

# Risk&Regulation

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Clement House  
London School of Economics  
London WC2A 2AE  
+44 (0)20 7955 6577

## ABSTRACTS BOOKLET

### **Managing Risks in the Arena of Public Debate: French Civil Engineers and the Defence of Professional Reputation**

**Julie Gervais**

In France, the profession of civil engineers includes civil servants working in parts of the Department of Transportation, Housing and Public Works. Since the 1980s, these engineers have used public debate to persuade French citizens to accept their projects in specific contexts. Since then, several laws have made these proceedings compulsory. These changes are regarded as a deep change in the way these French engineers used to work before 1982; when they were regarded as uncontested and uncountable authorities. Negotiation was limited to few elected politicians.

Some new training elements have been introduced in the French Grandes Ecoles' courses, in order to teach civil servants how to take risks into consideration while setting technical projects, so that "NIMBY" effects and environmental protection associations can remain 'under control'.

This paper seeks to explain the risk management of the civil engineering profession through the lens of changing course content. These course curricula highlight the way in which French engineers imagine risks, what discourses they utilise to confront risk and how these discourses are being employed to reassert the profession's status in public debate. Monopolizing risks and environmental areas within the State is perceived as a way for French engineers working for the Department of Transportation, Housing and Public Works, to legitimate their renewed professional positions in society.



## **The Quality of Assurance: Risk, QA and Forensic Biology**

Leslie Myles

This paper examines Quality Assurance as a risk management technique in forensic biology. Using ethnographic fieldwork in DNA processing facilities, it tracks forensic DNA labs' encounters with risk. The risk knowledges, notions of credibility, and technical demands of legal, scientific, and state management actors converge in lab routines. Forensic biologists deploy Quality Assurance measures in novel and often contradictory ways to meet these varying demands for certainty in criminal identification. Quality Assurance is an institutionalized rhetoric and way of thinking in the labs that is simultaneously colonizing, and de-coupled from, the daily practice of forensic biology. Its interpretation varies according to the audience forensic biologists are catering to, and thus the risks they are managing. The paper looks closely at the management of legal challenges to DNA credibility, noting that lab responses are both de-coupled from formal QA routines to allow for networks of subjective professional expertise, and colonized to produce accredited, objective 'administrative science'. The paper discusses the social and technical effects Quality Assurance is having, both within the lab and across the criminal justice system, as its interpretation varies.

## **What is an expertise? The case of the French Nuclear safety**

Rolina Gregory

My contribution deals with nuclear safety and more specifically about the nuclear safety assessments required in dealing with what has become frequent to call the human factors and organisational aspects. It is based on a collaborative research, which I started about one year ago, between the French Radioprotection and Nuclear Safety Institute (the IRSN). The issues I would like to discuss are related to the methodologies of investigation used by the IRSN's experts to make such assessments. By methodology, I mean the devices they use to answer to the French regulator's interrogations; how they investigate in the operator's plant or laboratory for elaborating a prescription supposed to upgrade his safety.

With the illustration of several cases, I will characterize different methodologies used by the experts specialized in human factors, stressing the relations between the three actors of the risk regulation regime (the IRSN, the operator and the regulator).

I will detail the positive et negative points of these approaches; and I would like to emphasize the consequences of these methodologies in how they affect the learning process: Is one methodology better than another for an expert's learning improvement? Finally: how does an expert become an expert?

## **Developing a concept for terrorism prevention – an approach to proactive risk regulation**

**Carolyn Georzig**

The cold war fulfilled three conditions for the existence of a threat: The Soviet Union constituted the adversarial **actor**, its ideology the hostile **intention** and its arsenal of weapons the military **potential**. A major change, calling for a paradigm shift in security politics, emanates from the circumstance that risks, not threats mark the contemporary international relations. Terrorism is a case in point, as we usually miss certain elements substantiating the triangle of traditional threats. This clandestine nature of terrorism severely limits our knowledge thereof. Consequently, terrorism research shares the current social science prediction fatigue. The following article nevertheless asks for the possibility of developing a terrorism prevention concept and proceeds by contrasting the notion of the visible threat and the strategy of its eradication underlying the no-concessions-doctrine and the war on terror with the notion of the invisible risk and the strategy of constructing its visibility underlying a pro-negotiation argumentation. Concluding the wanted prevention concept is developed by answering the question arising from the reflection on the no-concession as well as negotiation approach: How can we infer upon what is unknown on the basis of what is known and hence make the invisible elements in the risk triangle visible?

## **The US National Security Strategy and the Instrumentalisation of the UN Collective Security Apparatus to regulate unverifiable threats**

**Isobel Roele**

The United States' National Security Strategy and the Instrumentalisation of UN Collective Security Apparatus to Regulate Unverifiable "Threats".

Abstract: "Enforcement" and "self defence" are the sole exceptions to the Charter of the United Nations' prohibition of the use of force by individual states; they double as the collective security system's means of regulating threats. The 1945 trade-off for the retention of "self defence", initiated by an individual evaluation, was that relevant threats to security were narrower than for collective enforcement. Its lawful exercise was limited to repelling an attack not preventing a harm. This collective security vision was foiled, leaving the regulation tools less readily distinguishable; inter alia by lack of identifiable UN forces, innovative means of attack, US military predominance and Cold War dysfunction in Security Council decision-making. Nevertheless the practice of referring to "armed attack", or threat thereof, when self defence was invoked prevented wholesale category collapse.

The current US NSS has induced this conflation by importing the broad enforcement-type “threat”, displacing “armed attack” altogether: The “threat” in the “new strategic reality” excludes collective understanding because it is located in the subjectivity of the claimant state. Today’s “threat” is incalculable; it is not communicated, but a perception motivated by uncertainty about harm, not prediction of it. Association of the word “threat” with both processes disguises the appropriation of the extent and rationale of “enforcement” for “self defence”. US discursive mastery in the SC renders “threat” a means to instrumentalise collective regulatory capacities.

### **Virtual Risk**

**Jose Ossandon**

The present paper tries to organize a contemporary framework to understand expert production of risk as a cultural process. I suggest that it is possible to identify a new approach in current theoretical works developed by authors such as Jakob Arnoldi, Joost van Loon and Rob Shields. They all see risk as a non-material but real phenomenon, a virtual reality. In order to do that they creatively use post-structural social theory, specifically: Luhmann’s system theory, Actor-Network, and Deleuze-Bergson’s philosophy. I propose that, despite their differences, these works can be understood as complementary and useful tools in order to solve some of the limitations associated with the main social and cultural approaches: Mary Douglas’ cultural theory; Ulrich Beck’s ‘risk society’, and post-Foucaultian ‘governmentality’. Three sections compose the document. In these I will explain how Arnoldi, Shields and Van Loon understand risk by stressing three different dimensions: risk as a ‘virtual object’ enacted by a techno-social network of translation; risk as a continuous time horizons production; and the affective dimension of risk. The theories presented in this paper will be illustrated using examples from my current research about risk in Private Health Insurance System in Chile.

### **Accounting in the Collective Management of Risk: The Case of Venice Safeguard**

**Rita Samiolo**

This research focuses on the role of economic calculations in a large scale public project for flood protection in the city of Venice (Italy). The aim is to reflect on the organisational and cultural conditions for the emergence of accounting as a legitimate practice and on the dynamics of creation or destruction of “trust in numbers” (Porter, 1995). Accounting and risk management have been central to programs of public sector reform, providing a new technical basis for reorganising “politicised” bureaucracies in the name of sound quantitative measures. Thanks to their appeal to objectivity, economic

calculations have often provided winning arguments in situations of political conflict, especially in controversial policy issues like large scale investments. In the case studied, however, while cost arguments have been cyclically produced and circulated, accounting numbers lacked the institutional support needed to be discussed and agreed upon so as to “tame” political and scientific controversies. This leads to question the role of economic rationality in science and public policy. While neo-liberal reforms of government are have been seen as part of a “cultural rationalisation based on monetarisation” (Meyer, 1986) of which accounting is a fundamental building block, the same drive towards quantification is challenged by a growing distrust of technocratic approaches to decision making in government, especially when controversial and uncertain technological decisions are involved. This tension is far from being resolved and likely to produce paradoxical results in many areas of public policy.

## **Flood Risk Management, Communication and the Public: Understanding and Responses**

**James Porter**

Defra’s (2004) new flood strategy, Making Space for Water, marks a radical change in direction in the UK government’s quest for sustainable flood risk management. Traditional flood policies, centred around structural engineering solutions to the problems of flooding, are giving way to calls for softer approaches in achieving flood reduction. The application of adaptive and flexible risk-based tools and a shift from government to governance has seen the blurring of traditional boundaries between the state and civil society in the division of risk management. These neo-liberal subjects are increasingly expected to adopt the rhetoric of good citizenship by becoming flood prepared, self-reliant, and self-governing in controlling their exposure to flood risks. Adhering to a deficient model of public (mis)understanding of risk, the government intends to turn ignorant publics into enlightened citizens through flood communication technologies, including awareness campaigns, resistance and resilience guidance, and the Flood Map.. How the public receives, assesses, and more importantly, responds to these flood communications remains unanswered. The case studies of the Boscastle and Lynmouth floods are used to discern whether the state’s assumptions regarding a homogenous and responsible individual are correct or if people’s reactions are more ambiguous than previously thought.

## **A Procedural Model for Consistent Risk Management**

**Helene Hermansson**

Demands for a consistent risk management are repeatedly called for in the risk literature. Mostly it is assumed to be in accordance with a model that I call the

Standard Model. In this model the decisive criterion of whether or not to accept a risk is if the total benefit exceeds the total cost. However, such a collectivistic risk-weighting model does not respect the rights of the individual not to be unfairly exposed to risks. Therefore a new model needs to be developed – a model that both respects these rights and allows for society to take certain risks. Such a model emphasizes the procedure for the decision-making instead of the outcome of risk decisions. One question that has to be answered, in order to develop this model, is what a fair procedure is. If it is majority vote the problem is that it can leave an individual's rights or the rights of a minority group as unprotected from unfair risk exposure as they were in the Standard Model. If it instead is each individual's consent to the risky activity other difficulties arise in this specific area of societal risk management.

## **Regulating Net Television: Publics, Policy Making and Democracy in the European Union**

**Adeyinka Oduwale**

My paper is titled 'Regulating Net Television: Publics, Policy Making and Democracy in the European Union'. Essentially, I seek to examine the participation of various *publics* in the ongoing policy making process leading to the regulation of internet television in the European Union (EU). In July 2005, the EU put forward the rationale for regulating internet television, citing in part, the risks associated with the broadcast of unregulated content. It is my intention to recover the contributions of these diverse *publics* in the policy making process, with a view to deepening democratic decision-making in the EU. This paper therefore focuses on media policy, specifically the formulation of television regulatory policy in the EU. This presentation will seek to highlight the positions of these *publics*, focusing on how they can be enabled to participate more effectively in the EU policy making process. In this regard, the paper explores questions such as how various *publics* actually feature in the policy making process. It tackles the complexity of stakeholder involvement in EU regulatory decision-making, thus hoping to further the goals of deliberative democracy.

## **Sociology of Markets: An Ethnography in China's Commodity Future Markets**

**Lucia Siu**

Modern markets are "fetish" social structures specialized in the circulation of information. Signals are not merely circulated, but there exist a strong feedback relationship between price signals and the behaviour of market agents. Grounded on the work of Barnes, MacKenzie, Preda and Beunza & Stark, my

presentation will examine the performative properties of 3-4 “knowledge tools” that the fieldwork community employ to process information. Such tools include Chartism, fundamentals, policy analysis and mathematical models. Each knowledge tool is different in terms of their performative properties on the markets.

Contemporary views on China’s post-communist markets usually accuse the public sector for imposing too much regulatory control. This research is an attempt to review the cycles of “chaos/stringent control” from the perspective of knowledge tools and social networks. A tentative conclusion from this research is that, the usage pattern of knowledge tools, coupled with the properties of social networks within the market structure, may lead to different degree (or cyclic patterns) of stability or volatility in some markets .

### **The concept of legal risk in the context of legal risk management** **Tobias Mahler**

Legal risk management is an emerging notion, based on the idea of utilizing methods from risk management in the context of proactive legal analyses. Legal risk management can be conceptualized as a set of coordinated activities to direct and control an organisation or a relation between organisations with respect to (1) legal risks and (2) other risks that can be “treated” by legal means, e.g. contractual rules. The presentation will concentrate on the definition and utility of the concept of legal risk.

There seems to be a general understanding that lawyers deal with legal risks. However, before the rather recent advent of risk management there was no need for a more formal definition. This may have changed at least for the financial sector with the inclusion of legal risk as a type of operational risk in the Basel II accord. Definitions of legal risk differ nevertheless with respect to • the context in which they are introduced, • the level of abstraction they exhibit and • the criteria utilized for classification.

The presentation will discuss legal risk in relation to its two constituent concepts, i.e. legal norm and risk (e.g. defined in the ISO vocabulary for risk management).

### **The role of ITCs in the development of a cross-border securities settlement system** **Nikiforos Panourgias**

Some of the risks in the trading of stocks and shares relate to the trading process rather than the value of the assets being traded. On organised marketplaces such as stock exchanges the risk management of the transaction processing is delegated to market infrastructures that define and frame the marketplace. The growing deployment of electronic information and communication technologies

(ICTs) have set in motion processes of reconfiguration in these markets. One key reconfiguration has been the 'dematerialisation' of securities with the inscription of property rights to securities into legally specified computer systems rather than paper certificates, increasing the geographic/jurisdictional mobility of these assets. The research traces the design and development of the CREST settlement system that accompanied 'dematerialisation' on the London markets and subsequent initiatives to develop an integrated cross-border settlement infrastructure for the London, Paris, Brussels, and Amsterdam markets. It tries to identify the role of ICTs in these reconfigurations and describe the delegation of the risk management, regulatory, and legal functions of financial marketplaces to ICT-based systems. The research is also seen as contributing to the broader debates about ICTs and the growth of cross-border economic activity and processes of globalisation.

### **The Administrative Regulation of Market Development in China** **Qianlan Wu**

Since the economic reform in China in 1970s, the development of markets in China has been mainly subject to the regulation by the Chinese administrative system.

The Chinese administrative system is generally composed by the central government, i.e. the State Council, State Ministries subject to the State Council and local governments. The State Council and local governments constitute a vertical thread in hierarchy, while the State Ministries and corresponding local governmental departments constitutes a horizontal thread, which in combination construct the framework for the administrative regulation of markets.

However, the regulation of Chinese markets contains more complexity than it appears to be. The regulation of markets can be decentralized in certain aspects, while continue to be centralized in other aspects. conflicts tend to arise between State Council/State ministries and local governments where interestes are involved.

The decentralized and centralized regulation of markets, when combined with the lack of supervision by the rule of law, are likely to impose uncertainty and arbitrariness in the regulation and development of markets in China.

The paper therefore, attempts to analyze the impact of administrative regulation on the market development in China, and furthermore, the role of law in the market development process.

### **A Derivatives Market in Russia: Designing the Rules of the Game** **Sveta Milyaeva**

Guided by finitist concept of rule-following and Callon's economic anthropology, my research aims to demonstrate how the legal framing of



derivatives trading performs practices of market construction in Russia. Since 2005, the Russian economy experienced a stock market boom in general, and the rapid growth of the derivatives market in particular. However, inconsistencies in Russian law and regulation pose difficulties for the development of the derivatives market in Russia.

Preliminary results of my research include:

the ongoing legal discussions and details of regulation of the Russian derivatives market confirm the thesis that state and market are mutually dependent in their development.

the absence of a clear-cut legal demarcation between gambling and legitimate cash-settled derivatives trading is a barrier for the institutionalisation of derivatives trading activity (as was the case with the U.S. and the U.K. derivatives markets prior to the 1980s).

tax legislation deficiencies lead to high uncertainty concerning the technicalities of the hedging practices central to risk control in derivatives trading.

the lack of clear, unequivocal regulation causes legal risks in addition to high financial risks associated with derivatives products.

## **The Practice of Independent National Regulators**

**Paolo S Dasgupta**

The PhD thesis aims to examine the independence in practice of national regulatory agencies from elected officials and regulated firms. Regulatory independence in practice is assumed. The research builds on existing literature, which has focussed on formal delegation and institutional design of independent regulators. The few attempts to assess the effective independence of regulators have focussed on the statutory provisions defining formal instruments, as well as formal constraints. Yet, informal indicators can provide an important analytical contribution to test regulatory independence in practice. Their effect on regulators has rarely been examined, as has an analysis substantiating the joint role and influence of political principals and regulatees, across countries. The preference-based approach to 'state autonomy' (Nordlinger, 1981) is the framework adapted to the sectoral level. Nordlinger identifies autonomy with the state's ability to translate its policy preferences into authoritative actions, irrespective of societal preferences. He identifies three potential autonomy-types, reflecting the state's ability to endorse its preferences differently. The presentation will draw upon the evidence based on selected comparative case studies in the telecoms sector in two countries; France and the UK. The regulators examined are the Autorité de Régulation des Télécommunications (ART), and the former Office of Telecommunications (OfTel). Findings on autonomy-types will be discussed.

## **Uncertainty in Expert Policy Advice: Variations in Heuristics for dealing**

## **with Uncertainty in Dutch Expert Institutes**

### **Annick de Vries**

Uncertainty is an issue of growing concern among experts who advise government policies. Advisers are apprehensive that their reports are burdened by uncertainties that might affect future policies. How they treat such uncertainties could have a large impact on future policies and their outcomes, sometimes in a negative way.

On the one hand, advisers are aware of uncertainties, while on the other hand they know that policy makers often prefer straight answers because of the limited time and attention they have. Meanwhile, experts themselves are under constraint of time and attention span when it comes to uncertainties they can identify and accommodate.

How do expert policy advisers deal with such tensions? How do they identify uncertainties and how do they present them to the policy makers?

I focus on two Dutch expert institutes that advise public policy. The first institute plays a key role in providing Dutch government with economic assessments and the second is the main source of expertise for Dutch environmental policy. I found that they use different uncertainty heuristics. They use different tools to identify, to estimate, and to present uncertainties. I identified two different 'working styles' of dealing with uncertainties at the concerning organisations.

## **The distinction between aleatory and epistemic uncertainty: how it fails and how it succeeds**

### **Jonas Clausen Mork**

Writers in the risk analytical literature have for some time argued for the distinction between aleatory uncertainty (sometimes called variability) and epistemic uncertainty. Although there have been dissenting voices, I feel that the critics have not been sufficiently clear about where the problems with the distinction lie.

In this paper I point out a number of conceptual problems for the aleatory/epistemic distinction as it is normally understood and I also discuss in what sense the distinction is largely irrelevant for risk analysis. Even so, certain related distinctions, often confused with the aleatory/epistemic distinction, are relevant and I give arguments for why this is.

## **Is scientific advice to policy a practice which needs to be professionalized?**

### **Kai Buchholz**

In many policy arenas, especially those which are dealing with the regulation of technologies and are seen as bearing high risks for the population or the

environment, political actors seek advice from scientists. The role of these scientific advisors has been subject of many academic and public debates. These debates often lack a sociological understanding of the specific interactions that emerge when political actors seek advice from scientists. Drawing on the sociology of advice this paper tries to put forward the idea that it is possible to understand these situations as specific interactions which have structural features that pose specific demands on the advisor's as well as the political actor's behaviour. With such a concept it may be possible to explain the problems that are often observed in the debates about scientific advice to policy as being structural features of the relationship between advisors and the actors seeking advice. Furthermore this paper will compare the structural features of these interactions with those the classical professions are faced with in their practice. It will be shown that there are several similarities which corroborate the assumption that giving scientific advice to policy is a practice which needs to be professionalized.

### **Assessing Regulatory Distortions in Access Pricing in Telecommunications Using Real Options**

**Michael Oraro**

Long Run Incremental Costs (LRIC) is advanced in a considerable body of literature as an approach to pricing access in telecommunications networks that is competitively neutral and one which conveys efficient signals for efficiency. Concerns are beginning to emerge on the question of whether LRIC is competitively neutral with respect to regulatory interventions such as Local Loop Unbundling [Alleman (2002), Pindyck (2004) and Cave (2005)]. The key question being whether LRIC is equally responsive to the flexibility of access providers and seekers, and therefore whether this approach to pricing conveys the correct signals for promoting facilities-based competition. This research aims to contribute to the literature by carrying out an empirical enquiry to test the theory that FL-LRIC is competitively neutral. The study will employ the real options framework as a method of analysis.

The motivation for using an option-based method arises from its capacity to conceptualize and quantify the value of flexibility [Mason and Merton (1985), Kasanen and Trigeorgis (1994), and Dixit and Pindyck (1994)]. This research will be based on UK experience using 10-year data for the period 1996-2005. This paper will discuss the methodological underpinnings and the progress of the research.

### **The view inside the room of mirrors: corporate governance disclosure by Australian listed companies 2001-2005**

**Janis Wardrop**

During the early part of the 21<sup>st</sup> century, Australia was one of a number of countries that reviewed their corporate governance regulation following a series of corporate collapses around the globe. In many cases, the result was to tighten existing regulatory mechanisms and/or introduce new regulation. The regulation of corporate governance for listed companies in Australia is via a ‘comply or explain’ regime administered by the ASX. This regulatory approach assumes that reporting is a mechanism for real change in company practices, and that the specific requirements of the regulation determine the response by the regulated party.

However, my paper questions the dominance of the formal ‘regulator’ in influencing the corporate governance practices of listed companies and develops an alternative model of the “regulatory space” (the room of mirrors) in which a process of agenda setting and legitimation by a number of different actors in the “space” influences both the regulation of corporate governance and the responses to this regulation. The model examines the possibility that the disclosure practices by companies primarily reflect the agenda setting activities of the various participants in the regulatory space.

### **Money Laundering Detection: Risk, Trust and Reporting Practices in a Canadian Bank**

**Vanessa Iafolla**

In today’s electronic economy, loss prevention and risk management are at the forefront of corporate security concerns. While huge gains in technology have substantially increased the capacity to protect against financial and capital loss, these same advances have also given rise to new ways for losses to be incurred. This is of great concern in retail banking. This paper examines the nature of risk management in retail banking, situating techniques of governance within the broader risk literature, focusing on the role of employees in its analysis of the implementation and establishment of the controls that govern employment activities. How do corporate security divisions work to mitigate these risks in the branch? What tools are used to minimize the risks associated with employee misconduct or negligence, or those posed by fraudsters? Drawing on ethnographic and archival data, this research illustrates that these controls are mainly proactive, attempting to prevent losses before they can be incurred. Loss prevention takes the form of embedded scripts, procedures and protocols that constrain employees into behaving in ways that reinforce and reproduce the expert knowledge of corporate security divisions. After a loss has occurred, employees—who are viewed not only as agents of risk management but also as objects of risk—experience sanctions that have shaming and deterring effects on those at the center of a successful fraud.

### **Addressing Social uncertainties in innovation strategies: the case of**

## **nanotechnologies**

### **Anne-Violaine Favier**

The presentation focuses on the management of uncertainty and risk by industrials dealing with disruptive technologies. We suggest that this has become a critical issue in a society where new technologies are ambivalently considered as a source of human progress linked with sustainable development principles, as well as an object of suspicion. Contemporary frameworks for managing disruptive innovations are mainly addressing the issues of technological, commercial and organizational uncertainties, but provide little support when industrials are confronted to social uncertainties.

Nanotechnologies represent a great example of radical, controversial innovations that may introduce new undesirable environmental, health and social side effects.

Following a qualitative research process, we use case studies conducted on European industrial organizations active in the nanotechnology field to identify what mechanisms are set up by industrials in relation with other stakeholders to address the potential risks linked with these technologies. We found that, since the field is still lacking of clear regulatory guidelines, industrials are trying to ensure a safe development of these technologies by implementing various strategies, both internal and external, which engage them in a sort of collective risk management process, thus enabling them to share the risks associated with nanotechnologies.

## **Has European Innovation Policy learned its lessons?**

### **Janina Schirmer**

Does Innovation-Policy learn from experiences with other technologies and examples from other countries? With an analysis of the emerging European Nanoregulation-Policy this question shall be looked into.

High prospects of nanotechnology's innovative potential have drawn impressive public funding. A distinct European Nanotechnology-Policy has started to unfold at latest with the Commission's Communications in 2004 and 2005. In addition, with a workshop preliminarily assessing the risk of nanoparticles, first steps towards a regulation of nanoparticles were taken.

Regulation policy as one sub-area of Nanotechnology-Policy is still in its infancy. Problems are negotiated, carefully worded and set on the political agenda. Thereby, it stands out that the attempts to regulate set off early, the group of participants is heterogeneous and that it is frequently referred to experiences with other technologies. Centering this 'learning from experiences', two guiding questions arise: What range and origin has this 'learning'? By which mechanisms works, learning'?

In policy research, policy as the textual and tangible aspect comes to the fore as

contingent on politics and polity. Different schools of thought put these three aspects in different perspectives. In order to explain ‘learning from experiences’ Richard Roses’ ‘Lesson Drawing’ approach lend itself. Drawing on work from organisational sociology concerning the systemic nature of organisational learning, Roses’ approach shall be refined and adapted to the special features of EU policy-making.

### **Responding to scientific and socio-political complexity: What drives the insurance industry’s increasing involvement in the discursive aspects of the governance of new technologies?**

**Kristian Krieger**

This paper engages with the academic debate on the drivers of contributions of corporate actors to transnational governance. It focuses on the international insurance industry and its role in the governance of technology risks.

It illustrates that international insurers increasingly engage in governance. The insurers’ manifold activities affect the discourse on new technologies. Through these, insurers define risks, suggest governance approaches, disseminate norms of risk insurability and tolerability, raise awareness, and provide expertise.

The paper then reviews established factors driving private governance such as regulatory and reputational risks. However, neither are sufficient to explain the strongly discursive involvement of insurers in risk governance.

This paper finally explores two factors driving the insurers’ activities. (1) The complex nature of risks encourages insurers to invest in knowledge generation and appreciates their expertise. Furthermore, it incentivises them to engage in risk discourse in order to prevent delayed and ineffective risk governance with its consequences for the insurers’ business. (2) The way in which complex risks are processed in society has rendered loss calculations more difficult. Civil society campaigns against insured entities, as well as the insureds’ changing legal environment are socio-political factors that potentially increase the insurers’ losses.

Shaping public discourse can mitigate the adverse impact of the social processing of risks.

### **Safety, Scientific Management and the Welfare State: The Rise of Protective Workplace Regulation in the United States and Western Europe, 1890-1920**

**Eric Van Rite**

Through a comparison of historical perspectives on safety, this paper

presentation analyzes how expert safety discourses represent danger, victims, and prevention. As a starting point, I examine the historical debate over workplace safety in the US and Europe at the beginning of the 20th century. Before 1900, relatively few protections existed to shield workers from the variously perceived dangers of industrialization. Along with social reformers, technical safety experts attempted to determine the nature of these industrial risks, assess the authenticity of industrial accidents and afflictions, and ultimately establish mechanisms and regulations to prevent unnecessary harm and manage unavoidable consequences.

Following interventions in the workplace, the early 20th century also witnessed a broader movement toward public safety, especially in cities. Borrowing from the language of worker protection, public safety discourse sought to re-constitute the industrial city as safe. The paper points toward a similarity in the 'education' of workers and the public, in formulating both as a collective, with shared responsibility toward dangers. By comparing how technical experts target particular groups as in need of protection from certain risks, my presentation seeks to understand how safety discourses historically construct bodies and spaces as alternatively dangerous or safe.

### **Changing from a pesticides paradigm to an ecological pest management paradigm?**

**David Buffin**

The proposition of the PhD research thesis is that there is a dominant pesticide policy paradigm which is challenged and under threat. At the same time another ecological paradigm is emerging, albeit under stress because it is constrained by the trappings of the dominant paradigm.

The threat to the pesticide paradigm comes from regulatory failure posed by the high costs of pesticide approval and registration. The few companies that have the resources to register a pesticide have had to develop large regulatory affairs departments that specialise in product approval. Smaller companies, such as those developing alternatives to synthetic pesticides, do not have the multi-million research and development budgets register their products and are therefore facing regulatory failure which may be described as 'regulatory block' – that is they do not have the resources to establish themselves in the first place. Safer alternatives have to go through the pesticide paradigm approval which is proving a barrier to their development. This research will evaluate whether an 'ecological pest management paradigm' is emerging to accommodate safer alternatives to hazardous pesticides. It will examine whether an ecological pest management paradigm is more suited to incorporating a 'co-evolutionary model' that would allow it to develop sustainably, were it not constrained by the technocratic model imposed on it by the dominant technocratic pesticide paradigm.