Riding the New Wave of European Water Law

Recovery of costs
In terms of recovery of costs, the federal authorities are competent to fix maximum prices of and approve any price increases for drinking water.[30] However, taxes on surface water pollution, groundwater extraction and/or private use of waterways fall under the powers of the regional authorities.[31] The three regions have issued legislation concerning levies on using groundwater and/or on discharging into surface waters, which is expected to be a first step towards compliance with the WFD's objective to provide for legislation ensuring recovery of costs.

VI. Further thoughts

Although the WFD will hopefully lead to significant improvements in water quality and quantity management in the long-term, the mechanics of its implementation are unlikely to be too onerous for most Member States. The English, German, Belgian and Dutch Governments already have much of the legislation which is necessary to implement the WFD by December 2003 in place and will only require relatively minor changes to their existing administrative arrangements and enactment of limited primary and secondary legislation.

In Germany, the challenge will be in changing the emphasis of a pollution control regime that relies on the emission principle to one that addresses diffuse pollution through river basin planning. In England, there is concern that a more flexible but less detailed EU framework may confuse matters and have a detrimental effect on the domestic water legislation that its characterised by its precision. The vagueness of some concepts coupled with greater public involvement could pave the way for much more litigation in the coming years. In the Netherlands many feel that the scope of the WFD is too limited, as it hardly deals with water quantity management. The dramatic experience of the past few years has shown that flood control is an issue that requires as much attention as quality measures.

In summary, the English, Germans, Belgians and Dutch have, in many respects, already caught the new wave of water law – the success with which they will ride it, however, will depend on close and continued cross-border co-operation, consistent application of environmental quality objectives (particularly those monitoring ecological status), establishment of strategic programmes of measures in the RBMPs and effective use of monitoring programmes which may not be so easy to achieve in practice. Importantly, achieving "good water status" is likely to require substantial financial input. Member States are offered significant scope for the postponement of achieving 'good water status' and the extent to which they take advantage of this will be a major test of the new approach.

[30] Law of 22 January 1945 concerning economical regulation and prices, B.S. 24 January 1945.
[31] Chapter IIIbis Surface Water Law; Chapter IVbis Groundwater Decree; Decree of the Flemish Government concerning grants of permits, determination and collection of retributions for the private use of waterways and affiliations, seawalls and embankments, 16 March 1994; Decree of Walloon Government concerning tax on the discharge of industrial waste water and domestic waste water, 30 April 1990; Decree of Walloon Government concerning protection and use of groundwater and drinking-water, 30 April 1990.

The *Projet de Loi sur l'Eau*

European Water Law: water policy and water resources management in France: the *projet de loi sur l'eau*

Jan C. Bongaerts
Freiberg University of Technology and Mining

Summary: After the adoption in October 2000 and the publication in December 2000 of the European Union Water Framework Directive (EU WFD),[1] Member States have to start with the transposition into national law and the actual implementation into national water policy and water resources management. For Germany, the EU WFD contains a new approach since the main principle is to integrate the ecological, economic and social aspects of water policy and water resources management at the level of river basins. Whereas some elements of current water policy in Germany take this principle into account, in many other parts this is not the case. For France, the EU WFD is familiar, because the principle of water resources management at the level of river basins has been established by the Water Act of 1964.

Hence, it is not surprising to notice that, just a little more than one year after the publication of the EU WFD, the Assemblée nationale already adopted a Proposal for a Water Act which is to replace the Act of 1964 (and the important amendments made in 1992). In fact, in terms of current practice, the basic

[1] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, Official Journal, L 327, 22/12/2000, p 0001 ff.

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structure of water resources management remains unchanged. This paper examines the Proposal and – incidentally and passim – also explains some of the institutional arrangements and instruments which characterise French water policy and water resources management.

In this two part article a short introduction deals with some of the basic principles of the Proposal for a Water Act. The next four sections deal with the four chapters of the Proposal which merit attention. In this first part first, the author investigates some general elements of decentralisation and planning, second, deals with the concept of "services publics" for the provision of water and waste water treatment; and third, looks at the reform of institutions, in particular of the agences de l'eau.

I. Introduction

In June 2001 the French environment ministry (*Ministère de l'aménagement du territoire et de l'environnement*) presented a Proposal for a Water Act (*Projet de loi sur l'eau*).[2] The practical purpose – from a legislative point of view – consists in the need to transpose the EU FWD into national law. The political purposes are somewhat different:

> *"Le projet de loi a pour objectif de renforcer la transparence, la démocratie et la solidarité dans le service public de l'eau et de l'assainissement."*
>
> "The objective of the proposal is to strengthen transparency, democracy and solidarity in the realm of the "*service public*" of water (provision) and waste water treatment."

This statement is remarkable, at least from a non-French point of view, and it sheds some light on the French position, if not philosophy, related to water resources management. Who but the French would use wordings such as transparency, democracy and solidarity in this context? Indeed, we are at some distance from other approaches using wordings such as water resources management, water industry and cost effectiveness. This is, however, not entirely the case, since the *dossier de presse* also relates to some of them.

> *"En ce sens, les missions des services publics doivent être modernisées afin de parvenir à une gestion durable et équilibrée de l'eau. Les citoyens seront associés à leur fonctionnement par l'information et la consultation des usagers et les élus locaux pourront choisir en toute connaissance le mode de gestion le plus appropriée."*
>
> "In this way, the operational guidelines of the services publics must be modernised in order to achieve a sustainable and balanced management of water resources. Citizens will become involved in their operation through the information and consultation of users and local elected representatives will be given the opportunity to choose, with full information, the type of management which is best suited."

Hence, the *projet de loi* aims at a sustainable management of water resources which is also balanced, not only in quantitative terms by assuring the availability of water resources for the various uses in the long-run but also in the social sense by having (local) responsible political decision makers set up management systems which are most appropriate in terms of the demands and needs of those who elect them in office, i.e., citizens. In other words: it is the citizens who express their needs to the attention of their elected representatives who in turn decide – with full information – on how these needs can be met.

This is, in essence, the key to the notion of "*service public*", i.e., the construct through which the state provides its citizens with a commodity or a service under the supervision of elected representatives and decision makers. Hence, water resources management, including the provision of drinking water and of waste water treatment, is considered a task of – a democratically elected – government in the first place, and, only in second place, as the subject of a for-profit water resources industry, which, after all, also exists in France. However, the *projet de loi* confirms that the ultimate responsibility for the management of water resources is with the state. This also holds for the economic arrangements to be applied to this activity, as stated below (see Section IV).

The *projet de loi* contains six chapters, four of which are of interest to the present paper.

1. Decentralisation and planning of the management of water resources;
2. *Services publics* for the provision of water and waste water treatment;
3. Reform of the water river basin agencies (*agences de l'eau*);
4. Protection of water resources;
5. Water resources boards in overseas territories;
6. Rules for entry into force and transitory arrangements.

In the following sections, Chapters 1 to 4 will be reviewed in as much as they will change the current practice of water policy and water resources management. Given the fact that, in particular, the economic arrangements are subject to substantial amendments, specific attention will be paid to them. Moreover, in order to improve understanding of the institutions, arrangements and procedures of water resources management, attention will be paid to them wherever appropriate.

II. Decentralisation and planning of the management of water resources

In France, water resources management is organised along the principle of river basins since the Water Act of 1964 (*loi sur l'eau du 16 décembre 1964*). In this respect, France finds itself at an advantage in comparison with other European

[2] See: *Ministère de l'Aménagement du Territoire et de l'Environnement: Projet de Loi sur L'Eau – Une plus grande transparence, Plus de solidarité et d'équité, Une meilleure efficacité environnementale – Dossier de Presse, juin 2001.* At the time of writing, the *projet de loi* – with some amendments – was adopted by the Assemblée Nationale in the night of 10 January 2002. See the web site of the Senate at www.senat.fr/leg/pjl01-172_mono.html for the amended text of the *projet*.

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Union Member States, where water resources management is operated by sector (e.g., industry, private households, agriculture) or by task (quality, quantity, flood protection), type of source (e.g., point sources, diffuse sources) or/and by political region. The French system comprises the following six river basins:[3]

- Artois-Picardie;
- Rhin-Meuse;
- Seine-Normandie;
- Loire-Bretagne;
- Adour-Garonne;
- Rhône-Méditerrannée-Corse.

For each river basin an appropriate institutional arrangement has been set up (see Section IV for more information). As of 1992, when the 1964 Act was amended (*loi sur l'eau du 3 janvier 1992*), the objectives and activities in terms of water resources management are contained in a principal document (one for each river basin) referred to as the *Schéma Directeur de l'Aménagement et de Gestion des Eaux – SDAGE* (Principal guidelines on water resources management). Taking a preparation stage of five years into account, the *Schémas* have been introduced in all six river basins at the beginning of 1997. They contain the overall objectives and a master plan for the entire river basin for a period of fifteen years.

In the *projet de loi* the function of the *Schémas* is being confirmed in the sense that they will also serve as the plans for water resources management which are required by Art. 13 of the EU WFD. In this respect the *projet de loi* merely aims at fine-tuning the adoption and implementation of the *Schémas* in the future. In particular, there will be a "responsible" *préfet coordinateur de bassin* who will act as the executive of a river basin district and who will have to take the ultimate decision on the *Schémas* in the future.[4] This will take place on the basis of a proposal by the *Comité de bassin* (a kind of "water parliament" – see Section IV for more information) representing the users and affected parties within the river basin.

In the scope of this paper it is impossible to deal at length with any of the six *SDAGE*. Each *Schéma* contains a general overview (a kind of master plan), a series of detailed targets and instruments and numerous working documents, including maps.[5] For the sake of illustration Box 1 contains the strategic objectives of the *agence de l'eau* of Rhône-Méditerrannée-Corse.

Box 1: Strategic objectives of the *agence de l'eau* of Rhône-Méditerrannée-Corse

1. Continuous battle against pollution

Accounting for state of affairs of rivers, groundwater bodies, lakes (in particular alpine lakes), coastal marshes and lagoons, coastal Mediterranean

Strategy focussing upon:
- Nutrients (nitrogen and phosphor)
- Toxics (metals, micro-organisms, radioactivity)
- Bacteriological contamination

2. Maintenance of the quality of water resources for all types of use

Focussing on:
- Drinking water, industrial uses of water, irrigation, bathing, fishing ...
- Determination of quality objectives for all water resources in line with the requirements of the uses

3. Acknowledgement of the strategic importance and the fragility of groundwater resources

Focussing on:
- Priority for high quality uses of groundwater (e.g., drinking water)
- Valorisation of karst areas
- Physical and qualitative restoration of alluvial systems

In order to:
- Safeguard groundwater resources for drinking water purposes

4. Better management of existing infrastructure prior to new investments

State of affairs: Existence of many large infrastructure objects (e.g. dams for hydro-electricity and irrigation works)

Strategy focussing on:
- Making better use of existing infrastructure for multiple uses beyond those originally intended

5. Improving the respect for the natural functioning of aquatic ecosystems

Strategy focussing on:
- Reduction of artificial structures and shapes of water bodies
- Improvement of their ecological functions, e.g., for migrating fishes
- Giving special attention to small river bodies and wetlands

6. Restoration of outstanding wetlands

Strategy focussing on:
- Identification and management of such sites
- Setting up a policy of conservation
- Determining strict rules for a "perennial" management
- Supervision by a "Wetlands Commission"

7. Clean-up and restoration of particularly degraded ecosystems

Strategy directed at
- Heavily polluted rivers, degraded alluvial systems, polluted aquifers (NH_3), eutrophication in coastal wetlands, polluted coastal zones, drained marshes (*marais asséches*)

[3] For a map of the territories of the six river basins, see e.g. www.eau-rhin-meuse.fr/agence/quisom03.htm .

[4] According to Art. 13, 7 of the EU FWD, the management plan will have to be reviewed for the first time after fifteen years and, after that, every six years.

[5] Readers can find the full documents on the websites of the *agences de l'eau*. The web site addresses are all of the same type: www.eau-adour-garonne.fr or www.eau-rhin-meuse.fr .

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8. Better management of risks

State of affairs accounting for natural and accidental risks (of pollution)

Strategy focussing on:
- Better knowledge of (causes of) risks
- Better management of risks for the purpose of prevention
- Better management of existing risks (crisis management)
- Avoidance of appearance of new conditions for risks

9. Integration of the management of water resources into land-use management

State of affairs accounting for:
- Limited knowledge about the functions of water bodies for
  - Purposes of water resources feedstocks
  - The significance of landscapes
  - Their interference with the management of land-use

Strategy focussing on:
- Strengthening the significance of water resources in the framework of Environmental Impact Studies on certain land-use projects, including the costs of compensatory measures

10. Improvement of concerted action for a locally integrated management of water resources

Strategy focussing on accounting for, integration of and development of instruments
- for the benefits of stakeholders,
- uses and conflicts of use,
- planning (such as *SAGE*)

Source: SDAGE de l'agence de l'eau *agence de l'eau* of Rhône-Méditerrannée-Corse

The *projet de loi* also assumes that local groups within a river basin may adopt so-called *Schémas d'Aménagement et de Gestion des Eaux – SAGE*. These are management plans for local water resources issues.[6] In order to improve the executive powers of such local groups the *projet de loi* clears the way for them to create appropriate public bodies, such as a *communauté locale de l'eau* – a local government body comprising several townships (''*communes*''), a *groupement d'intérêt public local* or another similar public body. The purpose is to give better opportunities and instruments to local governments and to strengthen their position as executive bodies, e.g., as contractors in terms of public procurement and commissioners of public works.

In the same spirit of strengthening the powers of local government in the field of water resources management, the *projet de loi* enables its representatives to take a flexible approach towards waste water treatment (i.e., in a centralised or decentralised manner), the management of rain water and urban run-off, the protection of water bodies for the production of drinking water, the management of floods and the determination of sanctions for non-compliance by users of water resources.

In this context, Chapter 1 of the *projet de loi* contains a set of rules and amended rules with respect to the proper functioning of sewerage systems. In this paper we do not deal with them at great length. Basically, these rules determine the obligations of owners of property and the *communes* (local governments) which are responsible for sewerage systems in respect of the connection to these systems and, in particular, the acceptance of ''non-domestic'' (i.e., industrial) waste waters by such public sewerage systems upon the granting of appropriate authorisations by the public authorities. They also regulate the rights and obligations of public authorities and private property and land owners in respect of the management of water bodies for purposes such as abstraction and changing their course and their volume, in particular with hydraulic works and other installations. Included in these right are so-called *servitudes* (i.e., rights of access or rights of trespassing) and the payment of compensations for benefits enjoyed or negative impacts suffered by affected parties.

In view of the water policy objective of decentralisation, Chapter 1 enables regional and local governments (i.e., at the level of *départements* and interdepartmental institutions) to take water bodies into regional ownership from ownership by central government (*l'État*) in order to manage these in a decentralised manner. This means that, in the future, these regional and local governments will have the powers to set up their own schemes of management of such water bodies, including, *inter alia*, their uses e.g., for navigation, hydro-electricity, recreation or the creation of wetlands. Again, these schemes may include s*ervitudes* and payments of compensation (e.g., for certain ''non-actions'' such as the abstinence of constructions (e.g., dikes) or of fertilisation). They also include expropriation of land by the regional and local governments at their request or at the request of land owners.

Moreover, the regional and local government will have the powers to set up their own risk prevention and management systems, in particular in respect of flooding. These include arrangements for compensation of damages suffered by private owners on the condition of their compliance with certain regulations of the risk prevention and management systems, the commissioning of preventative public works and the installation of a consultative body for the prevention of risks (*commission consultative des risques*), composed of representatives of local governments and of affected private parties (property owners, organisations of the socio-economic community, organisations with an explicit interest in risk prevention and management). Their task is to give advice to the risk prevention and management plans, which are ultimately determined by the *préfet*.

III. *Services publics* for the provision of water and waste water treatment

Chapter 2 of the *projet de loi* is devoted to the institutional

[6] In all river basins *SAGE* have been set up but the practical management does not always turn out ot be easy. The *projet de loi* intends to give a solution to the issue by providing a legal background for the *SAGE*.

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and economic arrangements governing the provision of drinking water and waste water treatment within the realm of the principle of "*service public*". In this context, institutional arrangements refer to the management structure of a river basin which comprises

- policital decision makers: the so-called regional councils (*les Conseils régionaux*), the locally elected representatives (*les élus locaux*), the local representatives of the national government (*les préfets*) and the mayors (*maires*), who are ultimately responsible for the distribution of water and the supply of waste water treatment services;
- public administrations with, at the centre, the *Agence de l'eau* as the main executive body, receiving assistance from other public administrations such as the regional representations of the national ministries (e.g., the so-called *Directions régionales de l'Industrie, de la Recherche et de l'Environnement – DIREN* and others);
- ad-hoc decision-making bodies (*comités de bassin*), often referred to as water parliaments" (*parlements de l'eau*) composed of representatives of (public and private) affected parties whose main task is to set the broad policy guidelines, including those contained in the *Schéma Directeur (SDAGE)*.

The economic arrangements relate to the allocation of the costs for the provision of the services (drinking water, waste water treatment, extraction of surface water and groundwater, transportation, hydro-electricity, fishing, leisure, etc.). As already stated, they are not – in the first place – intending towards a long-term profitability of a water resources industry but towards the recovery of costs associated with the provision of these services. The *projet de loi* does so under the overall guidance of the principle of *service public*. Moreover, local governments are reinforced in their competence to provide for these services – taking also the principle of "social cohesion" into account.

In this context, the *projet de loi* states that

> *"Les communes assurent l'assainissement collectif des eaux usées, qui comprend leur collecte, leur transport, leur épuration et l'élimination des boues produites ainsi que le contrôle des installations d'assainissement non-collectif."*
>
> "The local governments (*les communes*) are responsible for the provision of the public treatment of waste water which comprises collection, transport, treatment and the elimination of sludges and the monitoring of decentralised waste water treatment."

The *projet de loi* states furthermore that this monitoring of decentralised waste water treatment installations must be in place by the end of 2005. The reponsibility of the *communes* also includes the obligation of payment of *redevances* (water resource user fees – see below).

In terms of the provision of drinking water, the *projet de loi* confirms the responsibility of the *communes*, including the basic right of every person "in precarious conditions" (*toute personne en situation de précarité*) of access to drinking water, irrespective of billing. For domestic users with an income below a certain treshold level, a tariff for "basic needs" will have to be installed.[7] The *projet de loi* contains further specifications on the management of drinking water supply in the case of unpaid bills.

Billing is another feature of importance in the *projet de loi*. In principle, the purpose of the *projet de loi* is to assure payments only for actual quantities of drinking water and for actual services of waste water treatment. This means that current exemptions, such as public buildings, are abolished. It also means that existing schemes of prepayments (*depôt de garantie ou d'avances*) are abolished. In this context, all costs of the provision of both services (i.e., drinking water and waste water treatment) are to be covered by the prices charged and – under specific conditions which depend on the local environment – scarcity pricing is explicitly allowed, e.g., in the shape of progressive pricing in areas with water shortage.

The *projet de loi* also aims at the improvement of transparency issues. Whilst it clearly determines a responsibility of the *communes* for the provision of drinking water and waste water treatment services, it sets rules for communication and advice by the affected parties on actual policy-making, i.e., regulatory arrangements (by-laws, model contracts), reports on the quality of the services rendered and on their performance, proposals for tariff schemes and multi-annual investment plans. Mayors (*les maires*) are obliged to consult with the affected parties, grouped into appropriately appointed bodies known as *Commissions consultatives des services publics locaux* according to procedures specifies in the *projet de loi*.

Another related issue is concerned with the outsourcing of the services to private contractors. The *projet de loi* is interested in two aspects. On the one hand, the duration of contracts for outsourcing these services is generally limited to 10 years.[8] On the other hand, the *projet de loi* contains regulations dealing with the return of infrastructure to the *communes* at the end of the contract period, in particular in respect of the appropriate requirements of maintenance and investment, eventually including cash transfers by the private operator whose contract ends.

Finally, the projet de loi installs a *Haut Conseil des services publics de l'eau et de l'assainissement* (a High Council for the *services publics* of drinking water and waste water treatment). Its task is to contribute to the regulation of these services

> *"par l'analyse du coût, de la qualité des services ainsi que des charactéristiques et des performances des ouvrages et des prestations."*
>
> "through the analysis of the costs, the quality of the services and the characteristics and the performance of the works and the deliveries."

This paper does not deal in detail with this *Haut Conseil* and readers with an interest should consult the *projet de loi*. As it appears, the *Haut Conseil* is seen and defined as a consultative body with the task of carefully "watching" the practices of the provision of the services and giving advise whenever it feels like doing so. In order to facilitate its task, the *Haut Conseil* has a right of almost unlimited access to the "facts and figures" of water policy and water resources management. The *Conseil* is to be consulted on any legal initiative (e.g., laws, ministerial decisions (*décrets*)) and has the right to produce advisory statements on them.

[7] Details on this treshold level and on the tariff will be set by a ministerial decision (*décret*).

[8] Currently, such contracts may last twenty years.

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Moreover, the *Conseil* has the obligation to network with all affected parties, in order to establish:

> *''un modèle de règlement de service pour les services public de l'eau et de l'assainissemnent ainsi qu'un modèle de contrat de délégation de ces services.''*
>
> ''a model for the regulation (the institutional arrangements) of the *services publics* of drinking water and waste water treatment and a model for the outsourcing (outside contracting) of these services.''

Given the structure of this body, it appears that the *Conseil* is not a regulation agency, since it only has an advisory status, albeit on a very high level. One might consider it as performing the function of an ''Ombudsman'' for the provision of drinking water and waste water treatment services.

In summary, Chapter 2 of the *projet de loi* contains regulations on the provision of drinking water and waste water treatment under the responsibility of local governments (*les communes*). First, access to drinking water is defined as a basic right which does not depend on the payment of water bills (*solidarité*). Second, for drinking water, tariff stuctures are simplified in the sense that they only depend on actual consumption (*transparence, solidarité*). This includes public buildings which obviously are not always being submitted to billing. Third, capital budgeting plans with respect to water works and waste water treatment plants are to be subjected to previous consultation by citizens through representative consultative committees (*démocratie*). Fourth, contracts for outsourcing the provision of activities to the private sector are limited to 10 years instead of 20 years. Moreover, towards the end of the contract period, contractors must make sufficient funds available for rehabilitation measures. Finally, a *Haut Conseil des services publics de l'eau* is to be installed in order to provide guidelines for the management of the provision of drinking water and waste water services. This *Haut Conseil* will make public its opinions on issues such as

- Monitoring of the water industry (drinking water and waste water), in particular with respect to costs and quality of service;
- Rule and codes on conduct for these services;
- Arrangements for outside contracting.

In the second part of this article the author briefly mentions some instruments for better protection of water resources. A conclusion summarises the main findings.

Publications

Books Received

Marine Issues: From a Scientific, Political and Legal Perspective

Edited by Peter N. Ehlers; Elisabeth Mann Borgese; Rüdiger Wolfrum; Assistant Editor: Cristina Hoß

This volume collects a number of essays and articles from about twenty experts in various fields connected to marine environmental issues. These essays were first presented at the XXVIII Pacem in Maribus Conference held in December 2000, at the International Tribunal of the Law of the Sea in Hamburg, Germany. The purpose of the Conference was to enhance awareness of the European public, governments, the private sector and academia about the importance of responsible ocean and coastal management based on ocean science. Reflecting the innovative interdisciplinary approach of the conference, these volume groups contributors from leading biologists, political scientists, geographers, and jurists according to specific regional relevance and not along strict disciplinary lines. This approach allows the experts to treat marine issues concerning regions such as the North Sea, the Baltic Sea, or the Black Sea in a comprehensive manner.

The Publishers say this collection could become an essential instrument for scholars and scientists working within the field of marine environmental issues.

Contents and Contributors:

List of Abbreviations. From the Rhodian Sea Law to UNCLOS III; *W.G. Vitzthum.* Non-European Sources of the Law of the Sea; *R.P. Anand.* Port State Control: An Assessment of European Practice; *D. König.* The Northern Sea Route – Chance or Threat; *J. Schwarz.* The Development of Environmental Standards for the Baltic Sea; *U. Jenisch.* Monitoring Compliance and Enforcement of Compliance through the Helsinki Convention; *M. Fitzmaurice-Lachs.* Marine Environment Protection – The Baltic Sea Example; *P. Ehlers.* The Baltic Sea Joint Comprehensive Environmental Action Programme; *U. Kremser.* The Quality Status Report (QSR 2000) for the North East Atlantic; *R. Salchow.* The Development of Environmental Standards for the North-East Atlantic, including the North Sea; *W.H. v. Heinegg.* Monitoring Compliance and Enforcement of Compliance through the OSPAR Commission; *R. Lagoni.* The Mediterranean Marine Environment: Pressures, State of Pollution and Measures Taken (The Barcelona Convention and the Mediterranean Action Plan); *F.S. Civili.* The Development

Country Reports

- Council Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances.
- Council Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC.

Source: Official Journal of the Ministry of Environment N.3 Year 2002.

The Projet de Loi sur l'Eau

European water law: water policy and water resources management in France: *the projet de loi sur l'eau*

Jan C. Bongaerts
Freiberg University of Technology and Mining

Summary: In the second part of this two part article the author looks at the reform of institutions, in particular of the agences de l'eau, and briefly mentions some instruments for better protection of water resources. A conclusion will summarises the main findings.

III. Reform of the river basin agencies (*agences de l'eau*)

According to the *projet de loi* the *agences de l'eau* are defined as

> *''Établissement public national à caractère administratif doté de l'autonomie financière ... chargé de faciliter la mise en oeuvre des orientations des Schémas Directeurs de l'Aménagenent et de la Gestion des Eaux et de mener ou soutener des actions destinées à favoriser une gestion globale durable et équilibrée de la ressource en eau et des milieux aquatiques, à assurer la prévention des inondations ainsi qu'à préserver les intérets mentionnées à l'article L 211-1. Elle assiste les collectivités teritoriales dans l'exercice de leur mission de service public de distribution de l'eau et de l'assainissement, cette assistance recouvrant notamment des fonctions d'expertise, d'évaluation et de conseil tant en matière de fonctionnement que de politique d'investissement et de recherche.''*
>
> ''Public national administrative body equipped with financial autonomy having as its obligations to facilitate the implementation of the *SDAGE* [see Section 1 of this paper] and to take or support actions for enabling a sustainable and balanced management of water resources and of aquatic environments, to assure the prevention of floods and the [*issues of*] interest mentioned in Section 211-1.[1] It assists regional and local governments (*les collectivités teritoriales*) with their *service public* obligation of the provision of drinking water and waste water treatment. This assistance is given in the shape of expert consulting, evaluation and advice both in terms of investment policies and of research.'' [Article 38 of the *projet de loi*.]

In essence, the tasks and the activities of the *agences de l'eau* are not modified but the important innovation is to be seen in the fact that, in the future, their legitimation is granted by the national parliament (*encadrement parlementaire*). In particular, the formal reason for the involvement of the parliament in the determination of the *redevances* (the water resource usage fees – see below) is constitutional. The 1964 Water Act established this system of *redevances* which – *a posteriori* – turned out not to be in line with the constitution, because the tariff structure and the rates are set by the *comités de bassin* (known as the ''water parliaments'' – see below). With the adoption of the *projet de loi*, the parliament will determine the priorities and the guidelines through legislation and leave it to the *agences de l'eau* to regulate the details – in co-operation with their *Comités de bassin*.

The *agences de l'eau* are operating within their river basin (with one or more locations and their organisational structure adapted to the requirements of their tasks) under the head of a director. Their main source of income consists of the revenues of the *redevances* from which they fund their so-called grants programmes (*programmes d'intervention*) through which financial assistance is given to the affected parties paying these *redevances*. The *programmes d'intervention* are multi-annual (as of 2004, they will last five years in order to comply with the EU WFD) and their formal adoption takes place along the lines of Graph 1.

First, the *agence de l'eau* comes forward with a proposal in which it takes the priorities for water policy and water resources management set by the national parliament into

[1] This the section of the Environment Code (*Code de l'environnement*) which contains the overall objectives (referred to as *intérêts* above) of water policy and water resources management. The *projet de loi* has amended this section in order to give it exactly the same wordings as contained in Art. 4 of the EU WFD (i.e., referral to the good ecological condition of surface waters and the good chemical quality of groundwater resources, etc.). In other words, the *agences de l'eau* are responsible for the implementation (in practice) of the EU WFD.

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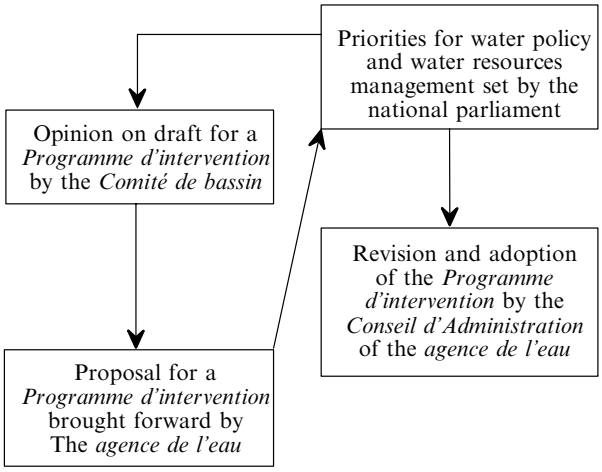
account. Then, the *Comité de bassin* (the ''water parliament'') expresses its opinion. The ultimate decision is taken by the board of the *agence de l'eau* known as the *Conseil d'administration* (see below).



Graph 1: Procedure for adoption of the river basin grants programmes (*programmes d'intervention*)

Comité de bassin

Unofficially known as the *parlement de l'eau* (the water parliament) the *Comité de bassin* represents the affected parties (stakeholders) of water resources management. They are grouped into several ''*collèges*'' according to the stakeholders. Each of these have their own procedure for decision-making on actual membership. Table 1 presents an overview.

Table 1: Membership of the Comité de bassin by type of stakeholders and by way of appointment

Stakeholders	Actual members	Way of appointment
Central government (*L'État*)	Experts of national ministries	National ministries Regional parliaments
Regional and local government (*Les collectivités territoriales et locales*)	Representatives of *''Départements, arrondissements*'' and of cities and townships	(*Conseils régionaux and Conseils généraux*), Mayors' assocociation (*Association des Maires de France*)
Users (*Usagers*)	Representatives of agriculture, drinking water and waste water treatment industries, fisheries, nature protection organisations, water navigation industry, manufacturing industries etc.	Representative bodies of each industry
''Socio-professesionnels''	Representatives of *Conseils socio-économique de régions*	*Conseils socio-économiques de régions*
Experts *(''personnes* compétentes'')	Experts, mainly to assist the *collège* of users	National environment ministry

Table 2 shows some statistics on the distribution of membership across the *collèges* for three *Comités de bassin*.

Table 2: Basic statistics on the distribution of membership across the *collèges* for three *Comités de bassin*

Stakeholders	RMC *	Rhin-Meuse	Loire-Bretagne
L'État	22	15	29
Les Collectivités teritoriales et locales	48	26	49
Les usagers	48	26	49
Les socio-professionnels	6	3	2

Sources: Web sites of the agences de l'eau of RMC *, Rhin-Meuse and Loire-Bretagne.
* = Rhône-Méditerrannée-Corse

From Table 2 it becomes obvious that membership is ''balanced'' in the sense that the share of regional and local government equals the share of the users. The share of central government is substantial but, since it is smaller, it is far from dominating. Moreover, this *collège de l'État* does not participate in the voting for a president and one or more vice-presidents of the *Comité de bassin*.[2]

The *Comité de bassin* meets at regular and scheduled time intervals (two to three times per year) and the minutes of the meetings are made public.[3] The *Comité de bassin* has three basic functions:

1. Preparation of the *Schéma Directeur* (*SDAGE*) for approval by central government (*L'État*) and – after formal adoption – monitoring of its implementation and of progress made (This may include advice on the local management plans (*SAGE*));
2. Giving guidance to the work of the *agence de l'eau* by adopting the grants programme (*programme d'intervention*).[4] This includes decision-making on the *redevances*;
3. Giving advice on all issues dealing with water policy and water resources management, in particular with respect to the grants programme (*programme d'intervention*) and works of infrastructure.

Moreover, the *Comité de bassin* has an important role to play in the nomination of the board of the *agence de l'eau* known as the *Conseil d'administration*. The *projet de loi* reconfirms this arrangement. Hence, in the future, the *Conseil d'administration* will be composed of:

- a president appointed by decree by the President of the Republic (*le Président de la République*);
- representatives of central government (*l'État*);
- representatives of the regional and local governments (*les Collectivités territoriales et locales*)
- representatives of the users and – explicitly mentioned – of non-governmental organisations dealing with the

[2] Just for the sake of completeness, one should also mention that every member of the *Comité de bassin* has a substitute member.
[3] See, for example, the Web site of the *agence de l'eau* of Rhin-Meuse.
[4] The eight series of programmes will start in 2004 and last for five years.

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aquatic environment and the environment in general; and

- one representative of the staff of the *agence de l'eau*.[5]

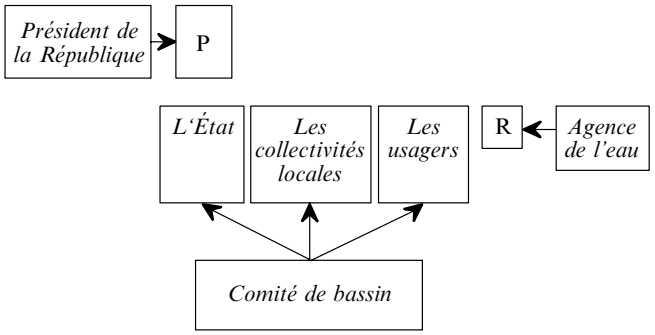
Membership of the *Conseil* is decided by taking votes in the *Comité de bassin*. In contrast to the relative weighing in the *collèges* of the *Comité de bassin*, the number of seats held by the three stakeholders groups (*L'État*, *les Collectivités territoriales et locales* and *les usagers*) in the *Conseil d'administration* is equal (see Graph 2 further below). The tasks and responsibilities of the *Conseil* are dealt with below. At this stage, it suffices to state that the influence of the *Conseil* on the activities of the *agence de l'eau* is considerable. Observers not familiar with French public administrative practice may wonder how a public administration such as the *agence de l'eau* (with fiscal independence) is controlled by a body with – at least in part – a membership coming from the private sector.[6]

Whilst the structure as described above applies to all *Comités de bassin*, each *Comité* is being assisted by lower-level commissions (with extended memberships), scientific advisory groups and other bodies with special tasks. These substructures differ across the *Comités de bassin* as they are laid out in accordance with the specific need of each of them. Whilst they are very valuable for the performance of the *Comité de bassin*, it is not possible to deal with them in this paper.

Conseil d'administration

As already explained above, the *Conseil d'administration* acts as the board of the *agence de l'eau*. It is appointed by the *Comité de bassin*, as shown above. Its basic task is to formally adopt the grants programme (*programme d'intervention*). This includes making a proposal to the members of the *Comité de bassin* on the actual levels (rates) of the *redevances* for adoption by the *Comité de bassin*, the structuring of the grants schemes (rules of procedure and allocation) and the actual administration of the *agence de l'eau*. In line with the specific characteristics of the river basin and the tasks, the *Conseil* sets up its own organisational structure, including working groups, commissions, etc.[7]

Graph 2 represents the *Conseil d'administration* of the *agence de l'eau* and the way of appointment of its members.



Notes:
P = *président du Conseil d'administration*
R = a representative of the staff of the *agence de l'eau*

Graph 2: *Conseil d'administration* of the *agence de l'eau* and way of appointment of its members

Water resources user fees

One of the key instruments of French water policy and water resources management is the levying of charges for the use of water resources (abstraction) and of water bodies as recipients of effluents (discharges). Known as *redevances* they are genuinely to be considered as "user fees" with respect to the (impairment) of water bodies. Hence, the principle holds that the use of a water body (for abstraction, reception of emissions or other) is not free but, instead, requires the payment of a *redevance*.[8]

This fundamental principle has to be seen in the light of the "philosophy" of water resources management as described in Section 1 of this paper. Indeed, the *redevances* are not to be considered as taxes with the proceeds entering the general budget. Instead, they constitute the basis for earmarked funds which are to be spent on water resources management projects in the framework of the *programmes d'intervention* (grants programmes) managed by the *agences de l'eau*. The instrument of *redevances* must be seen as a particular element of the "democracy" and "solidarity" principles in respect of water resources management. Needless to say that it also reflects the polluter-pays-principle, and that the *projet de loi* has reinforced its significance (i.e., by referring to actual pollution (see below).

Redevances

The origin of the *redevances* dates back to a decree of 1966 following the Water Act of 1964 (*Décret du 14 septembre 1966*):

> *"Des redevances peuvent être réclamées aux personnes publiques ou privées qui rendent l'intervention de l'agence nécessaire ou utile:*
> - *soit parce qu'elles contribuent à la détérioriation de la qualité de l'eau;*
> - *soit parce qu'elles effectuent des prélèvements sur la ressource en eaux;*

[5] Moreover, the director of the *agence de l'eau* is a member and the *Conseil* can invite persons with an advisory vote to accept membership (e.g., a past president and other "very important persons" in the world of water resources management.

[6] In the German context, one would expect such a public administration to be under the command and the (political) responsibility of a minister of either a national or a *Länder* government. Clearly, bodies with participation by the private sector can become involved in the activities of this public body but this would only happen on an advisory basis.

[7] To give an example: the *Conseil d'administration* of the river basin of *Rhône-Méditérrannée-Corse* has four commissions: *Commission des Aides* (grants commission), *Commission Programme* (programming commission), *Commission PMPOA* (Agriculture Commission – PMPOA is an acronym for a specific programme of grants for farmers) and *Commission Communication*.

[8] This contrasts with other practice, such as the German case, where uses of water bodies are subject to a license provided by a local or regional environmental authority upon application. In France, rights of use are also subject to a license, but the instrument of *redevances* is seen as equally important in the sense that they are the "prices" payable for any negative impact (above certain treshold levels See below). In the German context, charges for effluents into water bodies are also in use, but they are typically seen as complementary instruments to the emission standards. Moreover, some *Länder* have groundwater extraction charges.

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- *soit parce qu'elles modifient le régime des eaux dans tout du partie du bassin.*

Des redevances peuvent être également réclamées aux personnes publiques ou privées qui bénéficient de travaux ou ouvrages éxécutés avec le concours de l'Agence.''

''*Redevances* are due by public bodies and private persons when action by the *Agence* is required or useful either because they

- contribute to a deterioriation of water quality; or
- abstract water from a water resource;
- change the state of water bodies in all or part of the river basin.

Redevances may also be payable by public bodies and private persons who benefit from public works carried out by or with the support of the a*gence de l'eau*.''

These wordings should not be interpreted in the sense that it is up to the a*gence de l'eau* to determine who is liable for the payment of the *redevances* and, who, therefore, is to be considered as a ''polluter'' or a user exerting a negative impact on a water body. The notion of required or useful action by the *agence de l'eau* suggests that this might be the case. In reality, the ''polluters and users'' who are liable for payment of *redevances* are identified by law but, currently, the level of the *redevances* is set by the *Comité de bassin* within the boundaries of the law. Hence, the currrent procedure may be seen as a dilemma in which the stakeholders (who – at least in part are the polluters and users) set their own *redevances*.

The *projet de loi* tends to solve this issue in providing a clear legal background based upon the polluter-pays-principle for all three categories of *redevances* (i.e., pollution, abstraction and change of the course or the volume of a water body).

In the case of pollution the *projet de loi* states that

''Les redevances pour pollution de l'eau sont dues par toute personne publique ou privée, dont les installations, activités ou travaux sont à l'origine d'un déversement, écoulement, rejet, dépôt direct ou indirect de matières de toute nature et plus généralement de tout fait susceptible de provoquer ou d'accroître la dégradation des eaux en modifiant leurs caractéristiques physiques, chimiques ou biologiques, qu'il s'agisse d'eaux superficielles, souterraines ou des eaux de la mer dans la limite des eaux territoriales.''

''*Redevances* for pollution are due by any person, whether public or private, whose installations, activities or works cause an emission, effluent – direct or indirect – of matter of any kind and, more generally, of any fact which might enhance or increase the degradation of water (resources) through modification of their physical, chemical or biological characteristics, for surface waters, ground-waters and marine waters within the territorial water limits.''

Similar statements can be found for the other categories of use of water resources (i.e., abstraction and changes of water courses and of their volume). Hence, the *projet de loi* no longer refers to the required or useful measures which might be taken by the *agence the l'eau* but to the objectively identifiable situation in which a ''*personne publique ou privée*'' exerts a negative impact on the quality or quantity characteristics of a water body. This viewpoint might henceforth strengthen the position of the *agences de l'eau* as they dispose of a better legal base in terms of setting *redevances* in the future. In this respect, the *projet de loi* contains detailed prescriptions with respect to the future *redevances*.

The *projet de loi* confirms the system of *redevances,* on the one hand, by simplifying its calculation, i.e., focussing on actual pollution[9] and, on the other hand, by adding new parameters to the existing set. These are heat (from cooling waters) and nitrogen from agriculture. In the following part, we take a look at the reviewed system of *redevances* as contained in the *projet de loi*.

New *redevances* according to the *projet de loi*

The *projet de loi* distinguishes between five categories of *redevances*: pollution, collection in sewerage systems, excess nitrogen, abstraction and change of course or volume of a water body. In this context, the *projet de loi* states that

''*L'agence de l'eau établit et perçoit sur les personnes publiques ou privées des redevances pour pollutions de l'eau, pour réseau de collecte, pour excédents d'azote, pour consommation d'eau et pour modification du régime des eaux en application notamment du principe pollueur-payeur.*''

''The *agence de l'eau* determines and levies from public and private persons *redevances* for water pollution, collection by sewerage systems, excess nitrogen, abstraction and the change of course or volume of a water body, notably by adopting the polluter-pays-principle.''

The *projet de loi* continues by stating that the *redevances* are to be determined on the basis of so-called *assiettes des taux* (i.e., sets of parameters or characteristics of water bodies and/or of activities) specified for each *redevance* (See below for details) and on the basis of so-called *coefficients de modulation géographique* (geographic weighing coefficients) reflecting the ecological properties of hydrographic (surface or groundwater) areas (*unités hydrographiques*). These coefficients and areas will have to be determined by the *Conseils d'administration* with the advice of the *Comités de bassin*.

The overview starts with the first category, i.e., pollution, which is also the most complex one.

New *redevances* for pollution (*pollutions*)

The purpose of the *projet de loi* with the new *redevances* is to set rules for the determination of actual pollution as caused by various actors. Within the category of pollution, a distinction is made between point sources and diffuse sources. With respect to the latter, only agriculture is taken into account, as is shown further below. With respect to pollution from point sources, a distinction is made among various subcategories as shown in Table 3.

[9] The current system is based, among others, on the amount of pollution generated by an effluent source on a ''normal'' day during the month of ''highest'' activity.

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Table 3: Subcategories of pollution from point sources

- Households pollution (*pollutions domestiques*): coming from water uses in private households, irrespective of whether those households are connected to a sewerage system;
- Pollution comparable to households pollution (*pollutions assimilées aux pollutions domestiques*): coming from water uses other than private households and below the treshold levels (see Table 4);
- Pollution from rainwater (*pollutions pluviales*);
- Urban pollution (*pollutions urbaines*): totality of water pollution in cities and conurbations;[10]
- Industrial and comparable pollution (*pollutions industrielles et assimilées*): coming from water uses other than households and above the treshold levels (see Table 4);
- Pollution from waste water treatment (*pollution relevant de l'assainissement collectif*): urban water pollution as collected by a public sewerage system including industrial and comparable pollution also collected by such a sewerage system.

For the calculation of the *redevances*, so-called threshold levels are introduced. *Redevances* are only payable by individual persons (including legal persons) with an annual pollution above these threshold levels. Table 4 contains an overview of the threshold levels.

On the basis of these threshold levels, the quantities of pollution for which *redevances* are set, can be determined. In this respect, the *projet de loi* simplifies matters because, in the future, these quantities refer to pollution actually released into the environment. For a public sewerage system this means that actual pollution is defined as the difference between the pollution quantities entering the system and those leaving it after waste water treatment.[11]

Even so, this means that information on the pollution quantities in the incoming waste water is necessary in order to determine the net quantities of pollution (referred to *as pollution rejetée dans le milieu naturel*). For individual households this information is provided by estimates leading to an average or standard quality of a m^3 of waste water. For large emitters, such as firms, this estimation procedure is also allowed but, upon the request by such an emitter, the *agence de l'eau* may determine the actual quantities of pollution on the basis of a self-monitoring activity. The guidelines for this procedure are determined by the *projet de loi* with the purpose of enabling the *agence de l'eau* to determine total pollution in the river basin and, in consequence, the appropriate *redevances*. Firms have the obligation to co-operate with the *agences de l'eau* for this purpose.

For the determination of households pollution, a standardized approach is used. In this context the concept of urban pollution (*pollution urbaine* – see Table 3 above) is defined as the product of

$$(PP + PS) \times CA \times IE = PU \qquad (1)$$

in which:

PP = "permanent" population;
PS = "seasonal" population with 1 PS = 0.4 PP;
CA = coefficient of urban scale (*coefficient d'agglomeration*);

Table 4: Overview of the threshold levels above which *redevances* are payable (various units, annual amounts)

	Units	Levels
Suspended matter	kg	5200
Chemical oxygen demand	kg	9900
B Biological oxygen demand (five days)	kg	4400
Nitrogen (reduced, ammoniacal and organic)	kg	880
Nitrogen (oxydized, nitrates, nitrites)	kg	880
Total phosphor (organic and mineral)	kg	880
Metals and metalloids, taken by the sum of their masses, each of these being weighed by a coefficient of toxicity (in [...] brackets)	kg	200
Arsenic [10]		
Cadmium [50]		
Chromium [1]		
Copper [5]		
Mercury [50]		
Nickel [5]		
Lead [10]		
Zinc [1]		
Acute toxicity determined by materials inhibiting the mobility of *Daphnia magna-Staus* (*cladocera crustacea*)	kiloequitox	50
Chronic toxicity determined by materials inhibiting the growth of *Pseudokirchneriella subcapitata*	kiloequitox	200
Dissolved salts (in terms of enhanced conductivity) when the contrentration of dissolved salt of the recieving river is less than 2 g/l	Siemens/ m^3	2000
Quantity of emissions of waste heat (in Megathermies Mth) when the temperature of the recieving water body is – on annual average – 3 °C lower		
Effluent into the sea	Mth	100
Effluent into rivers	Mth	10

Source: *projet de loi*

IE = quantity of pollution per individual (so-called inhabitant equivalent);
PU = *pollution urbaine*.

Explanatory Note

PP + PS is defined as the number of residents in

- The entire territory of a *collectivité locale* (a group of towns jointly operating or outsourcing a public sewerage and waste water management system);
- The territory of a sewerage system as determined by a *collectivité locale* – Hence, households not connected to the system are excluded;
- The entire territory of a *collectivité locale* if the latter does not comply with the legal obligation of monitoring the adequate preformance of decentralised waste water treatment installations.

Clearly, the last alternative sets a strong incentive to comply with this obligation.

[10] See below for further specification.

[11] Current practice is more complex because households pay *redevances* on the basis of the pollution they send to the sewerage system and recieve rebates (known as *contre-valeur*) for the environmental performance of the waste water treatment operations. This cumbersome procedure will be simplified in the future.

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CA = *coefficient d'agglomeration*

Table 5 provides an overview of the values of CA, which are based upon the number of residents in a *collecivité locale*.

Table 5: Overview of the values of CA, the *coefficient d'agglomeration*

Number of inhabitants	Value
< 10000	1
10001 – 50000	1.1
50001 – 2 million	1.2
> 2 million	1.4

Source: *Projet de loi*

In comparison with current practice one should note that existing rebates (i.e., CA = 0.75) for small populations are abolished and that the maximum level of 1.4 only applies to the Paris region.

IE = pollution per inhabitant

This is defined in the *project de loi*. Each inhabitant is supposed to generate the quantities reproduced in Table 6.

Table 6: Standardized pollution (inhabitant equivalent) per year

Category	Amount
Suspended matter	25 kg
BOD_5	22 kg
COD	50 kg
Reduced nitrogen	4 kg
Phosphor	1 kg
Metals and metalloids	0.1 kg equitox
Inhibiting materials (acute and chronic toxicity)	0.1 kg equitox

Source: *Projet de loi*
Note: Readers are referred to Table 4 for a comparison.

On the basis of formula (1), the *redevances* for households pollution are to be set by the *agences de l'eau* taking so-called baseline values contained in the *projet de l'eau* into account. For households connected to a public sewerage system the *collectivité locale* is liable for their payment. Households outside such systems are individually liable for payment.

The explicit inclusion of households not connected to sewerage systems in the payments of redevances makes a lot of sense, since it is by no means an established fact that all households are connected. Table 7 illustrates the point for the river basin of Rhin-Meuse.

In this context, it should, however, be taken into account that there is no general objective of achieving a 100 % share – given the existence of decentralised waste water treatment installations. This also explains why households not connected to a public sewerage system are liable to pay *redevances* under the conditions of Table 4.

Finally, Table 8 contains the baseline levels for the *redevances* for each category of household pollution as determined by the *projet de loi*.

The *projet de loi* states that the actual rates of the *redevances* may differ from the baseline levels shown in Table 8 by a margin of at most 25 % (above and below). The setting of these actual rates is a complex procedure,-

Table 7: Share of pollution treated in public waste water treatment plants in the Rhin-Meuse river basin

Number of *département*	Name of *département*	Share of pollution actually treated in WWTP (%)
08	Ardennes	60
52	Haute-Marne	18
55	Meuse	55
57	Moselle	73
67	Bas-Rhin	89
68	Haut-Rhin	75
88	Vosges	88
–	Entire river basin	72

Source: Web site of the *agence de l'eau Rhin-Meuse*
Note: WWTP = Waste water treatment plant

Table 8: Baseline values of the *redevances* for each category of household pollution

Categories	Unit	Level (Euro)
Suspended matter	kg	0.11
BOD_5	kg	0.15
COD	kg	0.08
Reduced nitrogen	kg	0.23
Oxydised nitrogen, nitrites and nitrates	kg	0.11.
Total phospor (organic and mineral)	kg	0.63
Metals and metalloids	kg equitox	1.10
Acute toxic materials	kg equitox	4.8
Chronic toxic materials	kg equitox	1.9

Source: *projet de loi*

because, one the one hand, three different geographical zones are accounted for and, on the other hand, even so, the difference between rates in neighbouring areas should not exceed 20%. The geographical zones are characterised by their ecological parameters (e.g., for surface waters, their sensitivity to eutrophication, for marine environments, the concentration levels of actual pollution, for groundwater bodies, their sensitivity to infiltration and the anthropogenic threats, in particular with respect to acute and chronic toxicity). For each of these three zones, the *projet de loi* sets upper and lower limits (in the sense of deviations from the baseline levels).

Moreover, the actual determination of the *redevances* by the *agences de l'eau* should also take their real financial needs in respect of their grants programmes (*programmes d'intervention*) into account. All in all, the procedure is far from simple and one will have to see to what an extent the requirement of the *projet de loi* in terms of transparency of *redevances* is met.

Redevances de solidarité de bassin

Within the category of point source pollution *redevances*, the *projet de loi* also determines so-called *redevances de solidarité*. These are to be seen as contributions to the investment in public sewerage systems. They replace the existing so-called collection coefficients (*coefficients de collecte*) in the shape of mark-ups of households pollution *redevances*. The main idea is to phase these coefficients out

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over time, i.e., within a period of ten years, and to integrate the costs of sewerage infrastructure into the baseline levels. The new *redevances de solidarité* are therefore seen as a transitory instrument (even so, lasting for ten years).

The *projet de loi* follows the standard procedure for the determination of the actual rates by setting baseline levels which can be modified by the *agences de l'eau* in line with their financial needs. The *redevances* are levied on actual or estimated effluent quantities sent to sewerage systems. Table 9 contains an overview of the baseline levels and the maximum excess tolerance levels to be respected by the *agences de l'eau*.

Table 9: Baseline levels and maximum excess tolerance levels for the *redevances de solidarité* de bassin (in Euro per cm^3 and – bottom line – in %)

	2004	2005	2006	2007	2008	2009
Households pollution	0.24	0.235	0.23	0.22	0.215	0.205
Industrial pollution	0.05	0.07	0.10	0.13	0.15	0.165
Maximum excess levels	177.35	177.35	177.30	177.30	177.25	177.20

Source: *projet de loi*

Redevances for nitrogen emissions

The *projet de loi* is not confined to point source emissions. As of 1 January 2004, in France, farmers paying annual income taxes on income above E = 76,300 will be subjected to a *redevance* on their excess emissions of nitrogen, whether in reduced or oxydised form. As of 1 January 2009, this arrangement will be extended to all farmers. The *redevance* will be due for excess nitrogen, i.e., the amount of nitrogen which is calculated as the difference between the quantities of nitrogen entering and leaving an agricultural firm during a business period of one year (with the exception of nitrogens stocked in straw). As such, this new regulation on nitrogen *redevances* will imply that farmers are to set up a nitrogen accountancy system for the registration of inputs, outputs and intermediate storage of nitrogen. The *projet de loi* helps them, to a certain extent, in terms of the definitions of inputs and outputs. Table 10 provides a rudimentary overview.

Table 10: Guidelines provided by the *projet de loi* for setting up a nitrogen input – output balance sheet in agriculture (N contained in)

In	Out
• Fertilisers • Animal feedstocks • Animals	• Vegetable production* • Fertilisers • Animal products • Other agricultural products • Nitrogen capping equipment

Source: *projet de loi*
* = with the exception of leguminosae plants
Note: if a farmer is subjected to participate in a programme on the re-use of nitrogen on his own land, only the amounts of nitrogen "exported" from his farm will be taken into account for setting the *redevance*.

The *projet de loi* continues in this respect by providing guidelines for determining the actual quantities of nitrogen contained in the various inputs and outputs (and capping installations) and accounting for the degree of mineralisation of organic nitrogen (in respect of fertilisers) and for the degree of volatilisation of nitrogen (in respect of certain products, such as milk, eggs and animals) entering and leaving the farm. Both reactions are weighed with so-called coefficients in between 0 and 0.95 for mineralisation and 1.2 and 4 for volatilisation.

Moreover, for every hectare under cultivation, an amount of 25 kg of nitrogen is exempt of *redevances*. For pasture land (grass land) this treshold amount is increased to 50 kg per hectare. For farmers intending to practice optimisation procedures in respect of the use of nitrogen,[12] a rebate of their *redevances* equal to 20% is to be applied. Young farmers (i.e., starters) intending to engage in similar programmes[13] will enjoy rebates of their *redevances* equalling 20 % in their first year of business activity, followed by 15 % and 10 % in the two consecutive years. Similarly, farmers planting cultures for the benefit of the capping of nitrogen during out-of production seasons will be granted a rebate of 10 Euro per hectare.[14]

Finally, the *projet de loi* determines minimal excess amounts of nitrogen (threshold values) below which no *redevances* will be payable. Table 11 contains an overview of these threshold values.

Table 11: Threshold values for the payment of *redevances* on nitrogen (annual amounts per farm in kg)

Year	2004	2005	2006	2007	> 2008
N (kg)	3000	2500	2000	1500	1000

Source: *projet de loi*

The procedure for setting the actual rates for the *redevances* is as follows: they are to be determined by the *agences de l'eau,* taking into account their financial needs, at levels in between 0.20 Euro and 0.23 Euro per kg of nitrogen. In this context, one should note that a number of details still need to be arranged by joint decisions of the ministries of agriculture and the environment.

New *redevances* for abstraction

The fourth category of *redevances* levied for the use of water resources relates to abstraction (*consommation d'eau*). The *projet de loi* states that

> *"Une redevance pour consommation d'eau est due par toute personne dont les activités entraînent une consommation d'eau."*
>
> "Any person whose activities imply a use of water is liable to a payment of a *redevance* for water usage."

[12] These procedures will have to be determined by the *Comité de bassin*.
[13] These programmes will have to adopted by a joint decision (*décret*) of the ministers of agriculture and the environment.
[14] The precise arrangements will have to be set by a joint decision (*décret*) of the ministers of agriculture and the environment.

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Clearly, such a general statement requires certain specifications, e.g., in terms of description of these activities, treshold levels, exemptions (e.g., for leisure activities, replenishment of water bodies, fire fighting) and actual measuring or estimation by certain standardized procedures of such abstractions. The *projet de loi* contains detailed regulations with respect to this matter. In this context the (annual) treshold amount per person below which no *redevances* are due is set is 7,000 m^3.

For the determination of the actual *redevances*, the *agences de l'eau* will have to proceed in the following manner. Every water resource within the river basin will have to be classified in one of three categories – upon an advice by the *Comité de bassin*. The classification is based on the availability of the water body in terms of abstraction. Table 12 describes these three categories.

Table 12: Categories of water bodies in respect of their capacity for abstraction purposes

Category	Capacity for abstraction
1	• No quantitative impact; • No change of quality of aquatic environment
2	• Quantity impact exceeds levels of Article 211-1 *; • Changes of quality of aquatic environment; • Measures for restriction or ending of further use are necessary.
3	• In addition to properties specified under 2, potential damages for current or future production of drinking water exist.

Source: *projet de loi*
* = Article 211-1 of the Environment Code (*Code de l'environnement*) which is amended by the *projet de loi* for the sake of transposing the EU FWD. It contains the quality objectives of Article 4 of the EU FWD.

On the basis of these three categories, the *agences de l'eau* are obliged to set the rates of the *redevances* for the abstraction of water above the amount of 7000 m^3 per year and taking minimum and maximum baseline rates, contained in the *projet de loi*, into account. Table 13 lists these baseline rates.

Table 13: Baseline rates for setting *redevances* for abstraction by the *agences de l'eau* (Eurocents/m^3)

Categories*	2004 – 2006	2007 – 2008	> 2009
1	0.8 – 1.5	0.9. – 1.8	1.2 – 1.8
2	**1.8 – 3.0**	**2.3 – 3.8**	3.0 – 3.8
3	5.5 – 7.0	5.5 – 7.0	5.5 – 7.0

Source: *projet de loi*
* = See Table 12 for a description of the categories.

For abstractions between 7,000 m^3 and 24,000 m^3 per year and for the categories 1 and 2, the following baseline rates apply.

Finally, the *projet de loi* states that certain groups of users or a *collectivité locale* or any other public body may agree on a protocol on the quantitative management of water resources (in terms of abstraction) for the categories 1 and 2, including arrangements for the distribution of abstracted water among the users in order to achieve an appropriate functioning of the aquatic environment and an adequate replenishment of groundwater resources (*un bon fonctionnement du milieu aquatique et une réalimentation suffisante de la ressource souterraine*). If such "joint" programmes are established, the *redevances* for categories 1 and 2 are substantially reduced below those listed in Tables 13 and 14. The main idea is to achieve a "best practice" in terms of the management of a water resource (both surface water and groundwater) by assuring the best possible replenishment of those water bodies from which abstractions are made.

Table 14: Baseline rates for *redevances* for abstraction of quantities between 7,000 m^3 and 24,000 m^3 per year (Eurocents/m^3)

Categories*	2004–2006	2007–2008	> 2009
1	0.6 – 1.2	0.9. – 1.8	1.2 – 1.8
2	0.9 – 1.80	1.2 – 2.5	1.5 – 2.5

Source: *projet de loi*
* = See Table 12 for a description of the categories.

New *redevances* for the changes of course or of volume of a water body

The *projet de loi* states that

> *"Des redevances pour modification du régime des eaux sont dues par toute personne dont les installations, ouvrages, travaux ou activités entraînent"* . . .
>
> "*Redevances* for the change of water bodies are due by any person whose installations, equipment, (construction) works or activities have an impact on" . . .

after which these impacts are specified in more detail. The property which is common to all such infrastructure, works and activities is the (intended) use of specific opportunities or conditions of water bodies in respect of their capability to render certain services, such as the supply of water to a particular location through a deviation of the course of a water body, a (temporary) storage of water in order to handle water shortages, the generation of hydro-electricity, the acceptance of groundwater taken from construction sites, etc. Moreover, the sealing-off of soils is also subject to this *redevance*. The *projet de loi* contains detailed regulations for the definition of the infrastructure, the works and the activities for which the *redevance* is due. Table 15 presents an overview.

Table 15: Infrastructure, works and activities for which *redevances* for a change of course or of volume of a water body are set

Infrastructure, works or activity	Characteristics I	Characteristics II
Change of water course (deviation)	> 500 m	> 500 thousand m^3 per year
Dams	Difference between water levels before and after dam > 5 m	Volume > 300 l/s
Water storage		Volume of containment > 500 thousand m^3
Releases of water for hydro-electricity	Number of releases > 50 per year	
Sealing-off of soils	As of 1 January 2003	> 1 ha
Reduction of floodings retention areas		> 10 ha

Source: *projet de loi*

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For each of those infrastructures and activities the *projet de loi* determines the techniques for the calculation of the actual levels of the *redevances*. They account for quantities (volumes) of water, impacts on water bodies and ecologically benign and negative impacts. These impacts are evaluated with weighing coefficients to account for the volume of a water body, maximum and minimum threshold amounts (in respect of the generation of hydro-electricity), the volume of storage containers, the surface of sealed-off soils, the surface of areas made unfit for floods prevention and protection etc.,

The main intention of the *projet de loi* is to set user fees for changes of course or of volume of a water body in order to achieve the least negative impact. As such, deviations of water courses for the protection of wetlands or temporary storages for the benefit of flood prevention are exempt from the *redevance*. In the case of dams, the weighing coefficient increases with the degree of difficulty for the movements of sediments and of aquatic organisms. Similarly, the weighing coefficient in the case of sealing-off of soils depends on the way in which the negative impacts on the natural flows of water are being taken into account.

The actual rates of the *redevances* are set by the *agences de l'eau* and are based upon the techniques briefly described above, on their financial needs and on baseline rates – with minimum and maximum values for some types of infrastructure, works and activities – which are determined by the *projet de loi*. Table 16 contains an overview of these baseline rates.

Table 16: Baseline levels for the *redevances* for a change of course or of volume of a water body

Category	Units	Minimum	Maximum
Change of course	Euro/km	400	670
Storage	Euro/m^3	0.45	0.75
Releases of stored water	Euro/unit*	85	140
Dams	Euro/unit*	90	150
Sealing-off of soils	Euro/ha	150	150
Reducing areas for floods prevention	Euro/ha	15	15

Source: *projet de loi*
* = See the *projet de loi* for further explanations about the units.

Box 2 contains a summary of the new *redevances* as contained in the *projet de loi*

Box 2: Summary of the new *redevances* as contained in the *projet de loi*

Waste water treatment
- Shift of legal responsibility for payment by individuals and firms to payment of *redevances* by local governments actually generating effluents (as operators or outside-contractors of waste water treatment plants);
- Calculation of *redevances* based upon number of inhabitants (including – through appropriate weighing – temporary residents) within the sewerage catchment areas;
- New weighing coefficients for density of catchment areas: abolishment of factors below 1 (for rural areas), determination of factors between 1 up to 1.4 for the Paris region;
- Obligatory monitoring of adequacy of decentralised waste water treatment. Failure to comply results in payment of redevances by local governments for all inhabitants (including those not connected to the sewerage system).

Waste water collection
- Replacement of existing *redevances* for the collection of waste water sewerage systems currently payable by households by new *redevances* also including non-household generators of waste water connected to such systems;
- A transitory *redevance*, to be abolished within two *programmes d'intervention* (i.e, after ten years) after which the costs of investments in and maintenance of sewerage systems will be included in the baseline rate.

Diffuse sources
- Introduction of a *redevance* on excess nitrogen;
- Calculation of excess nitrogen is based upon an input-output accountancy;
- Rebates for nitrogen absorbing technologies, e.g., pasture land (grassland) and of cultivated fields out-of production season;
- Applicability to farms with an annual turnover of €76,300 as of 01.01.2004 and all farms as of 01.01.2009.

Abstraction of water resources
- Calculation based upon a net consumption of $> 7000\ cm^3$ per year;
- Reduced rate for abstracted amounts between 7000 cm^3 and 24000 cm^3 per year;
- Rate is based upon degree of exploitation of the water resource (three levels) with a bonus for abstractions taking place within the limits of appropriately defined ''collective'' management concepts.

Modification of course or volume of a water body
- New *redevances* on
  - Activities of deviation implying reductions of volume of water bodies;
  - Important obstacles with negative impacts on the mobility of aquatic organisms;
  - Storage of water resources;
  - Sealing-off of soils and reduction of floods prevention and retention areas.
- The new *redevances* are based upon
  - The impact of the activity on the volume of the water body;
  - The length of a river impaired by the activity;
  - The surface of affected areas.

Baseline rates for the tariff system
- For each category of *redevances* the *projet de loi* contains general rules for their determination. These include baseline rates which have to be taken into account by the *agences de l'eau*;
- The *agences de l'eau* determine the actual parameter values within a maximum deviation above and below the baseline rates, accounting for procedures specified in the *projet de loi*.

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At the end of this third section, one may be interested in the order of magnitude of the revenenues generated by the *redevances* levied by the *agences de l'eau*. Data about these are published by the *agences de l'eau* in their annual reports. Table 17 contains some illustrative figures for three *agences de l'eau*. Clearly, these refer to the existing redevances as defined by current legislation and administrative practice.[15]

Table 17: Revenues from the *redevances* for three river basins

Rhône-Méditerannée-Corse

1. Total revenue of *redevances* (million)

Categories	FF	Euro
Les collectivités locales (pollution)	1633.5	249.0
Industry (pollution)	225.7	34.4
Abstraction	319.9	48.8
Total	2179.1	332.1

Source: Web site of *Agence de l'eau Rhône-Méditerannée-Corse*, data for 2000
Remark: These figures include the rebates (*contre-valeur*) which are returned to the *collectivités locales* and industry. (They are gross values – *redevances brutes*.) The net rates (*redevances nettes*) are 1,233 million FF (= 188.0 million Euro) for *les collectivités locales* and 193 million FF (= 29.4 million Euro) for industry. The sum of all *redevances nettes* is 1,745 million FF (= 266.0 million Euro).

2. *Redevances de consommation* (million)

Categories	FF	Euro
Les collectivités locales, water distribution companies*	189	28.8
Les collectivités locales, water distribution companies**	60	9.1
Industry	42	6.4
Irrigation	11	1.7
Total	342	52.1

Source: Web site of *Agence de l'eau Rhône-Méditerannée-Corse*, data for 2000
* = for drinking water ** = for other water uses

3. *Redevances de pollution* (million)

Categories	Number of units	FF	Euro
Les collectivités locales§	3404* [8000]	1633.5	240
Industry§§	> 3500	225.7	34.4
Agriculture	–	–	–
Total	–	–	–

Source: Web site of *Agence de l'eau Rhône-Méditerannée-Corse*
§ = Data for 2000
§§ = Data for 1999
* = Number in first line of Column 2 refers to actual number of *collectivités locales* paying *redevances*, number in second line between [...] refers to number of potentially liable *collectivités locales*.
Remark: These figures include the rebates (*contre-valeur*) which are returned to the *collectivités locales* and industry. (They are gross values – *redevances brutes*.)

Artois-Picardie

***Redevances de pollution* (million)**

Categories	Number of units *	FF	Euro
Les collectivités locales	1214 [2451]	516.6	78.8
Industry	753 [1295]	74.5	11.4
Agriculture	36 [107]	0.7	0.1
Total	342	591.8	90.3

Source: Web site of *Agence de l'eau Artois-Picardie*, Annual Report for 2000
* = Numbers in first line of Column 2 refer to actual number of units (i.e., organisations, firms, farms) paying *redevances*, numbers in second line between [...] refer to number of potentially liable units.

2. *Redevances de consommation* (million)

Categories	Number of units	FF	Euro
Les collectivités locales	757	101.5	19.7
Industry	291	26.5	4.0
Agriculture	611	1.7	0.3
Total	342	129.7	24.0

Source: Web site of *Agence de l'eau Artois-Picardie*, Annual Report for 2000

Loire-Bretagne

1. *Redevances de pollution* (million)

Categories	Number of units	FF	Euro
Les collectivités locales	2838* [7283]	679	156.1
Industry	2708	153.3	23.4
Agriculture	500	4.1	0.6
Total	–	746.4	113.8

Source: Web site of *agence de l'eau Loire-Bretagne*, Annual Report 2000
* = Number in first line of Column 2 refers to actual number of *collectivités locales* paying *redevances*, number in second line between [...] refers to number of potentially liable *collectivités locales*.

[15] Whether the *projet de loi* will lead to an increase or decrease of the revenues of the *redevances* is not clear, since the *Comités de bassin* and the *Conseils d'administration* have a considerable influence on the setting of the actual rates. It is, however, obvious that the revenues should decline with better environmental performance and less negative impacts on the aquatic environment. In reality, this happens in a number of cases. See, e.g., the annual report for 2000 of the *agence de l'eau* of Loire-Bretagne which states that the quality of the waste water generated by industry improves on a long-term basis. Trends in revenues also depend upon the financial needs of the *agence de l'eau*. This explains, e.g., the sudden increase at the beginning of the sixth *programme d'intervention* in 1992. See the Annual Report for 2000 of the *agence de l'eau* Rhône-Méditerannée-Corse, availabe at the Web site of the *agence* at www.eaurmc.fr

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Remark: These figures include the rebates (*contre-valeur*) which are returned to the *collectivités locales* and industry. (They are *redevances brutes*.) For the *collecitivités locales*, the rebate (*contre-valeur*) refunded is equal to 193 million FF (= 29.4 million Euro) Note: The figures do not include the *redevances* for collection (680 million FF = 103.7 million Euro)

2. *Redevances de consommation* (millions)

Categories	Shares of units (%)	FF	Euro
Les collectivités locales	45* – 18**	207.4	31.6
Industry	6* – (4 +72)**	8.5 + 89.5#	14.9
Agriculture	49* – 6**	28.5	4.3
Hydro-electricity		3.1	0.5
Total	–	323.9	51.3

Source: Web site of *agence de l'eau Loire-Bretagne*, Annual Report 2000
Notes: Shares of units (Sums across categories = 100):
* = refers to groundwater abstraction
** = refers to surface water abstraction
In this context: 4 refers to "others" and 72 to EDF (*Electricité de France*) – Similarly, # refers to EDF

IV. Protection of water resources

Chapter 4 of the *projet de loi* contains various amendments relating to the regulation on the protection of water resources. In this paper, they are only briefly dealt with. The issues concerned are listed in Table 18.

Table 18: Issues related to the protection of water resources contained in Chapter 4 of the *projet de loi*

- Management of the quality of water resources for the production of drinking water;
- Management of mineral water resources;
- Arrangements related to authorisations for operators of certain installations having an impact on the quality of water resources (including issues, such as the tasks of the water protection police, post-closure restoration, duties to inform and report, rights of third parties, monitoring and procedures for non-compliance.

Conclusions

This paper has dealt with an overview of the *projet de loi* on the reform of the French Water Act of 1964 which has been adopted by the national parliament on 10 January 2002 in order to transpose the EU WFD into French law and water policy and water resources management. The focus has been on the concept of river basin management of water resources which has a long tradition in France. In this sense, future EU water policy and water resources is inspired by this tradition. Particular attention has been given to institutional arrangements at the level of river basins and the water resources user fees (*redevances*). From the French point of view, these are important instruments for policy-making and management in the line of transparency, democracy and solidarity under the principle of *service public*.

EU Chemicals Policy Review

The EU chemicals policy review from a legal perspective: for a progressive, coherent and integrated approach that preserves the internal market

Jean-Philippe Montfort
Keller and Heckman LLP, Brussels

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Summary: This paper analyses the Commission White Paper on a Strategy for New Chemicals Policy from a legal perspective.

In concentrating its efforts towards resolving the "burden of the past", the White Paper does not provide the fundamental justification of the choice of a single system applicable to both new and existing chemicals and many uncertainties remain as to the scope and functioning of this system. Ensuring the coherency of the future legislation will require clarifying the fundamental legal nature and consequences of each phase of the proposed "REACH" system, and streamlining the REACH processes on the basis of centralised, efficient, and transparent decision-making processes.

The White Paper does not specify how the Commission intends to ensure that the new legislation preserves the internal market for chemicals, another fundamental objective of the reform. This will require that the new legislation be based on Article 95 of the EU Treaty, that it clarifies some of the grey zones of the existing chemical legislation, and that the

*Jean-Philippe Montfort is a partner in the Brussels office of Keller and Heckman LLP. He also chairs the chemical working group of the EU Committee of the American Chamber of Commerce in Belgium.