

Developments

Risk in Law – Law in Risk: The 50th Annual Meeting of Public Law Assistants in Greifswald, 23-26 February 2010

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A. Introduction

The 50th *Assistententagung*, the annual meeting of public law assistants, convened this year in Greifswald. Greifswald is not only home to academic institutions, but also has a long legal history and is the host city of both the State Constitutional Court and the Highest Court of Administrative Law in the state of Mecklenburg-Western Pomerania. The meeting's aim was to facilitate an exchange between postdoctoral and doctoral candidates on questions relating to public law. Until 1959, the assistants in public law, who are usually conducting doctoral or post-doctoral studies, had been admitted to the annual meeting of public law professors. Assistants could benefit from professors' wealth of experience, including how to structure lectures and how to answer difficult questions, through participation in the Public Law Professors' Meeting. With the exclusion of non-professors from the annual *Staatsrechtslehrertagung* in the 1950s, assistants no longer had a forum to learn how to perform as academics. This exclusion resulted in the beginning of the annual meeting of German-speaking public law assistants in 1961 in Hamburg, to which not only postdoctoral candidates, but also doctoral candidates were welcomed.¹ The meeting served as both a training course and an opportunity for academic exchange. And it was therefore in accordance with tradition that Jörg Scharrer, who hosted the first panel, had to ask the dean of the law faculty at Greifswald University, Prof. Dr. Axel Beater, to leave the building before opening the first session.

In the last half century, the *Assistententagung* has taken its place next to the *Staatsrechtslehrertagung* as one of Germany's two most important annual meetings in public law. For many years, the *Assistententagung* has no longer restricted participation to

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¹ See Helmuth Schulze-Fielitz, *25 Jahre Assistententagung*, 34 JAHRBUCH DES ÖFFENTLICHEN RECHTS 35, 45 (1985).

just German assistants, but includes young researchers from Austria and Switzerland as well. The *Assistententagung* has no formal structure but is essentially reinvented again every year and the organizers of this year's conference took an effort to thank the generations of former public law assistants, many of whom are now the leading academics and public law practitioners of the country, for their contributions during the last decades.

On the occasion of the 50th meeting, the outgoing president of the Federal Constitutional Court, Prof. Dr. Hans-Jürgen Papier, and the former head of the Association of German professors of public law, Prof. Dr. Helmuth Schultze-Fielitz, followed by dignitaries representing the state, the city and the local academic community, delivered speeches in honor of the tradition of the annual meetings. While Schultze-Fielitz lightheartedly elaborated on the history of the meetings and their spirit, Papier used the opportunity to give the attendees a first look at the topic of this year's conference "Risk in Law – Law in Risk" by addressing some of the landmark cases decided during his time as a judge at the Federal Constitutional Court. Papier placed particular emphasis on the role of civil rights which are not only obligations of the state not to cause harm but also amount to positive obligations to protect individuals, obligations which Papier placed firmly in their historic context as a result of the state's monopoly to exercise armed force since the Eternal Peace of 1495. In times of newly emergent risks, civil rights can lead to a clash between the obligation not to cause harm and the positive obligation to protect. This was the case for example in the controversial Air Safety Law² which would have allowed the German Air Force to shoot down civilian airliners which were suspected of having been hijacked with the intent to be used in a 9/11-style attack. The Federal Constitutional Court ruled that the while the law was not unconstitutional *per se*, the norm in question, § 14(3) of the Air Safety Law, had to be interpreted in the light of the human dignity clause of Art. 1 (1) of the Basic Law³ to the effect that innocent civilians may not be harmed.⁴ The Federal Constitutional Court ruled on the basis in the Gäfgen case involving the threat of a police officer against a kidnapper who had already been apprehended but who would not reveal the whereabouts of his victim who the police officer had reason to assume would die of malnutrition and dehydration if not found soon.⁵ Similar problems are posed by the use of

² See Luftsicherheitsgesetz [LuftSiG – Act to Regulate Air Safety], 11 Jan. 2005, BGBl. I at 78, available at <http://www.gesetze-im-internet.de/bundesrecht/luftsig/gesamt.pdf>.

³ See Grundgesetz [GG – Basic Law], 23 May 1949, BGBl. I at 1, available at <http://www.gesetze-im-internet.de/bundesrecht/gg/gesamt.pdf>.

⁴ See Bundesverfassungsgericht [BVerfG – Federal Constitution Court], Case No. 1 BvR 357/05, 15 Feb. 2006, 115 BVerfGE 118, sentence 3, available at http://www.bundesverfassungsgericht.de/entscheidungen/rs20060215_1bvr035705.html.

⁵ On the case of the kidnapper, see Landgericht Frankfurt am Main [Frankfurt District Court], Case No. 5/22 Ks 2/03, 3490 Js 230118/02, 28 July 2003; Bundesgerichtshof [BGH – Federal Court of Justice], Case No. 2 StR 35/04, 21 May 2004; Bundesverfassungsgericht [BVerfG – Federal Constitution Court], Case No. 2 BvR 1249/04, 14 Dec. 2004, 4 BVerfGK 283; and Magnus Gäfgen v. Federal Republic of Germany, Eur. Ct. H.R., Application No:

modern technology by the states as in an other case mentioned by Papier involved online searches of hard-drives by law enforcement agencies⁶ or in a case involving attempts by several federal states to install cameras along roads in order to be able to register the license plates of all cars which are passing by.⁷

Papier emphasized the need that intrusive measures such as wiretapping are only undertaken upon the orders of a judge and that judges take their responsibility in this regard seriously. The same applies to the use of modern technology by authorities and measures concerning the reduction of risks to the environment which can be as intrusive and as relevant for civil rights as police measures. While Papier saw no risk of Germany turning into a surveillance state (e.g., CCTV cameras are much less common in Germany as they are in Britain and there is still a higher degree of sensitivity among the general population concerning privacy rights as there), he was convinced that the checks and balances which exist *de lege lata* are sufficient to prevent an abuse of the factual powers enjoyed by the authorities. On the contrary, Papier warned that the state might become too paternalistic in its desire to perfectly protect all citizens. At the end of the day, some responsibility will always rest with each individual since, in the words of Papier, not every bad fate amounts to a loss of a legally protected position. Individual responsibility needs to be strengthened because otherwise, the state will reach a point at which it will not be able to work properly anymore.

B. Defining the Term “Risk”

The first presentation was given by Dr. Alfred G. Debus of the German Academy of Administrative Law in Speyer on Strategies on dealing with mythical types of risks, in particular concerning nuclear energy. Debus followed the model employed by the Federal Government’s Scientific Advisory Board on Global Environmental Changes⁸ for the classification of different types of risks.⁹ Although the classification already dates back to 1998, the strategies exhibited by the model are still useful today. The WBGU model differentiates between different risks and suggests strategies to deal with different types

22978/05, 20 June 2008. For the criminal proceedings initiated against the police officers see Landgericht Frankfurt am Main, 20 Dec. 2004, Case No. 5/27 Kls 7570 Js 203814/03 (4/04).

⁶ See Bundesverfassungsgericht [BVerfG – Federal Constitution Court], Case Nos. 1 BvR 370/07 and 1 BvR 595/07, 27 Feb. 2008, 120 BVerfGE 274.

⁷ See Bundesverfassungsgericht [BVerfG – Federal Constitution Court], Case Nos. 1 BvR 2074/05, 1 BvR 1254/07, 11 Mar. 2008, 120 BVerfGE 378.

⁸ See Wissenschaftlicher Beirat der Bundesregierung Globale Umweltänderungen, *From Damocles to Cassandra: Reassessing Global Environmental Risks*, 12 Mar. 1999, available at http://www.wbgu.de/wbgu_jg1998_presse_engl.html.

⁹ See BT-Drucks. 14/3285.

of risks which have been given names related to Greek mythology. The example chosen by Debus to illustrate this approach, nuclear energy, indicates that this approach is anything but far-fetched since the relative lack of experience with the realization of risks associated with nuclear energy lets said risks appear in a mythical light: while the existence of extremely large risks is known, practical experience is limited to a small number of incidents involving nuclear power plants (including Chernobyl, Three Mile Island, SL-1 and Windscale).¹⁰

The determining factors for assessing risks include the extent of the possible damage, the probability that a damaging event will actually occur, the precision with which both factors can be estimated, as well as the potential of the general population to demand that authorities undertake measures to reduce these risks. The extent of the possible damage in turn depends on the scale of the damage, its ubiquity, persistence, reversibility (or rather, the lack thereof) and dilatory effect with which the damage follows the event in question. In particular, the latter, the long term effects of nuclear accidents, are difficult to estimate in advance.

This is one reason why the classical differentiation between danger and risk according to Niklas Luhmann is, in the opinion of Debus, of little practical value from a legal perspective. Luhmann defines danger as every negative effect on one's life which is not too uncertain, and defines risk as the fact that the threat of a detriment can be attributed to one's own decision.¹¹ Rather, Debus advocates the three-stage-model which is today accepted for the purpose of differentiating between danger, risk in a narrower sense and remaining risk. In this model, risk in a wider sense is defined as the possibility of the realization of a damage while a danger is defined as a status which, should events continue as expected, probably leads to a damage to a legally protected good. Beyond that remains residual risk which includes unlikely outcomes and which has to be borne by everybody as a socially adequate burden which is just part of life. Risk in a narrower sense therefore is the possibility of a damage which is less concrete than a danger and yet goes beyond the remaining, general risk.

It is this risk in a narrower sense which Debus tried to classify by applying labels from Greek mythology. The term "Damocles" characterizes risks which combine a high risk with a low probability of occurrence, and a high degree of confidence that these assumptions are correct. The best way to deal with this kind of risk is to reduce the catastrophic potential, i.e., the potential damage. "Cyclops" is characterized by a low probability of occurrence and a low certainty of the probability-estimate, and a high potential for

¹⁰ Other radioactivity-related incidents include of course the attacks on Hiroshima and Nagasaki, as well as the incidents in Mayak, Chalk River and Church Rock, the incidents related to the medical use of radioactivity in Goiânia, Zaragoza and San Juan, and the incidents on board the Soviet submarines K-431 and K-19.

¹¹ See NIKLAS LUHMANN, *SOZIOLOGISCHE AUFKLÄRUNG: KONSTRUKTIVISTISCHE PERSPEKTIVEN* 126 (3d ed. 2005).

damage and a high certainty of determining the danger. While WBGU recommends determining the probability that the event in question occurs, Debus suggested that the catastrophic potential ought to be reduced as the primary strategy to deal with cyclops-type risks. Some risks are still so novel as to make it hard to make any meaningful assumptions. Risks which are characterized by uncertain probability, uncertain potential damage and uncertainty surrounding the ability to actually estimate either the probability of the potential damage are labeled “Pythia,” and Debus argued that the factor of uncertainty needs to be reduced as the primary strategy, while WBGU favored a strategy of prevention. The same strategy, reducing uncertainty, was suggested by Debus for “Pandora”-type risks. Pandora-type risks are those which differ from Pythia-type risks in that they are also characterized by a high level of persistence. A more long-term approach is needed, according to Debus, for “Cassandra”-type risks, i.e., risks which have a high probability of realizing themselves in a damage but only after a relative long time and in a way which is difficult to estimate. Finally Debus introduced “Medusa”-type risks which are characterized by a significant fear factor, resulting in a large interest of the general population in the risk, but also characterized by a relatively low potential damage which can be predicted relatively well while the probability and the capability to properly estimate the probability are relatively low. In these instances, Debus suggests that confidence-building measures are to be prioritized.

If applied to the use of nuclear energy, this classification makes it easier to determine which measures are to be taken to protect the general population against these risks. Concerning the permanent presence of radiation in the vicinity of nuclear power plants, the Medusa-model applies, resulting in the need to increase trust in the safety of nuclear power; while the risk of Chernobyl-type nuclear accidents is best described as a Damocles-type risk, requiring a two-fold response: in the short term, the catastrophic potential needs to be reduced while in the long term, the planned end of the commercial use of nuclear technology is the preferential option chosen by the German legislature in § 1 No. 1, § 7 (1) sentence 2, and § 7 (1a)-(1d) of the German Law on the peaceful Use of Nuclear Power and the Protection Against Its Dangers¹² (AtG) in connection with Annex 3 to the same law. Although the AtG is to be interpreted with the aim of reducing accidents, Debus saw a need for further measures aimed at the reduction of the catastrophic potential, e.g. by reducing the amount of nuclear material which might be stored in one place. Also, terrorist attacks against nuclear installations need to be considered as they provide a risk which had not yet been envisaged when many of the currently operative nuclear power plants were constructed. While Germany has seen an unsuccessful terrorist attack on a nuclear weapons storage facility in 1977,¹³ the feared 9/11-style attacks against nuclear

¹² See Gesetz über die friedliche Verwendung der Kernenergie und den Schutz gegen ihre Gefahren, more commonly referred to as the Atomgesetz (AtG), 15 July 1985, BGBl. I at 1565.

¹³ See Barry Rothberg, *Averting Armageddon: Preventing Nuclear Terrorism in the United States*, 8 DUKE J. COMP. & INT'L L. 79, 89 (1997).

power plants have not yet occurred but remain a scenario which warrants attention. While WBGU suggested that the uncertainty factor is to be reduced to deal with that kind of risks, this approach seems of little practical value when dealing with terrorists. The 1993 lone wolf incident at Three Mile Island¹⁴ and the February 2010 attack against a building of the U.S. Internal Revenue Service in Austin¹⁵ indicate that the actions of terrorists or deranged individuals are too unpredictable for such a strategy to be successful in the long run. The wiser strategy seems to be the one suggested by Debus, which is to reduce the catastrophic potential associated with a successful attack. *De lege lata*, this has not yet achieved under German law despite § 7 (2) No. 5 of the AtG.

Overall, Debus concluded that the existing models remain applicable to nuclear energy and allows for different risks to be taken into account when regulating the use of nuclear power.

In the discussion following the presentation, it became clear that Debus took the WBGU study one step further and put it to practical use. In particular, Debus criticized that not only energy companies are disinclined to utilize already existing high temperature nuclear reactor technology (HTR), but that the planned end of nuclear energy in Germany and the ban on new reactors also effectively means a prohibition of modern and, compared to existing reactors, very safe HTR-type nuclear power plants. Here in particular, trust-building has not yet reached the necessary levels.

C. Uncertainty and Burden of Proof

Eva Julia Lohse, LL.M., a research assistant at the Chair of Public Law at the University of Erlangen-Nürnberg, discussed possible areas and the necessity of legislative action, using the example of nanotechnology. Unlike nuclear energy or genetic engineering, risks of nanotechnology cannot yet be easily cataloged. Nanotechnology combines a multiplicity of substances which aside from their sheer quantity, are different from each other. Therefore, indicators for negative consequences cannot be transferred from one product including nanotechnology to another. For the legislator, products including nanotechnology entail hardly assessable risks. Scientific references regarding the deleterious effects of products utilizing nanotechnology are not yet in existence and although products utilizing nanotechnology do not yet exist although such products are available on the market. This is due to the fact that there is a dearth of knowledge about the incidence and extent of negative consequences. Such precise knowledge can only be

¹⁴ See Matthew L. Wald, *Gate Crasher Shakes Up Nuclear Debate*, N.Y. TIMES, 11 Feb. 1993, available at <http://www.nytimes.com/1993/02/11/us/gate-crasher-shakes-up-nuclear-debate.html?pagewanted=1>.

¹⁵ See Pat Jackson, *Small Plane is Crashed into Tax Offices in Texas*, REUTERS, 18 Feb. 2010, available at http://www.reuters.com/article/idUSTRE61H4J120100218?loomia_ow=t0:s0:a49:g43:r1:c1.000000:b30838792:z0.

gained after long-term studies. Can the legislator overcome the fact that indicators of negative consequences nevertheless exist? How are areas in which the legislator can and must act determined?

Referring to the concept of essence, the duty to protect, and the policy of protection contained in Article 20a of the Basic Law, the legislator has a duty to legislate to protect citizens from the negative consequences of nanotechnology. But how can the legislator prevent negative consequences when no one knows if such consequences even exist? The easiest solution would be to impose an embargo on the market, but an embargo is not necessarily congruous with academic and economic liberty. Lohse came to the conclusion that legislators have the duty to reduce the uncertainty of such risks to a minimum. This could be achieved, for example, through incentives for risk investigation, which has not been done to date. She discussed the possibilities of an interdiction of implementation or of processing, and suggested that an interdiction of implementation could be feasible until the evidence of innocuousness is adduced, or at least until the producer has the opportunity to prove the innocuousness. For the legislator to interdict processing, the probability of severe damage ensuing as a result of the development of nanotechnology must exist. All in all, the speaker concluded that so long as the risks cannot be estimated, the legislator has the right to reduce the risks to protect those who could prospectively suffer harm, if necessary, to the extent that the risky behavior is declared illegal without exception.

Dr. Andreas Glaser, senior researcher at the University of Heidelberg's Institute for German and European Administrative Law, presented on the Europeanization of risk-administrative law referring to the example of law of evidence. Risk-administrative law are those sets of rules which regulate endeavors which contain a particular risk (e.g., to the environment, to public health, etc.). Substantive risk-administrative law is influenced by European Law, whereas formal risk-administrative law can be regarded as European Law. As an example of formal Europeanization of law, direct enforcement of European Law can be cited. Judicial decisions in administrative law amount to an indirect enforcement of European Law by the Member States. The national judges are the real practitioners of European Law.¹⁶ However, difficulties arise in finding evidence, and in appraising and adjudicating evidence. While in procedural law a person generally must argue and introduce evidence that are advantageous to him,¹⁷ European administrative law does not follow a unified set of evidence rules. In the field of risk-administrative law, rules of evidence differ depending on the relevant subject area. In European Law, risk-administrative law can be regarded as being in a pioneering phase, though it shows principles of argument and demand of

¹⁶ See also Bedanna Bapuly, *THE APPLICATION OF EC LAW BY NATIONAL JUDGES* (Bedanna Bapuly, Rajko Knez & Andrej Kmecl eds., 2005); *NATIONAL JUDGES AND SUPRANATIONAL LAWS: ON THE EFFECTIVE APPLICATION OF EC LAW AND THE ECHR* (Giuseppe Martinico & Oreste Pollicino eds., forthcoming 2010).

¹⁷ See Frank Schorkopf, *Beweislast im Recht des freien Warenverkehrs*, 44 *EUROPARECHT* 645, 654 (2009).

evidence. The following discussion of both topics centered on the question as to whether the amount of burden of proof allocation was balanced correctly between actors and the state in the given examples. Lohse emphasized that the legislator has to consider and decide if citizens can be exposed to risks, while Glaser maintained that burden of proof rules have to be regulated beforehand.

D. Risks Inherent in Dealing with Risks

When dealing with new risks, the risks inherent in the response to known risks are often unclear. At this time, this is the case with Carbon-Capture-and-Storage (CCS) Technologies, which were used by Dr. Susanna Much, a research and teaching assistant at the Research Center in European Environmental Law at the University of Bremen, to elaborate on risks inherent in addressing other risks.

CCS-technology is used to prevent carbon-dioxide from entering the atmosphere. CO₂ is captured at the place of origin and is then brought via pipelines to geological formations, such as saline aquifers or under the sea floor, for underground storage. The technology itself is relatively new and the experiences with the technology are limited as the technology is still in the research and development phase. CCS-technology is expected to be widely available around the year 2020. The capture of carbon-dioxide is already well researched as is the transport of CO₂ through pipelines, which is similar to the already common transport of other gases through pipelines. The underground storage of CO₂, though, requires more research. At this stage, it is necessary to understand the risks associated with CCS-technologies such as the risk of release of carbon-dioxide from underground storage areas, which would have harmful consequences for the environment. In recent years the OSPAR Convention and¹⁸ the London Protocol (the 1996 Protocol to the 1972 Convention on the Prevention of Maritime Pollution by Dumping of Wastes and Other Matter)¹⁹ were amended to allow for the use of CCS-technologies. Yet, the legal regime surrounding CCS is still in its infant stage²⁰ and consists primarily of prohibiting the storage of CO₂ in the oceans and imposing requirements concerning the purity of the carbon-dioxide. Somewhat more detailed rules can be found in Directive 2009/31/EC²¹ while attempts at legislation in Germany failed last over the concerns of federal states as to the risks associated with the technology. For Much, this failure raised the question of whether the existing legal requirements for storing carbon-dioxide are sufficient to comply

¹⁸ See Protocol Ratifying the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 9 June 1998, BGBl. II at 1345.

¹⁹ See 1977 BGBl. II at 165.

²⁰ See Uwe Jenisch, *Rechtliche und umweltpolitische Aspekte der CO₂-Speicherung*, 83 MARINE-FORUM, Issue 4 (2008), at 24, 25 (providing an instructive overview).

²¹ See Council Directive 2009/31, 2009 O.J. (L 140), para. 114 et seq.

with the state's protective obligations which follow from the fundamental rights of life and health. A major issue here is that the existing laws as well as the planned German law are already meant to apply to the large-scale use of CCS-technologies while the technology itself is still being developed. Given that the CCS-technology requires more research before such risks can be assessed properly, Much argued that there is a need for legislation which allows for experimental applications first. She also criticized the directive, which already is meant to apply to the long-term use of the technology, for the liability rules envisaged: 20 or more years after the end of operations, the liability is to be transferred from the corporation in charge of operations to the state in question despite the complete lack of long-term experience with the technology.

What Much did not explain was that CCS-technology might already be obsolete thanks to the recent development of Calera plants. Calera plants convert carbon-dioxide into calcium-carbonate (CaCO_3), which then can be used for construction purposes,²² by essentially turning CO_2 into water and concrete.²³ Thanks to a deal struck in December 2009 between Calera and Bechtel Renewables, the Calera technology will not be in the experimental stage any longer. At the same time there is little risk associated with the Calera method. Should the Calera approach work in the long run, there will be no need for dangerous and unknown technologies as CCS. The issue, though, will continue to be of interest as long as Germany has not met its obligations under EU law.

E. The State's Duty to Protect Against Risks

The fourth panel included the most controversial contributions at the *Assistententagung* about the extent of the state's duty to protect versus the defensive rights of individuals. While Dr. Mathias Hong discussed the assumption of the priority of individual rights, Dr. Ulrich Vosgerau drew the line to this priority while mentioning its problems in triangular situations.

Dr. Mathias Hong, a senior researcher at the Institute for Public Law at the University of Freiburg, discussed basic rights as instruments of the allocation of risks. The state as well as citizens can be seen as sources of risks. The state attempts to protect individuals by making tools of governance subject to civil rights standards. The Basic Law requires the state to justify restrictions of civil rights. To this end, Art. 1 (3) of the Basic Law declares that all state organs are bound by the law, and the individual civil rights which are guaranteed in the first part of the Basic Law always indicate if and under which conditions they can be limited by the legislature or the executive. The diversification of risks is distributed asymmetrically: individual rights of freedom, such as free speech, freedom of

²² See Thomas L. Friedman, *Dreaming the Possible Dream*, N.Y. TIMES, 6 Mar. 2010, available at <http://www.nytimes.com/2010/03/07/opinion/07friedman.html?em>.

²³ See *id.*

religion, etc., are prioritized over the state's duty to protect, excluding basic economic rights. This appraisal is based on the historic fact that power—even democratically legitimated power—includes the risk of abuse and has to be delimited.²⁴ But even citizens have to be protected from risks posed by other citizens.²⁵ The state has the duty to protect against these risks, but has decided to safeguard defensive rights under an all-embracing appreciation of values regarding the state's duty to protect. Mathias Hong composed assumptions, which he intended for discussion, asking if this decision can still be justified.

Dr. Ulrich Vosgerau, a senior researcher at the Seminar for State Philosophy and Legal Politics at the University of Köln, reported on the state's duty to protect public weal in the field of state risk management. Vosgerau showed the constraints of the etatist convergence theory. Defensive rights and the state's duty to protect are both basic rights. With reference to the German Federal Constitutional Court's Air Safety Case,²⁶ he mentioned that the Constitutional Court differentiates between violation of human dignity and the right to life via state action and a violation via state suffering. Withal, state suffering can restrict basic laws that no priority of individual rights would exist. With acceptance of the priority of defensive rights, requests of the public weal would not be representative with regard to basic rights. However, the German Federal Constitutional Court showed in its Schleyer case²⁷ that public weal exists. Vosgerau took up the position that human dignity would be a principle of public weal rather than an individual right and quoted Art. 1 (3) of the Basic Law to underscore his opinion. He mentioned that the idea of the irrevocability of human dignity as an individual right offers no solution in triangular situations. Both action and suffering would be an encroachment on human dignity. He recommended establishing a public weal principle he referred to as a state guided by human dignity, which would take precedence over individual rights but would not replace the given basic law doctrine. The ensuing discussion criticized Vosgerau's thesis, which some attendees thought could pose the risk of totalitarianism. It was also noted that freedom would be turned inside out if basic rights and in particular human dignity did not secure individuals against the state. Besides that, Vosgerau was complimented on his stringent dogmatics which shows the constraints of the etatist convergence theory.

²⁴ See JAMES MADISON ET. AL, THE FEDERALIST PAPERS (1787/1788), No. 48 at 305 and No. 51 at 319 (Clinton Rossiter ed., 1961/2003).

²⁵ See VOLKMAR GÖTZ & INNERE SICHERHEIT, HANDBUCH DES STAATSRECHTS DER BUNDESREPUBLIK DEUTSCHLAND [Handbook of Constitutional Law], Vol. IV, *Aufgaben des Staates*, para. 85, 683 (Josef Isensee & Paul Kirchhof eds., 2006).

²⁶ See Bundesverfassungsgericht [BVerfG – Federal Constitution Court], Case No. 1 BvR 357/05, 15 Feb. 2006, 115 BVerfGE 118, available at http://www.bundesverfassungsgericht.de/entscheidungen/rs20060215_1bvr035705.html.

²⁷ See Bundesverfassungsgericht [BVerfG – Federal Constitution Court], Case No. 1 BvQ 5/77, 16 Oct. 1977, 46 BVerfGE 160, 163–164.

F. Legislative Reactions to Risks

The fifth panel continued the reasoning of the earlier panels in that it concerned legislative responses to risks. Thomas Schwabenbauer, a senior researcher at the Chair of Public Law and Canon Law at the University of Munich, approached the issue under the aspect of the uncertainty legislators are faced with. The knowledge deficit faced by legislators is an expression of the general deficit of knowledge which is felt more acutely in a knowledge society. In a democratic society, the legislature has to balance risks and chances and to decide which risks are to be avoided at all costs and which risks are acceptable and how to prevent that risks realize themselves in the form of concrete damage. This requires that the legislature has a certain amount of knowledge about the risks in question. This requires what Schwabenbauer terms a knowledge infrastructure, which could guarantee that knowledge is maintained, new knowledge is added, and that knowledge is disseminated to the relevant decision-makers. Apart from the available knowledge, a key factor in the decision of the legislator will be the acceptance of risk by the population. This factor, which had already been touched upon earlier by Debus, is decisive for the acceptance of regulative measures. In preparing new legislation, legislators will have to develop strategies for regulation. German environmental law is dominated by an approach aimed at minimizing risk. This approach, as Schwabenbauer highlighted, is itself flawed in that it focuses on core risks at the cost of ignoring related risks, alternative risks, and systematic issues. Key to legislative risk prevention is the question of which method should be used for the creation of prognoses. Based on the risk estimation, the legislature has a large number of regulatory means at its disposal, ranging from agreements between the executive and authors of risky behaviors to prohibitions under criminal law. A classical means of regulation is a general prohibition with a provisional permission in individual cases. Yet, there is no constitutional requirement that this regulatory tool is used. The permanent increase of knowledge is taken into account by the legislature which often includes certain standards into the requirements for permissive conduct which appear to be rather general in nature, such as the “state of technology and science,” “the state of technology,” etc. At times, the legislature replaces the requirement to get a permit with the mere need to register an activity, although this does not allow anticipate unknown risks and it might even rely on self-regulation, or regulation not through material but only through procedural laws, for example by granting standing to environmental and other non-governmental organizations in the hope that these will take on a kind of factual supervisory role.

Schwabenbauer’s presentation was followed by a presentation on uncertainty in the law by Dr. Karsten Schneider, a senior researcher at the Institute of Public Law and the Institute of International Public Law at the University of Bonn and research assistant at the German Federal Constitutional Court. This term refers to the knowledge which is implied in the law but this implied knowledge is uncertain in as far as it contains assumptions concerning the future. A useful pattern of analysis starts at the nexus between conditions and consequences of legal norms, although there is no single pattern of analysis which can

claim to be universally applicable. The principal distinction which can be made is between imperative and descriptive patterns of analysis. While the imperative pattern is organized in an “if A, then B” sense, the descriptive pattern follows an “if A, then B and not C” pattern. Every law can be organized into either patterns. While the imperative form may be more common, it can be transformed into the descriptive form as well. It is the latter pattern which reveals the assumptions inherent in any law, in particular in codified rules. By making clear the assumptions which underlie laws, existing codes can reveal the skepticism inherent in a legal order and provide benchmarks as to the quality of assumptions which the legislature is willing to accept as the basis for future regulation. The capability to compare these assumptions (and the implied shared vision of reality) is necessary for legal regimes to be applicable simultaneously while an insufficiently complex view of these constructions, according to Schneider, brings with it serious risks in applying laws. For example, does the application of general clauses in state police laws include the risk of errors in estimating the effect of police action of civil rights.

A key question of the subsequent discussion was which invariance-relations we consider to amount to the necessary implicit knowledge at the basis of the law. In that respect, it was clarified that we cannot know if our assumptions, even those about the laws of nature, are correct but too much skepticism, while reducing risk, dramatically decreases the practical value of the work which can be undertaken on the basis for the few remaining assumptions. The fact that sometimes risks need to be taken was illustrated with the example of the Large Hadron Collider (LHC) experiment of the European Council on Nuclear Research (CERN) which had been even feared to be capable of destroying the entire planet. Yet, there was no prior experience since there never has been anything remotely like the LHC. But the decision to allow the experiment had to be taken based on the assumptions about the laws of nature. One problem that needs to be remedied is the slow process of knowledge-gathering by states.

G. Risks of Legislation

The sixth panel, featuring presentations by Dr. Corinna Sicko of the German Academy of Administrative Law in Speyer, and Dr. Alexander Thiele, a senior researcher at the Institute of General Theory of State and Political Sciences at the University of Göttingen, provided the attendees with insights into the next logical step: the risks of legislation.

Sicko’s presentation dealt with evaluating laws and estimating the consequences of proposed laws. Sicko started by explaining that regulation not only provides an approach to risk but can also amount to a risk in itself. To answer the question whether a law can be a risk, the three-stage-model does not provide us with a meaningful tool for assessing risks inherent in law. The question here is not so much how risk differs from danger. Rather, the question is how law can be optimized such that the intended goals are achieved while unwanted consequences are avoided as much as possible. This includes a search for alternative solutions, including the alternative of completely refraining from regulation.

Other tools to improve regulation are estimating the consequences of laws before they enter into force and the evaluation of laws after they have been in effect for some time. While estimates prior to the entry into force of a new law can be begun in the earliest stages of the legislative process, even before the decision whether to regulate has been reached in the first place, the evaluation of laws is retroactive and compares intended goals and achieved results. Both methods allow the legislature to act on the basis of empiric data and not on the basis of assumptions or specialized knowledge, they cannot, however, replace the political decision in the democratic process. Every alternative includes a certain degree of risk, and it is the task of the legislature to decide which risks are acceptable. Both estimates and evaluation allow the political discussion to be more objective and increases transparency. In addition, both methods allow for a more systematic approach to legislating and measuring the success of legislation against the needs of society and the intentions of the legislators. While both methods can reduce the risks inherent in legislation, they should, according to Sicko, only be used in politically controversial cases or concerning legislation related to extraordinarily high risks the realization of which is uncertain. To ensure the necessary continuity and degree of quality, Sicko called for at least a minimum degree of institutionalization of both methods.

After this general investigation, Thiele dove deeper into the subject of the risk of legislation by making use of a very timely example. By looking at models devised by Louis Bachelier, Fischer Black, Myron Scholes, and Benoît Mandelbrot, Thiele examined different risk models and their application to legislation concerning the financial market.

Louis Bachelier was the first to apply principles of probability to financial markets. According to Bachelier, the financial market is always complete in that the current value of a share reflects all relevant information up to that particular point. Any change in that value after that point is caused by external factors; in other words, the course has no memory and there will always be deviations in either way. The width of these deviations follows a bell-shaped Gauss curve, indicating that large scale deviations are very rare. These ideas were later built upon by Myron Scholes, who received the Nobel Prize in Economics in 1995, and Fisher Black. Also based on the Gauss distribution, they developed a function with which to calculate the price of options, which eventually became a dogma of finance but since the mid-1960s this approach was challenged. It was Benoît Mandelbrot who found that highly unlikely course changes occurred too frequently to be explainable with the existing models. Deviating from Bachelier and Scholes, Mandelbrot found that there was not a band of normal deviation but that unusual deviations occurred and formed scale-invariant fractal clusters, including the now famous Mandelbrot fractal. In addition, Mandelbrot found that shares indeed have a sort of “memory” in so far as internal factors play a role in shaping the value of a particular share or other financial instrument. But Mandelbrot’s research did not receive the attention which would have been necessary to shape financial markets, although his work on fractals is widely recognized. Until now, financial markets worldwide are based on Bachelier’s findings, a fact which proved insufficient when financial markets crashed in 2008. Thiele therefore

concluded that it is necessary for laws to take note of the existing different models. Legislators cannot simply rely on one model and ignore newer research. Of course, the legislators have to decide on a certain legal strategy, but these decisions cannot be meant to be made for eternity. Law reacts to the situation on the ground but to fulfill this function properly, the legislature has to be watchful and keep a close contact with science. Concerning financial markets, this requires that the law is not too dependent on a single model. Until now under the existing rules, financial institutions were able to apply their own risk models while the supervisory bodies were kept blind of the diversity of models and often unable to keep up with them scientifically. Among the conclusions Thiele drew from this failure was a need for the supervisory bodies to get a better understanding of the existing risk models, for the rating agencies to be regulated more and to be required to make public the risk models with which they work, and for the law itself to be more flexible and less dependent on one specific model.

In particular, the need for public access to risk models was later discussed in more detail concerning rating agencies and the principal-agent problem which they necessarily have to face. But can the state prevent rating agencies from using risks models that are wrong? This question was answered in the negative because it is simply impossible to rely only on absolutely correct models due to the fact that there will always be a certain degree of uncertainty. It is this uncertainty which the state has to recognize, and it is banned from relying solely on one model which is not questioned anymore at all, since *de lege lata* the state cannot be held liable for relying on less-than-perfect risk models, although many questions still remain unanswered in this respect.

H. Risk and Legitimacy

The seventh panel was concerned with less conceptual issues than the other panels, dealing with the effects of law on private individuals. Dr. Carola Glinski, a Rechtsanwältin from Lillenthal, reported on a three-step model dealing with law and global private risk regulation while Dr. Stephan Schill, a senior research fellow at the Max Planck Institute for Comparative Public Law and International Law in Heidelberg, highlighted the state as a risk factor in economic transactions. Glinski discussed the difficulties of recognizing laws—which have been privatized—addressing risk technologies on the grounds of their lack of legitimacy. Referring to this lack of legitimacy, the consultant graded different levels of legitimacy based on their binding effects. At the lowest level, in both public law and civil law, legal requirements for self-governed companies may be suspended for exigent reasons or consumer prospects. On the next level, legal requirements for entire economic branches have to be representative by virtue of their effect on unrelated companies. Public law and liability law can be seen as examples of this level of legitimacy. In public law, sufficient legal requirements for private regulation can be reached by the formation of experts that have been selected in an ideal way. This level of legitimacy cannot be reached in liability law, because in the domain of risk-regulation, liability law, contrary to public law, has a function as a safety net for the benefit of uninvolved would-be victims. In the course

of the discussion, the idea arose that private regulation could be separated by obligating the parent companies to influence their subsidiary companies. The speaker saw subjection of the contributing state as one of the options for solving the problem, but preferred to focus on private risk-regulation.

Schill stated that one of the characteristics of law is to have a share in the social system; the principle of legal certainty and legitimacy are reached via settlement of disputes. In public law, it is the courts' function to dispose and develop law. However, a trend can be observed in which settlement of disputes is migrating from courts to arbitral tribunals. In Germany, arbitral tribunals are rare although an increase can be expected in the coming years due to the development of public-private partnerships and the presence of foreign investors.

The Swedish company Vattenfall initiated a settlement of disputes against Germany at the International Centre for Settlement of Investment Disputes²⁸ regarding the Energy Charter Treaty.²⁹ According to Vattenfall, the generating station Hamburg Moorburg could not be operated economically if the imposed environmental conditions were to be enforced by the city of Hamburg. These environmental conditions violate promises made during the licensing procedure. The special feature of the Energy Charter Treaty allows investors to take action against a state without first exhausting all legal options on a national level. Foreign investors see a prevention of risks in agreeing to an arbitral clause, because they are confronted with the state only as an opponent, not as an arbitrator as well. Neutrality is preserved for foreign investors, as the state subjects itself to external supervision. However, is external supervision necessary? The rule of law provides the answer. The legislator is bound by basic principles, while the administration is bound to jurisdiction. On the other side of the coin, arbitral tribunals can be seen as foreign to the rule of law. Lawfulness of state actions is subjected to examination by private individuals without democratic legitimation. Depending on the point of view, arbitral tribunals can therefore be seen as a disruptive factor in public law. The discussion thereafter turned to the confidentiality of arbitration and the problems which could arise in case law. The discussion supported the idea that arbitration can be functional to secure economic interests, but only if transparency of arbitral proceedings is established.

²⁸ See Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG & Co. KG v. Federal Republic of Germany, ICSID Case No. ARB/09/06, (constituted 2009), available at <http://icsid.worldbank.org/ICSID/FrontServlet?requestType=GenCaseDtIsRH&actionVal=ListPending>.

²⁹ See The Energy Charter Treaty, 17 Dec 1994, 33 I.L.M. 381, available at http://www.encharter.org/fileadmin/user_upload/document/EN.pdf

I. Excursions and Workshops

For the first time in the history of the *Assistententagung* the panels were supplemented by workshops. The workshops were held on one afternoon and covered a number of issues, including Animal Diseases, Risk Ethics and Environmental Ethics, the Media, and Medicine and Pharmacology. The workshops were led not by lawyers, but by specialists in their respective fields such as a medical doctor, and provided an opportunity for the attendees to have a closer look at certain aspects of the overall topic of this year's meeting. In addition, the organizers were able to offer a number of excursions to the institutions whose presence in the Greifswald area provided the inspiration for the choice of this year's topic. Excursions were undertaken to the experimental fusion reactor Wendelstein 7-X, the world's leading project in Stellarator nuclear fusion technology at the Max-Planck-Institute for Plasma Physics, the nuclear power plant in Lubmin, the pharmaceutical company Riemser Arzneimittel AG and the Friedrich-Loeffler-Institute on Riems Island, which serves as the Federal Republic of Germany's Federal Research Institute on Animal Health.

Due to the many technical aspects which can be connected to the general topic of risk and law, the workshops and excursions provided an interesting addition to the panels but this format might be less suitable for other topics. It will remain to be seen whether this format will be continued in the successive years or whether the focus will return to a more strict panel-style conference.

J. Conclusions and Outlook

This year's *Assistententagung* approached a very timely issue. Just how timely the issue of risk is is indicated by the fact that one of the first articles in the latest addition to the landscape of German law journals deals with the issue as well.³⁰

The conference's major contribution to the science of Public Law certainly was not so much in that it raised the awareness of risk and the need to reduce risk through regulation, but rather in that the participants were given a sense of the extent to which law, including those regulatory projects which are meant to reduce risk, can actually be a source of risk in itself.

Next year's meeting promises to be no less timely: the 2011 *Assistententagung* will take place in Speyer from 15-18 March 2011, and will deal with the issue of Europe as an area of Administrative Law. This topic refers to a particularly timely challenge to German law:

³⁰ See Horst Dreier, *Der freiheitliche Verfassungsstaat als riskante Ordnung*, 1 RECHTSWISSENSCHAFT 11 (2010).

recently the European Services Directive³¹ had to be transformed into national law by 28 December 2009.³² Some time ago, the directive already had led to changes in the Law on Administrative Procedures³³ in the form of the Fourth Law Changing the Law on Administrative Procedures³⁴ and to the creation of the a transforming law.³⁵ Art. 4a of the latter law requires additional changes of the *Verwaltungsverfahrensgesetz*³⁶ concerning European cooperation of administrations.³⁷ The new §§ 8a-8e of the VwVfG³⁸ are reflexive of the most far-reaching European regulation of domestic administrative procedures.³⁹ §§ 4-8 of the VwVfG regulate the cooperation between public offices of the Federal Republic of Germany and those of her federal states,⁴⁰ but they do not apply to the cooperation with public administrations in other EU member states,⁴¹ despite the fact that networks between government officials (rather than more traditional forms of cooperation between governments as such) have significantly gained in importance in recent years. This gap is supposed to be closed by the new §§ 8a-8e of the VwVfG, but many other questions remain unanswered, which makes the topic of the upcoming 51st *Assistententagung* as highly relevant for academia and practitioners as was this year's conference.

³¹ See Council Directive 2006/123/EC of the European Parliament and the Council on Services in the Internal Market, OJ 2006 L 376, 36.

³² See Council Directive 2006/123/EC Art. 44 (1).

³³ See *Verwaltungsverfahrensgesetz (VwVfG)*, 2003 BGBl. I at 102.

³⁴ See Gesetz zur Änderungen verwaltungsverfahrenrechtlicher Vorschriften, 2008 BGBl. I at 2586; see Alexander Windoffer, *Die Gesetzgebungsvorhaben des Bundes und der Länder zur verwaltungsverfahrenrechtlichen Umsetzung der EG-Dienstleistungsrichtlinie*, 61 DIE ÖFFENTLICHE VERWALTUNG 797 (2008); Heribert Schmitz & Lorenz Prell, *Verfahren über eine einheitliche Stelle - Das Vierte Gesetz zur Änderung verwaltungsverfahrenrechtlicher Vorschriften*, 28 NEUE ZEITSCHRIFT FÜR VERWALTUNGSRECHT 1 (2009).

³⁵ See Gesetz zur Umsetzung der Dienstleistungsrichtlinie im Gewerbebereich und in weiteren Rechtsvorschriften, 2009 BGBl. I at 2001; see BT-Drucks. 16/12784; BTDrucks 16/13399.

³⁶ See Holger Weidemann, *Europäische Verwaltungszusammenarbeit und das VwVfG – Erneute Änderung des Verwaltungsverfahrensgesetzes*, 56 VERWALTUNGSRUNDSCHAU 37, 37 (2010).

³⁷ See *id.*

³⁸ See *id.*

³⁹ See *id.* at 38.

⁴⁰ See *id.*

⁴¹ See *id.*