institute for Environmental and Technology Law of the Universität Trier and its results will be published in the scientific series of the institute. The a.m. topic is of specific relevance to the academy's project "Energy storages and virtual power plants" which is directed towards potentials, innovation barriers and implementation strategies for the integration of renewable energies into the power supply and its distribution. The responsible representatives of the Europäische Akademie discussed the related issues with speakers and audience.

NEWS

The work of the academy presented in paintings by the artist Christiane Stahl

■ On 1 October 2009 the art exhibition "adäquat" with paintings by the Eifel artist Christiane Stahl was opened at the Europäische Akademie in Bad Neuenahr-Ahrweiler. Stahl using various acryl techniques, created her works especially for the rooms of the academy. Professor Dr. Dr. h.c. Carl Friedrich Gethmann, director of the academy, welcomed the guests on behalf of the academy's Sponsors' Club. Christiane Hamann, art historian and teacher of arts, gave an introduction into the exhibition. Stahl, a self-educated artist, wants to create a connection between the existing rooms, the academy's research subjects and the scientists working in this environment. The main part of the exhibition is a calendar of pictures ("Bilderkalender") in which the hitherto completed and current research projects are characterised. The work of the academy is presented to the viewers in connection between the research object and the work of art.

The exhibition can be visited during the opening hours of the Europäische Akademie between 09.00 and 15.00 hours until spring 2010.

Inauguration of the Paul Lorenzen-Foundation

■ On 21 September 2009 the inauguration of the Paul Lorenzen-Foundation was celebrated at the Philosophical Archive of the Universität Konstanz.

On this occasion Professor Dr. Dr. h.c. Carl Friedrich Gethmann was invited to hold the ceremonial lecture on "Die Aktualität des Methodischen Denkens" (The actuality of Methodical thinking) at the Science Forum of the Universität Konstanz. The Paul Lorenzen-Foundation was inaugurated in 2009 to promote science and research at the Universität Konstanz. Together with Wilhelm Kamlah, the mathematician and philosopher Paul Lorenzen founded the so-called Erlanger Schule and was the leading representative of the constructive philosophy of science for which the Universität Konstanz was a renowned centre in the 1980s.

Paul Lorenzen's constructive philosophy of science has inspired the conception of transdisciplinarity in many fields which is realized in the working groups of the Europäische Akademie.

Research Programme published

■ In September, the latest volume of the English Research Programme of the Europäische Akademie was published and delivered to all English speaking Newsletter subscribers. The German Research Programme ("Forschungsprogramm") was published in October and is sent to the German subscribers with this issue of the Newsletter. The Research Programme is published regularly and gives an overview of the working programme and organisation of the Europäische Akademie. The booklet comprises all the academy's current and completed projects which are presented with short texts and provides concise information about the members of the project groups, publications, the working methods, aims, tasks, study groups, studies, staff members and the council of the academy.

Furthermore, a leaflet which comprises a survey of the current 36 volumes of the academy's series "Ethics of Science and Technology Assessment" is also attached to this Newsletter.

Medical Ethics Working Group Lecture

■ On 11 November 2009, Dr. jur. Stephanie Wiesner-Berg, currently passing legal internship in Berlin, will speak on "Baby drop-off boxes and anonymous births: Protection of life by anonymity? – The anonymous drop-off of children in conflict with the rights of children, mothers and fathers". Dr. Berg was employed with Professor Dr. jur. Brigitte Tag at the Rechtswissenschaftliches Institut, Universität Zürich.

Contact:
Dipl.-Päd. Ulrike Henckel
+49 (0) 2641 973-310
ulrike.henckel@ea-aw.de

Network Technology Assessment (NTA)

■ On 3 and 4 September the recent TRANSDISS workshop of the NTA-network was hosted by the Europäische Akademie which is an institutional member of the network. TRANSDISS is a network initiative which aims at reflecting trans-disciplinary questions at post-graduate level. It is funded by the German Federal Research Ministry and enables Ph.D. students to get insights into the basics of technology assessment as well as to discuss their results in a trans-disciplinary context, regularly. On the occasion of the TRANSDISS meeting, Professor Dr. Dr. h.c. Carl Friedrich Gethmann gave a talk on securing quality in trans-disciplinary research.

Lecture of the Kreissparkasse

■ In cooperation with the Kreissparkasse Ahrweiler the Europäische Akademie will present this year's Kreissparkassenvortrag at the Arp Museum, Bahnhof Rolandseck, Remagen, on Thursday, 5 November 2009. Professor Dr. rer. nat. Lutz Jäncke from the Institute for Psychology, Universität Zürich, will give a talk on the possibilities of the human brain and its behavioural control. The topic is "Sind wir vernünftig? Eine neuropsychologische Betrachtung".

Date: 5 November, 2009
Venue: Arp Museum, Bahnhof Rolandseck, Remagen

Ahrtal Talk

■ On Wednesday, 18 November 2009, the Europäische Akademie's Sponsors' Club and the City of Bad Neuenahr-Ahrweiler invite

to this year's Ahrtal Talk at the Town Hall, Hauptstraße 116 (parking Rathausstraße), in Bad Neuenahr-Ahrweiler. Professor Löhr (Zittau) and Professor Hengsbach (Frankfurt am Main) will dispute about the financial crisis and its consequences ("War es wirklich die Gier? Der Markt, die Krise und die Moral"). Following an introduction by Professor Dr. Dr. h.c. Carl Friedrich Gethmann, director of the academy, there will be a disputation between the two speakers and a discussion with the audition which will be led by Gethmann.

Date: 18 November, 2009
Venue: Town Hall Bad Neuenahr-Ahrweiler

Felix Thiele appointed fellow of the Center for Interdisciplinary Research (ZiF), Universität Bielefeld

The ZiF (Zentrum für interdisziplinäre Forschung) is the Institute for Advanced Study at the Universität Bielefeld and fosters outstanding and innovative interdisciplinary research projects. In the academic year 2009/10 Felix Thiele (Bad Neuenahr-Ahrweiler) is organiser – together with Jan C. Joerden (speaker; Frankfurt/Oder) and Eric Hilgendorf (Würzburg) – of the research group "Challenges to the Image of Humanity and Human Dignity by New Developments in Medical Technology".
The goal of the research group is to investigate on the basis of traditional concepts about the image of humanity and human dignity whether these concepts can be applied to modern medical-technological developments, and if they are still suitable for guiding us in finding answers to the corresponding ethical questions. Additional concepts may well have to be added in order to facilitate an even more appropriate assessment of this area.

For further information see: www.uni-bielefeld.de/ZIF

PUBLICATIONS

Bert Droste-Franke

"Fuel Cell Heating Plants – Contributing to Future Viability of Energy Systems", 10th IAEE European Conference "Energy, Policies and Technologies for Sustainable Economies", 7–10 September 2009, online proceedings: http://www.aaee.at/2009-IAEE/details.php

Georg Kamp

"Radioaktive Abfälle – Technische und normative Aspekte ihrer Entsorgung", in: Technikfolgenabschätzung – Theorie und Praxis (TATuP), Focus "Converging Technologies", 2/2009, Institut für Technikfolgenabschätzung und Systemanalyse (ITAS), 74–77

LECTURES

Thorsten Galert
26/9/2009

"Pharmaceutical neuroenhancement and the ideal of authenticity"
Conference "Brain Matters: New Directions in Neuroethics", Halifax/Canada

Carl Friedrich Gethmann
21/9/2009

"Die Aktualität des Methodischen Denkens"
Ceremonial lecture, Paul-Lorenzen-Foundation, Universität Konstanz

24/9/2009

"Lebensweltliche Grundlagen einer Ethik technischen Handelns"
Keynote lecture at the German-Hungarian conference "Lebenswelt und Technik. Ein deutsch-ungarischer Dialog zur Philosophie der Technik", University Debrecen/Hungary

Publisher:
Europäische Akademie zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen Bad Neuenahr-Ahrweiler GmbH, Wilhelmstraße 56, 53474 Bad Neuenahr-Ahrweiler, Germany

E-Mail & Internet:
europaeische.akademie@ea-aw.de • www.ea-aw.de

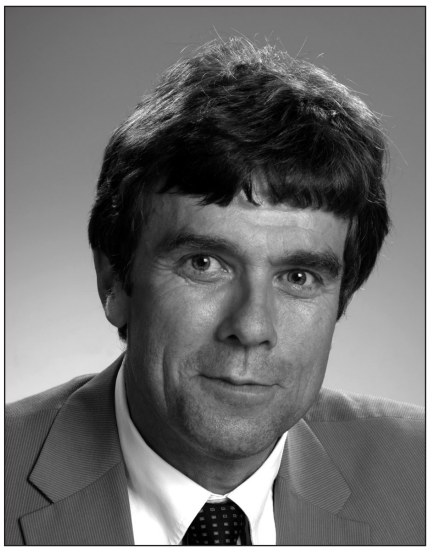
Director:
Professor Dr.phil. Dr.phil.h.c. Carl Friedrich Gethmann (V.i.S.d.P.)

Editing:
Katharina Mader, M.A., Phone +49 (0) 2641 973-313, Fax 973-320, katharina.mader@ea-aw.de

Typesetting/Layout:
Heim für angewandte Grafik, Heidelberg, Mannheim, info@heimzentrale.de

Print:
ISSN 1432-0150, frequency of publication: 8–10 times per year, 2.700 copies,
reproduction is permitted with reference to the source, please send two voucher copies.
Subscription:
The Newsletter is available free of charge.
To subscribe to the print version, e-mail us at europaeische.akademie@ea-aw.de
To download the Newsletter go to www.ea-aw.de/de/publications/newsletter

PERSONALITIES



Reinhold Bott, Minsterialrat at the Ministry of Finance of Rhineland-Palatinate, is member of the Managing Committee of the Europäische Akademie GmbH. The organisation of the state government of Rhineland-Palatinate provides that the investment management of the Ministry of Finance is represented in supervisory boards of companies the state government is financially involved in. So, Bott fulfils this task as a member of the Managing Committee of the Europäische Akademie. In this connection one of his main responsibilities is to control the academy's financial situation and its economic development. Therefore, the Ministry of Finance is also responsible for reporting to the state audit office. As head of division at the Ministry of Finance, Bott is represented in other supervisory boards of companies with state investment (i.a. in the field of technology) and responsible for the state's debt management.
After having passed the Diplom-Finanzwirt (FH) certificate, Bott was employed as managing officer with the revenue office of the Rhineland-Palatinate fiscal authority for two years. From 1980 on he worked in the Ministry of Finance for twenty years being responsible for the housing of state authorities and for presenting the financing of the required building measures in the state budgets.
Following his appointment as Regierungsrat in 2000, Bott moved within the Ministry of Finance to the investment and property management department and assumed his present office as head of division dealing with fiscal, business economic and technical questions.

***Dipl.-Finw. (FH) Reinhold Bott** is member of the Managing Committee of the Europäische Akademie GmbH.*