



Law as a complex adaptive system:
the importance of convergence in a
multi-layered legal order

Steven Lierman



Law has the features of a complex system

- Legal systems developed at the (sub)national, European and international contexts...
- ...interact, influence and counteract each other ...
- ...resulting in a plurality of normative hierarchies,...
- ...a plurality of norms applicable on the same territory...
- ...and various legal viewpoints of a same legal situation at different levels,...
- ...urging legal professionals to create tools to help to apply these overlapping rules, principles and methods

In search of a more dynamic approach to manage the phenomenon of legal pluralism

- The more formal hierarchical method to manage conflicts between legal systems should be complemented...
- ...by a more qualitative approach (Solange, Kadi, ...),...
- ...more room for mutual respect and cooperation...
- ...and convergence between concurring legal systems and between public and private law

The importance of convergence in our complex legal society

- Development of a principle of harmonious interpretation: “convergence all over the place”
- Towards a *ius commune* of public and private law: in search of common underlying values and principles
- Two common principles to illustrate the close interweaving between legal orders and fields of law
 - principle of proportionality
 - principle of equality before public burdens

Development of a principle of harmonious interpretation: “convergence all over the place”

- EU principle of interpretation in conformity with directives has strengthened over time
 - It applies to the national legal system as a whole
 - National principles of interpretation as a model for Union-conform interpretation
 - EU institutions must ensure consistency between their own internal policies and their legislative action
- ECJ draws inspiration from the constitutional traditions of the MS to discover general principles of EU law
- Harmonious interpretation as the crux of legal pluralism, which applies on all levels, for all actors, in every direction

Towards a *ius commune* of public and private law: in search of common underlying values

- Is there still a future for the public-private divide?
- Emerging mutual permeation of public and private law:
 - diffusion of supra- and international law into national law
 - horizontal effect of public law and constitutionalisation of private law
 - private law used to elaborate, execute, enforce public tasks
- Need to uncover general principles common to public and private law
 - e.g. principles of proper conduct for state/private actors

Common principle to balance public and private interests: principle of proportionality

- The principle regulates the exercise of powers in the EU
- Dominant principle of constitutional adjudication in a public and a private context
- Similarities between public law proportionality and private law balancing appear to outweigh the differences
 - e.g. general principle of the prohibition of abuse of rights
- Legitimacy of the judge calls for a more explicit and consistent application in public and private law

Common principle to balance public and private interests: principle of equality before public burdens

- Principle of administrative law to weigh all rights and interests before taking a decision
- Development of a no-fault state liability regime in Belgium
 - Principle of maintaining or restoring the equilibrium between neighbouring properties
 - Strict interpretation of article 1 First Protocol to the ECHR
 - Principle recently recognised as an independent source of an obligation to compensate disproportionate damage
- Will the principle soon be embraced by the ECJ?
- Plurality of norms leads to an enforced legal protection in case of no-fault state liability

Law has the features of a complex *adaptive* system

- Increased complexity gives rise to adapted learning methods
- The equilibrium is restored by convergence of methods of interpretation, legal instruments and principles ...
- ...beyond the limits of separate branches of law and legal orders
- True challenge for all legal professionals to learn from this complexity and to have an eye for convergence at all times

Thank you for your
attention

LAW AS A COMPLEX ADAPTIVE SYSTEM:

THE IMPORTANCE OF CONVERGENCE IN A MULTI-LAYERED LEGAL ORDER¹

Prof. dr. Steven Lierman
KU Leuven, University of Antwerp

I. Introduction: law as a complex system

When the organisers invited me to give a lecture at this *Ius Commune*-congress, I felt truly honoured. At first, I felt relieved after reading the first part of the invitation letter telling me that I was free to pick every topic I liked. But then I realised that I did not read the full sentence. The topic should be of interest to every participant. Two options came to my mind. I could politely decline the invitation or accept this challenge which certainly looked like a mission impossible and probably is one. The only reason I dare to give it a try is thanks to the rich experience of writing a book together with professor emeritus Walter Van Gerven. For many of the ideas expressed during this presentation, I am very much obliged to him and to his project to rewrite his general introduction of law of 1969 and that I was kindly invited to contribute to.

Scientists in different fields use the notion “complex system” to describe a system that is made up of multiple interconnected elements. Examples of complex systems are the economy, our climate and living organisms. These systems are characterised by strong interactions between the different components. They interact and sometimes the one counteracts the other. Due to the strong coupling between these elements, a failure in one or more elements can lead to cascading failures which may have catastrophic consequences on the functioning of the system.

Today, law too has the features of a complex system.² Law is no longer only constructed on a national level. The notion legal pluralism indicates that the (sub)national level coexists with legal systems being developed at the European and international contexts. These legal systems interact, influence and counteract each other. The interweaving and interactions of today’s legal orders have become a topic of particular interest to every legal practitioner and academic. This multilayered legal order results in a pluralism of norms, and legal professionals are called upon to create tools to help to apply these (partly) overlapping and concurring rules, principles and methods.

¹ Many of the ideas elaborated in this paper were already expressed in the book that prof. em. Walter Van Gerven and I wrote as a general introduction to private and public law in a multi-layered legal order (W. VAN GERVEN and S. LIERMAN, *Algemeen deel. Veertig jaar later. Privaat- en publiekrecht in een meergelaagd kader van regelgeving, rechtsvorming en regeltoepassing, Beginselen van Belgisch privaatrecht*, Mechelen, Kluwer, 2010, 603p.).

² Law has been conceived as a (complex) system since many years, as is illustrated by Niklas Luhmann’s system theory to law (N. LUHMANN, *Law as a social system*, Oxford, Oxford University Press, 2004; this book is the translation of the book first published as N. LUHMANN, *Das Recht der Gesellschaft*, Suhrkamp Verlag Frankfurt am Main, 1993; see also R. NOBLES and D. SCHIFF, “Using systems theory to study legal pluralism: what could be gained?”, *Law & Society Review* 2012, p. 265-296; R. NOBLES and D. SCHIFF, *Observing law through systems theory*, Oxford, Hart Publishing, 2012, 290p.).

II. In search of a more dynamic approach to manage the phenomenon of legal pluralism: mutual respect, cooperation and convergence

Since legal systems traditionally rest on a normative hierarchy, the plurality of legal systems results in a plurality of normative hierarchies. Scholars rightly state that traditional normative hierarchy constructions do no longer appear to be the most appropriate models to deal with multilevel legal application.³ First, multi-level governance is characterised by the existence of decision-making centers at multiple levels of government that are not clearly hierarchically ordered and whose decision-making processes are mutually intertwined.⁴ Second, the responsibility of examining a legal situation is not located solely with national courts, but may also lie with the supranational courts, such as the EU Court of Justice or the European Court of Human Rights. These various legal viewpoints of a same legal situation at different levels strongly tempers the importance of each legal system's own normative hierarchy. Third, theories framed in terms of a normative hierarchy deny the complementarity that often exists between the provisions of international, European and (sub)national law.⁵ This complementarity of substantive law requires the legal professional to combine or balance, rather than prioritise, the presented solutions.

In addition to the static hierarchy of norms and the one-dimensional *Kompetenz-Kompetenz* question, there is a need for more dynamic methods to manage the phenomenon of legal pluralism. Instead of resolving conflicts of norms by giving precedence to one rule over another, there should be more room for mutual respect and cooperation.⁶

The more formal hierarchical method to manage conflicts between legal systems has therefore been complemented by a more qualitative approach. According to this qualitative hierarchy of norms, the rules of the legal order that offer the highest level of protection of constitutional rights and fundamental freedoms should apply. Recall the "*Solange*"-test of the German *Bundesverfassungsgericht*⁷, which in turn was arguably applied by the ECJ in the first *Kadi* judgment with respect to the legal order of the UN Security Council.⁸

Furthermore, convergence between concurring legal systems has become an important feature of the current legal system. Without a minimum of convergence, today's multi-layered legal order

³ J.S. BERGÉ, "Implementation of the Law, Global Legal Pluralism and Hierarchy of Norms", *European Journal of Legal Studies*, Volume 4, Issue 2, 2011, p. 241-263.

⁴ M.A.P. BOVENS, P. 'T HART, D. CURTIN en M. VAN DE STEEG, "*A research proposal. Multilevel governance and public accountability in Europe: which institutions, which practices, which deficit?*", Draft, made for CONNEX, Research Group 2: Democracy and Accountability in the EU, Mannheim, 2005, p. 4-5.

⁵ N. MacCormick, *Questioning Sovereignty*, Oxford University Press, 1999, 117, e.v.: "On the whole therefore, the most appropriate analysis of the relations of legal systems is pluralistic rather than monistic, and interactive rather than hierarchical. The legal systems of Member States and their common legal system of EC law are distinct but interacting systems of law, and hierarchical relationships of validity within criteria of validity proper to distinct systems do not add up to any sort of all-purpose superiority of one system over another. It follows also that the interpretative power of the highest decision-making authorities of the different systems must be, as to each system, ultimate.

⁶ P. KIRCHOF, "The balance of powers between national and European institutions", *ELJ* 1999, p. 227-228.

⁷ *Bundesverfassungsgericht* 9 May 1974, *Solange I, Entscheidungen des Bundesverfassungsgerichts* 271; see also in Italy: Corte Costituzionale 27 December 1973, *Frontini v. Ministero delle Finanze, Rac. Uff. Corte cost.* 1973; CMLR 1974, 372 (Member state's right to deny supremacy to EU law over its constitution).

⁸ See Joined cases C-402/05P and C-415/05, *Kadi & Al Barakat v. Council & Commission*, ECR I-6351; the court holds the UN Security Council Resolution unenforceable in the EU because it violates the EU human rights.

would lead to legal uncertainty and the fragmentation of legal norms and principles, legal instruments and methods. This presentation will therefore focus on the importance of convergence in our complex legal society: convergence between legal orders and convergence between public and private law. However, this paper does not touch upon the rights and wrongs of different legal theories on the role of convergence or coherence in legal reasoning.⁹ The approach adopted here is different, as it examines the status of convergence in today's legal order and focusses on recent evolutions in law.

With regard to the vertical convergence, i.e. convergence between the (sub)national and the supranational legal orders, the case law of the European Court of Justice on the principle of indirect effect is most illustrative. During the first part of my presentation, I will briefly recall the development of this principle into a true principle of harmonious interpretation in the EU that applies on every level, for all actors and in every direction.

With regard to horizontal convergence I will explore the traditional dichotomy between public and private law. Instead of focusing on the differences between private and public law, it is more constructive to concentrate on what the two fields of law have in common. I agree with Dawn Oliver that there are strong common features in both substantive and procedural aspects of public and private law: “[b]oth public law and private law are concerned, among other things, with the control of power and protecting individuals against abuses of power (...); they are both about upholding important common values of respect for the interest of individuals (...)”.¹⁰

Finally, I will discuss two principles of law to illustrate the close interweaving between legal orders and fields of law: the principle of proportionality and the principle of equality before public burdens.

III. Development of a principle of harmonious interpretation: “convergence all over the place”

To encourage the application and effectiveness of directives (despite the lack of horizontal direct effect), the ECJ established the principle of indirect effect in Von Colson. This principle requires the national courts to interpret national legislation in line with (the wording and the purpose of) the directive in question.¹¹ The Court declares the principle, derived from the obligation included in article 4 (3) TEU for all member states to ensure the full effectiveness of EU law and to cooperate in good faith, “to be inherent in the system of the Treaty”.

⁹ See for a comprehensive overview: J. DICKSON, “Interpretation and coherence in legal reasoning”, E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, 2010, <http://plato.stanford.edu/archives/spr2010/entries/legal-reas-interpret/>.

¹⁰ DAWN OLIVER, *Common values and the public-private divide*, Butterworths, Londen, Edinburgh, 1999, p. 11; P. CRAIG and G. DE BÚRCA, *EU Law. Text, cases and materials*, Oxford University Press, 2008, p. 375; the authors refer to the notion “constitutional pluralism” as a more attractive alternative to the stalemate of nation-State-centred versus EU-centred monism.

¹¹ Case 14/83, *Von Colson and Kamann v. Land Nordrhein-Westfalen*. The principle does not require the provisions of the directive to satisfy the justiciability criteria for direct effect (clarity, precision, unconditionality).

Although the principle applies only after the expiry of the time limit for implementation of the directive¹², the ECJ has since long held that national authorities must refrain from any measures which might compromise attainment of the objective pursued by that directive.¹³ In *Adeneler* the ECJ clarified that this general rule also requires the national courts, as from the date upon which a directive has entered into force, to refrain as much as possible from interpreting domestic law in a manner which might seriously compromise the result sought by the directive.¹⁴

The principle has been developed further over time.¹⁵ The EU Court of Justice ruled in *Marleasing* that every provision of national law should be interpreted in line with the directive, regardless of whether the provision in question was adopted before or after the directive.¹⁶ This case concerned the obligation for the Spanish court to set aside grounds for the nullity of a company other than those set out in the directive. Advocate General Van Gerven already suggested in this case that the obligation to interpret a provision of national law in conformity with a directive applies whenever the provision in question was to any extent open to interpretation in accordance with methods recognised by national law.¹⁷ The EU Court of Justice indeed confirmed and extended the obligation of interpretation in subsequent cases. In *Pfeiffer*, the ECJ ruled that the principle not only applies to specific legislation implementing a directive, but to the national legal system as a whole.¹⁸

The obligation can even result in a directive being applied in a horizontal situation involving two private parties. As Advocate General Jacobs suggested in *Centrosteeel* the principle of indirect effect “may well lead to the imposition upon an individual of civil liability or a civil obligation which would not otherwise have existed”.¹⁹ In *Marleasing*, the principle of indirect effect boiled down to a prohibition for the Spanish court, in a case between two private companies, to apply a provision of the Civil Code to the extent that it would produce a result that was not sought by the directive.²⁰ National law can, however, only be interpreted in conformity with the directive within the limits of the general principles of law, in particular the principles of legal certainty and non-retroactivity. For

¹² ECJ Case C-212/04, *Konstantinos Adeneler et al. V. Ellinikos Organismos Galaktos (ELOG)*, ECR I-6057, para 116.

¹³ ECJ 18 December 1997, Case C-129/96, *Inter-Environnement Wallonie ASBL v. Région Wallone*, ECR I-7411, para 45.

¹⁴ ECJ Case C-212/04, *Konstantinos Adeneler et al. V. Ellinikos Organismos Galaktos (ELOG)*, ECR I-6057, para 123.

¹⁵ However, Union law does not require courts to interpret domestic law *contra legem* or contrary to the general principles of law, such as the legal certainty and non-retroactivity (ECJ 23 April 2009, Case C-378/07 to 380/07, *Kiriaki Angelidaki and others v. Organismos Nomarkhiaki Aftodiikisi Rethimnis and Dimos Geropotamou*, paras. 197-200; ECJ 24 January 2012, Case C-282/10, *Maribel Dominguez v. Centre informatique du Centre Ouest Atlantique, Préfet de la region Centre*, paras 23-28.

¹⁶ ECJ Case C-106/89, *Marleasing SA v. La Commercial de Alimentacion SA*, ECR I-4135.

¹⁷ *Ibid.*, 4146.

¹⁸ ECJ 5 October 2004, Cases C-397-403/01, *Pfeiffer v. Deutsches Rotes Kreuz, Kreisverband Waldschut eV*, ECR 2004, I-8878, §114-119; see also: ECJ Case C-212/04, *Konstantinos Adeneler et al. V. Ellinikos Organismos Galaktos (ELOG)*, ECR I-6057, para 123; ECJ 24 January 2012, Case C-282/10, *Maribel Dominguez v. Centre informatique du Centre Ouest Atlantique, Préfet de la region Centre*.

¹⁹ Opinion in Case C-456/98, *Centrosteeel*, ECR 2000, I-6007.

²⁰ ECJ Case C-106/89, *Marleasing SA v. La Commercial de Alimentacion SA*, ECR I-4135; for an illustration in the Belgian case law: Cass. 20 September 2002, C.00.0197.N; in this case pharmaceutical companies brought a claim against a distributor who intended to bring a generic product on the market that did not comply with the national regulation on the registry of pharmaceuticals. According to the Belgian supreme court the court of appeal could lawfully dismiss the claim, by interpreting national legal requirements in conformity with the purpose of the related European directives.

obvious reasons the role of the principle of legality is stronger in certain fields of law, such as criminal law and administrative law.²¹

Conversely, EU law finds its origin in the law of the member states and is formed by national law. It is well established case-law that the European Court of Justice draws inspiration from the constitutional traditions of the member states to discover general principles of European Union law.²² Furthermore, in *Pfeiffer* we can read an obligation for member states to use their national principles of interpretation as a model for Union-conform interpretation.²³ In *Pupino*, the EU Court of Justice even ruled that the obligation of interpretation applies in every direction: the provisions of a European framework decision must be interpreted in such a way that they are compatible with the basic legal principles of the member state concerned, which in turn must be interpreted in conformity with the fundamental rights as interpreted by the ECHR and as resulting from the constitutional traditions common to the member states.²⁴

The principle does not only apply to national courts, but to all competent authorities called upon to interpret national law. Furthermore, the duty to cooperate in good faith included in article 4 (3) TEU imposes on the Union institutions mutual duties to cooperate in good faith with the member states, as well as in relation to the other institutions. In *Aayhan, and others v. Parliament* the EU Civil Service Tribunal ruled, in this respect, that it is incumbent on the EU institutions to ensure as far as possible consistency between their own internal policies and their legislative action at Union level, in particular in the extent to which they are addressed to the member states.²⁵ Therefore, the fact that a directive is addressed to the member states and not to the Union institutions and the lack of a hierarchy between secondary sources of EU law, do not in itself preclude a directive being relied upon in relations between institutions and their officials or servants.

²¹ G. BETLEM and A. NOLLKAEMPER, "Giving effect to public international law and European Community Law before domestic courts. A comparative analysis of the practice of consistent interpretation", *European Journal of International Law* 2003, p. 589.

²² E.g. ECJ 27 June 2006, Case C-540/03, *Parliament v. Council*, §35. We agree with Matthias Herdegen that all depends on the level of specificity required for the relevant 'common denominator' of the member states' legal orders: "[g]oing back to the Mangold case, it is therefore very well possible that the specific rule prohibiting discrimination on the grounds of age, although having only found explicit expression in two Member States, could have been developed *lege artis* on the basis of a broader unqualified principle of non-discrimination common to all the Member States (M. Herdegen, "General principles of EU Law – the Methodological challenge", in: *General principles of EC Law in a Process of Development*, Alphen aan den Rijn, Kluwer Law International, 2008, p. 347). Another approach is to focus on the appropriateness of a solution to the needs and specific features of the Union legal system. According to the advocate general in *Fiamm* even a solution adopted by a minority may be preferred if it best meets the requirements of the Union system. For this reason the advocate general confirmed the suitability of non-fault liability of the EU in the WTO context (opinion of Advocate general Maduro in *FIAMM*, C-120/06 and C-121/06 P, paras. 55.

²³ ECJ 5 October 2004, Cases C-397-403/01, *Pfeiffer v. Deutsches Rotes Kreuz, Kreisverband Waldschut eV*, ECR 2004, I-8878, §116; see also: ECJ Case C-212/04, *Konstantinos Adeneler et al. V. Ellinikos Organismos Galaktos (ELOG)*, ECR I-6057, para 123; ECJ 24 January 2012, Case C-282/10, *Maribel Dominguez v. Centre informatique du Centre Ouest Atlantique, Préfet de la région Centre*.

²⁴ ECJ 16 June 2005, Case C-105/03, *Pupino*, ECR I-5285, §50-61. This case dealt with the standing of vulnerable victims in criminal proceedings.

²⁵ Civil Service Tribunal (Second Chamber), 30 April 2009, *Laleh Aayhan and others v. European Parliament*, Case F-65/07, ECR 2009, I-A-1-001054, II-A-1-00567, §111-121; see also: T. COLLIN, "Arrêt "Aayan": l'invocabilité des directives à l'encontre des institutions", *JTDE* 2009, 213-214.

As a result, conform interpretation turns into consistent or even harmonious interpretation which applies on all levels, for all actors and in every direction or to use the words of Walter Van Gerven: “convergence all over the place”. The principle does not only apply in the relationship between the law of the member states and EU-law, but also in relation to the ECHR and international law.²⁶ More generally, the principle of harmonious interpretation seems to form the crux of legal pluralism, as it constitutes a method on the basis of which a rule is interpreted in the light of another rule from either the same or a different legal order.

IV. In search for common underlying values and principles in public and private law: towards a *ius commune* of public and private law

The public private divide has since long been conceived as the *summa divisio* of our legal system, with separate rules and principles, procedures and – to a certain extent – separate courts. Still today both branches of law are taught in separate law courses at university. Generally speaking, public law encompasses all rules related to the organisation of the state and the relationship between the state and its citizens, while private law concerns the horizontal relationship between citizens.

For many years, scholars have been trying to find parameters to delineate the boundaries of both fields of law with varying degrees of success.²⁷ In 1931 professor Paul Scholten already suggested that the question of the public or private law character of a certain field of law, such as civil procedure law, is nothing more than a question of categorisation and therefore a subordinate one.²⁸ Another scholar stated that “[i]f the law is a jealous mistress, the public-private distinction is like a dysfunctional spouse... It has been around forever, but it continues to fail as an organizing principle”.²⁹

The endeavor to find one overarching criterion to delineate both civil and public law has become even more difficult in recent times. This is to a large extent due to the above-mentioned diffusion of supranational and international law into national law, often referred to as the globalisation of law. When scholars describe our multi-layered legal order – as Walter Van Gerven and I did in our 2010 book – they are in fact looking for conflict of laws rules to manage the relationship between the multiple legal orders. These rules belong themselves in essence to public law or – if one prefers – a sort of public private law.³⁰

Another frequently cited reason is the emerging horizontal effect of public law and the spectacular rise of the recourse to fundamental rights in every field of law including private law, i.e. the so-called

²⁶ G. BETLEM and A. NOLLKAEMPER, “Giving effect to public international law and European Community Law before domestic courts. A comparative analysis of the practice of consistent interpretation”, *European Journal of International Law* 2003, p. 569-589; A. ALI, “Some reflections on the principle of consistent interpretation through the case law of the European Court of Justice”, *International Courts and the Development of International Law*, Springer, 2013, p. 887-892.

²⁷ For an overview of these criteria and many references: F. VANDENDRIESSCHE, *Publieke en private rechtspersonen*, Administratieve rechtsbibliotheek, Brugge, Die Keure, 2004.

²⁸ P. SCHOLTEN, *Algemeen deel*, Zwolle, W.E.J. Tjeenk Willink, 1934, p. 34.

²⁹ P.R. VERKUIL, *Outsourcing sovereignty: why privatization of government functions threatens democracy and what we can do about it*, 2007, 78.

³⁰ W. VAN GERVEN and S. LIERMAN, *Algemeen deel. Veertig jaar later*, p. 520.

“constitutionalisation of private law”.³¹ Although constitutional rights were traditionally developed as a set of constraints on public actors, they currently play a significant role in all legal conflicts, including those related to the relationship between individuals governed by private law. More than ever, private disputes are framed in terms of human rights discourse.

In addition, it should be noted that the state itself regularly uses private law to elaborate, execute and enforce its public tasks. This approach involves an enhanced role for the private sector and includes contracts concluded with private actors, public-private partnerships, private legal entities charged with statutory tasks and alternative dispute resolution. Public regulatory regimes connect with private ones in different ways and at different levels, giving rise to a complex mixture of public and private.³² Services that are traditionally taken care of by the state and have even been identified as activities of the state – such as running prisons, administering public transport, or providing health services – are now provided by private actors in many countries.

That is not to say that both evolutions - the globalisation and constitutionalisation of private law on the one hand and the privatisation of public law on the other hand - should be regarded without skepticism.³³ These evolutions give rise to a new type of questions situated at the crossroad of the public and private realms: to what extent can private parties be treated as public actors and the state as a private one and how can private and public rules and principles be linked and balanced? Most notably, the outsourcing of government functions - including rule-making - raises questions as to the democratic legitimacy and efficiency of private standard setting processes and the accountability of private actors to the public.³⁴

Because of the emerging mutual permeation of public and private law, the focus should not be on the question whether public law and private law can be considered autonomous fields of law or whether the one is subordinate to the other. In order to attain a more consistent and coherent legal order, legal professionals should instead try to uncover general principles common to both public and private law. Legal professionals are still too frequently tempted to look for solutions beyond the borders of their own legal system, rather than to be inspired by a solution that has been applied successfully for many years in another field of law. The Dutch Professor Jan Vranken wrote in his 1995 general introduction to law that this so-called internal comparison of law aims to protect and encourage the unity of law and jurisprudence as a whole and that it is a matter of proper conduct that comparable situations are treated in a comparable manner by all judges, despite their fields of

³¹ M. KUMM, “Who is afraid of the total constitution? Constitutional rights as principles and the constitutionalization of private law”, *German Law Journal* 2006, p. 341-370; T. BARKHUYSEN and S. LINDENBERGH (eds.), *Constitutionalisation of private law*, Leiden, Boston, Koninklijke Brill NV, 2006.

³² M. DE BELLIS, “Public law and private regulators in the global legal space”, *I CON* 2011, p. 426.

³³ See the critical remarks of E. Dirix on private law being fundamentally affected by human rights analysis: E. DIRIX, “Heeft het privaatrecht nog een toekomst?”, *C. Van Schoubroeck, W. Devroe, K. Geens and J. Stuyck (eds.), Over grenzen. Liber amicorum Herman Cousy*, Antwerpen, Intersentia, p. 810.

³⁴ R. VAN GESTEL and H.-W. MICKLITZ, “European integration through standardization: how judicial review is breaking down the club house of private standardization bodies”, *CMLR* 2013, 145-182; P.R. VERKUIL, *Outsourcing sovereignty: why privatization of government functions threatens democracy and what we can do about it*, 2007; M. DE BELLIS, “Public law and private regulators in the global legal space”, *I CON* 2011, p. 426; J. RESNIK, “Globalization(s), privatization(s), constitutionalization, and statization: icons and experiences of sovereignty in the 21 century”, *I CON* 2013, p. 162-199.

expertise.³⁵ A different treatment can indeed only be justified upon the ground of rational reasoning. The same line of reasoning can be found in the book of M.W. Scheltema and M. Scheltema “Common law. Interactions between public and private law” (original title: “Gemeenschappelijk recht. Wisselwerking tussen publiek- en privaatrecht”).³⁶

In the 1980s, professor Walter Van Gerven argued that principles of proper conduct for state and private actors are very much alike and are grounded in the same basic principles.³⁷ In the late 1990s, Dawn Oliver, for his part, wrote that the existence of common values in public and private law “indicates that the common law is ready to develop its supervisory jurisdictions by imposing duties of fairness and rationality in private law on those exercising private power that will be similar in many respects to the duties imposed on judicial review”.³⁸

Is it not remarkable that academics from very different legal systems reach the same conclusions independently of one another. Indeed, this example might illustrate that legal systems are subject to comparable developments and have the potential to reach for similar solutions despite their very different legal culture and history. Mutual permeation of public and private law seems to be one of them.

V. Common principles to balance public and private interests: principles of proportionality and of equality of citizens before public burdens

Several legal principles illustrate the mutually reinforcing effects between legal orders and between public and private law, such as the principle of legitimate expectations, the principles governing state liability or the precautionary principle.³⁹ In this presentation I would like to focus on the principle of proportionality and the principle of equality before public burdens. Although both principles are linked to the balancing of public and private interests, the former can be regarded as a more neutral or procedural principle and the latter as a more substantive one, as it values private interests in relation to public interests. The principle of equality of public burdens implies a normative choice, namely the rejection of a general rule that precedence should be given to general interests over private interests at all times. Both principles have in common that they cannot univocally be qualified as public or private law principles. Furthermore, the application of these principles is strengthened by the fact that they operate in different fields and on multiple levels.

³⁵ J.B.M. VRANKEN, *Algemeen deel*, Asser-reeks, Tjeenk-Willink, 1995; in 2005 an entirely new book on law in general has been published by the same author: J.B.M. VRANKEN, *Algemeen deel. Een vervolg*, Deventer, Kluwer, 2005.

³⁶ M.W. SCHELTEMA and M. SCHELTEMA, *Gemeenschappelijk recht. Wisselwerking tussen publiek- en privaatrecht*, Tweede druk, Alphen aan den Rijn, Kluwer, 2008, p. 8-12 and p. 3; see also: C. SIEBURGH, “Principles in private law: from luxury to necessity – multi-layered legal systems and the generative force of principles”, *European Review of Private Law* 2012, p. 295-312; the author provides appropriate modes of private law responses to the impact of European Union law, especially in order to integrate, anticipate, develop and refine principles as used in the EU also from a private law point of view.

³⁷ W. VAN GERVEN, “Beginselen van behoorlijk handelen”, *RW* 1982, p. 962-978; see also: W. VAN GERVEN, “Mutual permeation of public and private law at the national and supranational level”, *Maastricht J. Eur. & Comp. L.* 1998, p. 7.

³⁸ DAWN OLIVER, *Common values and the public-private divide*, Cambridge, Cambridge University Press, 1999, 316p.; see also: M. ROSENFELD, “Rethinking the boundaries between public law and private law for the twenty first century: an introduction”, *Int. Journal of Constitutional Law* 2013, p. 125-128.

³⁹ Walter Van Gerven and I elaborated on these principles (as well as on the principle of proportionality) in our book of 2010.

A. Principle of proportionality

In most legal systems, the principle of proportionality is well established as a general principle of law. It is said to find its origins in German administrative law, later extended to German constitutional law. The principle has further been developed in European public law, more in particular by the ECJ and the ECHR.

The principle is laid down in article 5 TEU and further fleshed out in a protocol annexed to the Treaties of the EU. Together with the principle of subsidiarity, it regulates the exercise of powers by the European Union. Within the sphere of application of Union law it can also be used to challenge the legality of state action, e.g. to assess the conformity of national restrictions with the free movement rules. The proportionality analysis in (European) public law traditionally consists of three stages: the measure must be suitable and necessary to achieve the desired end and the measure may not impose a burden on the individual that is excessive in relation to the objective sought to be achieved (proportionality *stricto sensu*).⁴⁰

The influence of this case law on the proportionality analysis on the domestic level can hardly be overestimated. In many countries across and outside Europe the principle has become a dominant principle of constitutional adjudication, not in the least in relation to human rights protection in a public and a private context. The latter already illustrates that proportionality analysis can not only be found in public law. Balancing of rights and interests is as important in private law as in public law. It is therefore no surprise that the principle is mentioned in almost every chapter of the book Walter Van Gerven and I wrote together. To mention some of the many principles and rules of a private law origin comprising some kind of balancing: prohibition of penalty clauses in contracts, abuse of rights or *exceptio non adimpleti contractus*.⁴¹

Although a more systematic and thorough comparison between private law balancing and public law proportionality is lacking, the similarities between both balancing approaches appear to outweigh the differences. For example, in Belgian private law the same three steps are material to the application of the general principle of the prohibition of abuse of rights.⁴² An abuse of rights exists if a right is exercised with the intention of causing harm (often translated by the courts in more objective terms, such as “acting without any legitimate motive” or “acting without a reasonable and

⁴⁰ P. CRAIG and G. DE BÚRCA, *EU Law. Text, cases and materials*, Oxford, Oxford University Press, 2008, p. 544; W. VAN GERVEN, “The effect of proportionality on the actions of Member States of the European Community: National Viewpoints from continental Europe”, in Ellis (ed.), *The principle of proportionality in the law of Europe*, Hart, 1999, p. 37-38.

⁴¹ See for an overview : Y. HANNEQUART, “Le principe de proportionnalité en droit privé belge”, in *Le principe de proportionnalité en droit belge et en droit français. Actes du colloque organisé par les Barreaux de Liège et de Lyon le 24 novembre 1994*, Editions du jeune barreau de Liège, 1995, p. 125-149 ; see also : T. HARTLIEF and M. STOLP, “De ontbinding wegens tekortkoming aan banden gelegd: de eisen van subsidiariteit en proportionaliteit als nieuw referentiekader”, in J. Smits and S. Stijns (eds.), *Remedies in het Belgisch en Nederlands contractenrecht*, Antwerp, Intersentia, 2000, p. 245.

⁴² W. VAN GERVEN, “Principe de proportionnalité, abus de droit et droits fondamentaux”, *JT* 1992, 305 ; M. WATHELET, “Principe de proportionnalité: utilisation disproportionnée? ”, *JT* 2007, 313 ; A. STROWEL, “De l’abus de droit’ au principe de proportionnalité: un changement de style? Réflexions sur l’écriture juridique et les principes du droit à la lumière de quelques affaires en droit d’auteur”, *Liber amicorum Michel Mahieu*, Brussel, Larcier, 2008, 294 ; V. SAGAERT, “Verantwoordelijkheid en eigendom : het aansprakelijkheidsrecht op zijn kop?”, *Verantwoordelijkheid en recht*, Mechelen, Kluwer, 2008, p. 86.

sufficient interest”⁴³), if out of different ways to exercise a right the most onerous one is chosen (i.e. going further than necessary) or if the way the right is exercised imposes a burden on another individual that is excessive in relation to the benefits thereof (i.e. not proportional *strico sensu*).

We can only agree with the hypothesis of Duncan Kennedy that, despite “dramatical practical institutional differences”, at a more abstract level there is only “a single evolving template, organised around conflict between rights and powers, between powers, or between rights, involving in each case the same three questions: (a) Have the parties acted within, or been injured with respect to, their legally recognized powers or rights? (b) Has the injuror acted in a way that avoids unnecessary injury to the victims legally protected interests? (c) if so, is the injury acceptable given the relative importance of the rights of powers asserted by the injuror and the victim?”.

However, a closer look teaches us that the way the principle is applied in private and public law is still far from consistent, both as regards the criteria and the intensity of judicial review. There certainly is need for more comparative research on balancing in public and private law and on the mutual influence between both approaches. Apart from anything else, it is noticeable that, in contrast to public law proportionality, private law balancing often includes a subjective test, taking the injuror’s intention into account. Nevertheless, even private law offers nice illustrations of balancing approaches where the subjective test has gradually been abolished and replaced by an objective test.

This is for example the case for the Belgian principle of maintaining or restoring the equilibrium between neighbouring properties. Since the 1960 plenary decisions of the Belgian supreme court (*Cour de cassation*) the principle, which emanates from the case law, is no longer founded on fault liability.⁴⁴ But even in the period before these landmark cases, courts were willing to stretch the conditions of liability, as they already accepted that causing disproportionate nuisance in itself constituted negligence.⁴⁵

Another example is the aforementioned Belgian principle of the prohibition of the abuse of rights. The subjective test, i.e. the intention of causing harm, gradually has been replaced by the more objective tests mentioned above. This is even more remarkable, because this court-developed principle is still built on the basis of *quasi*-delictual liability in the meaning of article 1382 of the Civil Code.⁴⁶ It is worth mentioning here that the prohibition of abuse of law recently also turned into a (emerging) general principle of EU law.⁴⁷ After having paved the way in *Diamantis*⁴⁸ and in *Centros*⁴⁹,

⁴³ S. STIJNS and H. VUYE, “Tendances et réflexions en matière d’abus de droit en droit des biens”, in J. Kokelenberg, et al., *Eigendom*, Brugge, Die Keure, 1996, p. 102; Cass. 17 May 2002, C.01.0101.F; Cass. 30 January 2003, C.06.0632.F.

⁴⁴ Cass. 6 April 1960 (2 decisions), Bull. 1960, I, 915, concl. Advocate-general Mahaux.

⁴⁵ M. HANOTIAU, “La responsabilité en matière de troubles de voisinage. Fondements théoriques”, *De Verz.* 1981, p. 365 *et seq.*

⁴⁶ W. VAN GERVEN, *Algemeen deel*, 1969, p. 200-201; in a contractual context the legal basis is found in the principle of good faith.

⁴⁷ R. DE LA FERIA and S. VOGENAUER (eds.), *Prohibition of abuse of law. A new general principle of EU law?*, Studies of the Oxford Institute of European and Comparative Law, no. 13, Oxford, Hart Publishing, 2011, 662p.; A. LENAERTS, “The general principle of the prohibition of abuse of rights: a critical position on its role in a codified European contract law”,

⁴⁸ ECJ 23 March 2000, Case C-373/97, *Dionysios Diamantis v. Elliniko Dimosio (Greek State) and Organismos Oikonomikis Anasygkrotisis Epicheiriseon AE* [2000] ECR I-1705.

⁴⁹ ECJ 9 March 1999, Case C-212/97, *Centros Ltd v. Erhvervs – og Selskabsstyrelsen* [1999] ECR I-1459.

the ECJ formulated its own conditions of application of the principle in *Emsland-Stärke*.⁵⁰ The two-fold test does, however, include an objective and a subjective test. First, a finding of an abuse requires a combination of objective circumstances in which, despite formal observance of the conditions laid down by the Union rules, the purpose of those rules has not been achieved (objective test). Second, it requires the intention to obtain an advantage from the Union rules by creating artificially the conditions laid down for obtaining it (subjective test). Although the ECJ implicitly accepted that the actual intention can be established on the basis of objective circumstances, this test proves to be more strict than the Belgian test. Since it is up to the national courts to establish the existence of an abuse according to this twofold test in areas of the law covered by EU law, the law of the member states is framed in a newly designated EU principle of the prohibition of abuse of law. It cannot be excluded, and it is perhaps even expected in the long term, that this EU concept of abuse will also supplant domestic concepts even in areas of the law that fall outside the ambit of EU law.

It goes without saying that the specific circumstances and the rights and values involved determine the outcome of the proportionality analysis. Although this may not constitute a reason to discard the principle, there is no room here for blind faith. Scholars rightly state that the formal rationality behind the proportionality analysis somehow conceals the normative choices behind public policies or court decisions.⁵¹ The risk thereof illustrates the need for more transparency and coherence in the case law of the national and supranational courts when applying this principle.⁵² The principle coerces courts to pay attention, not at least in their motivation, to every step of this complex balancing exercise. The principle itself as well as the legitimacy of the judge will be strengthened if the different stages of the scheme are applied more explicitly and consistently in public as well as in private law.

B. Principle of equality of the citizens before public burdens

The principle of equality before public burdens is another principle forcing public authorities to balance the individual and general interests. According to this principle, as it exists in France and the Netherlands, compensation should be provided for those suffering a disproportionate burden due to activities pursued by the administration for the common good.⁵³ The Belgian supreme court (*Cour de cassation*) only recently recognised this principle as an independent source of an obligation to compensate disproportionate damage, namely in a decision of 24 June 2010. In the meantime the Belgian Constitutional Court has turned it into a constitutional principle in a decision of 19 April 2012.

⁵⁰ ECJ 14 December 2000, Case C-110/99, *Emsland-Stärke* [2000] ECR I-1569, para 52-53.

⁵¹ C.E. SMITH, "Meergelaagdheid van rechtsordes: oude wijn in nieuwe zakken? Twee kritische kanttekeningen bij het magistrale Algemeen Deel van Van Gerven en Lierman", *Ars Aequi* 2011, 755-757; see also: D. KENNEDY, "A transnational genealogy of proportionality in private law", R. Bronwnsword, H.-W. Micklitz, L. Niglia and S. Weatherwill (eds.), *The foundations of European private law*, Oxford, Hart publishing 2011, p. 190: "Balancing is an intensely controversial procedure, commonly regarded as, at least potentially, a Trojan horse for the invasion of law by ideology".

⁵² With regard to constitutional adjudication: P. POPELIER and C .VAN DE HEYNING, "Procedural rationality: giving teeth to the proportionality analysis", *European Constitutional Law Review* 2013, p. 230-262; VAN DROOGHENBROECK, *La proportionnalité dans le droit le droit de la convention européenne des droits de l'homme*, Brussels, Bruylant, 2001, p. 548.

⁵³ See for a thorough analysis from a comparative perspective: M.K.G TJEPKEMA, *Nadeelcompensatie op basis van het égalitébeginself*, Recht en Praktijk, Staats- en bestuursrecht, Kluwer, 2010, 1067p..

But even before acknowledging the principle as an autonomous principle of law, both courts were willing to compensate damage, even in the absence of fault.

We will further elaborate on this evolution in Belgian case law, since it offers a nice illustration of a plurality of norms leading to an enforced legal protection. No-fault state liability is developing gradually through different stages in which different national and supranational actors are involved. Not in the least it provides an example of different courts reaching a similar outcome through distinct legal reasoning based on national and supranational rules and principles.

Long before the aforementioned case-law, the principle was conceived as a principle of administrative law, which requires the administrative authorities to weigh all rights and interests involved before taking a decision. It is said to be the ratio, together with equity, behind the residual and strictly limited competence of the supreme administrative court (*Conseil d'Etat*) to compensate extraordinary damage due to lawful conduct of an administrative authority. The principle also inspired the legislator to adopt compensation clauses, granting compensation without the need for victims to prove negligence of the public authorities. These clauses mainly provide for compensation when property rights are infringed in a specific domain. Besides, the Belgian constitution offers a more profound basis for compensation in the case of expropriation for a public purpose in article 16. No one can be deprived of his or her property except in the case of expropriation for a public purpose, in the cases and manner established by the law and in return for fair compensation paid beforehand.

Despite these *ad hoc* interventions of the legislator, the predominant opinion in Belgian civil law has always been that whenever the government acts lawfully the loss lies where it falls. However, this long standing opinion did not prevent civil courts to compensate damage due to lawful conduct of state actors in specific circumstances. As mentioned above, courts have been willing to compensate victims of excessive disturbances affecting neighbours for a long time. These courts-developed rules also apply if one of the parties involved is a state actor, e.g. in the event of neighbourhood nuisance resulting from public works. In the 1960 plenary decisions the Belgian supreme court (*Cour de cassation*) held that this liability regime should not be founded on fault.⁵⁴ Instead, the court invoked the principle of maintaining or restoring the equilibrium between neighbouring properties. In assessing the balance between public and private interests, courts must take into account that to a certain extent every citizen should bear burdens for the sake of the public interest.⁵⁵

Except for this specific compensation regime in the event of neighbourhood nuisance, civil courts systematically denied an obligation for compensation for lawful infringements of property rights (and alike) in the absence of a statutory basis. Only recently did the Belgian supreme court deviate from its previous case law. This solution is attained, on the one hand, through a strict interpretation of article 1 of the first Protocol to the ECHR and on the other hand by recognising the principle of equality before public burdens as an independent source of an obligation to compensate disproportionate damage. I will hereafter briefly discuss both evolutions.

The right to peaceful enjoyment of property and possessions is enshrined in article 1 of Protocol 1 to the ECHR and, according to a longstanding case law of the European Court of Human Rights, it

⁵⁴ Cass. 6 April 1960 (2 decisions), Bull. 1960, I, 915, concl. Advocate-general Mahaux.

⁵⁵ Cass. 28 January 1991; Cass. 23 May 1991.

contains three rules. First, this provision establishes the protection of property. Second, it sets out requirements for expropriations. Third, the article deals with the control of use of property, giving it a larger scope than the afore-mentioned article 16 of the Belgian Constitution. Furthermore, the Court established three main principles applying to the protection of property. The principle of lawfulness means that each infringement upon the right to property must have an accessible, sufficiently precise and foreseeable legal basis (lawfulness-test). According to the second principle every measure interfering with the peaceful enjoyment of possessions has to serve a legitimate aim in the public interest (public interest-test). Finally, the third principle requires a fair balance between the demands of the general interest of the community and the requirements of the protection of the individual's fundamental rights (fair balance-test). The fair balance is breached when an individual has to bear an individual and excessive burden. These principles apply to both deprivation of property and control of use.

Although this article does not explicitly provide for a right of compensation for an infringement upon the right to property, the ECHR stresses that compensation terms under the relevant legislation are material to the assessment of whether the contested measure respects the requisite fair balance.⁵⁶ In one of the cases where this Protocol has been relied upon (although unsuccessfully) to protect individual rights to property, the Belgian supreme court proved to be more strict than the ECHR in applying the fair balance test. The case concerned noise nuisance in the vicinity of an airport. In its decision of 4 December 2008 the Belgian supreme court imposes, except in exceptional circumstances, a duty on the public authorities to compensate the citizens for the infringement of their right to property in the sense of article 1 of the first Protocol. For assessing the fair balance between the general interest and the individual's fundamental rights, courts should pay attention to the conditions and the amount of compensation. So the court finds the payment of an amount that reasonably corresponds to the value of the loss of property a prerequisite for a justified infringement of property rights. This case illustrates the tendency of a stricter testing against article 1 EP.⁵⁷

Let us now turn to the recent case law of the Belgian supreme court on the principle of equality before public burdens. In a decision of 24 June 2010 the Belgian supreme court applied the principle in a case where an innocent third party was accidentally damaged by state actions in the field of criminal law. The case concerned an owner of an apartment building who suffered damage when public authorities conducted a search of the house of someone they suspected to be a drugs dealer. During the search, ten front doors were forced resulting in damage to the doors and the doorposts. The owner was not a suspect, neither was he aware of the renter's criminal activities. The damage caused by police officers who lawfully entered the different apartments was the inevitable consequence of a balancing of interests by the public authorities. There were no indications that the search could have been performed in a less detrimental way. Nevertheless, the supreme court did not squash the court of appeal's decision holding the state liable for lawful conduct on the basis of the principle of equality before public burdens. Even without the legislature intervening, victims can be entitled to compensation for the disproportionate damage they suffered.

⁵⁶ ECHR 6 December 2001, *Yagtzilar, and others v. Greece*, para. 40; ECHR 29 March 2006, *Scordino v. Italy*, para 95; ECHR 15 January 2013, *Arsovski v. Former Yugoslav Republic of Macedonia*, para. 56.

⁵⁷ In turn the Constitutional court accepts, in contrast to the Belgian supreme court, the notion of *de facto* expropriation to extend the scope of article 16 of the Belgian Constitution, as the ECHR does in the context of article 1 of the first protocol to the ECHR.

The supreme court held that under this general principle of law laid down *inter alia* in article 16 of the Constitution, the government cannot impose charges exceeding those which a person should bear in the public interest. Because of the fundamental character thereof, the court can assume that the legislator, despite being silent, has left the application of the principle to the judge's appraisal. This decision was clearly at odds with earlier case law.

Attributing compensation for every damage caused by lawful acts would frustrate government action and would conflict with the general interest. In drawing the required boundaries of the new principle, the supreme court was clearly inspired by the case law of the Dutch supreme court (*Hoge Raad*). Only a disproportionate loss can give rise to compensation. Damage that belongs to the normal entrepreneurial or normal societal risk falls outside the ambit of the principle. Furthermore, the principle can only constitute a legal basis for compensation of abnormal loss suffered by an individual or a limited group of citizens or institutions. Damage has to be special, meaning that the loss suffered by the whole society or a group of a certain size will not give rise to compensation.⁵⁸ The exact scope of application still remains unclear though and needs to be further elaborated in the future. Questions that remain unanswered in Belgian case law are e.g. whether the financial capacity of the state or its citizens should be a factor when judging the abnormality of a claim, how limited the number of victims should be to meet the criterion of special damage and whether the scope of the principle extends to a violation of physical integrity.

The Belgian Constitutional Court in turn acknowledged the principle in a judgment of 19 April 2012. The court considered the principle to be an application of the constitutional principles of equality and non-discrimination (i.e. articles 10 and 11). In this case, the court found a national damage compensation regime for the burdens ensuing from planning regulations to be in violation of the principle when it would not apply to a certain category of persons. The importance of this decision cannot be overestimated because it grants the principle of equality before public burdens a complementary function next to the existing national compensation regimes, by recognising the possibility of such claims in connection with acts of parliament. While a possible conflict between this principle and a statutory provision granting or denying compensation for lawful conduct was not an issue in the case brought before the Belgian Supreme Court, the Constitutional Court now accepts that statutory provisions can be tested against the general legal principle of equality of the citizens with regard to public burdens.

Many member states are facing comparable evolutions and the similarities far outweigh the differences. Until now, however, the ECJ still denies that there is sufficient convergence of legal systems among the member states upholding a principle of liability in the case of a lawful act or omission of the public authorities. The ECJ considers in *Fiamm*⁵⁹ that as Union law currently stands "no liability regime exists under which the [Union] can incur liability for conduct falling within the sphere of its legislative competence in a situation where any failure of such conduct to comply with

⁵⁸ It goes without saying that criteria from tort law can, by analogy, be applied here in addition to these specific criteria: causality, fault of the victim, types of damage that can be compensated, ...

⁵⁹ ECJ 9 September 2008, *Fiamm and others v. Council and Commission*, C-120/06P and C-121/06P; the claimant, an Italian-based producer of stationary batteries (FIAMM), sought to recover damages from retaliatory measures authorized by the Dispute Settlement Body of the World Trade Organisation (WTO) and imposed by the US. The trigger for these retaliatory measures was the non-implementation of the Bananas decision by the EU.

the WTO agreements cannot be relied upon before the [Union] Courts".⁶⁰ Although the ECJ has not yet recognised the existence of a principle of EU liability for lawful acts, the court did already specify the criteria that should apply if the principle would be recognised in Union law. In *Dorsch Consult* the Court considered that a precondition for such liability would in any event be the existence of actual, unusual and special damage, i.e. exceeding the limits of the normal economic risks inherent in operating in the sector concerned and having a disproportionate impact on a particular circle of operators.⁶¹ It is of course no coincidence that these requirements closely resemble the fore-mentioned criteria in Belgian and Dutch case-law. It only seems a matter of time for the principle to be embraced by the EU Court of Justice.

These decisions on different levels are without doubt new cornerstones in the development of a general no-fault state liability regime. The coming together of different rules and principles of public and private law at national and supranational level leads unmistakably to a reinforced legal protection of citizens with respect to no-fault state liability. The broadly felt need to grant compensation for the disproportionate infringement of property rights (or alike) due to lawful conduct inspires courts to develop a new doctrine. As a result, the old paradigm ("the loss lies where it falls") is being replaced by a new one, albeit in limited circumstances and still leaving a margin of appreciation to the public authorities.

VI. Conclusion: Law as a complex adaptive system

Complex *adaptive* systems are special cases of complex systems. These systems are complex in that they are diverse and made up of multiple interconnected elements and adaptive in that they have the capacity to learn from experience and adapt to the changing environment. Examples of complex adaptive systems include the ecosystem, the biosphere, the brain and the immune system.

Law too is a complex *adaptive* system. The phenomenon of increased complexity gives rise to adapted learning methods and the equilibrium between the concurring legal systems is to a certain extent restored by convergence: convergence of methods of interpretation, of legal instruments and legal principles beyond the limits of separate branches of law and legal orders. The principle of conform interpretation gradually turns into a principle of harmonious interpretation which applies on all levels, for all actors and in every direction. Furthermore, overlapping legal orders and multiple legal disciplines in private and public law have concepts and principles in common. The principle of proportionality is such a principle that helps to balance conflicting principles and interests. The principle of equality before public burdens is another example. Both principles illustrate the mutually reinforcing effects between legal orders and between public and private law. It is a true challenge for all scholars and practitioners of law to learn from this complexity, to be aware of the objectives, principles, procedures and institutions of other legal systems and to have an eye for convergence at all times.

⁶⁰ It is worth mentioning that the context of WTO-law is rather specific, because the ECJ denies the direct effect of WTO law within the EU legal order.

⁶¹ ECFI 28 April 1998, *Dorsch Consult Ingenieurgesellschaft v. Council and Commission*, T-184/95, *Jur.* 1998, II-667, para 80; ECJ 15 June 2000, *Jur.* 2000, I-4549, para 18.