THE REGULATOR’S DILEMMA: CAUGHT BETWEEN THE NEED FOR FLEXIBILITY & THE DEMANDS OF FORESEEABILITY. REASSESSING THE LEX CERTA PRINCIPLE

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“People want to know under what circumstances and how far they will run the risk of coming against what is so much stronger than themselves . . . . The object of our study [as legal scholars], then, is prediction[.]”

ABSTRACT

In the risk society of the twenty-first century regulators must balance risk and the potential harm to human health and the environment against the demand of citizens for new technologies and the benefits that they bring. They must do so in a context of high levels of uncertainty in which the pace of technological

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2 Oliver Wendell Holmes, Jr., Massachusetts Supreme Judicial Court Justice, The Path of the Law, Address Given at the Dedication of the New Hall of the Boston University School of Law (Jan. 8, 1897), in 10 HARV. L. REV. 457, 457 (1897).
developments can quickly outstrip regulatory efforts.\(^3\) In this volatile regulatory environment, one of the key challenges that regulators face is that of regulatory connection i.e., of creating a connection with the object of regulatory intervention, whether a particular technology or product process and maintaining that connection as the technology develops and spreads.\(^4\) The demand upon regulators to create and ensure regulatory connection has led to an increasing use of open or flexible regulation.\(^5\) What this means in practice is an increasing turn to the use of vaguely worded standards in regulatory instruments in place of specific rules laid down in legislation.\(^6\) At the same time, the desire for effective enforcement of these instruments has led to a trend towards the use of criminal sanctions in place of administrative or civil law remedies.\(^7\) What we suggest in this paper is that these two trends—towards standards and towards criminal sanctions—when combined raise serious concerns in relation to the principle of *lex certa*, or legal certainty.\(^8\) These concerns touch upon both the legitimacy of such regulatory efforts as well as the effectiveness of such regulation.\(^9\) This presents regulators with a dilemma: in order for regulation to maintain regulatory connection in the context described above, it must remain flexible.\(^10\) However, if regulatees are to know that they are bound and modify their behavior accordingly, the fact that they are bound and the requirements placed upon them need to be

\(^3\) *See* Michael Faure et al., *Bucking the Kuznets Curve: Designing Effective Environmental Regulation in Developing Countries*, 51 VA. J. INT’L. L. 95, 108 (2010) (noting the difficulty regulators face in developing countries, particularly with regard to the balance between development and environmental issues).


\(^5\) *See* id. at 65–66 (discussing that self-regulation is the ideal type of regulation to connect technology and regulation due to its flexibility).


\(^8\) *See infra* Part II.C.

\(^9\) *See* BROWNSWORD & GOODWIN, *supra* note 4, at 70 (discussing the connection between legitimacy and effectiveness, and regulation).

\(^10\) *See id.* at 66 (explaining the “tension between the need for flexibility . . . and consistency” in order to achieve regulatory connection).
foreseeable. Moreover, where regulatees face criminal sanctions for breach of these standards, the principle of legal certainty—central to our idea of what law is and to our acceptance of being bound by it—is made precise in criminal law under the principles of *nullem crimen, nulla poena sine praevia lege poenali*, which demands that individuals can readily foresee the consequences of their actions.\(^1\)\(^2\) This paper explores the challenge faced by the regulator in seeking to balance the need for flexibility with the demands of foreseeability in the context of enforcing risk regulation with criminal sanctions. We argue that the current balance is too heavily weighted in favor of flexibility and suggest the use of the notion of development risk liability, in combination with prospective overruling, as a means for seeking a better equilibrium between the goals of flexibility and the protection provided by foreseeability.

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\(^{11}\) See, e.g., *id.* at 67 (describing difficulties with disconnection as “regulatees cannot be quite sure where they stand.”).

\(^{12}\) See Roger S. Clark, *In General, Should Excuses be Broadly or Narrowly Construed?*, 42 TEX. TECH. L. REV. 327, 334–37 (2009) (discussing the ICC’s “strong provisions on the principle of legality” and noting that fair notice is a rationale in support of the legality principle).
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I. INTRODUCTION

It has become something of a cliche to suggest that we are living in a “risk society.”\textsuperscript{13} It remains, however, useful shorthand for referring to the nature of the regulatory dilemmas that we face. While human beings have long had an understanding of risk, and have modified their behavior accordingly.\textsuperscript{14} The particular constellation of rapid\textsuperscript{15} and far-reaching technological developments, and social attitude to those technologies in the here and now raises a number of specific tensions and regulatory dilemmas.\textsuperscript{16} Building upon Beck’s definition of risk society, Brownsword and Goodwin, in their recent work examining the regulation of technologies in the twenty-first century, have suggested that our era is marked by three intersecting factors:

1. citizens are [generally] eager to embrace the benefits of new technologies . . . ; 2. at the same time, however, citizens are highly risk averse; and 3. there is a great deal of uncertainty surrounding both the benefits and, particularly, the risks of new technologies.\textsuperscript{17}

These factors and their inter-relationships form the regulatory context in which regulators must balance risk and the potential harm to human health and the environment against the demands of citizens to stimulate new technologies for the benefits that they bring; and they must do so against a background of high levels of uncertainty.\textsuperscript{18} To these three factors a fourth can be


\textsuperscript{14} See generally Susan W. Brenner, Law in an Era of ‘Smart’ Technology 15–123 (2007) (providing a broad review of the regulatory response to a range of technologies across the previous two centuries).

\textsuperscript{15} See, e.g., Roger Brownsword & Morag Goodwin, supra note 4, at 63 (2012) (characterizing the life span of new technologies as “rapid”).

\textsuperscript{16} Id. (highlighting the tensions and challenges that arise for regulators with accelerated technological developments).

\textsuperscript{17} Id. at 113; see also Nuffield Council on Bioethics, Emerging Biotechnologies: Technology, Choice and the Public Good at xi (2012), available at http://www.nuffieldbioethics.org/sites/default/files/Emerging_biotechnologies_full_report_web_0.pdf (stressing uncertainty as a key factor in orientating responses to biotechnological developments).

\textsuperscript{18} Brownsword & Goodwin, supra note 4, at 113–14.
added: the pace of technological developments, which can quickly outstrip regulatory efforts. It has been suggested that we are in an age of technological revolution, in which technological change is both rapid and unpredictable. While the social and economic disruption to which such change leads, it is in itself nothing new, the scale and depth of technological change in the twenty-first century is likely to be such that volatility will become the key element of regulatory environments; indeed, it has already become so.

In this regulatory context, it has been suggested that regulators must answer four key regulatory challenges if they are to create regulation that is effective in this regulatory context. That is they need to design regulatory interventions that are prudent or precautionary; that are economical and efficient; that are legitimate; and that ensure regulatory connection. This latter requirement demands regulators to create a connection with the object of regulatory intervention, either a particular technology or product process, and to maintain that connection while the technology concerned and other relevant technologies develop, and as knowledge, understanding, and use of these technologies spreads. Generating and maintaining connection is arguably the greatest challenge that regulators face in an era marked by rapid technological development.

Against this background, we focus in this paper on one specific tension and the regulatory dilemma it poses within risk regulation in a particular legal context. The demand upon regulators to create and ensure regulatory connection has led to an increasing use of open or flexible regulation. What this means in practice is an increasing turn to the use of vaguely worded standards as regulatory instruments in place of specific rules laid down in legislation. At the same time, the desire for

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19 Id. at 18.
20 See Mathias Klang, Disruptive Technology Effects of Technology Regulation on Democracy 7–8 (2006) (noting how examples of disruptive technology are almost omnipresent and that the process is in fact not new but continual).
21 Brownsworth & Goodwin, supra note 4, at 70–71. There are of course alternative ways of characterizing regulatory adequacy.
22 Cf. id. at 63 (outlining the “triple challenge” regulators face due to the rapidness of technology).
23 See id. at 66 (noting that in order for regulation to be on par with the rapid changes in technology it must be flexible).
effective enforcement of these instruments has led to a trend towards the use of criminal sanctions in place of administrative or civil law remedies. The regulatory context that we examine is the European legal space; and we do so for the reason that the drive towards the use of criminal penalties to enforce risk regulation is most marked within European law.

What we suggest in this paper is that these two trends—towards standards and towards criminal sanctions—when combined raise serious concerns in relation to the principle of lex certa, or legal certainty. These concerns touch both upon the legitimacy of such regulatory efforts as well as the effectiveness of such regulation. This presents regulators with a dilemma: in order for regulation to maintain regulatory connection in the context described above, it must remain flexible. However, if regulatees are to know that they are bound by such regulation and modify their behavior accordingly, the fact that they are bound and the requirements placed upon them need to be foreseeable. Moreover, where regulatees face criminal sanctions for breach of these standards, the principle of legal certainty—so central to our idea of what law is and to our acceptance of being bound by it—is made precise in criminal law under the principle of nullem crimen, nulla poena sine praevia lege poenali, demands that individuals can readily foresee the consequences of their actions.

This paper considers the challenge faced by the regulator in seeking to balance the need for flexibility with the demands of foreseeability in the context of enforcing risk regulation with

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25 See Nancy K. Kubasek et al., The Role of Criminal Enforcement in Attaining Environmental Compliance in the United States and Abroad, 7 BALT. J. ENVTL. L. 122, 122, 131 (2000) (discussing the increase in criminal sanctions in the environmental law field).

26 See, e.g., David Kerem, Change We Can Believe In: Comparative Perspectives on the Criminalization of Corporate Negligence, 14 TRANSACTIONS: TENN. J. BUS. L. 95, 104–05 (2012) (highlighting Europe’s greater emphasis on deterrence to unwanted corporate negligence).

27 See BROWNSWORD & GOODWIN, supra note 4, at 51, 60–63 (discussing the importance of regulatory legitimacy and effectiveness).

28 See id. at 66 (discussing the dilemma that environmental regulators face between legal consistency and flexibility in the changing field).

29 See Allen Schwartz, Products Liability, Corporate Structure and Bankruptcy: Toxic Substances and the Remote-Risk Relationship, 14 J. LEGAL STUD. 689, 694 (1985) (stating that a company should only be held liable for what they knew or should have known).

criminal sanctions. We argue that the current balance is too heavily weighted in favor of flexibility and suggest a possible avenue for seeking a better equilibrium via prospective overruling (in combination with the regulatory technique of development risk liability).

Part II of this paper sets out the theory motivating the increasing use of standards within risk regulation and describes the development of both the use of criminal sanctions to enforce risk regulation in the European context and of the development of the *lex certa* principle within the rule of law and more specifically, in criminal law. In Part III, we examine how various courts within Europe, paying particular attention to the European Court of Human Rights, view and manage the flexibility/foreseeability dilemma. In particular, we examine the content given by these courts to the notion of legal certainty. On the basis of this description, we suggest that European courts set differing standards for the regulator in regard to what foreseeability requires of them—in itself creating legal uncertainty—and argue that the Strasbourg court sets the benchmark too low to ensure the protection of individuals and other actors. Turning from the legal protection that the guarantee of legal certainty provides, in Part IV we examine the value of legal certainty from an efficiency perspective, notably deterrence theory. Following this examination, we conclude that on both legitimacy (Parts II and III) and efficiency grounds (Part IV), regulators within Europe currently fail to strike the best balance between flexibility and foreseeability. In Part V, we consider various regulatory tools and techniques available to regulators for creating an optimal balance by tailoring it to each regulatory situation, and suggest that a combination of the application of development risk liability with the judicious use of prospective overruling addresses the concerns that we identify. Part VI concludes.

II. THE CHANGING NATURE OF REGULATION IN THE RISK SOCIETY

The dilemma that legislators, whether at the national or European level, face in creating effective standards that meet the requirements of legal certainty in the context of criminal law has been nicely summed up by Corstens and Pradel and is worth citing at length:

> Juridical certainty requires that the citizen knows what sort of
conduct will render him liable to criminal prosecution. This goal is endangered if the charge is not clear. Nevertheless, it has to be accepted that the modern legislator has a tendency to be concerned with many problems in order to improve the well-being of his fellow citizens and is consequently confronted with some very complex questions. The proliferation of criminal law and the complexity of its texts have had their consequences. The legislator must manoeuvre between the Scylla of vague wording in criminal laws (also allowing a judge much freedom to act) which cover the majority of the targeted situations (a procedure called “open type”) and the Charybdis of more specific wording, which create the risk of creating loopholes.31

The demands made upon regulators to regulate effectively and efficiently in an era in which the speed of technological change is unprecedented has seen two regulatory trends emerge that, taken together, raise serious concerns about the legitimacy of such regulation, both in the context of rule of law concerns and in terms of individual rights.32 The first trend that we wish to highlight is the increased use of general standards in place of rules that prescribe precisely and clearly desirable behavior ex ante. The necessity of this move becomes clear when analyzing the design of regulation for situations of regulatory volatility from the perspective of criteria developed by Louis Kaplow and others,33 or the optimal form of legislation with regard to effectiveness and efficiency. At the same time, however, we are witnessing a movement—our second trend—towards the enforcement of this regulation by criminal law, particularly pronounced in the European legal space.34 The combination of

32 See BROWNSWORD & GOODWIN, supra note 4, at 48 (raising the legitimacy of the regulation as a concern).
34 Kubasek et al., supra note 25, at 122.
vague standards and criminal penalties raise clear issues under the principle of lex certa.35 We will explore both trends in this section and the implications for lex certa requirements.

A. A Trend Towards the Use of Standards

Throughout legal and economic literature, the question concerning desired specificity of regulations has often been addressed in terms of ‘rules versus standards’.36 “The rules versus standards debate in [l]aw and [e]conomics and legal literature dates back to a [1992] seminal paper by Louis Kaplow . . . .37 [In the subsequent twenty years,] this line of research has seen various applications, [for example, in the context of designing] effective laws in developing countries, or in relation to behavioral effects, or in applications in the field of anti-trust.38

Rules and standards are distinguishable under legal norms—a distinction in which the levels of clarity and flexibility are crucial. The basic distinction between rules and standards is the moment of promulgation of the respective degree of detail,39 and thus the decision as to whether the law is given content and specification ex ante or ex post,40 i.e., done before individuals act (rules) or after they have done so (standards).41 Rules consist of legal commands that create clear-cut distinctions between lawful and unlawful behavior, while standards are general legal criteria that gain specific content through present judicial interpretation and application.42 Unlike clear-cut rules, standards require the

35 See Bradley E. Abruzzi, Copyright and the Vagueness Doctrine, 45 U. Mich. J.L. Reform 351, 356 (2012) (describing how vague laws allow for individuals to engage in acts that, unbeknownst to them, are unlawful, as well as prevent them from engaging in lawful acts).
37 Id.
38 Id. (citations omitted)
39 See Kaplow, Rules Versus Standards, supra note 33, at 568 (discussing that when the government enacts a law, it must decide whether it is to be promulgated as a rule or standard).
40 Kaplow, General Characteristics, supra note 33, at 508–09.
41 Kaplow, Rules Versus Standards, supra note 33, at 560.
42 Hans-Bernd Schäfer, Legal Rules and Standards, GERMAN WORKING PAPERS L. & ECON., no. 2, 2002, at 1, available at http://ssrn.com/abstract=999860; see also Ehrlich & Posner, supra note 33, at 258 (“A standard indicates the kinds of circumstances that are relevant to a decision on legality and is thus open–ended. . . . A rule withdraws from the decision maker’s consideration on or more of the [relevant] circumstances [and] takes the form: if
application of “a background principle or set of principles to a
particularized set of facts in order to reach a legal conclusion.”

Both approaches—rules and standards—involves costs at two
stages: at the law making and at the adjudication stage. In the
case of rules, the content of the laws has to be determined ex
ante. This requires lawmakers to carry out studies in advance
to determine the appropriate rule. “[R]ules are [therefore] more
costly for legislators . . . than general standards, which require
less specificity [beforehand].” Standards generally have a
broader scope of application than rules, and thus require less
investment ex ante to determine the precise content and scope of
the law. Moreover, the cost of adapting a rule is considerably
higher than a standard, as it is likely to require amendments to
the law. There is hence an area of conflict between initial
specification costs, enforcement, and compliance costs (including
specification at this stage). Whether it is more appropriate to
opt for a standard or a rule depends on the nature of the legal
X, then Y, where X is a single . . . determinate fact . . . and Y is a definite,
equivocal legal consequence . . . .

43 Russell B. Korobkin, Behavioral Analysis and Legal Forms: Rules vs.
Standards Revisited, 70 Or. L. Rev. 23, 23 (2000).
44 See id. at 30–32 (explaining the “up-front” costs of rulemaking, including
what consequences should result from a range of possible factual situations,
while the costs of standards accrue when adjudicators must choose what
consequences will result from various factual situations). See generally
Steven Shavell, Liability for Harm Versus Regulation of Safety, 13 J. Legal Stud. 357,
359 (1984) [hereinafter Liability for Harm] (noting the relationship between ex
ante and ex post legal intervention). Besides the relationship between the
legislature and the judiciary, the relationship between various levels of
government (legislature and executive) is discussed by various commentators.
See, e.g., Korobkin, supra note 43, at 31 (recognizing that resolving legal
disputes may have judicial, legislative, and administrative costs depending on
whether rules or standards are used).
45 Korobkin, supra note 43, at 36.
46 Kaplow, Rules Versus Standards, supra note 33, at 569.
47 Fon & Parsi, supra note 33, at 149.
48 See id. (recognizing from an ex post stance that standards can be better
applied to varying situations).
49 See Daniel Benoliel, Technological Standards, Inc.: Rethinking Cyberspace
the costs of amending a rule to keep up with innovation as “irreversible,” while
standards are “cheaper to produce and keep up-to-date . . . .”).
50 Difficulties with interpreting standards, which are not specified, emerge
for all subjects of law as well as the individuals that are affected by them. See,
e.g., Richard A. Posner, Creating a Legal Framework for Economic Development,
Framework] (advocating for the use of rules over standards in poor countries, as
rules are simpler and more efficient to apply).
environment. “Depending on [certain] factors the optimal moment of specifying the [scope and content of the law] (right at the moment of enactment in [the] case of rules or later on in the adjudication and implementation process in the case of standards) can be identified.”51 There are a number of criteria in legal and economic literature that help to determine the efficiency of using rules in comparison to standards.52

1. Volatility

Volatility, i.e., changes over time in the regulated environment, frequently causes legal obsolescence.53 In an area of law that is subject to a rapid change of economic and social conditions requiring constant assessment of the optimal set of legal decisions, standards are more efficient than rules.54 Details and specifications that are set out ex ante “are more sensitive to exogenous, unforeseen changes” and become obsolete at a faster rate.55 Standards are less likely to be affected by changes as they indicate “only the types of circumstance that are relevant, and not particular, specific circumstance[s]”56 and the possibility of adaptation to new circumstances by the judiciary ex post is left open.57 Thus, the use of rules is likely to be desirable where the regulatory environment is stable, and general standards are favorable where it is unstable.58 In a situation of regulatory

51 Weber, supra note 36, at 191.
52 Others have considered factors different than those described infra. E.g., Fon & Parisi, supra note 33, at 151 (exploring a model of optimal specificity based on “the frequency of the application of the legal rule, the rate of obsolescence of law, the cost of coordination and harmonization of new rules within existing legal systems, the degree of specialization of the courts, and the complexity of the regulated environment.”). Fon and Parisi’s model also assumes that “lawmakers act benevolently, without considering the impact of political failures and selfish behavior by legislators, courts, and subjects of the law.” Id. at 159.
53 See id. (theorizing that the more specificity a rule provides, the more informational content it provides and the less costly interpretation of such rule becomes, raising the rate of obsolescence while decreasing the legal value of the rule).
54 See Schäfer, supra note 42, at 2 (stating that imprecise standards that are later refined by the judiciary help to reduce costs of uncertainty for citizens, whereas rules are so rigid that the judiciary has little to no discretionary power).
55 Fon & Parisi, supra note 33, at 154.
56 Id.
57 See id. at 49 (stating that standards allow “ad hoc custom-tailoring of the law to the circumstances of the case at bar . . . .”).
58 Kaplow, Rules Versus Standards, supra note 33, at 621–22; cf. Gregory N.
volatility the potential scope to be given to a norm should be formulated in a manner as open as possible, so as to cover future unpredictable developments.

2. Frequency of Application

A common point in legal and economic literature is the finding that the more often a norm is applied, the more a rule with a higher degree of specificity \textit{ex ante} is desirable, especially since these costs then only have to be borne once.\textsuperscript{59} Frequency speaks thus, in favor of rules as the higher adjudication costs associated with standards are likely to be greater than the costs of strict design and promulgation.\textsuperscript{60} Standards work best when behavior varies widely and there is little repetition in case scenarios.\textsuperscript{61} The case for standards would be clearly that of situations, which arise rarely or with varying circumstances or at a low frequency.\textsuperscript{62} Lower levels of specificity should be chosen in a regulatory environment marked by volatility, especially where obsolescence is a constant likelihood (regardless of the degree of frequency of application).

3. The Complexity of the Regulated Environment

Another key factor influencing the decision between rules and standards is the complexity of the regulated environment in which the norm is situated. It is a general rule that the more complex an environment is, the more costly it becomes to develop norms covering a wide range of scenarios.\textsuperscript{63} In particular, promulgation costs increase with the complexity of the environment that is regulated, as it is difficult to specify these contingencies.\textsuperscript{64} This situation calls for a general standard that gives greater specificity \textit{ex post}, by addressing details of individual scenarios.\textsuperscript{65} However, when deciding on the likely costs

\begin{footnotesize}
\begin{itemize}
\item[59] See Kaplow, \textit{General Characteristic}, supra note 33, at 510.
\item[60] Fon & Parisi, \textit{supra} note 33, at 153–54.
\item[61] Kaplow, \textit{General Characteristics}, \textit{supra} note 33, at 510.
\item[62] Id.
\item[63] Fon & Parisi, \textit{supra} note 33, at 151–52.
\item[64] Id.
\item[65] Id.
\end{itemize}
\end{footnotesize}
of adjudication, there is an interrelation with the frequency of application.66

4. Judicial Specialization

The degree and nature of judicial specialization is another important factor influencing the decision for rules or standards, in particular, it affects the level of guidance that they need in applying the law.67 Specialized judges are more effective at interpreting and applying complex laws.68 Therefore, to decrease adjudication costs the optimal level of specificity increases the need for greater specialization in courts that apply and interpret them.69 Thus, where judges specialize in particular regulatory themes, such as environmental law, the legislator can make greater use of detailed legal provisions that cover a wide range of situations and variations.70 However, one could also argue to the contrary; that the specialization of these judges allows for better application of vague standards, which would thus increase efficient use of such standards.

5. Applying the Criteria to a Regulatory Environment Marked by Rapid Technological Change

The choice for a rule or a standard is dependent on the legal environment in which the regulation must function.71 When the criteria for choosing between standards and rules is applied to a legal environment in which rapidly changing technologies play a key role—what we have termed as risk regulation72—the criteria we describe point towards a clear preference for standards over rules. In such scenarios, static rules are likely to become quickly out-dated and obsolete, leading to regulatory disconnection and ineffectiveness.73 This will have profound consequences for the protection of human health and the environment.74 The rapid

66 Id. at 152.
67 Id.
68 Id.
69 Id. at 152–53.
70 See id. at 156–57.
71 BROWNSWORD & GOODWIN, supra note 4, at 337.
72 Korobkin, supra note 43, at 33–34.
73 See generally BROWNSWORD & GOODWIN, supra note 4, at 67 (discussion on regulatory disconnection).
74 See id. at 67–68 (mentioning a proposal made in the United Kingdom to establish a group to identify potential health, safety, environmental, social, ethical and regulatory issues with regards to emerging technologies).
pace of technological development also points toward the use of standards from the perspective of application frequency. Fast-paced change entails strong variation and hence there is likely to be little repetition in case scenarios. Likewise, consideration of the complexity of the regulated environment again points in the direction of a preference for a standard as far as regulating technological risks are concerned. The hallmark of the twenty-first century technological revolution is not just speed, as we suggested in the introduction, but also complexity.

The application of the last criterion—the degree of specialization of the judiciary—is less clear-cut in the arena of risk regulation. While the specialization of judges can be an asset in applying both rules and standards, in the particular scenario of the increasing trend towards the use of criminal penalties to enforce risk regulation, it is important to note that judges in criminal cases are unlikely to be trained in the assessment of technological risks. The question then arises as to whether the legislator or judge is in a better position qua information and knowledge, to be able to adapt the relevant norms to changing circumstances. In this respect, the criteria for safety regulation provided by Shavell may be useful. In most cases, according to Shavell, legislators are more likely to learn of new developments in technology, than judges are. Despite this rules-based preference, there must be consideration of the high costs of amending legislation as well as other key criteria of the regulatory environment in mind. What Shavell’s theory, in any case, highlights is the importance both of well-informed legislators and of specialized training for the judiciary in

75 Korobkin, supra note 43, at 33–34.
76 BROWNSWORD & GOODWIN, supra note 4, at 374–75.
77 Id. at 63–71.
78 Cf. id. at 67 (explaining that a court can undermine the integrity of legal reasoning when trying to assess a regulatory framework).
79 See Shavell, Liability for Harm, supra note 44, at 358–364 (outlining the four “determinants” of assessing the desirability of regulation versus liability: the difference in knowledge about risky activities between private parties and a regulatory authority; a private party’s ability to pay for the full magnitude of harm; the likelihood that parties would not face the threat of suit for harm done; and the administrative costs incurred by private parties and the public); see also Steven Shavell, A Model of the Optimal Use of Liability and Safety Regulation, 15 RAND J. ECON., Summer 1984, at 271 [hereinafter Optimal Use] (considering a mathematical model for the optimal use of safety regulation and liability).
80 Shavell, Liability for Harm, supra note 44, at 360.
81 Id. at 364.
assessing technological risks in the design and implementation of risk regulation.\textsuperscript{82}

Given the nature of the regulatory environment created by rapid technological change, it is therefore not surprising that we are witnessing the increasing use of standards as the basis of regulatory efforts. In the domains of product safety, food safety as well as environmental law, increasingly vague concepts impose general obligations on regulatees to act in the public interest.\textsuperscript{83} For regulators to do otherwise would be to ignore the likelihood of regulatory disconnection and to accept the ineffectiveness of risk regulation, an unacceptable scenario in light of the risks to human health and environment that new technologies are thought to pose and the extreme risk aversion of twenty-first citizens (voters).\textsuperscript{84} Yet while these general obligations may have the advantage of being able to capture more scenarios and thus prohibit more of the undesirable behavior that the regulation was implemented to protect against, they create new legitimacy-type concerns.\textsuperscript{85} Although the use of standards is not necessarily problematic in itself, these concerns arise with the second key trend in European risk regulation: the move towards criminalization.\textsuperscript{86}

\textbf{B. The Increasing Criminalization of Risk}

The use of criminal law to enforce technical regulations is certainly not a new phenomenon;\textsuperscript{87} however, policymakers appear

\textsuperscript{82} Id. at 359–60.
\textsuperscript{83} E.g., Directive 2001/95 of the European Parliament and of the Council of 3 December 2003 on General Product Safety, 2003 O.J. (L 11) 4. The directive requires that producers and distributors place only “safe” products on the market. A “safe product” in the Directive is defined as “any product which, under normal or reasonably foreseeable conditions of use including duration and, where applicable, putting into service, installation and maintenance requirements, does not present any risk or only the minimum risks compatible with the product’s use, considered to be acceptable and consistent with a high level of protection for the safety and health of persons[.]” Id. at 8.
\textsuperscript{84} BROWNSWORD & GOODWIN, supra note 15, at 67.
\textsuperscript{85} Id. at 70.
\textsuperscript{87} For example, the Belgium Monetary introduced a system of licenses in an act on 5 May 1888 to control dangerous and potentially damaging installations. See MICHAEL FAURE, UMWELTRECHT IN BELGIEN. STRAFRECHT IM SPANNUNGSFELD VON ZIVIL- UND VERWALTUNGSRECHT 66–68 (1992). The operation of an installation without a license or the violation of license conditions was
increasingly attached to the belief that criminal law is an efficient tool of social control. The evolution of environmental criminal law at the European Union (EU) level provides an example of this trend, although we suggest that these developments within Europe form part of a more global trend.

Prior to the landmark ruling by the Court of Justice of the European Union (CJEU) in 2005, the European Union (EU) lacked competence to regulate the field of criminal law. However, the changes inaugurated by this ruling are recognized in the new Lisbon Treaty, and Art. 83 (2) of the Treaty on the Functioning of the European Union providing Union competence to impose criminal penalties. It reads:

If the approximation of criminal laws and regulations of the Member States proves essential to ensure the effective implementation of a Union policy in an area which has been subject to harmonisation measures, directives may establish minimum rules with regard to the definition of criminal offences and sanctions in the area concerned. Such directives shall be adopted by the same ordinary or special legislative procedure as was followed for the adoption of the harmonisation measures in question, without prejudice to Article 76.

The developments that led to the adoption of this treatise and those that followed give shape to our assertion of the existence of the trend to use criminal sanctions.

punishable by criminal sanctions. See id.

88 See generally Michael Faure et al., Curbing Consumer Financial Losses: The Economics of Regulatory Enforcement, 31 L. & POL’Y 161, 178–79 (discussing the reasons why criminal law is used to enforce consumer legislation).

89 European Comm’n, supra note 86.

90 Id.


92 Of course, this evolution will not be discussed in detail within the framework of this contribution, though many others do. See, e.g., Françoise Comte, Criminal Environmental Law and Community Competence, 12 EUR. ENVTL. L. REV. 147 [hereinafter Criminal Environmental Law] (discussing the emergence of criminal penalties in EU environmental law); Françoise Comte, Environmental Crime and the Police in Europe: A Panorama and Possible Paths for Future Action, 15 EUR. ENVTL. L. REV. 189 (2006) [hereinafter Environmental Crime]; Martin Hedemann-Robinson, The Emergence of European Union Environmental Criminal Law: A Quest for Solid Foundations—Part II, 16 ENVTL. LIABILITY 111 (discussing the development of criminal penalties for violations of EU environmental law); Ricardo Pereira, Environmental Criminal Law in the First Pillar: A Positive Development for Environmental Protection in the European Union?, 16 EUR. ENVTL. L. REV. 254 (chronicling the development of EU law through which Member States were
Initiatives to harmonize criminal law at the EU level began at the turn of the century in the area of environmental law. A proposal by Denmark in 2000 under the third pillar to criminalize specific acts at the EU level that constitute serious environmental crime led to the first initiative within the area of criminal law under the first pillar, in the form of a proposal for a Directive of March 13, 2001 on the protection of the environment through criminal law. Under the proposal, the European Commission asserted that the protection of the environment required criminal enforcement as only criminal penalties were capable of creating a sufficiently dissuasive effect and thus of sending a strong signal to offenders.

The resulting institutional conflict between the Council and the Commission over the competence to regulate in the area of criminal law led to the landmark ruling of the CJEU in case C-176/03. On September 13 2005, the CJEU’s judgment provided that “[a]s a general rule, neither criminal law nor the rules of criminal procedure fall within the [c]ommunity’s competence . . . .” However, the CJEU further provided that:

[T]he last-mentioned finding does not prevent the [c]ommunity legislature, when the application of effective, proportionate and dissuasive criminal penalties by the competent national authorities is an essential measure for combating serious environmental offences, from taking measures which relate to the criminal law of

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required to introduce criminal sanctions for violation of environmental law); Diane Ryland, Protection of the Environment through Criminal Law: A Question of Competence Unabated?, 18 EUR. ENERGY & ENVTL. L. REV. 91 (examining the impact of CJEU decisions on environmental crime).

93 European Comm’n, supra note 86.


96 Id.; see also Comte, Criminal Environmental Law, supra note 92, at 150–51.


98 Id. at I-7925.
the Member States which it considers necessary in order to ensure that the rules which it lays down on environmental protection are fully effective.\textsuperscript{99}

This movement towards the use of criminal penalties to regulate in the area of environmental law was consolidated in the area of ship-source pollution.\textsuperscript{100} A council framework decision to strengthen the criminal law framework for the enforcement of the law against ship-source pollution was established in July 2005, prescribing minimum sanctions for specific penalties.\textsuperscript{101} At the beginning of September 2005, the Commission issued a directive on ship-source pollution, introducing criminal penalties for infringements.\textsuperscript{102} In the resulting case concerning the competence to regulate in this area, the CJEU clarified its earlier ruling, from the decision on September 13, 2005, by concluding that the law:

[Does] not prevent the Community legislature, when the application of effective, proportionate and dissuasive criminal penalties by the competent national authorities is an essential measure for combating serious environmental offences, from taking measures which relate to the criminal law of the Member States which it considers necessary in order to ensure that the rules which it lays down on environmental protection are fully effective.\textsuperscript{103}

A first test to be applied is whether the use of the criminal law is necessary and proportionate to reach the goals of environmental protection at which the particular directive aims. The determination of the type and level of the criminal penalties to be applied does not fall within the Community’s sphere of competence.\textsuperscript{104}

This judgment has, however, been rendered obsolete by the Lisbon Treaty reforms. The abolishment of the pillar structure of the Union entails that it is now possible for the Commission to use its new powers to require Member States to introduce a

\textsuperscript{99} Id.; see also Comte, Criminal Environmental Law, supra note 92, at 226–29 (discussing the implications of community policies influencing the legal framework surrounding environmental crime).


\textsuperscript{101} Id.

\textsuperscript{102} Id.

\textsuperscript{103} Case C-176/03, Comm’n v. Council, 2005 E.C.R. I-707, I-7925.

\textsuperscript{104} See id. at I-7920 (stating that the court has left the choice of penalties to Member States).
variety of criminal penalties.

Two other directives have been promulgated since the court’s clarification in relation to ship-source pollution, and are together referred to as the environmental crimes directives. They clearly demonstrate the belief, on the part of the European Commission, that it is in need of criminal law as an enforcement mechanism in this field. Consideration 3 in Directive 2008/99, in particular, explains that experience has shown that existing systems of penalties have been insufficient for achieving compliance with environmental protection laws. “Such compliance can and should be strengthened by the availability of criminal penalties, which demonstrate a social disapproval of a qualitatively different nature compared to administrative penalties or a compensation mechanism under civil law.” Consideration 10 of the directive requires “Member States to provide for criminal penalties in their national legislation in respect of serious infringements of provisions of [c]ommunity law on the protection of the environment.” The directive does not, however, create obligations with regards to criminal penalties for individual cases. The updated Directive 2009/123 concerning ship-source pollution follows a similar model, although it contains specific provisions concerning the liability of legal persons; Article 8 of the directive requires that legal persons be held liable for environmental offenses be “punish[ed] by effective, proportionate and dissuasive penalties.” The Commission is, as of January 2011, examining the implementation by Member States of these legislative instruments.

108 Id.
109 Id.
110 See generally id. (lacking text indicating that there are obligations for individual cases).
For the purposes of this study, this brief outline of the developments towards the criminalization of environmental law within the EU serves to demonstrate the importance with which criminal law is viewed by regulators as an essential tool for ensuring compliance within realms that have traditionally used alternative enforcement mechanisms, such as administrative sanctions or civil law penalties. Moreover, although this trend began in the area of environmental law, it is certainly not limited to it. More recently, for example, in October 2011, the European Commission launched a proposal for a directive on criminal sanctions for insider dealing and market manipulation. The draft justifies the proposed directive in the following manner:

It is essential that compliance be strengthened by the availability of criminal sanctions which demonstrate a social disapproval of a qualitatively different nature compared to administrative penalties. Establishing criminal offences for the most serious forms of market abuse sets clear boundaries in law that such behaviours are regarded as unacceptable and sends a message to the public and potential offenders that these are taken very seriously by competent authorities. Moreover, these developments within EU law not only show an increasing use of criminal penalties to enforce regulation but also serve to illustrate the combination of criminal law sanctions with the use of standards as the regulatory form. In the proposal on criminalizing insider dealing, for example, Member States are required inter alia to ensure that the following conduct will constitute a criminal offense: “(a) when in possession of inside information, using that information to acquire or dispose of financial instruments to which that information relates for one’s own account or for the account of a third party.” Article 4 also forces Member States to criminalize market manipulation which is defined as: “(a) giving false or misleading signals as to the supply of, demand for, or price of, a financial instrument or a related spot commodity contract[].”

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115 Id.
116 Id. at 8.
117 Id. at 11.
118 Id.
The standard of “false or misleading signals” is, of course, left deliberately vague and undefined.\textsuperscript{119}

The environmental crime directives also make use of vague standards. Article 3 of Directive 2008/99, which describes the offenses to be criminalized, provides for the criminalization of the discharge of materials that are likely to cause “substantial damage.”\textsuperscript{120} Similarly, the same directive requires Member States to criminalize the operation of a plant “in which a dangerous activity is carried out or in which dangerous substances or preparations are stored . . .”\textsuperscript{121} as well as “any conduct which causes the significant deterioration of a habitat within a protected site[.]”\textsuperscript{122}

It is this combination of vague standards with enforcement via criminal penalties, we wish to suggest, that raises serious questions under the principle of \textit{lex certa} that goes to the heart of the legitimacy of the law.

\textbf{C. The Challenge Posed to the Notion of Legal Certainty in Criminal Law}

The principle of \textit{lex certa} in criminal law has a long pedigree.\textsuperscript{123} While the famous maxim \textit{nullum crimen, nulla poena sine praevia lege poenali} was originated by the German legal scholar P.J. Anselm R. von Feuerbach at the turn of the eighteenth century,\textsuperscript{124} the idea it expresses can be traced further back in European history to the English Magna Carta of 1215 (and later variations). Here, in one of the clauses still in force today in English law, England’s feudal barons required their sovereign to


\textsuperscript{120} Council Directive 2008/99, art. 3 (a), (b), (d), (e), 2008 O.J. (L 328) 29–30.

\textsuperscript{121} \textit{Id.} at 30.

\textsuperscript{122} \textit{Id.}

\textsuperscript{123} \textit{See} Shahram Dana, \textit{Beyond Retroactivity to Realizing Justice: A Theory on the Principle of Legality in International Criminal Law Sentencing}, 99 J. Crim. L. & Criminology, no.4, at 857, 865 (noting that a majority of states require \textit{lex certa}).

\textsuperscript{124} \textit{See generally} Gustav Radbruch, Paul Johann Anselm Feuerbach: Ein Juristenleben Erzählt (1957) (providing an in-depth discussion of this Latin legal principle).
proclaim certain limitations to his power, notably including the
principle that a freeman cannot be punished, except by the law of
the land. This idea that the power of the sovereign to dispose of
the lives and lands of his subjects was limited by adherence to
the law, as it was commonly understood, became a fundamental
mainstay not only of constitutional thought, but also of the
idea of law itself. Legal certainty constitutes an essential element
of this notion of formal legality, which itself is a key part of the
rule of law as it guarantees individual autonomy and dignity.
In order for men to be free to act within the limits of the law,
they need to know what those limits are—an idea expressed by
Montesquieu as legal liberty. Legal certainty thus forms a
critical element of what we understand freedom to consist of. It
is for this reason that, for Dicey in his *Introduction to the Study
of the Law of the Constitution*, legal certainty forms the first
principle of the rule of law: “no man is punishable or can be
lawfully made to suffer in body or goods except for a distinct
breach of law established in the ordinary legal manner before the
ordinary Courts of the land.” Legal certainty is thus a
mainstay of theories of the necessary attributes of law; from
Hayek—“laws must be general, equal and certain”—to the
better known formulation by Fuller that legality requires
“generality, clarity, public promulgation, stability over time,

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128 Id. at 94.

129 Id. John Rawls’ succinct statement on the central characteristics of a legal system from a social contract perspective: “A legal system is a coercive order of public rules addressed to rational persons for the purpose of regulating their conduct and providing a framework for social cooperation. When these rules are just they establish a basis for legitimate expectations. They constitute grounds upon which persons can rely on one another and rightly object when their expectations are not fulfilled. If the bases of these claims are unsure, so are the boundaries of men’s liberties.” John Rawls, *A Theory of Justice* 235 (1971).


131 Tamanaha, supra note 127, at 66.
consistency between the rules and the actual conduct of legal actors, a prohibition against retroactivity, against contradictions, and against requiring the impossible.”\footnote{132}

Legal certainty is so important to the idea of law and our acceptance to being bound by that law that in his speech, The Path of the Law, Oliver Wendell Holmes elevated the importance of legal foreseeability to the central business of legal study.\footnote{133} He said, “[p]eople want to know under what circumstances and how far they will run the risk of coming against what is so much stronger than themselves [i.e. state enforced law] . . . . The object of our study [as legal scholars], then, is prediction . . . .”\footnote{134} In the face of the power of the state to enforce its law, the least we as individual citizens can expect is that we can reasonably predict the consequences of being bound. Of course, legal certainty has been the target of sustained criticism from American realists and critical legal scholars throughout the course of the twentieth century.\footnote{135} However, the ‘radical inconsistency’ critique of critical legal scholars has not taken hold in mainstream legal thinking, and the idea that some degree of uncertainty is an unavoidable element of legal interpretation and adjudication has not been able to undermine the idea that legal certainty is worth striving for.\footnote{136}

Thus despite these criticisms which aim to draw our attention to the inevitable inconsistencies in the interpretation and application of the law, legal certainty remains one of the central ideas of what law is, even if it is not able to live up the strong demand of prediction put forward by Wendell Holmes. Moreover, the idea that individuals can only face criminal punishment by duly enacted, publically promulgated, clear and open law continues to hold a central place in our notions of the rule of law.\footnote{137} This notion is reflected in international human rights provisions, as constitutional principles became codified in human

\footnote{132 Id. at 93.}
\footnote{133 Holmes, supra note 2.}
\footnote{134 Id.}
\footnote{135 See DUNCAN KENNEDY, A CRITIQUE OF ADJUDICATION: FIN DE SIÈCLE 30–38 (1997) (analyzing the different legal theories numerous philosophers have offered on the notion of legal certainty).}
\footnote{136 See Dana, supra note 123, at 862–63, 864 (noting the benefits of legal certainty and the movements in various countries to establish such certainty).}
\footnote{137 See TAMANAH, supra note 127, at 93, 110 (describing that rule of law as complementary with democracies).}
rights language and thereby universalized. Thus, we find *nullum crimen, nulla poena sine* enshrined in the 1948 Universal Declaration of Human Rights and in the later International Covenant on Civil and Political Rights (ICCPR). The centrality of this principle to the constitutional balance regulating the relationship of individuals to the state, and now to human rights, entails that even in times of emergency that threaten the life of the state, the non-retroactivity of criminal penalties cannot be abrogated or derogated from. In his influential commentary on the ICCPR, Manfred Nowak has noted the ‘special significance’ of *nullum crimen* for both criminal law and legal certainty in general.

Thus, legal certainty is a central element of the rule of law, raising general legitimacy questions, but it takes on special significance where individuals are subject to criminal penalties. How should we view the two trends that we described in the context of the principle of *lex certa*? More particularly, how does our knowledge of the general choice between rules (*ex ante*) or standards (*ex post*) affect our understanding of standards of legal certainty in criminal law?

It appears most obvious that rules, which we suggested are those legal commands that lead to a clear-cut distinction between lawful and unlawful, more neatly fit with the requirements of legal certainty. However, we know from the literature on standards that a general standard can be applied with a great deal of precision by the judiciary. The precision demanded by legal certainty can thus be provided, but only *ex post*, through interpretation at the enforcement stage. This may not be problematic in terms of the effectiveness of the enforcement of a given norm; however, it may have a negative impact on the predictability of the norm, to the extent that judicial interpretation in some cases (but not always) is not sufficiently

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139 Universal Declaration of Human Rights, supra note 138.
140 International Covenant on Civil and Political Rights, supra note 138.
141 Id. at art. 4.
foreseeable by the regulatee. Yet, while standards are more likely to fall afoul of the requirements of lex certa, their use has clear advantages in areas of law that struggle with maintaining regulatory connection. Standards have a major advantage as they enable easier enforcement by requiring only that an outcome (e.g., endangerment of the environment) be proven to the high standard of criminal law and not a particular behavior. Moreover, generally worded standards also have the advantage (at least from the regulator’s perspective) that disconnection does not enable regulatees to avoid liability. While the two trends that we have highlighted—towards a more widespread use of standards and towards greater use of criminal penalties—are intended to make regulation more effective, by enabling the flexibility to ensure regulatory connection and by contributing to the effectiveness of enforcement, it is the question of predictability or ‘foreseeability’ that raises concerns from a rule of law or human rights perspective. However, to understand whether and what kind of challenge the increasing drive towards regulatory flexibility poses to the principle of lex certa, it is necessary to consider the way in which courts have interpreted the requirements of legal certainty. We now turn to the case law of different European courts.

### III. Legal Certainty in Practice: An Analysis of European Jurisprudence

In this section we explore the scope and weight of the lex certa principle in the European context, focusing particularly on the European Court of Human Rights’ (ECtHR) interpretation of the requirements of legal certainty in the context of the European Convention on Human Rights. We look also at the interpretation of lex certa in a number of national contexts as determined by national constitutional courts. Finally, we consider the role of lex

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144 See BROWNSWORD & GOODWIN, supra note 4, at 377–78 (noting that experimenting can develop more coherent regulations, but that soft law lacks a predictable and reliable framework).

145 See generally id. at 371–419 (analyzing the connection, disconnection, and sustainability of regulations).

146 See id. at 378 (“It allows for diversity in regulation, tailored to the needs of specific circumstances (since the forms of soft law are not strictly fixed).”).

147 See id. at 378 (“It allows for regulatory sovereignty and autonomy and it supports the internalisation of norms, as actors usually will accept rules of conduct they agreed upon, making it easier to achieve support for its implementation . . . .”)
certa in European Union law, briefly examining the standards set by the Court of Justice of the European Union (CJEU) in this area.

A. Lex Certa in Strasbourg Jurisprudence

The European Court of Human Rights interprets the European Convention on Human Rights (ECHR) in the context of the broad needs of democratic societies. As part of this act of interpreting the Convention, the court has held that “the rule of law, one of the fundamental principles of a democratic society, is inherent in all the Articles of the Convention.” Inherent to the rule of law idea developed by the court is the requirement of lawfulness, which the court understands as multifaceted and as incorporating the principle of legal certainty. This principle, according to the court, enables each community to regulate itself, “with reference to the norms prevailing in the society in which they live.”

Further:

That generally entails that the law must be adequately accessible—an individual must have an indication of the legal rules applicable in a given case—and he must be able to foresee the consequences of his actions, in particular, to be able to avoid incurring the sanction of the criminal law.

Article 7 of the ECHR makes express provision for the principle of nullum crimen. It reads:

No one shall be held guilty of any criminal offence on account of any act or omission which did not constitute a criminal offence under national or international law at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the criminal offence was committed.

This article shall not prejudice the trial and punishment of any person for any act or omission which, at the time when it was committed, was criminal according to the general principles of law recogniz[ed by civiliz[ed nations].

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149 Id.
152 Id.
The prime purpose of this article is, in the words of the court, “to provide effective safeguards against arbitrary prosecution, conviction and punishment.”\(^{154}\) As with international human rights law, the importance of the guarantee contained in Article 7 is so essential to the basic rule of law that it cannot be the subject of derogation in times of public emergency or war.\(^{155}\) The court has interpreted the guarantee provided in Article 7(1) to include the principles of *lex certa*, *lex scripta*, and *lex stricta*.\(^{156}\) In a case concerning the “punishability” of certain conduct, the court ruled that:

> [Article 7(1)] also embodies, more generally, the principle that only the law can define a crime and prescribe a penalty . . . and the principle that the criminal law must not be extensively construed to an accused’s detriment, for instance by analogy; it follows from this that an offence must be clearly defined in law.\(^{157}\)

Moreover, whether an offence is deemed to be “criminal” for the purposes of the Convention is not limited to meanings laid down in national law; “criminal” thus, has an autonomous meaning under the Convention, and offenses that are considered to be administrative offenses or are in other ways classified as non-criminal under national law may be viewed by the court as criminal in the context of Article 7.\(^{158}\) Similarly, the term “law” also has an autonomous meaning under the Convention, and includes judge-made law as well as legislation, and delegated legislation as well as primary legislation.\(^{159}\)

In addition to an autonomous meaning in relation to the sources of law, “law” also, according to the court, contains “qualitative requirements, including those of accessibility and foreseeability.”\(^{160}\) In *Kafkaris v. Cyprus*, the court held that foreseeability requires that an individual be able to know, from


\(^{156}\) Dana, *supra* note 123, at 868–69; *id.* at 868 n.44.


the wording of the relevant legal provision or a court’s interpretation of it whether an act or omission will cause her to be criminally liable and what penalty may be imposed.\textsuperscript{161} Similarly, in \textit{Kuolelis, Bartosevicius and Burokevicius v. Lithuania}, the court found no breach of Article 7 for the criminal conviction of leading members of the Communist Party for their role in an attempted coup in January 1991 against the newly established state.\textsuperscript{162} The court held that the crimes for which the applicants were convicted were "sufficiently clear and foreseeable" and that the consequences of the applicants' actions were "adequately predictable . . . as a matter of common sense."\textsuperscript{163}

The considerable leeway that such a 'common sense' standard offers the state in extending the application of existing law to new conduct, either where a provision’s meaning has previously been unclear or is simply given a different meaning by a court, without breaching the protection guaranteed by Article 7 is suggested by an earlier case from the United Kingdom (UK).\textsuperscript{164} In the case of \textit{C.R. v. the United Kingdom}, where the applicant had been convicted of raping his estranged wife despite a long-standing common law exception entailing that it was not, at the time of the offense, a criminal offense for a husband to rape his wife, the court held, that “[t]here will always be a need for elucidation of doubtful points and for adaptation to changed circumstances . . . . [P]rogressive development of the criminal law through judicial law-making is a well entrenched [sic] and necessary part of legal tradition.”\textsuperscript{165} Article 7, it continued, “cannot be read as outlawing the gradual clarification of the rules of criminal liability through judicial interpretation from case to case, provided that the resultant development is consistent with the essence of the offence and could reasonably be foreseen.”\textsuperscript{166}

\begin{flushright}
\begin{itemize}
  \item[\textsuperscript{162}] Kuolelis v. Lithuania, 001-72127, Eur. Ct. H.R., May 1, 2006 (HUDOC).
  \item[\textsuperscript{163}] \textit{Id.}
  \item[\textsuperscript{164}] See \textit{C.R. v. United Kingdom}, App. No. 20190/92, 21 Eur. H.R. Rep. 363, 390 (1996) (discussing the conflict between inevitably vague laws and the requirement that individuals be able to foresee under what circumstances their behavior could result in imposition criminal sanctions).
  \item[\textsuperscript{165}] \textit{Id.} at 399.
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The court’s interpretation of Article 7, as allowing for gradual refinement of criminal liability by the courts, entailed that no violation had been committed in the case of C.R., despite the fact that the legislature had had the opportunity to change the exception to marital rape and had not done so.167 This rather surprising ruling, which concerned a direct overturning of the law as it was at the time of the offense, to uphold the defendant’s conviction, arguably set the threshold of “foreseeability” extremely low. One need have no sympathy for this particular defendant to understand the degree of unease with which some commentators met this decision.168 Indeed, what the case law of the court suggests is that it is generally willing only to find a violation of Article 7 in exceptional cases.169

Moreover, the court also expects more than simple common sense from an individual employed in a professional capacity; professionals are expected to have consulted the law relevant to their position.170 In Cantoni v. France, the court held that:

A law may still satisfy the requirement of foreseeability even if the person concerned has to take appropriate legal advice to assess, to a degree that is reasonable in the circumstances, the consequences which a given action may entail. This is particularly true in relation to persons carrying on a professional activity, who are used to having to proceed with a higher degree of caution when pursuing their occupation. They can on this account be expected to take special care in assessing the risks that such activity entails.171

This finding has been repeated by the court in later judgments, such as Kafkaris.172 This different standard for professionals—“special care” in place of simple “common sense”—is particularly relevant in the context of technological risks and where norms are usually addressed to company professionals who, under Strasbourg jurisprudence, will be expected to have made use of statutes are often couched in vague terms and their interpretation must be determined as they are applied).167 C.R. v. United Kingdom, App. No. 20190/92, 21 Eur. H.R. Rep. 363, 402–03.

168 See, e.g., DAVID HARRIS ET AL., LAW OF THE EUROPEAN CONVENTION ON HUMAN RIGHTS 335–36 (Oxford Univ. Press 2d ed. 2009) (1995) (arguing that the decision in C.R. was not a foreseeable outcome of gradual judicial development because it was a complete reversal of the law regarding marital rape).

169 Id. at 335.

170 Cantoni, ¶ 35.

171 Id. (citations omitted).

professional advice from lawyers or consultants on the scope of their legal obligations.\textsuperscript{173}

Further limitations to Article 7 are based upon the wording of the text.\textsuperscript{174} The application of Article 7 is restricted to cases in which a person has actually been "held guilty" of a criminal offense.\textsuperscript{175} It does not apply to situations in which a prosecution does not lead to a conviction, or has not done so yet, or to situations in which the mere possibility of prosecution exists.\textsuperscript{176} Moreover, the Article 7 guarantee protects only against a change to the substantive law that has retrospective effect to the detriment of the accused. It does not apply to situations in which retroactive changes or amendments to rules governing criminal proceedings are to the detriment of an applicant; for example, changes to the rules governing legal aid, to statutes of limitation, or to the rules of evidence.\textsuperscript{177}

Respect for legal certainty or "foreseeability" is not, though, limited to Article 7. The Strasbourg court has developed a set of "quality of law" standards in relation to Article 5 of the Convention, which protects the right to liberty and security of the person.\textsuperscript{178} In defining the notion of "arbitrariness" in protecting against arbitrary detention under Article 5(1), the court has elaborated on a number of general and specific principles; one of the most important general principles, particularly where deprivation of liberty is concerned, is legal certainty.\textsuperscript{179} Similarly, the court has held that the principle of legal certainty is inherent to the Convention definition of "lawful detention."\textsuperscript{180} However, in the case of \textit{Steel v. the United Kingdom}, the court accepted that, although provisions such as "breach of the peace" or "being of

\begin{footnotesize}
\textsuperscript{173} See \textit{Cantoni}, ¶ 35 (holding that a manager of a grocery store could be prosecuted for illegal sale of medical products because had he sought legal advice, he would have been aware of the risk of prosecution).

\textsuperscript{174} Id. paras. 29, 35, 36.


\textsuperscript{177} See \textit{Harris}, \textit{supra} note 168, at 332 (discussing cases that addressed these three types of legal amendments in light of Article 7).


\end{footnotesize}
good behaviour” were imprecise, vague and general, their meaning had either been sufficiently clarified by the national courts—in the case of “breach of the peace”\textsuperscript{181}—or were sufficiently comprehensible by the applicants—the requirement “to be of good behaviour” as a condition of being bound over to keep the peace as a criminal penalty.\textsuperscript{182}

Further elaboration of the meaning of legal certainty in the context of the Convention is provided by case law on Article 1, Protocol 1—the right to property.\textsuperscript{183} Reading in the requirement of “lawfulness” to Article 1 of the First Protocol, the court has determined that interference with the peaceful enjoyment of one’s property must be accessible, precise and foreseeable.\textsuperscript{184} In determining whether these standards have been breached, the court will consider an applicant’s awareness of the relevant laws authorizing the interference and their ability to seek information about that law.\textsuperscript{185} However, in a similar vein to its finding in \textit{Cantoni v. France}, the court has held that where the applicant is a company, a higher threshold will be applied as the company will be expected to have sought expert advice on the provisions of domestic law.\textsuperscript{186} Moreover, the authorities, in applying decisions affecting property rights, must state clearly the reasons upon which they base their decision.\textsuperscript{187} Further, even where state action has not been sufficiently uncertain to breach the protection provided by the lawfulness guarantee, in the context of the Article 1, Protocol 1, legal uncertainty may tip the balance against the state in determination of the fair balance test that the court performs in the context of Article 1, Protocol 1.\textsuperscript{188}

\textsuperscript{182} Id. at para. 31–37.
\textsuperscript{183} See generally MONICA CARSS-FRISK, THE RIGHT TO PROPERTY: A GUIDE TO THE IMPLEMENTATION OF ARTICLE 1 OF PROTOCOL NO. 1 TO THE EUROPEAN CONVENTION ON HUMAN RIGHTS 40–43 (photo. reprint 2003) (2001) (discussing various cases that describe the importance of legal certainty in interpreting the right to property).
\textsuperscript{184} Id. at 42.
\textsuperscript{185} Id. (“In order to satisfy the principle of legal certainty, the State (or public authority) must comply with adequately accessible and sufficiently precise domestic legal provisions, which satisfy the essential requirements of the concept of ‘law.’”).
\textsuperscript{187} See Dana, supra note 123, at 862 (“\textit{Nulla poena} requires the judiciary to articulate reasons in support of the selected penalty.”)
court’s reasoning in the context of this article is likely to be important in consideration of whether fines—and hence deprivation of a company’s property—provide sufficient legal certainty.

In sum, the court has taken a narrow interpretation of Article 7, limiting its protection to situations in which a conviction has actually taken place. Moreover, the threshold of ‘common sense’ that the court has set, in relation to foreseeability, grants Member States considerable leeway in extending existing law to a new conduct or in interpreting a law in a new way. The court has shown itself to be particularly attuned to the difficulty facing states in balancing flexibility and foreseeability; as the Grand Chamber concluded in the case of Kafkaris, “whilst certainty is highly desirable, it may bring in its train excessive rigidity and the law must be able to keep pace with changing circumstances.”\(^{189}\) Finally, the Court’s expectation that professionals and businesses will exercise ‘special care’ in ascertaining their legal obligations further limits the protection offered by Article 7 and the \textit{lex certa} principle more generally. However, while it is wise for the court to acknowledge the difficulties facing states in finding the appropriate balance between the need for flexibility and the demands of foreseeability, it seems—at least to the present authors—that the court has set the bar of protection provided by the Convention too low. As we shall see below, the court’s interpretation provides a minimum upon which Member States and other European courts build.\(^{190}\)


\(^{190}\) The European Convention on Human Rights provides a floor for human rights protection below which the Member States \textit{and} the EU may not sink. The Court of Justice of the European Union accepts the ECHR as a ‘special source of inspiration’ for the general principles of EU law. \textit{See} Case 36/75, Rutili v. Minister for the Interior, 1975 E.C.R. 1219, 1236 (1975) (noting the limitations and safeguards enacted to ensure the rights of citizens). Moreover, the idea of the Convention as a ‘floor’ for EU human rights protection is confirmed by Article 52(3) of the Charter of Fundamental Rights of the European Union. Member states of the European Union are all state parties to the ECHR; and the Treaty of Lisbon requires the EU to accede to the Convention in its own right. \textit{See} Paul Craig & Gráinne de Búrca, \textit{EU Law: Texts, Cases and Materials} 362 (Oxford Univ. Press 5th ed., 2011). \textit{See generally id.} at 362–407 (discussing the historical progression of human rights treatment in the law and presenting sources of EU human rights law).
B. Legal Certainty in the Criminal Law of EU Member States

The principle of legal certainty, as part of the broader notion of legality, or rule of law, constitutes a fundamental element of constitutional thinking in the western constitutional tradition, and, as such, often predates the codification of legal certainty in the many human rights documents.191 Thus, in the Member States of the EU, precise criteria have been developed in case law and legal doctrine on the basis of which the admissibility of vague formulations in criminal law is subsequently judged.192 These requirements frequently go further than what is required by the case law of the Strasbourg court.193 For example, “Continental European legal systems often interpret the lex scripta principle as requiring penalties to be based upon codified laws,” where common law traditions have historically interpreted lex scripta (‘written law’) to include judge-made law.194 In order to paint a fuller picture of the lex certa implications of the trend towards the use of criminal sanctions at the European level, we shall sketch the contours of legal certainty as it is understood and applied within the criminal law of a number of EU Member States.

1. Belgium

The Belgium Constitutional Court has regularly had the opportunity to express itself on the admissibility of vague concepts in (environmental) criminal law.195 In a decision on July 22, 2004, the court declared admissibility—in the light of the lex certa principle—of a provision in a Flemish Decree of 4 June 2003

192 See Dana , supra note 123, at 862 (discussing the limitations placed on the various branches of government to prevent abuses of power).
193 See id. at 869 (describing how the European Court applied a strict standard for nulla poena sine lege).
194 Id. at 865.
concerning city planning. The court held that a criminal sanction, provided for in the decree (as a penalty for illegal building), could not apply to the extent that the offenses did not cause “any unacceptable nuisance or serious infringements of essential provisions.”\footnote{Constitutional Court decision no 136/2004, July 22, 2004, http://www.const-court.be/public/d/2004/2004-136d.pdf (Belg.).} In making this finding, the Constitutional Court argued that the Belgian Constitution, interpreted in light of both Article 15 of the International Convention on Civil and Political Rights and Article 7 ECHR, allowed for “a criminal law [to] entail a certain flexibility with a view of changing circumstances, but should nevertheless be formulated in wordings on the basis of which anyone who commits a certain act can decide whether the particular behaviour will lead to criminal liability or not.”\footnote{Id.} In this particular case, the Constitutional Court held that the phrases “causing unacceptable nuisance” and a “serious violation of essential regulations” lacked the necessary normative content necessary to define a crime, and therefore created an unacceptable degree of uncertainty. As such, the decree violated the legality principle, according to the court.\footnote{Id.}

More recent decisions of the Constitutional Courts have followed a similar line. For example, a case brought on October 20, 2004, concerned an act from May 3, 2003, which aimed at decriminalizing possession of cannabis, where use of the drug was not “problematic” or caused a “public nuisance.”\footnote{Constitutional Court decision no 158/2004, October 20, 2004, http://www.const-court.be/public/d/2004/2004-158d.pdf (Belg.).} The Constitutional Court determined that these conditions were so vague as to grant the competence of interpretation to individual officers. The legal uncertainty that would be engendered by such empowerment at the officer level was such as to violate the legality principle.\footnote{Id.}

However, not every vague provision leads to automatic annulment by the Belgian Constitutional Court. Flemish environmental law contains duties of care, \textit{inter alia} in the Environmental Licence Decree of June 28, 1985, which requires the operator to take all measures necessary to avoid damage, nuisance or serious accidents and in case of accident, to minimize, as much as possible, the consequences to humans and
the environment. On March 4, 2008, in a decision generally deemed remarkable, the Constitutional Court held that criminal law provides a certain margin of appreciation to the judge in interpreting the vague provisions of this particular law. In not finding a breach of the principle of legality, the court stressed the importance in this case of the embedded nature of the concept of a duty of care in the broader context of specific duties required of an operator under Flemish environmental law. This context entails, according to the court, that even though the concept of ‘nuisance’ is not precisely defined, the requirements of an operator are clear under concrete circumstances. Moreover, the court placed additional weight on the fact that the duty of care is addressed to persons who are professionals and hence are in a better position in determining which measures they can and should take to avoid environmental harm.

The importance attached by the court to the identity of the addressees of the Environmental Licence Decree considered in the case from March 4, 2008 was underlined in another environmental law case a few months later. In a decision made

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202 Id. (referencing Chapter IX of the Environmental License Decree, which provides a section for criminal sanctions if one were to violate the regulations set forth).


204 Id.; Tijdschrift voor Strafrecht 2008, 196, with case note. The reasoning of this decision, placing weight on the context in which phrases are embedded, has been reaffirmed in a more recent decision of May 27, 2010. In this case, the Constitutional Court found that the legality principle had not been breached by the creation of administrative sanctions for ‘small forms of public nuisance’ because parliament had provided concrete examples by which light the phrase was to be interpreted. Constitutional Court decision no 62/2010, May 27, 2010, http://www.const-court.be/public/f/2010/2010-062f.pdf (Belg.). But see G. Geudens, GAS-boetes voor kleine afvalinbreuken, De Juristenkrant, June 23, 2010, at 4–5.


on May 27, 2008, the Constitutional Court found that a similar duty of care contained in a Flemish Decree on Nature Conservation in this case did violate the legality principle.\textsuperscript{207} Article 14 of the Flemish Decree on Nature Conservation held broadly that:

Anyone who undertakes acts or gives orders to do so and who can reasonably suspect that nature elements in the near vicinity will be damaged or destroyed as a result of those, is obliged to take all necessary measures that can reasonably be expected of him to prevent this damage or when this is impossible, to repair it.\textsuperscript{208}

In addition to finding that the core terms “elements of nature” that could be endangered by “acts” were too vaguely defined,\textsuperscript{209} the court placed considerable weight on the scope of application of the duty of care. It held that the requirements that the Decree placed on anyone was simply too broad to meet the standard of legality.\textsuperscript{210} Hence, both \textit{ratione personae} (applicable to anyone, not just operators) as well as \textit{ratione materia} (applicable to “acts” and “natural elements”) the definition of duty of care here failed to meet the requirement of legal certainty.\textsuperscript{211}

The Belgian Constitutional Court often refers explicitly to the case law of the Strasbourg Court and it is, according to legal commentators, also influenced by evolutions in Strasbourg jurisprudence.\textsuperscript{212} Meeus, for example, has argued that the greater weight given by the European Court to flexibility in \textit{Cantoni v. France} is visible in the Belgian Constitutional Court’s approach to later cases as being more readily accepting of vague terminology than it had been previously.\textsuperscript{213} Yet, the recent decision concerning the duty of care in the Decree Concerning Nature Conservation shows that the Belgian Constitutional Court continues to take the question of legal certainty very seriously and it does not hesitate to annul provisions that do not pass its \textit{lex certa} test.\textsuperscript{214} In particular, where the scope of the

\begin{itemize}
\item \textsuperscript{208} Id.
\item \textsuperscript{210} Id.
\item \textsuperscript{211} See Meeus, supra note 205; see also Peter De Smedt & Hendrik Schoukens, \textit{Natuurzorgplicht. Is er leven na het arrest van het Grondwettelijk Hof van 27 mei 2008?}, \textit{Nieuw Juridisch Weekblad} 738–58 (2008).
\item \textsuperscript{212} See Meeus, supra note 205.
\item \textsuperscript{213} Id.
\item \textsuperscript{214} See Cour Constitutionnelle [CC] [Constitutional Court] decision no
criminal provision *ratione personae* and *ratione materia* are overly broad and vague, the Constitutional Court is likely to annul a provision. In this respect, the Belgian Constitutional Court applies a higher threshold of foreseeability than Strasbourg jurisprudence.

2. Germany

German criminal law is subject to various “Garantiefunktionen”:\(^{216}\) the legality principle (*nullum crimen, nulla poena sine lege scripta*) is explicitly provided for in the Constitution\(^ {217}\) and has been extensively discussed in legal doctrine. The legality principle holds that criminal provisions are to be as precise as possible and broad notions are, to the maximum extent possible, to be avoided.\(^ {218}\) The Constitutional Court has interpreted the *lex certa* requirement as necessitating that the will of Parliament be clearly expressed in the text of legislation itself, so as to avoid personal subjective interpretation by the courts. Moreover, the court interprets *lex certa* as a guarantee that citizens shall be protected from arbitrary decisions and punished only where the consequences of their behavior are foreseeable to them.\(^ {219}\) Further, the Constitutional Court has determined that only written law is able to stipulate the criminal nature of an act and establish a criminal penalty for it. In addition, the requirements that lead to criminal liability have to be set out in the act beforehand.\(^ {220}\)

German legal doctrine also sets out a number of distinct aspects of the legality principle: Firstly, *nulla poena sine lege*
certa (the “Bestimmtheitsgrundsatz”). This provides that criminal norms must provide a minimum degree of certainty as to the element of a crime and the legal consequences of committing one. This does not prevent the use of general clauses, but their range, and hence their consequences, have to be predictable. In a case before the Verfassungsgerichtshof of Bayern, the court held that the creation of a criminal offense for “acting against public order” was contrary to the Bavarian Constitution because it was too imprecise. The citizen must have the possibility to adapt her behavior in order to comply with the requirements of criminal law. Further, the elements of the crime have to be described concretely enough so that the meaning can be identified through interpretation.

The second aspect of the legality principle laid down in German legal doctrines is that of nulla poena sine lege previa (the “Rückwirkungsverbot”). This principle, as provided by German jurisprudence, pertains only to substantive criminal law and not to criminal procedural law (such as the retroactive prolongation of prescription periods). In a ruling on a number of like cases, concerning the controversial preventative detentions under German law, the ECtHR held that it was contrary to Article 7 of the Convention for preventive detention to be retrospectively extended beyond the maximum period permissible at the time that offenses were committed. However, the principle does

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222 Hall, supra note 30.


225 45 BVerfGE 363, (371) (Ger.); 71 BVerfGE 108 (Ger.); 117 BVerfGE 71 (Ger.)

226 See GRUNDEGSETZ FÜR DIE BUNDESREPUBLIK DEUTSCHLAND [GRUNDEGSETZ] [GG] [BASIC LAW], May 23, 1949, art. 103(2), BGBl. I, Gesetz zur Änderung des Grundgesetzes [Law Amending Basic Law], July 21, 2010, BGBl. I at 36 (Ger.) (explicitly prohibiting the retroactive application of a criminal offense).

227 STRAPROZESSORDNUNG [StPO] [CODE OF CRIMINAL PROCEDURE], Apr. 7, 1987, BUNDESGESETZBLATT [BGBl.] 1074, 1319, as amended , art. 5(4) of the Act of Oct. 10, 2013 (Ger.). This is in part controversial: Bernd von Heintschel-Heinegg, Commentary on § 1 BECKSCHER ONLINE KOMMENTAR STGB, Comment 7 (Bernd von Heintschel-Heinegg ed., 2012).

exclude retroactive legal changes in the context of closed cases and that are to the detriment of the accused. 229

A third aspect of legal certainty provides that, unlike in other legal areas, the criminally accused are protected from the use of analogies. 230 Customary law or analogies may not be used to create new criminal offenses or to aggravate or expand existing ones to the detriment of the accused (nulla poena sine lege scripta et stricta). 231 The prohibition of analogies embraces all elements of the Penal Code. 232 Importantly, this prohibition is void when it favors the accused (for instance, increasing the scope of mitigation). 233 As a result, analogy can only close undesirable (from the perspective of the accused) gaps in the legislation. 234 However, the legislature has left certain issues in the Penal Code open, such as limitations on intent or negligence. These gaps may be filled within the frame of authority provided under the Act, by judges or customary law, even to the detriment of the accused (an example would be the institutions of ‘mittelbare Täterschaft’). 235 This legal concept has in the meantime been codified in Section 25 I variation 2 of the German Penal Code. 236

The lex certa principle has also been discussed in the context of environmental criminal law. Section 324 of the German Criminal Code punishes anyone who “unlawfully pollutes a body of water


229 25 BVerfGE 269 (289) (Ger.); 46 BVerfGE, 188 (92) (Ger.).
231 Id.
232 18 BGHSt 136 (140) (Ger.); 7 BGHSt (524) (Ger.).
233 6 BGHSt, 85 (Ger.); 11 BGHSt 324 (Ger.).
234 See STRAFGESETZBUCH [StGB] [PENAL CODE], Nov. 13, 1998, BUNDESGESETZBLATT [BGBl.] 3322, as amended, art. 3 of the Law of Oct. 2, 2009 (Ger.), translated by Dr. Michael Bohlander (codifying a judge’s ability to mitigate a prison sentence through its reduction or through the imposition of a fine in lieu of prison).
235 Id.
236 See id. § 25 (referring to the codification of joint liability, where secondary participants in crimes are treated as principle actors).
or otherwise alters its qualities in a negative manner.”

Even though the concepts “pollute” and “alter[] its qualities in a negative manner” are undoubtedly relatively broad, legal doctrine holds that this complies with the constitutional principle of *lex certa*. However, a number of authors have noted that the disadvantage to this broad formulation excludes the punishment of minor cases, which are not worthy of criminal sanction. Section 327 of the German Criminal Code, concerning the unauthorized operation of installations, contains a so-called open norm, because of its reference to “some other installation pursuant to the Federal Emissions Control Act.” As a result, a citizen must consult another act, in this case the Federal Emissions Control Act, in order to become aware of the potential for criminal prosecution for failing to obtain a license for running a particular installation. Placing such a burden on citizens to consult multiple sources in order to understand their obligations has not been held as a breach of the *lex certa* principle by the *Bundesverfassungsgericht*.

3. United Kingdom

According to A.V. Dicey, the rule of law (or “ordinary” law) and parliamentary sovereignty constitute the two main pillars of the UK’s “unwritten” constitution (although the UK has no formal written constitution, it does, of course, have a number of written Acts of Parliament that form part of that constitution, such as

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237 Id. § 324.
238 Id.
239 See Peter Cramer & Gunter Heine, Besonderer Teil. Straftaten gegen die Umwelt, in Strafgesetzbuch, Kommentar 2659–2660 (Adolf Schönke & Horst Schröder, eds., 27th ed. 2006). For a more detailed analysis, see Strafgesetzbuch [StGB] [Penal Code], Nov. 13, 1998, Bundesgesetzbuch [BGBl.] 3322, § 324, comment 1 (Ger.).
240 In German, referred to as Blankett Norm. See generally Rob van der Noll et al., Dutch Ministry of Econ. Affairs, Agric., and Innovation, Flexible Copyright: The Law and Economics of Introducing an Open Norm in the Netherlands 25 (2012), available at http://www.ivir.nl/publications/vangompel/Flexible_Copyright.pdf (describing an open norm as one that permits enough flexibility to allow for adaptations without legal obstacles).
241 Strafgesetzbuch [StGB] [Penal Code], Nov. 13, 1998, Bundesgesetzbuch [BGBl.] 3322, § 327 (Ger.).
243 See Bundesverfassungsgericht, Neue Juridische Wochenschrift 3175 (1987) (Ger.).
the Bill of Rights and the Habeas Corpus Acts). The rule of law itself consists of a number of separate but related principles, including the idea that all are equal before the law; the principle of fairness—which includes the idea that all laws must be duly enacted, publicly available, and readily understandable; the principle of legal certainty, which requires that laws are applied in a predictable and precise manner; and the requirement that laws not be retrospective.

These fundamental elements of the common law were applied by the House of Lords in a 2005 conjoined case concerning the definition of the common law crime of public nuisance, R. v. Rimmington; R. v. Goldstein. This is an important case because it determined not only the scope and definition of the crime of “public nuisance,” but also commented on the relationship between the will of parliament and the common law. The appellants contended that as applied in their cases, the offense [was] too imprecisely defined, and the courts’ interpretation of it was too uncertain and unpredictable, to satisfy the requirements of either the common law or [of Article 7] of the European Convention on Human Rights. In allowing the appeal, and thus overturning the convictions of both appellants, Their Lordships considered the requirements of the principle of legal certainty. Lord Bingham, speaking for all, concluded that:

There are two guiding principles [of the common law]: no one should be punished under a law unless it is sufficiently clear and certain to enable him to know what conduct is forbidden before he does it; and no one should be punished for any act which was not clearly and ascertainably punishable when the act was done. If the ambit of a common law offence is to be enlarged, it “must be done

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245 Id. at 198–99.
246 See id. (“It means . . . the absolute supremacy or predominance of regular as opposed to the influence of arbitrary power, and excludes the existence of arbitrariness, of prerogative, or even of wide discretionary authoring on the part of the government. . . . [A] man may . . . be punished for a breach of law, but he can be punished for nothing else.”).
247 See id. (noting how English law “excludes the existence of arbitrariness” and thus the legal system is as a whole unambiguous).
249 Id. at para. 10.
250 Id. at paras. 30–31, 54.
251 Id. at para. 1.
252 Id. at para. 34.
step by step on a case by case basis and not with one large leap.”

Lord Bingham continued: “These common law principles are entirely consistent with [article] 7(1) of the European Convention . . . .” Clarifying the meaning of the principles, Lord Bingham noted:

Vague laws which purport to create criminal liability are undesirable, and in extreme cases, where it occurs, their very vagueness may make it impossible to identify the conduct which is prohibited by a criminal sanction. If the court is forced to guess at the ingredients of a purported crime any conviction for it would be unsafe. That said, however, the requirement is for sufficient rather than absolute certainty.

The Lords found additional support for the standard of “sufficient rather than absolute certainty” in the jurisprudence of the Strasbourg Court. Referring to judgments involving the UK, Lord Bingham concurred:

It is accepted that absolute certainty is unattainable, and might entail excessive rigidity since the law must be able to keep pace with changing circumstances, some degree of vagueness is inevitable and development of the law is a recognised feature of common law courts.

A further element of legal certainty in the common law worth noting in the context of this inquiry is the role given to experts or legal advisors in determining the standard demanded by legal certainty. In Fothergill v. Monarch Airlines Ltd., a case cited approvingly by Lord Bingham in R. v. Rimmington; R. v. Goldstein, Lord Diplock observed:

Elementary justice or, to use the concept often cited by the European court, the need for legal certainty demands that the rules by which the citizen is to be bound should be ascertainable by him (or, more realistically by a competent lawyer advising him) by reference to identifiable sources that are publicly accessible.

The standard of legal certainty may, therefore, be met where a law, whether statutory or ordinary, requires the advice of a competent lawyer to understand it. Thus, in determining whether or not the common law crime of public nuisance was
adequately defined, Lord Bingham concluded that it met the requirements of legal certainty with the following phrase:

A legal adviser asked to give his opinion in advance would ascertain whether the act or omission contemplated was likely to inflict significant injury on a substantial section of the public exercising their ordinary rights as such: if so, an obvious risk of causing a public nuisance would be apparent; if not, not.\(^\text{259}\)

The scope of legal certainty in the common law of the UK suggests that, while emphasis is placed upon the importance of foreseeability of criminal liability, absolute certainty is neither achievable nor desirable; this is neatly expressed by Lord Bingham in his suggestion that legal certainty must achieve a sufficient standard rather than an absolute one.\(^\text{260}\) Further, in deciding whether legal certainty is of a sufficient standard, the courts will assume that the citizen has the benefit of competent legal advice, i.e., the obligation to seek legal advice is not restricted to companies, although this is not to say that a different level of obligation might not be applied.\(^\text{261}\)

C. Legal Certainty in the EU Legal Order

Although legal certainty is not laid down in either primary or secondary law, it is both a general principle\(^\text{262}\) and a fundamental principle of EU law.\(^\text{263}\) Moreover, the European constitutional architecture sees the European Convention on Human Rights as having formed a minimum level of protection of human rights. As such, the Convention constitutes a “special source” of general principles within the European legal framework.\(^\text{264}\) The general meaning given to legal certainty by the CJEU is that a specific situation must be predictable so that, for example, acts that have been relied upon as legal are not later considered invalid. For


\(^{260}\) Id. para. 33.

\(^{261}\) Id. at para. 36.

\(^{262}\) See Case C-453/00, Kühne & Heitz NV v. Productschap voor Pluimvee en Eieren, 2004 E.C.R. I-837, I-868 (“Legal certainty is one of a number of general principles recognized by Community law.”); see also JOHN A. Usher, GENERAL PRINCIPLES OF EC LAW 4 (1998) (stating that legitimate expectations is a “better-known” principle); JUHA RAITIO, THE PRINCIPLE OF LEGAL CERTAINTY IN EC LAW 125 (2003) (“[L]egal certainty can be classified as a general principle of EC law.”).


\(^{264}\) See supra note 92.
example, differences between courts of the Member States as to the validity of community acts would be liable to jeopardize the very unity of the community legal order, undermining the fundamental requirement of legal certainty.\textsuperscript{265} However, legal certainty is not, in the words of an author of a study on the principle in the EC legal order, "a compelling legal principle, one to be safeguarded at all costs."\textsuperscript{266} Rather, the CJEU has expressly noted that legal certainty needs to be combined with other principles, such as the principle of legality, and can be outweighed by a pressing Union objective or where the individual is thus placed in a more favorable position, or where the legitimate expectations of those concerned can nonetheless be respected.\textsuperscript{267} For example, "the new provisions of a regulation which [is] replac[ing] an older [regulation] can be extended to [cover situations] outside the period covered by the new regulation [where] the purpose[s] to be achieved or... public interest [require it].\textsuperscript{268} Likewise, while the retroactivity of EU law is prohibited, reasons of general interest can override this prohibition.\textsuperscript{269}

However, the Court in \textit{Fedesa}, drew a sharp distinction between legal certainty in the non-criminal context and in the criminal context.\textsuperscript{270} In relation to the imposition of criminal liability, the Court in \textit{Fedesa} upheld its ruling in \textit{Kent Kirk}.\textsuperscript{271}

\begin{footnotes}
\item[266] RAITIO, supra note 262, at 187.
\item[267] Joined Cases 42 & 49/59, SNUPAT v. High Auth., of the European Coal and Steel Cmty., 1961 E.C.R. 53, 87; see also Case C-331/88, The Queen. v. Minister for Agric., Fisheries and Food and the Sec'y of State for Health ex parte Fedesa and Others, 1990 E.C.R. I-4023, I-4024 (determining that a Council directive violated neither principles or legal certainty, nor the affected party’s legitimate expectations); RAITIO, supra note 262, at 187–90 (describing the concept of retroactivity in the application of EC law and its relation to the concept of legal certainty).
\item[268] RAITIO, supra note 262, at 190. For example, in Case 1/73, Westzucker GmbH v. Einfuhr-und Vorratsstelle für Zucker, 1973 E.C.R. 723, 726, the court felt consideration should be given to the Community interest and held that amended licensing rules could be applied to cases where licenses had been issued under the old rules.
\item[269] See generally RAITIO, supra note 262, at 187–91 (discussing retroactivity and its application to EC Law and Legislation).
\end{footnotes}
This earlier case concerned a regulation creating *ex post facto* national measures by imposing criminal penalties in the context of the infringement of fisheries legislation and the court stated very clearly that retroactive criminal penalties were unacceptable. Giving the basis for its ruling, the court noted:

The principle that penal provisions may not have retroactive effect is one which is common to all the legal orders of the Member States and is enshrined in Article 7 of the European Convention for the Protection of Human Rights and Fundamental Freedoms as a fundamental right; it takes its place among the general principles of law whose observance is ensured by the Court of Justice.

Further, the court has interpreted the requirement of legal certainty in the context of the imposition of criminal penalties as necessitating Member States to define precisely the prohibited behavior when transposing EU law into national law. In *Procura della Repubblica Italiana v. X*, which concerned criminal proceedings in Italy against persons unknown for presumed breaches of a legislative decree regulating the use of display screen equipment, the public prosecutor had to consider various provisions of Directive 90/270 on the minimum health and safety requirements for work with display screen equipment. Referring again to the constitutional traditions of the Member States and Article 7 of the European Convention on Human Rights, the CJEU held that EU law could not be interpreted and applied in such a manner to the detriment of the defendant. The court reasoned:

26. In a case such as that in the main proceedings, which concerns the extent of liability in criminal law arising under legislation adopted for the specific purpose of implementing a directive, the principle that a provision of the criminal law may not be applied extensively to the detriment of the defendant, which is the corollary of the principle of legality in relation to crime and punishment and more generally of the principle of legal certainty, precludes bringing criminal proceedings in respect of conduct not clearly defined as culpable by law.

272 *Id.* at 2718.
273 *Id.*
274 *See* *Joined Cases C-74/95 & C-129/95, Procura della Repubblica Italiana v. X*, 1996 E.C.R. I-6609, I-6620 (finding that only that conduct, which Italian law defined precisely was within the scope of criminal provisions).
275 *Id.* at I-6629.
276 *Id.* at I-6611, I-6614.
277 *Id.* at I-6637.
278 *Id.* (emphasis added).
30. The directive does not specify what is to be understood by ‘habitual [use of] display screen equipment as a significant part of his normal work’ for the purposes of Article 2(c).\textsuperscript{279}

31. It is clear from the wording of that provision that the question whether the time habitually spent by a worker at a display screen amounts to a significant part of his work is to be assessed in relation to that person’s normal work. The phrase cannot be defined in the abstract, and it is for the Member States to specify its import when adopting national measures implementing the directive.\textsuperscript{280}

32. In view of the vagueness of the phrase in issue, the Member States must be accorded a broad discretion when adopting such implementing measures, which in any event, by virtue of the principle of legality in relation to crime and punishment . . . precludes any reference by the competent national authorities to the relevant provisions of the directive when contemplating the institution of criminal prosecutions in the field covered by the directive.\textsuperscript{281}

As suggested by the cited decisions, the CJEU interprets the requirements of legal certainty strictly where EU law requires Member States to impose criminal penalties.

D. Summary

What our brief examination of the standards of legal certainty applied in the various legal orders interacting within the European space suggests is that the European Convention on Human Rights, and in particular Article 7, provides a baseline, below which other European legal orders, including EU law, may not sink. Indeed, the court’s interpretation of Article 7 provides very limited protection, as suggested by reference to “common sense” standards, in addition to its ruling in \textit{C.R. v. the United Kingdom}. Moreover, the court, both in the context of Article 7 and Article 1 Protocol 1, imposes a higher burden upon professionals and businesses before they can expect the protection of the Convention, requiring these actors to take “special care” in assessing the level of risk to which their behavior exposes them. Similarly, various Member State legal orders explicitly interpret the protection of legal certainty for ordinary individuals within the requirement to seek legal advice.

\textsuperscript{279} \textit{Id.} at I-6638.
\textsuperscript{280} \textit{Id.}
\textsuperscript{281} \textit{Id.}
While the constitutional orders of the Member States, as well as the Court of Justice of the European Union recognize Strasbourg’s jurisprudence as providing strong guidance, a number of Member States offer more stringent protection of legal certainty. This seems, for example, to be the case in Germany and to a certain extent, Belgium. However, there is also evidence that courts in some systems are willing to lower the level of protection in line with Strasbourg jurisprudence. In contrast, the standard of legal certainty applied by the CJEU in the protection of individual interests is particularly stringent. For example, the CJEU set a tough standard for clarity, or lack of vagueness, in criminal provisions in its decision of Procura della Repubblica Italiana v. X, by refusing to allow the phrase “habitual use of display screen equipment” to constitute a basis for criminal liability. This suggests that the CJEU is willing to take a tougher stance on legal certainty than the Strasbourg Court. This matters of course, because much of the risk regulation within the European legal space takes place at the European level. Thus, where Member States transpose EU regulation into their national systems, they will need to do so in a way that complies with the standard given to legal certainty as a general principle of EU law by the CJEU.

The case law and doctrine considered in this section illustrates the clash that exists between flexibility and foreseeability within European legal systems. In this collision between effectiveness and legitimacy, our observation has been that priority is often given to flexibility over foreseeability and the European Convention on Human Rights has not been particularly effective, to date, in providing protection to individuals or companies. This is particularly sobering given the trends we have identified towards a greater use of vague standards and towards their enforcement through criminal sanctions. In the next section, we attempt to give greater weight to our argument for a new flexibility/foreseeability balance by highlighting the efficiency arguments in favor of foreseeability.

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282 Id.

IV. LEGAL CERTAINTY AS A REQUIREMENT OF EFFICIENCY

The previous sections have sought to sketch how regulators have chosen to respond to an increasingly volatile regulatory environment in the area of risk regulation, by using vaguely worded standards backed up by criminal sanctions. At the same time, we have suggested that regulatory tools such as standards, while “smart” from the perspective of ensuring regulatory connection,\textsuperscript{284} raise broader issues related to the principle of legal certainty, particularly where the norms are backed up by criminal sanctions. Our suggestion in this paper is the need for regulators to strike a better balance between the need for flexibility with the demands of foreseeability. This, of course is recognized in most, but certainly not in all, of the jurisprudence in Part III. However, we submit that the current balance leans too heavily towards flexibility. In this section, we examine the relationship between flexibility and foreseeability and advance arguments, drawn from legal and economic theory, as to why the balance needs to be reset.

While the \textit{lex certa} principle stems from the desire to protect individual rights—to make the relationship between the single individual and the powerful machinery of state more balanced—and not from efficiency, legal and economic scholarship on how people respond to incentives, provides weight to our arguments, especially in an age of new public management.\textsuperscript{285} Incentives crucially depend on the way in which a law is formulated and applied by the courts. For example, Becker’s work on deterrence theory has been hugely influential in predicting a criminal’s behavior, in the face of certain sanctions and probabilities of detection and conviction.\textsuperscript{286} The underlying assumption of Becker’s model is that (potential) wrongdoers are rational and therefore weigh possible gain against likely costs of their behavior as they search for ways to maximize their individual


\textsuperscript{285} See, e.g., supra notes 11–12, 30 and accompanying text (considering the principles of \textit{lex certa} and \textit{nullem crimen} in the context of an individual’s right to understand laws which govern his or her behavior); Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169, 170 (1968) (discussing the economics of criminal law enforcement from the standpoint of both the government and criminals).

\textsuperscript{286} Becker, supra note 285, at 169–70.
benefits. Deterrence theory thus aims at providing the means to set deterrence at an optimal level so that when the individual makes the calculation of the costs of his or her criminal action, the expected costs should outweigh the potential benefits. These costs to the offender consist in the probability of detection and conviction multiplied by the sanction that is imposed. Thus, in cases where rates of detection and/or conviction are low, higher sanctions are required to outweigh the loss of a deterrent effect, and vice versa.

If we consider the lex certa principle from the perspective of deterrence theory, legal certainty is an essential prerequisite to an individual being able to predict with any degree of confidence the likely outcome of their behavior. This knowledge is thus crucial information for an individual, legal or otherwise, engaging in a calculation of the costs and benefits of behavior. Only if a sanction is to be expected by acting in a certain way, can incentives be created to prevent individuals from opting to violate the law. Thus, from an economic perspective, the rational individual has to be able to predict the costs of her actions, which is only possible if it is clear when criminal liability will be incurred. This is particularly relevant in situations in which new technological developments play a key role.

Deterrence theory is thus heavily reliant on the notion of foreseeability, in order to ensure that the desired level of

287 Id. at 176–77.
288 Id.
289 See id. at 180 (stating that if the goal of punishment were deterrence than the equation would set as follows: the “probability of conviction, p, could be raised close to 1, and punishments, f, could be made to exceed the gain[,] in this way the number of offenses, O, could be reduced almost at will.”).
290 See id. at 172–76.
291 Arguably, deterrence theory is more convincing for some categories of crimes than others.
292 See Raymond Paternoster, The Deterrent Effect of the Perceived Certainty and Severity of Punishment: A Review of the Evidence and Issues, 4 JUST. Q. 173, 174 (discussing that under a deterrence theory the probability of a conviction needs to reasonably be perceived).
293 See id. (explaining that scientists believed that punishments must be known to deter individuals from committing crimes).
294 See Becker, supra note 285, at 180 (discussing if “punishments could be made to exceed the gain . . .” offenses would be decreased).
deterrence is achieved. Only if a sanction/conviction is expected as a consequence of acting in a certain way can individuals be induced to not violate the law. The concept of foreseeability, from a legal and economic approach, is thus a way of approximating the probability of criminal liability. As such, and in order to optimize deterrence, foreseeability, somewhat paradoxically, requires a degree of flexibility in the application of the law, particularly in relation to new risks or new technologies. Where the principle of legal certainty entails a strict notion of foreseeability and prevents the application of existing law to new facts, perhaps by analogy, it is likely to result in under-deterrence, as the individual or business will be able to anticipate a large amount of leeway in new situations, such as, in the area of nanotechnology. However, where application of legal certainty is too flexible, so that individuals cannot reasonably predict the consequences of their behavior, it is likely to result in over-deterrence, which raises costs and has a negative impact upon individual freedom. This is particularly so if behavior leads to an unexpected conviction. The fear of conviction for operations in fields that are not yet subject to specific regulation is likely to stifle innovation. There is a fine line, therefore, between under-deterrence, where no criminal liability is incurred in new situations, and over-deterrence, where the consequences of unprecedented case scenarios cannot be predicted. The concept of foreseeability is thus an important means of balancing the desired level of certainty.

Thus, while the rules versus standards debate within legal and

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296 See Gary T. Schwartz, Mixed Theories of Tort Law: Affirming Both Deterrence and Corrective Justice, 75 TEX. L. REV. 1801, 1832–33 (1997) (“Herbert Packer’s influential 1968 book, which relies on a deterrence rationale for the criminal law, frequently refers to criminal conduct as ‘antisocial’ and justifies the criminal sanction as discouraging such ‘antisocial’ conduct”) (footnote omitted).


298 See generally Fon & Parisi, supra note 33, at 3 (describing how strict rules decrease flexibility, and thus restricts the ability of laws to adapt to new circumstances not considered when the law was enacted).


300 Id.
economic scholarship emphasizes the need for flexibility and suggests the use of standards as a regulatory default instrument in the context of regulating for risk, deterrence theory stresses the need for individuals to be able to predict the outcome of their behavior. Standards tend to be more costly for individuals to interpret when deciding how to act since standards are given content and substance only \textit{ex post}, i.e., after the individual has acted.\textsuperscript{301} The more information is available beforehand, the easier it is for an individual to steer their behavior. In scenarios in which the detailed content and scope of regulation is laid down only via case law, which is essential in a standard-based approach, information is likely to be provided too late to regulatees to incentivize compliance and prevention.\textsuperscript{302} Where fast paced technological developments are destabilizing regulatory environments, a flexible \textit{ex post} approach to regulation, i.e., a focus on standards is more appropriate, as it allows for quicker and lower costs in adaptation to changing circumstances.\textsuperscript{303} However, deterrence theory and what we know about encouraging or incentivizing prevention, suggests the need for a level of foreseeability that is difficult, although not impossible, to create in regulation via \textit{ex post} standards.\textsuperscript{304} This sets up a clash between the benefits that standards bring in terms of flexibility and the need for foreseeability so that individuals and operators can adapt their behavior accordingly.\textsuperscript{305} Creating an optimal balance between flexibility and foreseeability is thus likely to lead to more efficient and effective regulation.

For different reasons, motivated by concerns of legitimacy and efficiency, we suggest that European regulators and the judiciary, acting in the area of risk regulation where criminal sanctions are applied, need to recalibrate the balance between flexibility and foreseeability. This is, however, no small

\begin{footnotesize}
\begin{enumerate}
\item \textit{See generally} Fon & Parisi, \textit{supra} note 33, at 4–5 (distinguishing rules from standards).
\item \textit{See, e.g.}, \textit{id.} (describing a situation where someone would understand liability from a clear rule but would not understand their liability from a standard that a judge would impose after the offense).
\item \textit{Id.} at 10.
\item \textit{See generally id.} at 3 (commenting on the challenges of implementing standards, by noting that it is costly to make determinations about the law \textit{ex post}).
\item \textit{See id.} (explaining how “[g]reater specificity decreases the flexibility of a rule.”).
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\end{footnotesize}
challenge. In the section below, we attempt to outline possible tools to be used by regulators who are grappling with the dilemma of creating optimal regulation that nonetheless protects the fundamental rights provided by the *lex certa* principle.

V. **REGULATORY TECHNIQUES FOR BALANCING FLEXIBILITY & FORESEEABILITY**

There are two specific problems that we suggest arise in the context of the destabilization of regulatory environments through rapid technological change, which is represented by the clash between flexibility and foreseeability that we are articulating in this paper. The first problem is that regulation may be too general to allow for foreseeability in the context of incentivizing individual behavior, and at the same time standards applied by the judiciary may be too vague to meet the requirements of the *lex certa* principle.\(^{306}\) Here we consider an alternative to specific rules set by the legislator *ex ante*—foreseeability over flexibility—and vague norms that are filled *ex post* by the judiciary—flexibility over foreseeability—that has been used successfully in areas such as environmental regulation: the specification of conditions *ex ante* in licenses and permits, the details of which are determined *ex post*. The second problem facing the regulator is that regulation, particularly regulation that meets the demands of legal certainty, may be too static or inflexible, and hence incapable of adapting to new developments and therefore of maintaining regulatory connection.\(^{307}\) However, here, the regulatory tool of licenses and permits is unlikely to help. While permits may be designed to contain vague norms, they are nonetheless, not completely capable of providing the necessary flexibility to ensure regulatory connection in an area of rapid development.\(^{308}\) Instead, we turn to a more radical solution in order to reconcile the need for flexibility with the demands of legal certainty.

A. **Flexibility via Permits or Licenses**

In legal and economic literature, the choice between rules and standards is to a large extent formulated as a choice between

\(^{306}\) See generally *id.* at 4 (comparing the discretion judges have when applying standards as opposed to applying rules).

\(^{307}\) Ogus, *supra* note 299, at 640.

\(^{308}\) *Id.* at 641.
legislation and judge-made law.309 However, there is an alternative that is particularly relevant to the area of technology and risk regulation, which can provide for greater specificity or foreseeability than ex post standards: the use of permits.310 Permits have become an important regulatory tool in the risk society, most notably in the area of environmental law.311 For example, when environmental risks are regulated, the precise behavior that is expected from a polluting firm will be laid down in an individual environmental permit specific to that company and will fix relatively specific emission standards.312 The advantage of permits and licenses in this context is that they are ex ante instruments, determining the conditions under which an individual or enterprise can undertake a risky activity.313 As such, the general conditions under which the permit can be granted are determined in a statute while the powers to fix specific conditions in individual permits are allocated to an administrative agency.314 Permits thus have the major advantage of being an ex ante instrument, but one that can be adapted to local and specific circumstances, and thus can be more easily adapted to changing situations than rules in legislation.315

Permits, as an instrument of regulation, create a regulatory environment in which the legislation provides awareness to regulatees of the type of behavior that will lead to certain levels and forms of criminal sanction. As a result, such legislation grants a considerable degree of foreseeability, whilst the permit itself lays down the specific demands upon the individual regulatee, ensuring an even higher level of foreseeability.316

309 See Fon & Parisi, supra note 33, at 3–4 (discussing rules versus standards from legal and economic literature perspectives).
310 Ogus, supra note 299, at 641.
311 See id. at 631.
312 See id. at 641 (“[T]he legislation prohibits the activity unless the firm obtains from the agency a permit which contains conditions incorporating the appropriate differentiated standard.”); see also Michael Faure et al., Bucking the Kuznets Curve: Designing Effective Environmental Regulation in Developing Countries, 51 Va. J. Int’l L. 95, 112 (2010).
313 See Ogus, supra note 299, at 641 (stating that a permit can be obtained for an activity before it is undertaken).
314 Id.
315 See id. (stating that the system of permits incorporates the benefits of rules, by precisely defining the laws, but is also flexible enough that it has the ability to be tailored to specific circumstances).
316 See generally Mandiberg & Faure, supra note 7, at 454 (describing the use of criminal sanctions for the violation of environmental permits to ensure compliance).
While simultaneously guaranteeing foreseeability, permits retain a greater degree of flexibility than statutes, as the administrative agencies empowered to decide on the specific terms of each permit or license can adapt those terms to the local environment conditions, changing risk assessments and to the circumstances of the individual regulatee.\textsuperscript{317} Moreover, permits, although administrative obligations are often enforced by criminal sanctions. For example, normally in environmental law operating without a permit or violating permit conditions is often criminalized.\textsuperscript{318} The advantage, from a foreseeability perspective, of criminalizing a breach of permit conditions is that the regulatee knows, via the permit, precisely what the proscribed behavior is and therefore, what the scope of criminal law is.\textsuperscript{319} From a deterrence perspective, it is wise to leave the enforcement mechanism that is most costly to administer as a backup for the hard-core cases.\textsuperscript{320}

However, while the use of permits is a key instrument in reconciling optimal regulatory environments and the need for flexibility with the demand to provide precise conditions to the regulatee, this regulatory tool is not without its problems. One difficulty with permits is that even though on paper permits can (and usually are) more flexible than rules laid down in legislation, in some cases adapting permits to changing conditions may nonetheless incur significant costs.\textsuperscript{321} Thus, whilst permits offer greater flexibility initially, by allowing administrative agencies to set precise standards \textit{ex post}, that flexibility tends to decrease over time because modifying a permit to meet changing conditions is expensive.\textsuperscript{322} This means, for example, that the operation of some enterprises are regulated by permits that are at least twenty years old, in which the standards laid down are thoroughly outdated. Permits may thus be a good means of allowing for adaptation to local circumstances, but they are not well suited for addressing the

\textsuperscript{317} See Faure et al., supra note 312.

\textsuperscript{318} E.g., Mandiberg & Faure, supra note 7, at 457 (example of U.S. criminal sanction for permit violation).

\textsuperscript{319} See, e.g., id. at 452–59 (outlining the various types of models of criminalization of environmental violations including sanctions for the violation of permits and permit standards).

\textsuperscript{320} See Ogus, supra note 299, at 629 (discussing the effects of cost on the choice of regulatory instruments).

\textsuperscript{321} See id. at 641.

\textsuperscript{322} Id.
issue of volatility or the instability of the regulatory environment.323

A second problem with permits in situations of regulatory volatility is that permit conditions are set by administrative agencies.324 This is very costly.325 The expense of scrutinizing each and every permit application and of setting individual conditions for each application is high, even before the opportunity costs to industry that arise from any delay in the license being granted are added.326 Other costs are also associated with permits.327 To the extent that administrative agencies set these permit conditions in the public interest, the use of permits may increase social welfare.328 However, administrative agencies are also subject to capture by the industry that they regulate. Lobbying, for example, can result in the setting of suboptimal standards.329 This is a particular problem where permits are set by administrative agencies located at the local level, where local authorities are more susceptible to pressure by industry interests.330 This is most clearly seen in the general practice that the licensing of industry by local governments generates revenue for local government.331 As soon as a permit system is abused for “anti-competitive purpose[s by] creating barriers to entry” welfare losses arise.332

323 See Faure et al., supra note 312, at 115 (“It is questionable, however, if the much-praised flexibility in these instruments is suited to environmental regulation in developing countries. [R]ecent experiences, especially in Europe, have shown that the implementation of this instrument requires a solid administrative infrastructure . . . .”).
324 Ogus, supra note 299, at 631, 641.
325 Id. at 641.
326 Id. at 631.
327 See id. (describing social welfare costs associated with permitting); see also id. at 641 (noting the potential for permits to be vulnerable to manipulation and abuse).
328 See, e.g., Mandiberg & Faure, supra note 7, at 471 (noting that permits and regulations under the Clean Water Act and Clean Air Act were developed with the intention to protect human health and welfare).
329 Cf. Faure et al., supra note 312, at 119 (explaining how public participation in permitting can off-set the adverse effects of lobbying by self-serving industrial interest groups).
330 Id. at 120.
332 Ogus, supra note 299, at 631.
To avoid the costs associated with capture, it is necessary to introduce a system of financial accountability of local authorities and agencies. Such monitoring can be done via systems of public audit or via procedural accountability guarantees that require local authorities to comply with the doctrine of due process; or regulatory impact analysis, which ascertains a public administration’s “substantive accountability.” All these methods are likely to involve the use of external experts and public consultations. Such monitoring increases administrative costs considerably, although they are likely to be justified from a social welfare perspective if weighted against the possible social costs of administrative capture. Nonetheless, from a cost-benefit perspective, monitoring clearly adds additional monetary costs, even where the social costs that may arise from capture are mitigated or even avoided.

A third problem that may arise with the use of permits to regulate risk, despite allowing for both greater flexibility and more specificity in the areas subject to regulation, is the unlikelihood for permits to include all the possible risk scenarios that will arise from technological developments. What occurs in practice is that either the permit itself contains vague terminology, such as obliging the licensee to use their “best efforts” to prevent harm to third parties, or that the founding legislation contains, in addition to the conditions of the permit, clauses to the effect that the permit holder shall take reasonable measures to prevent all possible harm resulting from their activities. In some cases, these vaguely worded duties of care

333 See Faure et al., supra note 312, at 128 (describing how permit monitoring can be accomplished through domestic authorities coordinating with public audit offices).
335 See generally id. at 175–76 (comparing the American permitting system with that of Britain, noting that the American regulatory system includes a period for public comment and emphasizes public involvement).
336 See Ogus, supra note 299, at 631 (noting that high administrative costs can be outweighed by prevention of social welfare losses).
337 Cf. Faure & Visser, supra note 119, at 349 (explaining that vague language is used by the legislature due to the “multiplicity and unmanageability of reality” and “unpredictability and speed of [technological] developments . . . .”)
338 But see id. at 350 (noting that the use of “vague norms” in duty of care provisions in licenses to “take all reasonably possible measures” are sometimes invalidated due to vagueness).
are enforced with criminal penalties. In situations in which (vague) standards are introduced, either in the permit or in the founding legislation, the problem of foreseeability and the related question of compatibility with the *lex certa* principle obviously re-emerge.

In sum, while permits are optimal instruments for regulating complexity stemming from local differentiation, at least for a price, due to their ability to balance flexibility with foreseeability, they are much less well suited to situations of volatility in the regulatory environment. Permits do not easily allow for continuing flexibility—vital where the target of regulation is subject to rapid development—because they are likely to become quickly out-dated and are expensive to administer and monitor. As such, permits are likely to function as rules in unstable regulatory conditions rather than as standards, and therefore have the same disadvantages. Where, however, the terms of a license attempt to accommodate greater flexibility by returning to vague requirements, they fall foul of the foreseeability principle. What alternative regulatory techniques or tools are then available to the regulator? The next section of this paper suggests that development risk combined with prospective overruling, constitutes a key regulatory tool or technique for reconciling flexibility and foreseeability in the risk society of the twenty-first century.

**B. Applying “Development Risk” as a Regulatory Technique in Situations of Regulatory Volatility**

One area of law that has long struggled with the need for regulation to provide flexibility whilst guaranteeing a clear standard of foreseeability in unstable regulatory environments is the field of civil liability. One of the primary aims of liability is

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339 *See id.* at 351 (noting that vague terms can be criminally enforced).
340 *See id.* at 349–351 (describing the *lex certa* principle in relation to vague concepts).
341 *See Faure et al., supra* note 312, at 112 (discussing the slowing effect of permits on the legal process).
342 *See id.;* Ogus, *supra* note 299, at 331, 341.
343 *See Faure et al., supra* note 312, at 110–11 (comparing rule and standard based systems).
344 *E.g.,* Schwartz, *supra* note 29, at 694 (stating that only dangers which a company knew or should have known about should produce liability).
345 *See generally id.* at 692–95 (analyzing the difficulties of holding
to incentivize the potential tortfeasor to act so as to prevent his action or inaction from causing harm to others.\textsuperscript{346} A great deal of research has been conducted on the negative effects of retroactive regulation on liability.\textsuperscript{347} Legal and economic scholarship has clearly shown, as deterrence theory would suggest, that an \textit{ex post} finding of liability for behavior, not considered wrongful at the time that it took place, rarely serves any purpose of accident prevention.\textsuperscript{348}

However, the same scholarship has also shown that in situations in which rapid technological developments lead either to the emergence of new risks or to improvements in the ability of regulatees to prevent risks at lower costs, it may be optimal for courts to impose more severe sanctions or to extend liability to behavior that was not previously deemed wrongful.\textsuperscript{349} This research in the legal and economic fields has concluded that, in situations where standards could be stricter at no greater cost, thereby reducing the risk to human health and the environment, would lead to suboptimal regulation if tortfeasors were only to be held liable for compliance with an existing standard and could, under no circumstances, be held liable for risks that had not been foreseen. Instead, this research asserts that the knowledge or foreseeability of a regulatee that they may be held liable \textit{ex post} for behavior that causes harm creates incentives for a potential tortfeasor to obtain as much information as possible about the risks associated with their behavior.\textsuperscript{350} The creation of such companies accountable for unforeseeable health risks which are constantly changing).

\textsuperscript{346} See Linda M. Sheehan, \textit{The EEC'S Proposed Directive on Civil Liability for Damage Caused by Waste: Taking Over When Prevention Fails}, 18 \textsc{Ecology L.Q.} 405, 441 (1991) ("Under a strict liability regime, . . . defendants will have an incentive to go beyond the mandates of environmental statutes in order to avoid liability, thus decreasing the likelihood of waste-related injuries.").


\textsuperscript{348} See generally Michael Faure & Paul Fenn, \textit{Retroactive Liability and the Insurability of Long-Tail Risks}, 19 \textsc{Int'l Rev. L. & Econ.} 487 (1999) (discussing the negative impacts of retroactive liability on insurance, particularly in dealing with ambiguity). It might of course, however, serve other purposes, such as sparing the taxpayer the cost of providing victims with compensation.

\textsuperscript{349} See id. at 489.

\textsuperscript{350} Steven Shavell, \textit{Liability and the Incentive to Obtain Information About Risk}, 21 \textsc{J. Legal Stud.} 259, 260 (1992); see also Louis T. Visser & Heicko O. Kerkmeester, \textit{Kenbaarheidsvereisten en Gewoonten als Verweren Tegen een Aansprakelijkheidsakte: een Rechtseconomische Benadering}, \textsc{Tijdschrift Voor
incentives, referred to in the literature as “development risk liability,” is intended to provide the regulatee with sufficient and “appropriate incentives [to] invest[] in research . . . [on the] risk [of their activities] and optimal technologies to prevent [or minimize those] risks.”

1. The Technique of “Development Risk Liability”

The application of development risk to a party obviously leads to a flexibility/foreseeability dilemma. On the one hand, flexibility demands that the standard setting process in civil law is a learning process whereby the standard of care is not static but changes over time. It would clearly lead to regulatory disconnect and thus ineffectiveness to hold that due care standards should never change. There may be many reasons, for instance new technological insights, for judges to impose a more stringent standard of care than is generally recognized as representing the legal standard at that moment. Moreover, this new standard can have an important signaling function for other parties in the market who can adapt their future behavior to the new circumstances. However, the foreseeability question, and thus one of fundamental rights, arises with regard to the individual defendant in the particular case in which a new standard of care is set. Is it acceptable to sacrifice the guarantee of legal certainty for the benefit of a more efficient standard in the future by rendering an individual or individual operator retroactively liable for behavior that was not considered wrongful at the time when it was committed?

One case, discussed already in Part III, where the court applies development risk in this manner, in the area of criminal law, is that of C.R. v. U.K. In this case, the House of Lords upheld the


Id. at 28.

See id. at 26–28 (discussing cases that led to more general standards in light of more information on technology and new developments in technology).

See FAURE & GRIMEAUD, supra note 351, at 46.

Although it is possible to view this case as an example of prospective overruling, see C.R. v. U.K., 21 Eur. Ct. H.R. (ser. A) 363, 370–73 (1996) (discussing the number of exceptions to a husband’s immunity that could have
defendant’s conviction for a crime—the attempted rape of his estranged wife—that was not yet an offense in England & Wales on the basis that the defendant could reasonably have been expected to know that the common law defense against marital rape no longer accorded with contemporary societal norms and thus could no longer act as a defense in such situations. Lord Keith of Kinkel, on behalf of the Court, concluded that relying on the Hale proposition of 1736, that a woman gives her irrevocable consent to sexual intercourse at the moment of marriage, was no longer possible. He stated:

Hale’s proposition involves that by marriage a wife gives her irrevocable consent to sexual intercourse with her husband under all circumstances and irrespective of the state of her health or how she happens to be feeling at the time. In modern times any reasonable person must regard that conception as quite unacceptable.

Lord Keith went on to dismiss the idea that the Court was engaging in the retroactive application of law in denying the applicant’s appeal by noting that, “[t]his is not the creation of a new offence, it is the removal of a common law fiction which has become anachronistic and offensive and we consider that it is our duty having reached that conclusion to act upon it.” This conclusion was supported by the European Court of Human Rights, which appears to rely upon Article 17 of the Convention—the abuse of rights clause—to dismiss concerns about any harm done to the rights of the applicant. It is worth quoting the passage in full in order to gain a fuller understanding of the Court’s reasoning:

The essentially debasing character of rape is so manifest [that the result of the decisions of the Court of Appeal and the House of Lords—that the applicant could be convicted of attempted rape, irrespective of his relationship with the victim—] cannot be said to be at variance with the object and purpose of Article 7 [of the Convention, namely to ensure that no one should be subjected to arbitrary prosecution, conviction or punishment. [What is more, the abandonment of the unacceptable idea of a husband being

suggested to a reasonable observer that it was only a matter of time before it was done away with altogether). We consider this case an example of a development risk approach, because of where both the House of Lords and Strasbourg Court lay emphasis in their reasoning.

357 Id. at 376.
358 Id. at 385.
359 Id.
immune against prosecution for rape of his wife was in conformity not only with a civilised concept of marriage but also, and above all, with the fundamental objectives of the Convention, the very essence of which is respect for human dignity and human freedom.\footnote{C.R. v. United Kingdom, 21 Eur. Ct. H.R. (ser. A) 363, 364 (1995).}

The basis for the European Court’s reasoning is thus that a greater injustice would be done by viewing the English courts’ development risks approach towards the Hale Proposition as violating the guarantees of Article 7 ECHR.\footnote{Id. at 373 (“[T]he rights and duties arising from marriage have, however, changed over the years as the law has adapted to changing social conditions and values. The more modern view of marriage is that it is a partnership of equals.”) (internal quotation marks and footnote omitted).} By relying on the idea of development risks—even in such a sensitive area as criminal law—the English courts were able to ensure regulatory (re-)connection.\footnote{See id. at 399 (“However clearly drafted a legal provision may be, in any system of law, including criminal law, there is an inevitable element of judicial interpretation. There will always be a need for elucidation of doubtful points and for adaptation to changing circumstances.”).}

Obviously, the rape case before the House of Lords is of a totally different nature than that presented by the foreseeability dilemma in the context of technological risks, which is the topic of this paper. However, the relevant point in both cases is the same, i.e., the balance between the need for flexibility and adaptation to (in this case societal) changes\footnote{See id. at 402 (“[T]here was an evident evolution, which was consistent with the very essence of the offence, of the criminal law through judicial interpretation towards treating such conduct generally as within the scope of the offence of rape. This evolution had reached a stage where judicial recognition of the absence of immunity had become a reasonably foreseeable development of the law.”) (footnote omitted).} and the question of whether these changes are to the persons to whom they apply.\footnote{See id. at 402 (“[T]here was an evident evolution, which was consistent with the very essence of the offence, of the criminal law through judicial interpretation towards treating such conduct generally as within the scope of the offence of rape. This evolution had reached a stage where judicial recognition of the absence of immunity had become a reasonably foreseeable development of the law.”) (footnote omitted).}

The European court’s decision in \textit{C.R.} sets the standard of foreseeability extremely low and makes many observers, including the present authors, uneasy. While the decision may have been justifiable as an extremely exceptional case, and despite us having absolutely no sympathy with the applicant, the ruling arguably failed to strike the right balance between flexibility and foreseeability.

A case from the German system, in which a court applied the idea of development risks but was able to create flexibility without sacrificing foreseeability, arguably serves as a better
example. The German Bundesgerichtshof, the highest German civil and criminal court, in a 1980s case concerning a skiing accident that had occurred on the well-known Zugspitze, in which the victim had hit an unprotected ski lift pillar, came up with an interesting approach to standards of liability. The Court first held that the party responsible for the ski lift had violated a general duty of care owed to the skier. It grounded this judgement in the following way:

Die mit einer solchen Abpolsterung verbundenen Kosten stehen nicht außer Verhältnis zu ihren aus den Schleppliften zu erzielenden Einnahmen. Zudem ist der Unternehmer in der Lage, die Aufwendungen über den Fahrpreis weiterzugeben. [The costs associated with the padding of the ski lifts are not disproportionate to the expected gains. In addition, the business is in the position to pass on the related expense to the users via the ticket price.]

However, in considering the question of whether the ski-lift operator was also to blame for the accident, the Court concluded that it was not:

Jedoch muß den Verkehrssicherungspflichtigen der Pflichtverstoß bei Anwendung verkehrserforderlicher Sorgfalt erkennbar gewesen sein, wobei Bewertungszweifel über die Pflichtmäßigkeit oder Pflichtwidrigkeit des schädlichen Verhaltens zu seinen Lasten gehen. Hier fällt ins Gewicht, daß Entscheidungen Deutscher Gerichte zur Sicherung von Liftstützen zum Schutze der Skiläufer bei derartigen Pistenverhältnissen im Unfallzeitpunkt, soweit ersichtlich, nicht ergangen waren. Eine solche Sicherungspflicht lag auch nicht ohne weiteres in der Tendenz der bis dahin ergangenen Rechtsprechung zur besten Sicherungspflicht. [However, when applying a reasonable standard of care in social life, the fact that a duty of care has been violated should be knowable to the individual. Doubts concerning the question of whether his behavior violated or complied with the duty of care are otherwise held against the individual who has to comply with the duty. In this respect, an important aspect is that as far as we can see, at the moment of the accident, there were no decisions of German courts concerning the padding of skilifts to protect skiers. Such a duty of care was moreover not foreseeable based on the, until now, applicable case law concerning the best duty of care.]

366 See Bundesgerichtshof [BGH] [Federal Court of Justice] Oct. 23, 1984, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 620, 1985 (Ger.); see also FAURE & GRIMEAUD, supra note 351, at 47–48 (discussing this case).
367 NJW 620 (621) (Ger.).
368 Id. (Author’s own translation).
369 Id. (Author’s own translation).
In announcing that it would abide by existing norms, here relating to duty of care, in the case before it but apply a different, stricter, standard in the future, the Bundesgerichtshof made use of the technique of prospective overruling. The advantage of this technique was that it allowed the Court to introduce a stricter standard of the duty of care—to update the regulation in this area to take account of changes in the cost to operators of padding skilifts—while at the same time respecting the guarantee of legal certainty for the defendant before it.

Of course, as Lord Nicholls of Birkenhead noted in the context of Natwest v. Spectrum Plus Ltd., “In all cases development of the common law, as a response to changed conditions, does not come like a bolt out of a clear sky. Invariably the clouds gather first, often from different quarters, indicating with increasing obviousness what is coming.”

This is true of most legal change in most legal systems. The difference between the normal process of legal reform and development risk liability is that normal legal reform takes place via regulation whereby new standards are foreseeable for the regulatees or include a foreseeable adaptation via case law. Development risk liability implies liability even where the risks may not have been foreseeable, thus providing further incentives for research into risks that were not known on the basis of the state of scientific and technical knowledge when the product was put into circulation.

Our contention in this paper is that liability for development risks constitutes a regulatory technique of real value in ensuring the effectiveness and legitimacy of regulation in situations of regulatory volatility. As the German case makes clear, a distinction has to be made between the retrospective application

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370 The decision in this case has been supported in the Dutch legal literature. See FAURE & GRIMEAUD, supra note 351, at 48 n.161.
372 See DANIEL SHAVIRO, WHEN RULES CHANGE: AN ECONOMIC POLITICAL ANALYSIS OF TRANSITION RELIEF AND RETROACTIVITY 19 (2000) (presuming policy change is often in reference to “what the government has done in the past, its leaders’ incentives or apparent beliefs, and the balance of political forces.”).
373 See id.
374 It is the formulation, which can be found in art. 7(e) of the European Product Liability Directive of 25 July 1985. See Council Directive 85/374, art. 7(e), 1985 O.J. (L 210) 31 (“[T]he state of scientific and technical knowledge at the time when he put the product into circulation was not such as to enable the existence of the defect to be discovered . . . .”).
of a new liability regime and liability for development risks.\footnote{375} Holding actors liable for risks that are not yet known is not necessarily inefficient, especially where the actor knows in advance that a strict form of liability applies. In such a case, liability for development risks will provide incentives to acquire information about potential new risks and on the optimal techniques for preventing that risk from occurring.\footnote{376} “Thus[,] . . . strict liability [could] provide appropriate incentives for . . . investment in optimal preventive techniques. This[,] however[,] does not [require, or indeed perhaps] justify[, the] retrospective application of new standards or new [contexts that do not] positively affect[] future incentives for prevention[,]” i.e., where the regulatee was unaware that they would be held to a strict liability standard.\footnote{377} Development risk liability refers exclusively to risks that could not be known by (industrial) operators at the time of the design of their practice, process or product and that appear later in the course of the process of operation or manufacture. This definition also includes technological improvements that enable risks to human health or to the environment to be reduced, i.e., that do not increase the risk of the product or primary process but that create the possibility of reducing risk further.\footnote{378} In such cases, however, the legal rule as such does not change but the standard of liability to which an operator is held is viewed flexibly.\footnote{379} Liability for development risks is desirable from an economic perspective where it has the possibility to positively influence incentives for prevention and where the development risk liability is not retroactive liability in disguise, which has of course other reasons for being unattractive than merely being inefficient.\footnote{380} Development risks are, then, a valuable technique for ensuring that regulation keeps pace with technological

\footnote{375} See NJW 620 (621) (Ger.).
\footnote{376} See FAURE & GRIMEAUD, supra note 351; Shavell, supra note 350, at 260 (explaining why strict liability incentivizes actors to obtain information about the proper exercise of care).
\footnote{377} FAURE & GRIMEAUD, supra note 351, at 48.
\footnote{378} See id. at 49 (discussing art. 7(e) of the European Council Directive of July 1985 and the protection it provides if it can be proven that the scientific or technical knowledge at the time was not sufficient to provide notice).
\footnote{379} Id.
developments. Moreover, where regulatees are aware that they will be held to a strict liability standard, the law provides sufficient certainty both to incentivize risk minimization and to protect individual rights. However, where a standard of strict liability has not previously been used or where the applicable sanction is a criminal one, applying a development risks approach in determining the appropriate standard of liability falls foul, we suggest, of the principle of foreseeability, or lex certa. It is in these circumstances that we propose the use of prospective overruling as a judicial technique for preventing an equal injustice in applying a development risk approach.

2. The Dilemma of Prospective Overruling

Prospective overruling, however, has something of a chequered history and is not without controversy, particularly in the criminal law context. While some senior judges have suggested that the use of prospective overruling is a question of judicial responsibility, other, equally senior judges, have suggested that it introduces arbitrariness and unfairness into judicial decision-making. We will attempt to address these concerns below in examining prospective overruling as a technique. Prospective overruling is a judicial technique in which a

381 See Shavell, supra note 350, at 260 (explaining how imposing strict liability encourages risk minimization and provides notice so he can make desirable decisions).
382 Of course, the case of C.R. suggests that development risks will not fall foul of the Strasbourg standard as it is presently. See generally C.R. v. United Kingdom, 21 Eur. Ct. H.R. (ser. A) 363 (1995). However, as we suggested above, the CJEU sets higher standards of legal certainty and so arguably should the European Court of Human Rights. See supra Part III.D.
384 See Traynor, supra note 383, at 779 (advocating for prospective overruling while serving as California Supreme Supreme Court Justice and as Chief Justice of California). Traynor is one of the most respected American justices of the twentieth century. See John W. Poulos, The Judicial Philosophy of Roger Traynor, 46 Hastings L.J. 1643, 1643 n.1 (1995).
385 See In re Spectrum Plus Ltd., [2005] UKHL 41, [2005] A.C. 680 (H.L) 686 (appeal taken from Eng.) (explaining that claims would be treated differently based on when a claim was filed, which could lead to forms of discrimination).
previous precedent or authority is overruled without the new ruling having retrospective effect.\textsuperscript{386} It thus represents a departure from the fundamental notion that judicial decisions that develop or change the law necessarily have retroactive effect.\textsuperscript{387} It is, or has been, used by a court wishing to overturn or amend bad law, but is wary of the consequences of the retrospective application of their finding. Such consequences may include the inherent unfairness that would result to an individual who had relied on the existing law in good faith\textsuperscript{388} or because of reasons of practicality, where the decision would have sweeping consequences for the operation of the judicial system.\textsuperscript{389}

Although appearing similar, prospective overruling differs from \textit{obiter dicta} in two significant ways. Firstly, while judges can use \textit{obiter dicta} to declare certain rules to be bad law or to comment on the likely direction of necessary legal reform, such comments do not entail that the decision in the case before them will be inconsistent with a future case.\textsuperscript{390} Secondly, \textit{obiter dictum}, while possibly highly influential, does not benefit from \textit{stare decisis} and therefore is not binding.\textsuperscript{391}

There are a number of different ways in which a court can use prospective overruling.\textsuperscript{392} Firstly, a court can announce a new rule or standards that will apply only to future cases, i.e., not to the case before it in the instant dispute. The old rule would also govern any cases that arose from action taken prior to the

\textsuperscript{386} \textit{Id.} at 686.

\textsuperscript{387} See \textit{id.}

\textsuperscript{388} See, e.g., Traynor, \textit{supra} note 383, at 567 n.102 (citing W. BARTON LEACH, \textit{PROPERTY LAW INDICTED}, 16–17 (1967) (describing a 1675 English case of a tenant who had relied on an Elizabethan statute in good faith).

\textsuperscript{389} The United States Supreme Court decided not to apply its finding in Mapp v. Ohio, 367 U.S. 643, 653, 660 (1961) retrospectively to judgments that had become final before \textit{Mapp}. \textit{Mapp} had extended an earlier ruling that the Fourth Amendment of the U.S. Constitution prohibited unreasonable searches and seizures by government agents, thereby excluding evidence gained by violating the Amendment, to the states. See Linkletter v. Walker, 381 U.S. 618, 619 (1965); see also Traynor, \textit{supra} note 383, at 555–67 (considering these cases, and others).

\textsuperscript{390} E.g., Spanel v. Mounds View Sch. Dist. No. 621, 118 N.W.2d 795, 803, 264 Minn. 279, 292 (1962).

\textsuperscript{391} See Traynor, \textit{supra} note 383, at 566 (discussing Lord Simon’s objections to disregarding \textit{stare decisis} in prospective effect cases).

announcement of the new rule but determined after it.\textsuperscript{393} This
has been called “pure” prospective overruling.\textsuperscript{394} A second
approach would be to announce a new rule that is only applicable
to future cases that arise after the announcement but, as an
exception, to apply it to the instant case.\textsuperscript{395} A third alternative is
to apply the new rule not only to the case at hand but to all other
cases already pending at the time of announcement. This third
approach excludes those cases in which the action that motivated
them predates the announcement but where proceedings had not
already been commenced at the moment of declaration of the new
rule.\textsuperscript{396} Finally, a fourth possibility would be for a court to
announce a new rule not having retroactive effect but to suspend
the entry into force of that new rule until a future date.\textsuperscript{397} This
technique is used to allow those actors likely to be affected by the
change to adapt their behavior accordingly and to give the
legislature the opportunity to enact a different rule should they
so wish.\textsuperscript{398} Traynor termed this form of prospective overruling
“prospective-prospective overruling.”\textsuperscript{399} In this version of
prospective overruling, the new rule does not apply to the case in
which it is announced, or to any other cause of action that arises
before the delayed entry into force of the new rule.\textsuperscript{400} The Court
of Justice of the European Union, for example, has accepted the
need to place temporal limitations on its rulings in the interests
of justice, although it has declared that it does so only in
exceptional circumstances.\textsuperscript{401} A variation on this form of

\textsuperscript{393} S. R. Shapiro, Annotation, \textit{Prospective or Retroactive Operation
\textsuperscript{394} Juratowitch, \textit{supra} note 392, at 406.
\textsuperscript{395} \textit{Id.} at 395.
\textsuperscript{396} \textit{Id.}
\textsuperscript{397} \textit{Id.}
\textsuperscript{398} \textit{Id.; see, e.g.,} Molitor v. Kaneland Cmty. Unit Dist. No. 302, 163 N.E.2d 89,
97 (Ill. 1959) (applying the new rule to the current case, but otherwise
suspending its application until a case arises from a future occurrence); Parker
v. Port Huron Hosp., 105 N.W.2d 1, 14–15 (Mich. 1960) (applying the new rule
to the current case, and all cases arising after the filing of the opinion); Spanel
v. Mounds View Sch. Dist. No. 621, 118 N.W.2d 795, 801, 803 (Minn. 1962)
(noteing that the legislature took advantage of the opportunity created by the
court’s use of prospective overruling to reinstate the old rule, and that actors
had been given the opportunity to adapt their behavior to the new rule).
\textsuperscript{399} Traynor, \textit{supra} note 383, at 547.
\textsuperscript{400} \textit{Id.}
\textsuperscript{401} \textit{See, e.g.,} Case C-209/03, Regina (Bidar) v. Ealing London Borough
Council, 2005 E.C.R. I-2148 (explaining that a temporal limitation was accepted
for circumstances where the U.K. was led into practices that were non-
compliant with community law and where a serious risk of economic
prospective overruling has been suggested by Advocate General Jacobs, whereby both the retrospective and prospective effect of a ruling of the Court of Justice of the European Union could be subject to a temporal limitation; in that case until the Member State concerned has had a reasonable opportunity to consider the introduction of amending legislation.402

In addition to the European Union, a number of jurisdictions have used or accepted the possibility, if only in principle, of prospective overruling in exceptional circumstances, including the United States,403 India,404 New Zealand,405 Canada,406 the United Kingdom407 and Germany.408 The European Court of Human Rights has been understood to issue prospective rulings,409 although there is some doubt as to whether its “dynamic” approach to convention interpretation is properly classified as such;410 however, it certainly accepts such rulings in domestic courts as compatible with the rule of law.411 At its apogee in the United States, the United States Supreme Court ruled in the case of Linkletter v. Walker, that in both criminal and civil cases, “the accepted rule today is that in appropriate cases the Court may in the interests of justice make the rule prospective.”412 However, since the 1970s, the use of retrospective overruling in the United States has been in retreat. While it remains unclear as to whether the use of “pure” prospective overruling (where the new rule does not apply to the case at hand) has been abandoned in civil cases,413 the Supreme Court repercussions existed).

402 See Case C-475/03, Banca Popolare di Cremona v. Agenzia Entrate Ufficio Cremona, 2006 E.C.R. I-9440 (explaining how Member States must assess “turnover tax” legislation imposed by the European Union in order to harmonize their own laws with the requirements).
403 Shapiro, supra note 393.
405 E.g., Chamberlains v. Sun Poi Lai [2006] 2 NZSC 7 (SC) (N.Z.).
406 E.g., In re Manitoba Language Rights [1985] 1 S.C.R. 721, 780 (Can.).
407 See Juratowitch, supra note 392, at 406–09.
408 See supra notes 368–69 and accompanying text.
410 See Juratowitch, supra note 392, at 398–400 (proposing an alternative reading of the court’s approach in Goodwin).
413 See Glazner v. Glazner, 347 F.3d 1212, 1217 (11th Cir. 2003) (commenting on how criminal cases applying prospective overruling are not instructive in civil cases).
has overturned its earlier enthusiasm and now prohibits prospective overruling in criminal cases and the use of selective prospective overruling (i.e., “non-pure”) in civil cases.

Yet, despite the discrediting of prospective overruling as a technique in the US more than twenty years ago, it continues to attract the interest of senior common law judges. In a 2005 case, In re Spectrum Plus, the House of Lords found that it was theoretically possible to overrule a judgment with prospective effect only; and in 2007, two members of the New Zealand Supreme Court accepted the same possibility.

3. The Pros and Cons of Prospective Overruling

Given that the heyday of prospective overruling has, until recently, been behind us, what reasons are there for being suspicious of the technique? There are, it seems, two main reasons for rejecting prospective overruling in its entirety. The first has been articulated by the Australian High Court in its emphatic refusal to countenance the use of prospective overruling and concerns an understanding of the nature of judicial interpretation. In the case of Ha v. New South Wales, the Court ruled that, “it would be a perversion of judicial power to maintain in force that which is acknowledged not to be the law.” In this reading, where a court determines that the rule they are required to apply is bad law, i.e., that the “real law” is actually now a different standard, it is simply untenable to continue to apply the wrong standard, even where it results in a manifest injustice to one of the parties before it. The notion that prospective overruling is “a perversion of judicial power” gains further credence from the commonly accepted understanding that the role of the judiciary is to interpret the law in light of the case before it, where the primary function of the courts is to

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414 See Griffith v. Kentucky, 479 U.S. 314 (1987) (holding that a new rule must be applied retroactively to cases in which final judgment had not yet been rendered).
416 Juratowitch, supra note 392, at 396.
417 In re Spectrum Plus, [2005] 2 AC 680 (H.L.) [40] (appeal taken from Eng.).
420 Id.
adjudicate between parties; going beyond the particular case by making a general statement about the law is seen by some as “blatantly legislative.”421 While the legislature looks forward, the proper direction of the courts’ attention is backwards, applying the existing law to situations that have already happened. This view was echoed by the United States Supreme Court in Griffith v. Kentucky, in which it ruled, concurring with earlier minority opinions by Justice Harlan, that the “failure to apply a newly declared constitutional rule to criminal cases pending on direct review violates basic norms of constitutional adjudication.”422

The second reason for critics to reject prospective overruling concerns the impact upon individuals of arbitrariness to which prospective overruling gives rise. In Griffiths v. Kentucky, the United States Supreme Court stated quite simply that “selective application of new rules violates the principle of treating similarly situated defendants the same.”423 Once a rule or practice has been declared bad law or unconstitutional, it violates the central notion of equality before the law if the new rule is applied to benefit one individual but not another.424 These concerns can be somewhat alleviated by applying the new rule to all cases stemming from action arising at or after the time of the cause of action of the case in which the new rule is announced, i.e., by limiting the normal retrospective effect of rulings only marginally, but to do so would be to reduce considerably the possible benefits of prospective overruling.425 In effect, those parties who had relied in good faith on the previous standard in such actions would be held to a new, stricter standard and thus their legitimate expectation of and right to legal certainty would

421 See Juratowitch, supra note 392, at 407 (“But this problem is linked to the fundamental point that the primary purpose of common law litigation is to adjudicate between the parties before the court in the instant case.”); see also Williams v. United States, 401 U.S. 667, 679 (1970) (Harlan, J., concurring in part and dissenting in part) (“If we do not resolve all cases before us on direct review in light of our best understanding of governing constitutional principles, it is difficult to see why we should so adjudicate any case at all . . . . In truth, the Court’s assertion of power to disregard the law in adjudicating cases before us that have not already run the full course of appellate review is quite simply an assertion that our constitutional function is not one of adjudication, but in effect of legislation.”).


423 Id. at 323.

424 See id. (commenting on the inequity of denying the benefit of a new rule to some).

425 Id.
What, then, are the benefits? In particular, would other, less dramatic, techniques do the same job without encountering the hostility that prospective overruling can inspire? *Obiter dicta* could be used, for example, to indicate a likely direction of legal reform without actually introducing a new rule. However, it is in large part the binding nature of a prospective decision that makes it such a useful technique in balancing flexibility and foreseeability. While *obiter dicta* could be used in a similar way, although such statements lack the ability to bind future courts, they reduce the foreseeability of parties the same way incentives for operators to adapt their behavior are reduced. Operators may instead play a waiting game in which they fail to carry out adaptations in the hope that a different court will continue to apply the existing standard. Prospective overruling, we suggest, cannot be replaced by the less controversial tool of *obiter dictum*. Moreover, *obiter dictum* would obviously only provide a solution in those legal systems where it exists, which is not the case for many civil law systems.

The first main benefit of prospective overruling follows from the assertion that it is a perversion of judicial power to uphold a law that is understood to be unsound. Courts are rightly reluctant to overturn a precedent, even where they are convinced of the unsoundness of the rule in question, where the harm caused by retrospective change is greater than the supposed benefits. Thus, Justice Traynor suggested, in his classic article on the topic, that the main benefit of the technique of prospective overruling is that it enables courts to “change[] bad law without upsetting the . . . expectations of those who [have] relied [up]on it.” For Traynor, prospective overruling, in direct contrast to its critics, is a necessary tool for the proper administration of justice.

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426 See Traynor, supra note 383, at 780 (discussing the objective of prospective overruling, and the undue hardship to a party who justifiably relied on existing standards).
427 See Juratowitch, supra note 392, at 406 (“Obiter dictum goes beyond what is necessary for the decision in the instant case . . . .”).
428 See id. (stating that prospective overruling would presumably be binding).
429 Cf. id. (discussing prospective overruling in common law systems).
431 See generally Juratowitch, supra note 393, at 407 (discussing how courts cannot change a rule if it is inconsistent with the current case).
432 Traynor, supra note 383, at 779.
433 See id. at 780 (“[I]t can be an instrument of justice that fosters public
precedent would entail unacceptable and unreasonable hardship for one of the parties concerned is an equally perverse understanding of the judicial role.\textsuperscript{434}

Traynor's concern is arguably borne out of European risk regulation. Here, what we see occurring is the limitation of liability of producers and operators precisely because of a reluctance on the part of the regulator to use development risk for fear of applying standards retrospectively.\textsuperscript{435} The recent European Union Product Liability Directive, for example, explicitly excludes liability if the producer can prove "that, having regard to the circumstances, it is probable that the defect which caused the damage did not exist at the time when the product was put into circulation by him or that this defect came into being afterwards[.]")\textsuperscript{436} Moreover, the "state-of-the-art defence" is provided for in Article 7(e) of the directive, which protects the producer from liability if she can prove that the state of scientific and technical knowledge at the time when the product was put into circulation was not such as to enable the existence of the defect to be discovered, i.e., signaling a preference for the opposite of development risks liability.\textsuperscript{437} Article 15(1)(b) does provide an option for Member States to introduce liability for development risks;\textsuperscript{438} however this option has only been taken up to date by Luxembourg and Finland.\textsuperscript{439} These are hence the only countries which accept liability for development risks and hence reject the state of the art defense.\textsuperscript{440}

\begin{footnotesize}
\textsuperscript{434} Id. at 797–98.
\textsuperscript{435} See generally Council Directive 85/374, art.7(b), 1985 O.J. (L 210) (EC) (outlining the laws, regulations and administrative provisions for defective product liability of European Community Member States).
\textsuperscript{436} Id.
\textsuperscript{437} Id. at art. 7(e); See also James Boyd & Daniel E. Ingberman, \textit{Should "Relative Safety" be a Test of Product Liability?}, 26 J. LEGAL STUD. 433, 433 (1997) (explaining that the 'customary practice test' tends to induce inadequate safety, whereas the 'technological advancement test' tends to induce excessive safety).
\textsuperscript{440} The development risk deference and corresponding liability are considered to be one of the most controversial issues in the European Product Liability Directive. It has been noted in that respect:
\end{footnotesize}
This reluctance to apply development risks liability may lead to inefficiencies and may reduce the incentives for producers to reduce the risk of products where they are able to do so in a cost effective manner. In such a situation, the use of prospective overruling would avert the fear of new standards being applied retrospectively, whilst at the same time allowing for standards of liability to be made stricter over time as new technology develops and allow producers to adapt their products to minimize the risk of harm.

In response to the criticism that prospective overruling allows courts to assume powers that belong only to the legislature, Traynor argued that such objections on grounds of the limitations of judicial power reflect an unnecessarily restrictive and conservative interpretation of the role of the judiciary. The understanding that attention to the general state of the law is solely the task of the legislature is based upon the old-fashioned view that judges should not make law. While here is not the place to rehash this argument, it suffices to note that this notion has been successively undermined throughout the twentieth century by legal realism and later, the critical legal studies movement.

Undoubtedly the development risks defence is the most controversial defence. Some view its inclusion as undermining the whole rationale of strict liability by reintroducing elements of fault and foreseeability. For others it is a necessary safeguard, especially for innovative industries. The Commission was resistant to the inclusion of the defence, but some Member States, particularly the United Kingdom, would only agree to the Directive if it was included. It was therefore made optional, but only Luxemburg and Finland have chosen to exclude it, whilst Spain excludes it for high-risk products, France for products derived from human body parts and in Germany pharmaceuticals are governed by the Medicines Act which does not offer an identical defence. There is much debate about the scope of the defence. Some argue it is a very narrow defence whose burden is on the defendant, whereas others suggest it has to be interpreted in a way that a reasonable producer can make use of. This latter approach lies behind the wording of section 4(1)(e) of the United Kingdom’s Consumer Protection Act 1987.


See Traynor, supra note 383, at 779–80 (noting how some cases would benefit from prospective rulings and how without such rulings, restrictions on the development of the law can occur).


Id.
delineation between the act of law-making and the act of legal interpretation, the objections to prospective overruling on the grounds that it violates the separation of powers loses much of its bite.444

The concern that the technique may violate the principle of equality before the law is much more difficult to dismiss. Prospective overruling, particularly of the pure variety, undoubtedly involves treating cases, and thereby individuals, differently by applying different rules to similar situations and therefore can introduce arbitrariness into the administration of justice.445 Only the foolish would imagine that there is no arbitrariness in the process of justice but this cannot, of course, be an argument for introducing more. A firmer argument would be that, in very few special instances, prospective overruling is a necessary technique to ensure that justice is done. Just as, on very rare occasions, applying development risks in the area of criminal law retrospectively may also be required for the interests of justice to be served, as illustrated by the UK and Strasbourg courts in C.R. v. U.K.446 Prospective overruling enables a stricter standard of liability, whether criminal or civil, to be achieved for the future, thus presumably serving the common good of reducing risk to human health and the environment. At the same time it avoids the unfairness of applying this new standard to the present defendant, where he could not reasonably have anticipated the new rules and relied on the earlier standard in good faith.

4. Application of Development Risk Liability to the Enforcement of Risk Regulation

The stricter standard of legal certainty in the context of

444 See Traynor, supra note 383, at 802–03 (objecting to those against prospective rulings by stating that the judiciary and the legislature making precedent prospectively does not upset the constitutional balance).

445 See Bradley Scott Shannon, The Retroactive and Prospective Application of Judicial Decisions, 26 HARV. J.L. & PUB. POL’Y. 811, 866 (2003) (explaining that “selective prospectivity, of course, represents the height of inequality, in that it calls for the application of different legal rules to persons distinguishable only on the basis who was first able to persuade a precedent-setting court of the need for change.”).

446 See Theresa Fus, Note, Criminalizing Marital Rape: A Comparison of Judicial and Legislative Approaches, 39 VAND. J. TRANSNAT’L L. 481, 503–04, 506 (2006) (noting that retroactive application of laws are arbitrary, however the judicial approach to making law is beneficial to reflect the current values of society in a timely manner).
criminal law, and the explicit prohibition of retroactive legislation in criminal law, has meant that there has been little discussion of development risks or prospective overruling in literature on risk regulation, whether in the European context or beyond. Moreover, there is an even more pronounced reluctance to apply development risk as a judicial technique in regulating for risk. This, we would suggest, is very likely to lead to regulatory failure by ensuring regulatory disconnection and thus ineffectiveness, with all the consequences for the risk to human health and environment that such a failure is likely to entail. At the same time, operators are being held criminally liable for actions that fall under vaguely defined standards; an unacceptable situation that undermines the rule of law and, we would argue, violates individual rights, whether this is recognized as such by the European Court of Human Rights or not.

What we are therefore suggesting is that courts apply development risk liability as a regulatory tool in situations of the enforcement of risk regulation, i.e., in legal environments in which technology plays a key role. This would entail, for example, a court examining whether, taking into account the state of the art and the available market information, it was reasonable for a defendant to have anticipated that the norms had changed, and thus whether it was reasonably foreseeable that her behavior would incur criminal liability. Where it might be unreasonable to expect the average individual constantly to anticipate what changes in standards might come about, the type of regulation that we are concerned with here—risk regulation—applies overwhelmingly to producers and operators, i.e., corporations, which can reasonably be expected to have access to both up-to-date scientific and technological information within their field of operation and to seek regular legal advice as to the standard of liability to which they will likely be held. Such an expectation is thus perfectly in line with Strasbourg jurisprudence on the “special standard” of legal certainty that

447 See generally Harold J. Krent, The Puzzling Boundary Between Criminal and Civil Retroactive Lawmaking, 84 GEO. L.J. 2143, 2143, 2147 (1996) (describing how the Court has consistently struck down retroactive laws because it is unfair to criminalize conduct that was lawful when conducted, which enhances legal certainty).

448 See Taschner, supra note 439, at 31–32 (describing what “developmental risk liability” is and how it applies to producers and manufacturers).
applies to corporations and professionals.

Additionally, we suggest that in certain situations, for example, in which a criminal sanction is at stake or where the interests of justice otherwise require, courts use prospective overruling as a complementary judicial technique to ensure that the requirements of legal certainty are met. Were a model of prospective overruling to be applied in such scenarios, however, courts would apply the existing standards to the defendant before them but would declare that in the future the standard will be applied differently. On this basis, courts would decide what standard of liability to apply and, where a new standard of liability is determined, whether justice is best served by applying their ruling retrospectively or prospectively. It is, of course, possible to imagine other criteria that could be applied to restrict the use of prospective overruling, such as that it should not be applied to the detriment of an individual, or it is a technique only available to the most senior courts. The development of strict criteria must necessarily be, however, the subject of another paper.

In addition to strict but necessarily general criteria that would be needed to govern the application of development risk, whether applied alone or in tandem with prospective overruling, other, practical conditions would also need to be addressed. For example, the use of development risk liability assumes that judges understand the technological developments that they are called to judge upon and are up-to-date with the “state-of-the-art.” One method is to implement rigorous judicial training across all courts, which Shavell, among others, has advocated. However, given the speed at which technological developments...
occur, the sheer variety of technologies judges would be required to master, and the depth of specialization they would be required to have, makes it likely that training judges will be both impractical and, we believe, unfeasible. A less onerous method of achieving the same goal would be to require courts to seek expert advice on the state of technology at the moment the disputed action occurs and on the reasonably availability of risk-mitigating technology available to the defendant. Such a system would involve additional costs being attached to the judicial process, and thus to the implementation of standards; however, we contend that these costs would be easily dwarfed by the costs of ineffective regulation that our proposal intends to address. Moreover, these costs are unlikely to tip the balance of optimal regulatory instrument from standards to rules, given the need for flexibility in a volatile regulatory environment.

An alternative to prospective overruling, however, would be a legal system allows for such a concept, the idea of mistake in law.

5. Mistake in Law

One way in which prospective overruling could take form in criminal law could be, depending on the legal system, via the concept of “mistake of law.” This notion is hinted at in a number of different legal systems. The idea here would be that where a defendant acted on the basis of her knowledge of the legal norm, and could not have reasonably been expected to know that the legal norm would be applied more strictly, she would be “mistaken” as to the content of the law, which would therefore constitute a defense to the charges and result in acquittal.

Mistake of law is connected to the mens rea requirement. For example, the German mistake of law doctrine is based upon the

452 See generally Trevor W. Morrison, Fair Warning and the Retroactive Judicial Expansion of Federal Criminal Statutes, 74 S. CAL. L. REV. 455, 469– 70, 491 (2001) (illustrating that the rule of non-retroactivity is designed to prevent people from being held criminally liable for crimes in which they could not expect to be punished for, and thus would then be protected by the mistake of law defense).


454 See generally Morrison, supra note 452, at 491 (describing “mistake of law” and how it provides a defense to those charged).

455 Gunther Arzt, The Problem of Mistake of Law, in 2 JUSTIFICATION AND EXCUSE, COMPARATIVE PERSPECTIVES 1029 (1988); BeckOK StGB/Heuchemer StGB § 17 Rn. 1-3.1.
requirement for criminal liability that defendants have knowledge of material wrongdoing, i.e., a perpetrator must have understood with some level of specificity in what way his conduct violated the law. In the absence of this knowledge, section 17 of the German criminal code excuses the defendant of criminal culpability.456 This same section of the code defines mistake of law as a “lack of insight into the wrongfulness . . . of the conduct.”457 A similar provision in the German code on administrative violations (Ordnungswidrigkeiten)458 covers situations in which the defendant is accused of regulatory offenses. Under this provision, a “mistake of law” finding could be registered as “error juris”, leading to acquittal.459

Examples of case law in which defendants are acquitted on grounds of a lack of criminal liability because of the notion of “mistake of law” in situations in which regulation has changed are also found in other jurisdictions. In a Belgian case concerning prosecution for the construction of a building without a permit, the defendant, who had constructed a house with a permit, was faced with a decision by an administrative court annulling the building permit, as a result of which his building had to be considered illegal.460 The Cour de Cassation held, however, that at the moment that the building had been constructed, the defendant could reasonably believe that the permit was lawful and that the construction was legal.461 The defendant was hence acquitted on the charge of building without a permit, even though his permit had been annulled with retroactive effects.462

Similar provisions are contained in the common law, although there are obvious differences in formulation. In the American model, for example, penal code section 2.04 deals with ignorance or mistake and holds in section (3) that:

A belief that conduct does not legally constitute an offence is a defence to a prosecution for that offence based upon such conduct when:

the statutes or other enactment defining the offence is not known

456 Id. at 1042–43.
457 Id. at 1048.
458 Id.
459 Id. at 1048–49.
461 Id.
462 Id.
to the actor and has not been published or otherwise reasonably made available prior to the conduct alleged; or (b) he acts in reasonable reliance upon an official statement of the law, afterward determined to be invalid or erroneous.\textsuperscript{463}

The same notion is often discussed under the concept of “authorized reliance,” which refers to a belief that conduct does not constitute an offense where the origin of the belief is in affect an act of the state itself or one of its agencies.\textsuperscript{464} An example of this is a situation wherein a court, having held that a statute is unconstitutional, later changes its mind and declares the statute to have been valid. In \textit{State v. O’Neill}, for example, the defendant was prosecuted under a statute that the Supreme Court of Iowa had previously declared to be invalid;\textsuperscript{465} when the United States Supreme Court took a different view, the state court was forced to alter its initial finding on the validity of the statute.\textsuperscript{466} In this case, even though it was accepted that the statute in question had never been unconstitutional, a defense of error \textit{juris} was accepted.\textsuperscript{467} Thus, the notion of mistake of law is also available as a judicial tool in common law countries to protect individual defendants where the norm concerning unlawful behavior has changed and could not have been reasonably anticipated by the defendant.\textsuperscript{468} The effect would therefore be the same as prospective overruling without the related controversy.

Whether via prospective overruling or by means of the concept of mistake in law, the use of development risk liability in combination with one of these techniques allows a new balance between flexibility and foreseeability to be struck: norms can be adapted dynamically to changing circumstances, thus avoiding the inefficiency and ineffectiveness of the rigid rules produced by legislation and permits, whilst at the same time guaranteeing legal certainty for the individual defendant. Such a balance would, we contend, be both fairer and more efficient than the \textit{status quo}.


\textsuperscript{464} See generally John Kaplan, \textit{Mistake of Law, in 2 JUSTIFICATION AND EXCUSE COMPARATIVE PERSPECTIVES} 1147 (1988) (discussing the concept of authorized reliance).

\textsuperscript{465} \textit{State v. O’Neill}, 126 N.W. 454, 454 (1910).

\textsuperscript{466} \textit{Id}.

\textsuperscript{467} Smith, \textit{supra} note 463, at 1088.

\textsuperscript{468} See generally Kaplan, \textit{supra} note 464, at 1125–48 (explaining the mistake of law defense).
VI. CONCLUSION

We have suggested in this paper that one of the greatest challenges facing regulators in the area of risk regulation in the coming decades will be the problem of regulatory connection as a consequence of rapid and continuous technological change. In order to create and, more importantly, to maintain regulatory connection, regulators need to opt for instruments that allow for flexibility. This awareness manifests itself in the increasing trend towards open regulation within Europe, characterized by vague standards-based instruments, that offer greater flexibility than detailed legislative rules. This trend in itself is not necessarily problematic. Indeed, as legal and economic theory suggests, it makes a great deal of sense for regulators to adapt their choice of regulatory instrument to the volatility of the regulatory environment.

The problem, as we have argued, comes with the combination of this choice of regulatory instrument with criminal sanctions. We have attempted to demonstrate the growing development towards criminal sanctions as a means of enforcing these vague standards at the European level. The combination of these trends, we have claimed, raises serious issues under the notion of legal certainty—a key requirement of the rule of law—and thus challenges the legitimacy of such regulatory efforts. We have made this claim despite the low bar set by the European Court of Human Rights with regard to legal certainty, even in the context of criminal law and where the defendant faced lengthy incarceration upon conviction. Our examination of the effectiveness of the principle of legal certainty in providing protection within the jurisprudence of a number of EU Member States suggests that, following the lead of the Strasbourg Court, too great a weight is accorded to flexibility at the expense of individual protection. At the same time, we have suggested that legal certainty plays an important role in ensuring efficient regulation by enabling and incentivizing individuals to modify their behavior in compliance with the legal norm. In sum, we have argued that regulators and the judiciary need both legitimacy as well as effectiveness grounds to strike a better balance between flexibility and foreseeability.

We have suggested that tools exist for regulators to better address the flexibility/foreseeability dilemma. Permits may be useful in certain scenarios but are impractical, we argue, in situations of regulatory volatility that we are describing here.
Instead, we put forward an alternative and little discussed solution: the application of development risk liability—a technique that allows for great flexibility in the application of regulatory standards and thus for efficient and effective enforcement—balanced, where necessary, by the technique of prospective overruling (or “mistake in law”), which allows for a high threshold of foreseeability to enable regulatees to modify their behavior and to prevent gross injustice from being done.

Our suggestion that the use of development risk liability, in combination with prospective overruling, as a regulatory tool for ensuring effective regulation in the field of risk is likely to be controversial. We have attempted to show that many of the concerns are unwarranted. However, more research on how such techniques could and should be applied is necessary. Yet, even if one remains hesitant about the idea of employing either technique, particularly in the area of criminal law, the reasoned observer would be hard-pressed to disagree with our assertion that their use could surely not be more unjust than the current situation, in which individuals and corporations are held criminally liable for behavior that they, acting in good faith, could not reasonably have foreseen. The idea of legal liberty, originating with Montesquieu, requires no less.