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TO THE EUROPEAN PARLIAMENT AND THE COUNCIL**

'Towards Sustainable Water Management in the European Union'

First stage in the implementation of the Water Framework Directive 2000/60/EC

**[COM(2007) 128 final]
[SEC(2007) 363]**

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1. INTRODUCTION

The "Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy" or, in short, the **EU Water Framework Directive**[1] was adopted in 2000. The Water Framework Directive or WFD builds the foundation of a modern, holistic and ambitious water policy for the European Union.

The preparation and the negotiations of the Directive were difficult and the compromise achieved in 2000 received a sceptical welcome by some. However, the European Commission, the European Parliament and many Member States were convinced of the value of a new and integrated river basin approach to water management.

This Commission Staff Working Document provides background information on the first stage in the implementation of the Water Framework Directive 2000/60/EC and is an annex to the Communication from the Commission 'Towards Sustainable Water Management in the European Union'[2].

In accordance to Article 18 (3), this report provides a *"progress in implementation based on the summary reports from the Member States"*. Only in exceptional cases, additional information has been used to illustrate the situation. The intention of the report is to inform the EU institutions and the public on the WFD implementation. Moreover, the report aims at providing a feedback to the Member States on their current performance. Member States are encouraged to take these findings into account in the further national implementation, in particular the preparation of the river basin management plans. Following the publication of the report, the Commission services will engage in discussions with the Member States, in the context of the Common Implementation Strategy and bilaterally, in order to address some of the identified issues in more detail.

This document gives a snapshot of the situation of implementation in the Member States, based on reports due to be submitted in 2004 (for transposition and article 3) or 2005 (for article 5). In some Member States, the situation of implementation might have changed since then or will change in the course of the further preparations of the river basin management plan.

It is not envisaged to update this report before 2012 when the first comprehensive implementation report is required in accordance with Article 18 (1) WFD. However, the Commission services are working on the increased use of the "Water Information System for Europe"[3] (see section 4.2) which will allow a more timely and regular update of the information and the corresponding implementation progress.

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1 OJ L L327, 22.12.2000, p.1 as amended by Decision 2455/2001/EC (OJ L 331, 15.12.2001, p. 1)

2 (COM(2007) 128 final)

3 http://water.europa.eu

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2. EUROPEAN WATER POLICY

2.1. The Water Framework Directive

The Water Framework Directive establishes a legal framework to protect and restore clean water in sufficient quantity across Europe. It has been hailed as a front runner in integrated water management in the world because it introduces a number of generally agreed principle and concepts into a binding regulatory instrument. In particular, it provides for:

- **Sustainable approach to manage an essential resource:** It not only considers water as a valuable ecosystem, it also recognises the economy and human health depending on it.

- **Holistic ecosystem protection:** It ensures that the fresh and coastal water environment is to be protected in its entirety, meaning all rivers, lakes, estuaries, coastal and ground waters are covered.

- **Ambitious objectives, flexible means:** The achievement of "good status" by 2015 will ensure satisfying human needs, ecosystem functioning and biodiversity protection. These objectives are concrete, comparable and ambitious[4]. At the same time, the Directive provides flexibility in achieving them in the most cost effective way and introduces a possibility for priority setting in the planning (e.g. through justified exemptions).

- **Integration of planning:** The planning process for the establishment of river basin management plans needs to be coordinated to ultimately achieve the WFD objectives. Whilst the WFD mainly describes water quality aspects for surface waters, it is a mandatory prerequisite to integrate water quantity planning aspects (mainly flood risk and drought management). Groundwater quantity aspects are already part of the WFD. At the same time, sectorial integration is essential, in particular with plans and programmes in the field of agriculture, rural and regional development, land use, navigation, hydropower and last, but not least, research.

- **The right geographical scale:** The natural area for water management is the catchment[5] area. Since it cuts across administrative boundaries, water management requires close cooperation between all administrations and institutions involved. This is particularly challenging for transboundary and international rivers. The Directive makes this cooperation mandatory within and between the Member States and encourages it with countries outside the EU[6]. Together with the above-mentioned planning aspects, this component ensures true horizontal and vertical integration.

- **Polluter pays principle:** The introduction of water pricing policies with the element of cost recovery and the cost-effectiveness provisions are milestones in application of economic instruments for the benefit of the environment. This will contribute to sustainable management of scarce resources.

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4 For water dependent ecosystems, the WFD objectives is more ambitious than the 2010 target of halting biodiversity loss, because it introduces a "no deterioration obligation" which should apply since 2003 and requires restoration of degraded water ecosystems by 2015 as a rule.

5 Or river basin, which both describe the drainage area of rainwater from the mountains to the sea.

6 See WFD Article 3.3 and 3.5 for details on the extent of international cooperation.

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- **Participatory processes:** In anticipating the Åarhus ratification of the EU, the WFD ensures the active participation of all businesses, farmers and other stakeholders, environment NGOs and local communities in river basin management activities.

- **Better regulation and streamlining:** The WFD and its related directives (see below) repeal 12 directives from the Seventies and Eighties which created a well intended but fragmented and burdensome regulatory system. The WFD creates synergies, increases protection and streamlines efforts.

The timetable for implementation is set out below. In most cases, Member States have an additional three months to report the progress in the implementation of a particular aspect to the Commission. Only for Article 3, the reporting deadline was six months after the date of implementation.

This report focuses on the first steps in the implementation, the legal transposition and the reports on Article 3 and Article 5 implementation. The next milestone is the setting up of the monitoring networks (cf. Article 8 and 15 WFD) for which Member States are required to report to the Commission by 22 March 2007. The progress of this reporting obligation can be followed through WISE. The Commission will summarise the implementation progress on the monitoring networks at the latest in December 2009.

In summary, the WFD introduces objectives and management which aim at creating a win-win situation between ecology and economy at the appropriate geographical scale and therefore truly achieving a sustainable and integrated water resource management.

Table 1: Timetable and deadlines in the Water Framework Directive (the reference date for each year is 22 December)

Year	**Issue**	**WFD Reference**
2000	Directive entered into force	Art. 25
2003	- Transposition in national legislation - Identification of River Basin Districts and Authorities	Art. 23 Art. 3
2004	Characterisation of river basin: pressures, impacts and economic analysis	Art. 5
2006	- Establishment of monitoring network - Start public consultation (at the latest)	Art. 8 Art. 14
2008	Present draft river basin management plan to public	Art. 13 & 14
2009	Finalise river basin management plan including programme of measures	Art. 13 & 11
2010	Introduce pricing policies	Art. 9
2012	Make operational programmes of measures	Art. 11
2015	Meet environmental objectives, first management cycle ends	Art. 4
2021	Second management cycle ends	Art. 4 & 13
2027	Third management cycle and last extension of deadlines ends	Art. 4 & 13

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2.2. Groundwater

On 12 December 2006, the European Parliament and the Council adopted the new Groundwater Daughter Directive[7] (2006/118/EC) in accordance with Article 17 WFD.

The Daughter Directive complements and specifies the WFD on some issues. First, it establishes EU-wide quality standards for nitrates and pesticides that must be met to comply with "good groundwater chemical status". In addition, Member States will have to establish national standards (threshold values) for other pollutants on the basis of the substances of most concern for groundwater pollution on national, regional or local. Furthermore, the criteria for identification of a sustainable, upward trend and a starting point for trend reversal are further harmonised. Finally, it reinforces existing measures to prevent or limit inputs of pollutants into groundwater.

On the basis of these clear rules, Member States will have to assess the groundwater environment with the monitoring programmes that have just become operational and, where necessary, establish programmes of measures to be included in the WFD River Basin Management Plans.

2.3. Priority substances

The Water Framework Directive establishes a new regime for prevention and control of the chemical pollution of surface waters, the "combined approach". This approach must be applied at EU and at Member State level.

At EU level, a limited number of chemical pollutants have been identified as being a significant risk to the aquatic environment throughout the EU due to their widespread use and their high concentrations in rivers, lakes and coastal waters. These are defined under the Water Framework Directive as "priority substances". There is also a sub-set of "priority hazardous substances" for which more stringent environmental objectives apply because of their high persistence, bioaccumulation and toxicity.

The European Parliament and the Council adopted a first list of 33 priority substances in 2001 (Decision 2455/2001/EC[8]). This Decision became Annex X to the Water Framework Directive.

Following the agreement on priority substances, Article 16 of the Water Framework Directive requires the Commission to bring forward proposals for environmental quality standards for these substances and measures to progressively reduce inputs of priority substances into water, while for priority hazardous substances the requirement is cessation or phasing-out of discharges, emissions and losses over a 20-year period.

The Commission has already introduced a wide range of existing or forthcoming EU measures to control emissions of priority substances, such as the Directive 96/61/EC on integrated pollution prevention and control (IPPC), the Thematic Strategy on the sustainable use of pesticides[9], and the REACH Regulation[10] for reforming chemicals policy. Additionally,

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7 OJ L 372, 27.12.2006, p.19

8 OJ L 331, 15.12.2001, p. 1.

9 Communication COM(2006)372 final and proposal for a Directive COM(2006)373 final of 12.7.2006.

10 Regulation (EC) No 1907/2006 of 18.12.2006

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the Commission has made over 30 proposals for emission controls over the past years[11]. If, in the future, sufficient evidence is provided that additional measures are needed at Community level, the Commission will consider this.

On 17 July 2006, the Commission adopted a proposal for a Daughter Directive on environmental quality standards for the priority substances[12] which is currently undergoing the co-decision procedure. The proposed Directive addresses environmental quality standards, the identification of priority hazardous substances and the repeal of existing directives dealing with the chemical pollution of water from the Eighties.

2.4. Intercalibration

In addition to the above-mentioned pieces of secondary legislation, the Commission has the right and obligation to adopt certain implementation measures on the basis of Committee procedure[13]. In 2005, the Commission initiated the adoption of the network of intercalibration sites[14]. The intercalibration is the process to compare the national ecological assessments systems and to ensure that the ambitions of the Member States are at similar levels and consistent with the WFD. In other words, the intercalibration will demonstrate that "good ecological status", the heart of the WFD, means the same in all EU Member States. This process is still ongoing and the Commission aims at publishing the results in late 2007[15].

2.5. Flood Risk Management

The Commission proposed a Directive on the assessment and management of floods in January 2006[16]. The proposed legislation intends to complement the WFD as regards flood risk management, and focuses on prevention, preparedness and protection measures. Close coordination with the WFD is foreseen, in particular as regards the plans which will be prepared in synchronisation and coordination with WFD river basin management plans. It is expected that the proposal will be adopted by the European Parliament and the Council in mid-2007 at the earliest.

2.6. Thematic Strategy for the Marine Environment

The Commission proposed a Marine Strategy Directive as part of the EU Marine Strategy in October 2005[17]. The Commission proposal for a directive aims to achieve good environmental status of the EU's marine waters by 2021 and thereby extending the protective scope of the WFD into the open sea. It will establish European Marine Regions on the basis of geographical and environmental criteria. Each Member State, in close cooperation with the relevant other Member States and third countries within a Marine Region, will be required to develop Marine Strategies for its marine waters. The principles and approaches of the proposed Marine Framework Directive are consistent with the Water Framework Directive.

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11 See Annex VI of Impact Assessment (SEC(2006)947 final)

12 COM(2006) 397 final, together with related Communication (COM(2006) 398 final) and Impact Assessment (SEC(2006)947 final).

13 Based on regulatory procedures set out in Council Decision 1999/468/EC (OJ L 184, 17.7.1999, p. 23) as amended by Council Decision 2006/512/EC (OJ L 200, 22.7.2006, p. 11)

14 Commission Decision 2005/646/EC of 17 August 2005 (OJ L 243, 19.9.2005, p. 1)

15 For more details, consult the web page http://ec.europa.eu/environment/water/water-framework/objectives.html

16 COM(2006)15 of 18 January 2006

17 COM(2005) 505 final of 24.10.2005

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It is expected that the proposal will be adopted by the European Parliament and the Council in 2008.

2.7. Water Scarcity and Droughts

Measures to reduce risks of water scarcity and mitigate the impacts of droughts are already included in the WFD, e.g. the quantitative status for groundwater or the efficient use of water resources through water pricing policies. However, the Commission intends to present a more comprehensive analysis and coordinated actions on Community level to address these increasing problems. A technical document[18] has already been finalised and an in-depth analysis is ongoing identifying the magnitude of the problems linked to water scarcity and drought and the size of the residual gaps in the implementation of EU existing policies.

The Commission intends to present a Communication on this issue in summer 2007.

2.8. Other relevant policies

In addition to the above-mentioned policies, there is a significant number of policy areas and EU legislation which contribute to water protection and thereby to the achievement of the WFD objectives. A short summary will be provided here without necessarily being exhaustive. A more detailed overview is compiled in Annex 1. In addition, the Impact Assessment[19] on the recent Commission proposal on priority substances gives more detailed information specifically on Community-wide pollution control measures.

There are several other pieces of **water and public health legislation**, which are the essential backbone for the WFD. In particular, the Urban Waste Water Treatment Directive (91/271/EEC), the Nitrates Directive (91/676/EEC), the Bathing Water Directive (2006/7/EC repealing 76/160/EEC) and the Drinking Water Directive (98/83/EC) should be mentioned. The full implementation of these directives is an indispensable requirement for the achievement of the WFD objectives.

Similarly, several other pieces of **environment legislation**, in particular, e.g., the Directive on integrated pollution prevention and control (96/61/EC); the Habitats and Birds Directives, the pesticides and biocides legislation, the Mining Waste Directive and the Seveso and Environmental Liability Directives, to name a few, are essential for sustainable water protection.

The contribution that **other EU policies** are making towards sustainable water management needs to be strengthened. The most significant Community policies in this respect are agriculture, fisheries, regions and cohesion, transport, energy, chemicals, competition, external relations and research. Over the past years, significant successes have been achieved which are documented in various documents[20]. However, there remains further work to enhance the integration of the WFD into these other policies if the objectives were to be achieved in time.

More details can be found in the Annex 1.

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18 http://ec.europa.eu/environment/water/scarcity.htm

19 See Annex 5 of SEC(2006)947 final

20 See http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/thematic_documents

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3. IMPLEMENTATION RESULTS IN MEMBER STATES

Member States have been able to fulfil nearly all of their reporting obligations to date which demonstrates that the timelines in the directive are realistic. Some Member States though, in particular Italy and Greece, had serious delays in submitting the reports. However, the timely submission of the reports does not say anything about their quality.

The following sections provide an overview of the information reported and present a summary of the compliance assessment and performance checking results, for the three main reporting steps to date, i.e. the transposition, the designation of river basin district and competent authorities (article 3) and the environmental and economic analysis of the river basin districts (article 5).

3.1. Legal transposition

3.1.1. Legal requirements

A Directive must be transposed into national legislation in order to fully gain its legally binding nature. Article 24 of the WFD lays down this provision and sets the deadline for transposing at 22 December 2003. For the 10 Member States joining the European Union on 1 May 2004 and the two acceding on 1 January 2007, the date of accession was the deadline for transposition of the Directive.

3.1.2. Reporting and legal action by the Commission

Whilst all new Member States (including Bulgaria and Romania) transposed the Directive in time, most EU15 Member States had not transposed the Directive as required. Consequently, the Commission launched in 2004 eleven legal infringement cases for "non-communication" (against Belgium, Germany, Finland, France, Italy, Luxemburg, the Netherlands, Portugal, Finland, Sweden and the United Kingdom).

In five cases, applications to the European Court of Justice had to be submitted and the Court ruled against these Member States (Belgium (C-33/05), Luxemburg (C-32/05), Germany (C-67/05), Italy (C-85/05) and Portugal (C-118/05)). The cases against Luxemburg and Italy are still open. All other cases have been resolved by now.

In the meantime, a preliminary analysis of the Greek transposition revealed that the transposition had been only partially completed. Thus, a "non-conformity" case was opened in 2005 and application to the Court (C-426/06) has been submitted. On 8 March 2007, a Presidential Decree was adopted which will still have to be assessed.

For the countries of the European Economic Area (EEA), the formal inclusion into the EEA Agreement has been delayed significantly. The preparations are now complete and the formal process should be completed in 2007. Norway has in the meantime, transposed the WFD into national law which was adopted on 15 December 2006.

Table 2 provides an overview of the transposition situation.

3.1.3. Methodology for conformity assessment

The assessment of conformity was carried out in several stages. A comprehensive analysis was commissioned by the Commission to produce "concordance tables". This analysis was

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completed for the 10 new Member States which joined in 2004 and for nine EU15 Member States[21]. For the remainder of the Member States, this thorough analysis was not performed yet[22] and will be carried out as soon as possible. An overview of the available in-depth assessments is provided in Table 2.

Furthermore, and taking the external assessments into account, the Commission services made a preliminary screening evaluation for all EU27 Member States on where the most significant shortcomings in the transposition of the WFD are found. This first overview analysis on the conformity focussed on the articles 4 (environmental objectives), taking into account the relevant definitions (in article 2) and annexes (in Annexes II and V), article 9 in conjunction with the relevant definitions (cost recovery) and article 14 (public participation). These provisions are at the core of the WFD and confer rights of the individual[23] which must be appropriately reflected in the national law(s)[24]. Moreover, the conformity of other provisions was also briefly evaluated. As a result, the Member States' transposition was classified into three groups:

- Major shortcomings in the articles 4, 9 or 14
- Other significant shortcomings in these and other articles
- Other open issues

This grouping allows the Commission to identify and address the most significant problems first. Furthermore, this grouping facilitates the communication of the analysis.

3.1.4. Results of the conformity assessment

The assessments have revealed significant and widespread shortcomings in the transposition. In particular the "environmental objectives" (Article 4) have been transposed poorly. Overall, 19 Member States[25] appear to have major shortcomings. In particular the lack of proper transposition of Article 4, the objectives and exemptions, and in particular the conditions in which and how to apply them, are often not in conformity. Furthermore, the transposition of the article 4.7, the authorisation for new modifications and developments which affect the water environment (e.g. new hydropower plants or new industry allocations in pristine areas) are often not transposed and thereby are creating legal uncertainty for project developers. Moreover, the several national laws fall short to introduce the cost recovery obligations (Article 9) and the related definition of "water services" which is crucial for the application of cost recovery. Some Member States fail to transpose properly the obligation regarding public participation (Article 14). Only three Member States appear to have an overall satisfactory transposition (Austria, Malta and Portugal). However, this has to be verified in a more in-depth analysis. For other Member States, there are, based on the screening assessment, some open issues which require clarification.

See Table 2 for a more detailed overview.

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21 Only partially for Belgium.

22 Main reasons were the lack of transposition at the time of contracting or the lack of capacities within the support contract.

23 With the exception of article 9

24 See also ruling of the European Court of Justice against Luxemburg (C-32/05)

25 This figure does not include Greece, for which a non-conformity infringement case has been applied to the European Court of Justice.

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Table 2: Overview of key results of conformity assessment of transposition.

MS	Transposition date	Infringement linked to transposition	Consultant report available	Overall result of initial conformity analysis	Transposition of key provisions				
					4	4.7	9	14	Definition of water services
AT	2003		Yes	+	+	+	+	+	+
BE	2002-2006	2004/0005	Partly	–	–	–	–	–	–
BG	2005-2006		No	*See notes*					
CY	20/02/2004		Yes	+/–	+	+	+/–	+	+
CZ	2001-2004		Yes	–	–	–	–	–	–
DE	2003-2006	2004/0017	Yes	–	+	+	–	+	–
DK	17/12/2003		Yes	–	-	+	–	+	–
EE	2001-2005		Yes	–	–	–	–	–	–
EL	2003-2007	2005/2226	No	*Non conformity infringement case on-going*					
ES	31/12/2003		Yes	–	–	–	+/–	+	+
FI	31/12/2004	2004/0108	No	–	+/–	+	–	+/–	–
FR	21/04/2004	2004/0048	Yes	–	–	–	+/–	+	+/–
HU	2004		Yes	–	–	+	–	+/–	+
IE	2003-2005		Yes	–	–	–	–	+/–	–
IT	May 2006	2004/0059	No	–	–	–	+	+	+
LT	25/09/2003		Yes	–	–	+	–	+	+
LU	Not transposed	2004/0073	-						
LV	12/09/2002		Yes	–	–	+	–	+	–
MT	23/04/2004		Yes	+	+	+	+	+	+
NL	2005	2004/0086	No	–	–	–	+/–	+	+/–
PL	3/06/2005	2004/2309	Yes	–	–	+	+/–	+	+
PT	29/12/2005	2004/0120	No	+	+	+	+	+	+
RO	2004-2006		No	+/–	+	+	+	+/–	+
SE	1/08/2004	2004/0142	Yes	–	–	–	–	+	–
SI	2003-2006		Yes	–	–	–	+/–	+/–	+/–
SK	2002-2005		Yes	–	–	+	–	+	+
UK	2003-2004	2004/0152	Yes	–	–	–	–	+	+

LEGEND	
+	Initial transposition analysis has not identified significant non-conformity or these appear to be minor
+/–	Initial transposition analysis has identified missing elements or non-conformity issues that require further analysis
–	Initial transposition analysis has identified missing elements or non-conformity issues that appear to be major

Notes:
All infringement cases are non-communication cases except 2005/2226 against EL which is non-conformity. Infringement cases for EL, IT and LU are still opened. The rest of the non-communication cases are closed.
For Bulgaria it was not possible to make a complete conformity analysis at this stage. An amendment of the water law has been adopted in 2006 and the information available indicates that this may overcome some of the shortcomings identified in the analysis of the previous transposition legislation.

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3.1.5. Open issues and next steps

The results of this first analysis are discouraging since they reveal serious shortcomings in many Member States. The Commission will now explore all possible options for addressing these issues decisively. As a first step, the Member States falling into the group 1 of possible non-conformity with articles 4, 9 and 14 will be targeted as a first priority in 2007. The Commission will also consider supporting activities in the context of the Common Implementation Strategy or bilaterally to provide feedback and support to the Member States which are willing to address the identified issues.

3.2. Administrative arrangements (Art. 3)

3.2.1. Legal requirements

The first step in the practical implementation was to set up the administrative arrangements. The purpose for setting up these administrative arrangements is to *"ensure that the requirements of the Directive for the achievement of the environmental objectives established under Article 4, and in particular all programmes of measures are coordinated for the whole of the river basin district"* (Article 3, paragraph 4). To this end, Article 3 provides for a number of concrete actions, in particular:

- the identification of river basin districts within the national territory (paragraph 1);
- the assignment of groundwaters and coastal waters to the nearest or most appropriate river basin district (paragraph 1);
- the establishment of the appropriate administrative arrangements including the identification of an appropriate competent authority (paragraph 2). If more than one competent authority is designated for a river basin district, one competent authority shall be designated as a coordinating body in order to ensure coordination with all other authorities (Annex I, point (v)). Member States are able to make use of existing national or international bodies as competent authorities (paragraph 6);
- the establishment of international river basin district between Member States (paragraph 3) and an endeavour to establish an international river basin district where the hydrographic boundaries extend beyond the territory of the European Community (paragraph 5);
- the administrative arrangements must be put in place by 22 December 2003 and a report must be sent to the Commission by 22 June 2004 (paragraph 7, 8 and Annex I).

Should Member States change any of the above-mentioned administrative arrangements, they are required to notify the Commission about such changes within three months of the change coming into effect (paragraph 9).

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3.2.2. Reporting and legal action by the Commission

Most EU25 Member States submitted the report in time or shortly after the expiry of the deadline. In addition, Bulgaria and Romania submitted reports on a voluntary basis in 2004 already[26].

Furthermore, coordinated reports for some international river basins have been reported (for the Odra, Elbe and Danube international river basin districts) which included the respective information on administrative arrangements also for Croatia and several non-EU Member States (e.g. for countries sharing the Danube River Basin District[27]).

Norway has also submitted a report regarding Article 3 implementation on the 1 January 2007 since their national law transposing the WFD entered into force on the same day.

The Commission launched infringement cases of "non-communication" against Belgium (case A2004/2303), Denmark (case A2004/2304), France (case A2004/2306), Greece (case A2005/2033), Italy (case A2004/2307), Malta (case A2004/2308), Poland (case A2004/2309), Spain (case A2004/2305) and Sweden (case A2004/2310) since they failed to submit any report in time. All cases, with the exception of Spain, have been resolved, most of them already in 2004, and closed in the meantime.

For Spain, the formal designation of river basin districts has not yet been completed. In accordance to the water law, a Royal Decree should set up the administrative arrangements. This Royal Decree has entered into force very recently and the Commission is currently analysing its contents. In the meantime, the Commission keeps the non-communication case (A2004/2305) open to ensure that the Article 3 provisions are formally put in place in Spain.

Denmark, Poland and Portugal have modified their administrative arrangements following the submission of the original report. The changes have been notified to the Commission in time and have been considered in the compliance assessment.

No cases of "non-conformity" or "bad application" have been launched to date[28].

3.2.3. Methodology for compliance and performance assessment

For the purpose of compliance checking and for communicating the results, the Commission developed an assessment methodology which consists of several steps:

(1) Screening assessment

(2) In-depth assessment

(3) Performance indicators

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26 Most of the reports are available at http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/implementation_documents_1/wfd_reports/member_states

27 See report at http://www.icpdr.org/icpdr-pages/river_basin_management.htm

28 For more information see Seventh Annual Survey on the implementation and enforcement of Community environmental law 2005 (SEC(2006)1143) available at http://ec.europa.eu/environment/law/pdf/7th_en.pdf

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The **screening assessment** is based on a check list which enables the systematic and comprehensive overview on the completeness, clarity and quality of the Member State report. The check list was based on the reporting guidance[29] and structures the assessment reports into key issues. For Article 3, the key issues were the designation of river basin districts, the identification of competent authorities, the national administrative set and coordination, the international coordination (where relevant) and the data submission. Screening assessment reports were produced for all Member States which provided the necessary overview. However, the findings of these reports were not meant to be conclusive on whether the implementation of Article 3 is consistent and compliant with the directive.

In order to determine whether there are cases of "non-compliance", the Commission carried out an **in-depth assessment** in cases where the screening assessments indicated more serious shortcomings.

Moreover, the Commission developed a methodology for presenting the relative performance of the Member States on the basis of the screening reports. These **performance indicators** aim to present the relative completeness and quality of the implementation between the Member States. They do not reflect an indication whether the Member State implementation is fully compliant. However, they will provide a good and easy to communicate overview for the EU. On one hand, the indicator identifies those Member States which presented a better report and could therefore be used as example for others. On the other hand, they identify the "distance to target" for those Member States scoring lower.

The performance indicator is based on a simple scoring system in which a number of points are attributed for each question. The questions are built on the reporting guidance and are answered with the help of the screening report. The questions are grouped for the above-mentioned key issues. The total number of points is added and the total divided by the maximum number of available points in order to calculate a score between 0 and 100. Where certain questions are not relevant for a Member States (e.g. regarding international cooperation for Member States which do not share a river basin with another country) the total scores are normalised. The assessment template to derive the performance indicators is enclosed (see Annex 5).

It should be noted that incomplete or unclear reports will result in lower scores. Thus, the performance indicators may not reflect the real level of implementation but also whether the Member States' efforts have been reflected in a clear and complete way in the paper report. In order to take account of this aspect, an additional indicator for reporting performance has been developed (see 3.4).

In order to improve this situation further and enable a more comparable assessment of the reports the "Water Information System for Europe" is under development (see section 4.2).

3.2.4. Facts and figures from Member States' reports

The implementation of Article 3 is largely complete across EU27. This has resulted in the establishment of 110 river basin districts (RBDs) across the EU. For each of these RBDs, river basin management plans will have to be finalised by December 2009. These RBDs are presented in the overview map available at http://water.europa.eu.

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[29] http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/thematic_documents/p_-_reporting/reporting_guidance

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Since 40 river basin districts are international, there is a total of 170 national or national parts of international river basin districts (see list in Annex 3). The international river basin districts cover more than 60% of the territory of the EU making the international coordination aspects one of the most significant and important issue and challenge for the WFD implementation. The list of RBDs and is provided in Annex 3.

The size of the RBDs varies considerably from very small ones below 1,000 km^2 to the largest one, the Danube with over 800,000 km^2. Obviously, the international RBDs are generally larger. The average size of national parts of national RBDs is about 25,000 km^2 while the average size of national part of international RBDs is about 50,000 km^2.

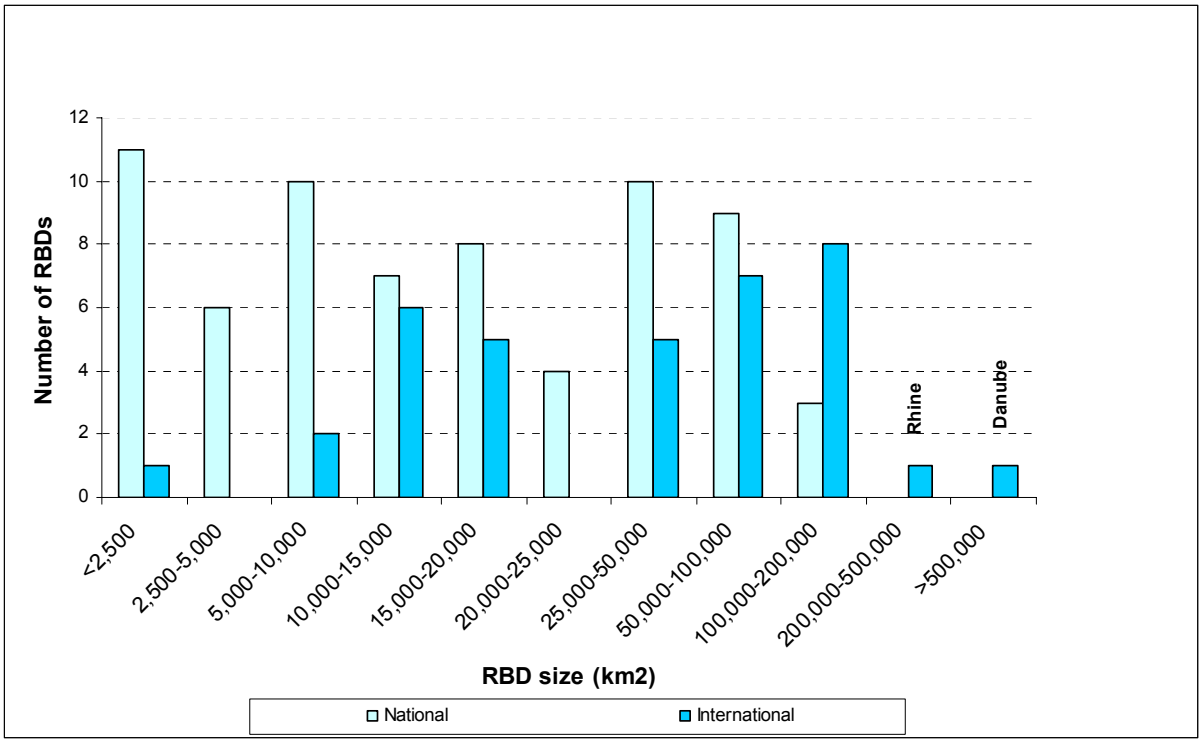

Figure 1: Size distribution of River Basin Districts.

The set up of competent authorities (CA) is also very divers across the EU. All combinations have been found, including:

- one competent authority for one RBD,
- one competent authority for several RBDs and
- several competent authorities for one RBD.

The reasons for the different approaches are the differences in the national legal and institutional framework regarding water management[30], in using existing administrative

[30] In some Member States, in particular countries with a federal structure, water management falls at least partly under the competence of sub-national or regional authorities.

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structures and in the distribution of competences of water management within the governments[31].

The list of competent authorities is provided in Annex 4.

No Member State has designated an international body as competent authority for the implementation of the Water Framework Directive. However, in most cases, international bodies have been charged with the task of coordinating the implementation of the countries sharing the international RBD and to produce an internationally agreed overview report to complement the national reporting to the European Commission.

The situation with co-operation with non-EU Member State is less developed (with the exception of cooperation with Third countries in the Danube or the Rhine basins).

The WFD also introduces the ambition to share spatial data by using geographical information systems (GIS). Most Member States have provided such GIS data and this has been used to produce the maps included in this report. In addition, the Commission will be able to provide other overview maps (e.g. on main rivers and lakes) and use these data for a more effective compliance checking in the future[32]. In addition, 25 Member States have voluntarily, and in addition to their official report, submitted electronic data, including GIS, to the WISE prototype in order to help establish this new electronic reporting tool.

3.2.5. Results of compliance assessment and performance checking

Overall, the results are satisfactory and all Member States have established the necessary structures and administrative arrangements. However, there is a significant difference between the Member States and some may still have to address some shortcomings to ensure that the administrative structure deliver the results under the WFD. In comparing the EU15 to EU10, it is noticeable that, on the basis of the assessment criteria, the new Member States have implemented the Article 3 in a more appropriate way. This may have to do with the fact that the new Member States had to align themselves with the *Community acquis* as part of the accession process. They seemed to have taken this opportunity to take the WFD as a guide for reforms. The EU15 Member States were more often struggling to re-direct their national set-ups which often had been in place for decades to meet the new challenges.

The relative performance of the Member States is presented in Figure 2. In order to explain some of the shortcomings in some Member States, a more in-depth analysis in being made subsequently per key issue.

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31 Some governments shared the competence on water management equally between different ministries.

32 Such information will be made available through WISE: http://water.europa.eu

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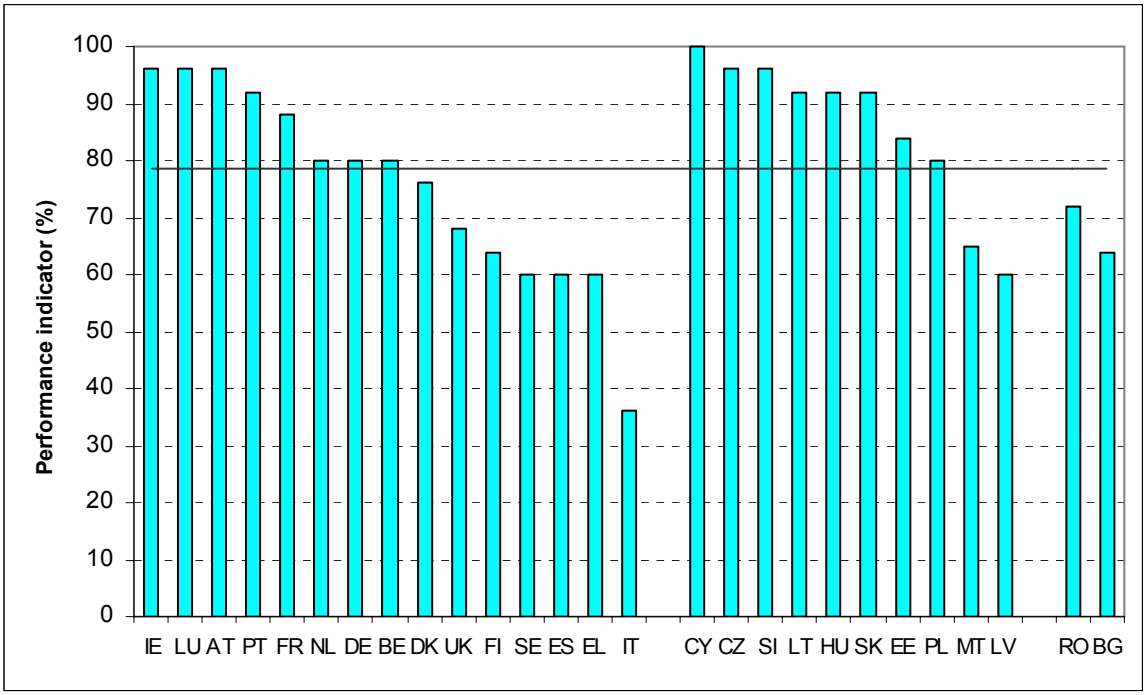

*Figure 2: Performance indicator per Member State regarding the implementation of the administrative set-up – Article 3 WFD – including the EU-27 average (based on the assessment of Member States' reports). *The scores for BG and RO are based on preliminary assessments.*

The designation of **river basin districts** has mostly taken place on the basis of hydro-geographic boundaries. Only some smaller exceptions were found were some Member States have unilaterally decided to attribute smaller (sub-)river basins which drain in international river basin districts to a different national river basin district (e.g. Germany – Oderhaff).

The **grouping of smaller river basins** into a river basin district has been also applied in a meaningful way in those countries where there are many small catchments that often drain directly into the sea (e.g. in the UK) or where many islands occur (e.g. Greece). Only for Italy, the current grouping of river basins into river basin districts appears to be illogical and not necessarily in line with the WFD intentions. River basins which drain into the Tyrrhenian and Adriatic Seas have been grouped together. This is the case for the northern, central and southern Apennine river basin districts. Furthermore, all small river basins were grouped into large districts, with the exception of the Serchio which is much smaller than the other management units. Another concern is that the Serchio river basin district appears to divide the northern Apennine river basin district into two separate pieces, with the result that the Ligurian river basins are not contiguous with the rest of the northern Apennine RBD. No explanations have been provided for these decisions.

Most Member States have identified their **international river basin districts** and established some form of international cooperation. In some cases, the RBD map (see http://water.europa.eu) highlights some RBDs as international which have not been officially notified by the Member States. This was done on the basis of information available to the Commission and is often the case where a very small part of the RBD is crossing the border (e.g. Adour-Garonne and Ebro) or where the neighbouring countries have not coordinated the boundaries of the cross-border river basins (e.g. Tornionjoki-Finland and Bothanian Bay-

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Sweden). The Commission is now seeking to clarify these issues bilaterally with the Member States concerned.

The assignment of **groundwaters** to a river basin districts did not create many obstacles and most Member States have applied the same boundaries to groundwater as for the surface waters in the RBDs. However, not all Member States have explicitly confirmed that this was their choice but rather not provided any separate data for groundwater boundaries which led to the assumption that the RBD boundaries should be applied. Recent feedback from the Member States indicate that some may revisit this choice during the preparation of the river basin management plans on the basis of the implementation of Article 5 (characteristics) and 8 (monitoring). This would be acceptable if it leads to a more effective implementation of the directive and if it is notified to the Commission (cf. Article 3, paragraph 9).

Similar observations have been made with the attribution of **coastal water** strips to appropriate RBDs. All Member States, where this is relevant, have implemented this step and no major issues have been identified. The only aspect which has been handled differently in different Member States is the consideration of territorial waters for which the scope of the WFD applies to chemical status (see Article 2, paragraph 1). It is assumed that the coastal areas which have been communicated as part of the Article 3 reporting will be extended to the territorial waters in the later implementation process when and where the issue becomes relevant. This issue should be clarified with the Member States in the run up to the river basin management plan.

The diversity in setting up the **competent authorities** has been highlighted above. At this stage, the main criterion for compliance assessment is whether the responsibilities, in particular for river basin management and reporting, have been clearly assigned. This is the case nearly everywhere although it is difficult to judge on how some of the more complex distribution of responsibilities will deliver in accordance to the directive. Only for Italy, the responsibilities for preparing one river basin management plans for the currently identified RBDs are unclear. This is confirmed by the fact that the reports submitted in the context of Article 5 are uncoordinated documents from different authorities within one RBD. The information provided on **coordination** mechanisms was often general and limited. In most Member States, there are implementation structures which involve a variety of authorities and public bodies. The set up ranges from clear and simple situations to a complex structures which can only be fully understood by understanding the national perspective. From the information provided, it is difficult to judge whether the more complicated arrangements will actually deliver the WFD implementation in a (cost-)effective way.

The aspect where the most serious shortcomings have been identified is in relation to **international coordination**. The most advanced arrangements for international river basins exist for the Danube, the Elbe, the Meuse, the Odra, the Rhine and the Scheldt. For these transboundary rivers, multilateral agreements are in place and international commissions are coordinating the national efforts in the WFD implementation for the entire basin. Obviously, there are differences in the approach, ambitions and mechanisms between these six river basin commissions. However, there is an information exchange mechanism in place between the different river commissions which results in sharing good approaches and learning from each other.

The Commission is working and supporting (also financially) these international efforts, in particular in the context of the International Commission for the Protection of the Danube

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River since it promotes application of the WFD in the new Member States and non-EU Member States sharing the Danube catchment.

For other **transboundary river basins between Member States**, there are often bilateral agreements in place which work to a larger or lesser extent and which only partially are now re-directed towards the WFD implementation. The information provided by some Member States is not conclusive[33], in particular in the case of bilateral cooperation between Bulgaria and Greece, Italy and Slovenia, Portugal and Spain and Finland and Sweden.

For river **basins that Member States share with non-EU Member States**, there are some significant open issues to resolve. The most positive example is the International Commission for the Protection of the Danube River (ICPDR) in which all non-EU Member States are politically committed to implement the WFD in the Danube within the timelines foreseen in the directive. More difficult is the cooperation between the Baltic EU Member States (EE, LV, LT and PL) and Russia, Belarus and Ukraine on one hand and the cooperation between Bulgaria, Greece and Turkey on the other. The Commission requested and received a mandate from the Council to open negotiations for these transboundary waters in order to have a more solid basis for cooperation[34].

The submission of **data** was largely satisfactory. The directive introduces the intention to share spatial data with the assistance of geographical information systems (GIS). This is an area where the Commission and the Member States have to gain experiences to share such data efficiently and in the quality necessary. In addition, harmonisation and common approaches are necessary but will only become available with the implementation of the recently agreed INSPIRE Directive[35]. Further improvements are still necessary in order to develop an efficient and streamlined reporting system which fulfils various purposes. The ongoing preparations for the Water Information System for Europe (WISE) are aiming towards achieving this.

3.2.6. Open issues and next steps

WFD requires Member States to set up the appropriate administrative arrangements in order to apply effectively the provisions of the Directive and achieve its objectives. However, the WFD provides flexibility for each Member State to decide how to best set up these administrative arrangements according to their own reality and needs. The implementation of WFD Article 3 does not necessarily entail a change in the distribution of competences among administrations within Member States, nor the creation of new river basin district administrative bodies. What in any case is necessary is to create the adequate co-ordination mechanisms in order to effectively deliver the WFD obligations.

The guiding principle for establishing the administrative arrangements must be that the environmental objectives under Article 4 are being achieved. Hence, it is currently only possible to check the compliance of the provisions from a formalistic point of view. In the future, the Commission may have to revisit the compliance check if and when the objectives

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33 For example, one Member State reported that there is a cooperation mechanism and the other did not or one Member State reported that the bilateral cooperation is not working.

34 http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressdata/en/envir/90281.pdf, page 20

35 Directive 2007/XXX/EC of establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (http://www.ec-gis.org/inspire/)

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are not being met and there is indication that the administrative arrangements may be one cause for this.

With the exception of Italy, most of the open issues in relation to the article 3 implementation can be addressed through an open and constructive feedback, support and cooperation mechanism through the Common Implementation Strategy. The Commission will engage in bilateral contacts with the Member States to this end. In particular, this is the case in order to clarify open issues on international cooperation and identification of international river basin districts.

3.3. Environmental and economic analysis (Art. 5)

3.3.1. Legal requirements

The second step in practical implementation of the Directive was to undertake an environmental and economic analysis by December 2004, the so-called "Article 5 analysis". This analysis provides a baseline on which to build the river basin management plans and the recovery of costs of water services. This analysis was, in a way, the transition point of Member States' water management towards applying the WFD.

Article 5 requires that '*each Member State shall ensure that for each river basin district or for the portion of an international river basin district falling within its territory:*

- *an analysis of its characteristics,*
- *a review of the impact of human activity on the status of surface waters and on groundwater, and*
- *an economic analysis of water use*

is undertaken according to the technical specifications set out in Annexes II and III and that it is completed at the latest four years after the date of entry into force of this Directive.'

The analysis of the characteristics includes for surface water bodies the identification of rivers, lakes, transitional waters and coastal waters and the identification of heavily modified water bodies and artificial surface water bodies. Furthermore, for each surface water category, the relevant surface water bodies within the river basin district shall be differentiated according to type (Annex II.1.1). In addition, for each surface water body type characterised in accordance with section 1.1, type-specific reference conditions shall be established (Annex II.1.3);

The review of the impact of human activity on the status of surface waters includes an estimation of significant point source pollution, diffuse source pollution, water abstraction, water flow regulations and morphological alterations (Annex II.1.4). For groundwater, this concerns diffuse sources of pollution, point sources of pollution, abstraction and artificial recharge (Annex II.2.1). Water bodies being at risk of failing the environmental quality objectives should be identified (Annex II.1.5 and Annex II.2.1). For those bodies identified as being at risk of failing the environmental quality objectives, further characterisation shall, where relevant, be carried out to optimise the design of both the monitoring programmes required under Article 8, and the programmes of measures required under Article 11;

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The economic analysis of water use shall contain information in sufficient detail for the calculation of recovery of costs of water services and information to make judgements on the cost effective combination of measures in the programme of measures in 2009 (Annex III).

According to Article 15(2), Member States shall submit summary reports of the analysis required under Article 5 within three months of their completion. According to Annex II, for those bodies identified as being at risk of failing the environmental quality objectives, further characterisation shall, where relevant, be carried out to optimise the design of both the monitoring programmes required under Article 8, and the programmes of measures required under Article 11. Furthermore, according to Annex V.1.3.1, the results of the monitoring shall be used in combination with the impact assessment procedure described in Annex II to determine requirements for monitoring programmes in the current and subsequent river basin management plans;

In addition to the requirements of Article 5, Member States were also required to establish a register of Protected Areas in accordance with Article 6 by 22 December 2004. This register shall include all bodies of water identified under Article 7(1) and all protected areas covered by Annex IV of the Directive. This register will be kept under review and up to date (Article 6(3)).

3.3.2. Reporting and legal action by the Commission

While many Member States submitted one national report covering all river basin districts on their territory, several Member States submitted one report for each river basin district. In total, more than 90 reports[36] were submitted by Member States, excluding relevant background documents.

Eight Member States of EU25 have submitted their Article 5 report in time and nine additional Member States have sent their report within three months after the deadline of 22 March 2005. Italy and Greece have submitted their report later than one year after the deadline.

Bulgaria and Romania have submitted their reports on a voluntary basis in March 2005. Updated and more detailed reports are available but have not been used for this compliance assessment. Moreover, the Croatia, Republic of Serbia and Bosnia-Herzegovina have finalised Article 5 reports as part of their implementation work in the Danube and provided them informally to the Commission. Norway has indicated that preparations for a full implementation of Article 5 are underway and that a report will be submitted in March 2007.

In additional to the national or regional Article 5 reports, eight international river basin districts (Danube, Rhine, Elbe, Odra, Scheldt, Meuse, Ems and Eider) produced a coordinated international Article 5 report.

Regarding the Article 5 reports, the Commission started legal action on "non-communication" against Spain (case A2005/2316), Portugal (case A2005/2318), Greece (case A2005/2317) and Italy (case A2005/2315). The cases against Greece and Italy are still unresolved.

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[36] These 90 reports contained more than 25000 pages in 16 languages. Most of them are available at http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/implementation_documents_1/wfd_reports/member_states

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In addition, some NGOs have filed a series of related complaints against 11 Member States. These complaints focus on the poor implementation of the economic aspects of the WFD and in particular the definition and implementation of "water services" which is a key term in relation to the provisions on cost-recovery. The Commission Services are in the process of enquiry with the Member States regarding these complaints.

3.3.3. Methodology for performance assessment

In line with the assessment of Article 3, the Commission developed a stepwise methodology to assess the Article 5 reports. This included a screening assessment and performance indicators. An in-depth assessment will be carried out in 2007. Again, the screening assessment is based on the reporting guidance[37] and structures the assessment reports into key issues. For Article 5, the key issues were the analysis of characteristics, human impacts on surface waters and groundwater and the economic analysis. The requirements of Article 6 on a register of protected areas were also included in this screening assessment.

Per key issue, several relevant sub-questions have been identified, which cover the several aspects of the environmental and economic analysis[38]. Screening assessment reports were produced for all Article 5 reports submitted to the Commission. The scale of these assessments is the river basin district, also in case a Member State submitted one report for more river basin districts within its territory.

Again, the findings of these reports were not meant to be conclusive on whether the implementation of Article 5 is consistent and compliant with the Directive. In order to determine whether there are cases of "non-compliance", the Commission is currently carrying out in-depth assessments for specific topics. In the framework of the Common Implementation Strategy (see section 4.1) some in-depth analysis has already been carried out, for example on hydromorphology and on groundwater.

In line with the performance indicators for Article 3, the Commission developed a methodology for presenting the relative performance of the Member States regarding Article 5. These indicators do not reflect the water status in Member States, nor the compliance with WFD objectives, but they aim to present a comparison of the relative completeness and quality of the implementation between the Member States.

The performance indicator is based on a simple scoring system in which a number of points are attributed for each question. The questions are built on the reporting guidance and are answered with the help of the screening report. The questions are grouped for the above-mentioned key issues. The total number of points is added and the total divided by the maximum number of available points in order to calculate a score between 0 and 100. For each Member State providing separate reports for their river basin districts, these were assessed and the scores were averaged to obtain a national score. Where certain questions are not relevant for a Member States (e.g. regarding salt water intrusion for a landlocked Member State) the total score is normalised. The questionnaire for deriving the performance indicators for Article 5 is enclosed (see Annex 6).

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37 http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/thematic_documents/p_-_reporting/reporting_guidance

38 Four sub-questions for characterisation, seven and eight sub-questions for impact of human activities on surface waters and groundwaters respectively and three sub-questions for economics.

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It should be noted that, overall, high scores go to Article 5 reports providing complete information – and thus indicating that the Member State or specific RBD has a strong information base for the implementation of the Directive. An achievement of the maximum score is considered a minimum requirement for successful implementation.

3.3.4. Facts and figures from Member States' reports

A document endorsed by the Water Directors on the principles and communication of results of the first analysis under the Water Framework Directive in June 2004[39] sets out the general approach envisaged by the WFD. The document is mainly based on the first experiences of the pilot river basins. From the Member States' reports submitted in 2005, it shows that considerable effort was put in the first environmental analysis. The results have created an EU wide information basis which did not exist before. This analysis can therefore be regarded as an "opening balance" or "starting point" for the WFD implementation.

Characteristics of river basin districts

Water bodies should be coherent sub-units in the river basin district to which the environmental objectives of the directive must apply. Hence, the main purpose of identifying water bodies is to enable the status to be accurately described and compared to environmental objectives. Throughout the EU, more than 70,000 surface water bodies have been defined (ca. 80% are river water bodies, 15% lakes and the remaining 5% coastal and transitional). This does not include data for Denmark and Greece either because they were not available or not clear.

As regards the **size of the river water bodies**, it is difficult to provide information at European level as average length has not been provided by all Member States and river basin districts. In any case, large differences exist between countries and even within countries for different river basin district or regions. Available examples of average of river water body lengths range from a few km (e.g. Ireland) to more than 80 km (German Länder Baden-Württemberg). A rough indication of the size distribution can be calculated as well by dividing the total number of water bodies by the total surface. This provides an estimated average drainage area per river water body[40] of ca. 93 km^2 for the whole EU[41], with large variations among Member States, from an average of 19 km^2 per water body in Ireland to nearly 312 km^2 in Latvia (see Figure 3).

The **size of the groundwater bodies** range is most Member States between 300 km^2 and 1000 km^2. Denmark and Ireland, Malta, the Netherlands and Sweden have identified small groundwater bodies in comparison to the other Member States. The average size of groundwater bodies is 900 km^2 (see Figure 4).

Smaller water bodies might better address the ecological variation in a certain area, as larger water bodies might imply less administrative burden. However, no conclusion can be drawn at

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39 See: http://ec.europa.eu/environment/water/water-framework/pdf/principles.pdf

40 This calculation does not take into account that some areas are draining to lakes and coastal areas, and that the densities of river networks in different Member States vary greatly. Hence, it should be taken just as a rough indication of the average size of river water bodies to allow for a simple comparison among countries.

41 This number excludes Bulgaria, Denmark Finland, Greece and Italy

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this moment on the influence of the size of the water body on achieving the environmental objectives of the Directive or the administrative consequences.

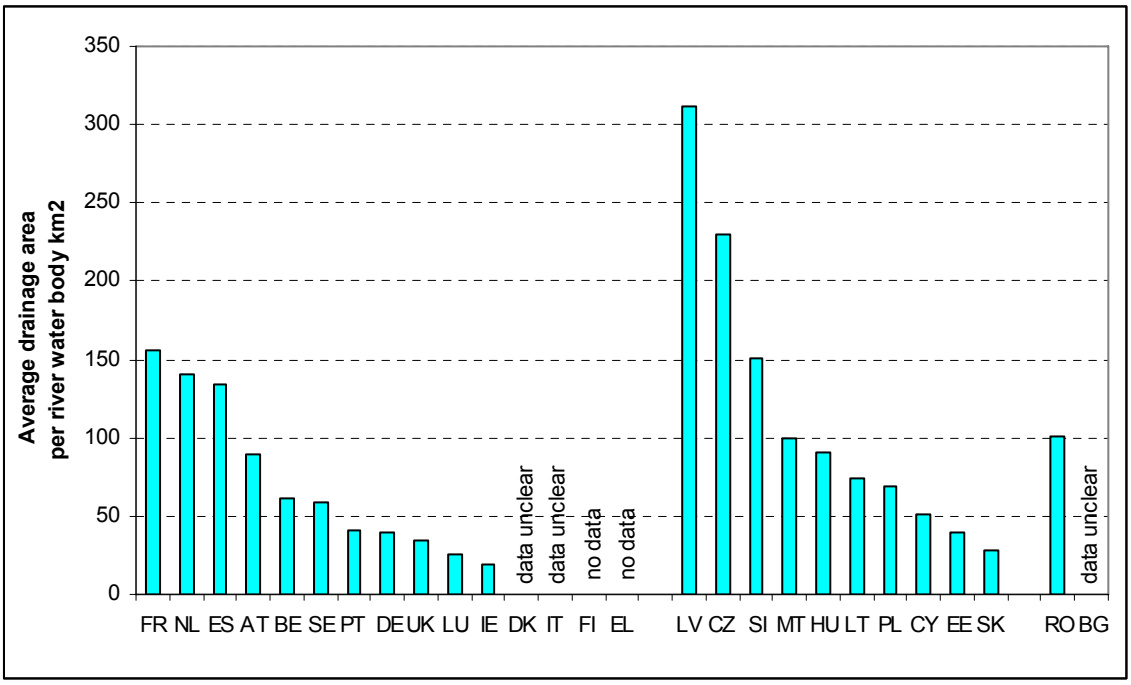

Figure 3: Average drainage area per river water body[40]

Notes for Figure 3:
1) Denmark, Italy and Bulgaria reported unclear data for river water bodies.
2) Finland and Greece did not report number of river water bodies.

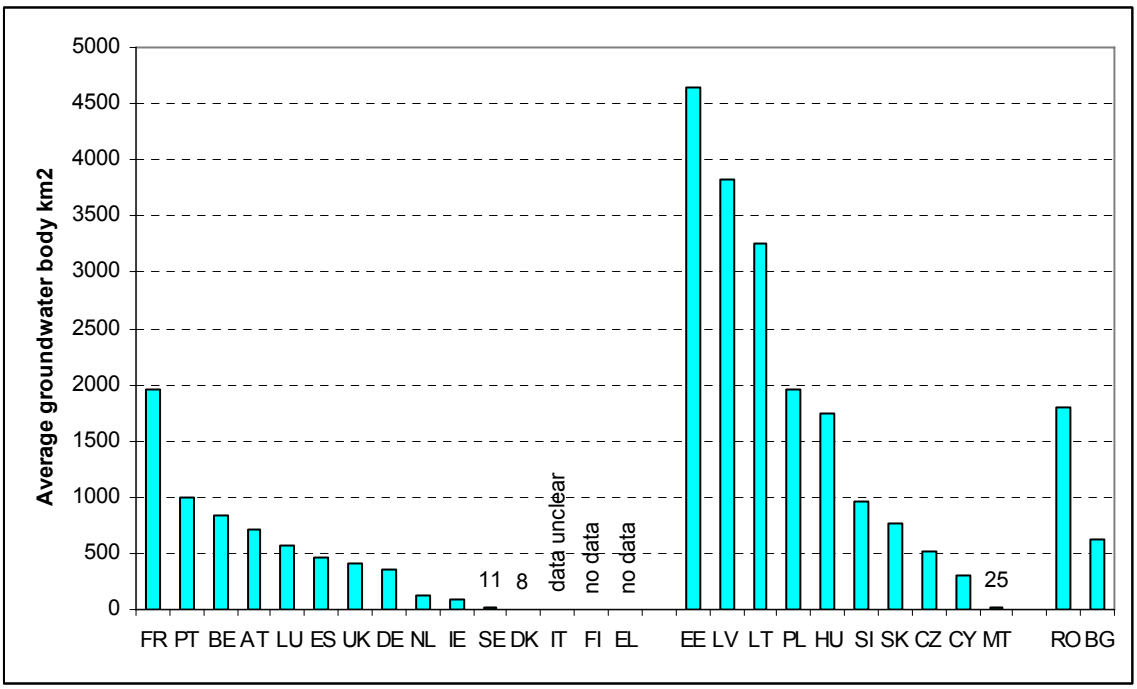

Figure 4: Average size of groundwater bodies

Notes for Figure 4:

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1) Based on data from WISE except for Bulgaria, Malta, Poland, Romania and Slovenia, for which values were calculated by dividing the total surface of the country by the number of groundwater bodies.
2) Finland and Greece did not report number of groundwater bodies.
3) Italy reported unclear data.

Under certain conditions, Member States may designate a body of surface water as **artificial or heavily modified**. Artificial water bodies can be for example ponds or canals. Heavily modified water bodies are for example enlarged rivers for navigation or reservoirs.

All Member States have made use of this provision, but the percentage of heavily modified or artificial water bodies varies enormously between Member States (see Figure 5 and map per river basin district at http://water.europa.eu). There are four Member States with more than 50% of their water bodies provisionally identified as heavily modified or artificial: the Netherlands, Belgium, Slovak Republic, Czech Republic and parts of Estonia and the UK. In the Netherlands, the percentage of natural water bodies is 5%. With the exception of these first four, EU Member States have on average provisionally identified around 16% of their water bodies as heavily modified and artificial. Ireland and Latvia have provisionally identified less than 2% of their water bodies as heavily modified or artificial.

The guidance documents on identification of water bodies and on heavily modified water bodies[42] have been widely used in the water body identification process.

In general, heavily modified and artificial water bodies are clearly associated with densely populated, urbanised areas as well as low-lying or mountainous regions. Averages per Member State may show strong variations across river basin districts. Also on a local scale, considerable variations may occur. This is often caused by a concentration of human activity, such as navigation and hydropower.

When interpreting the data, one should bear in mind the differences of methodologies and assessment criteria which may lead to differences in ambition. A non-exhaustive overview of assessment criteria used in some Member States for the preliminary designation of HMWBs is provided in Annex 7.

A further in-depth assessment will focus on specific areas and reasons for high percentages of heavily modified or artificial water bodies.

[42] See http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents

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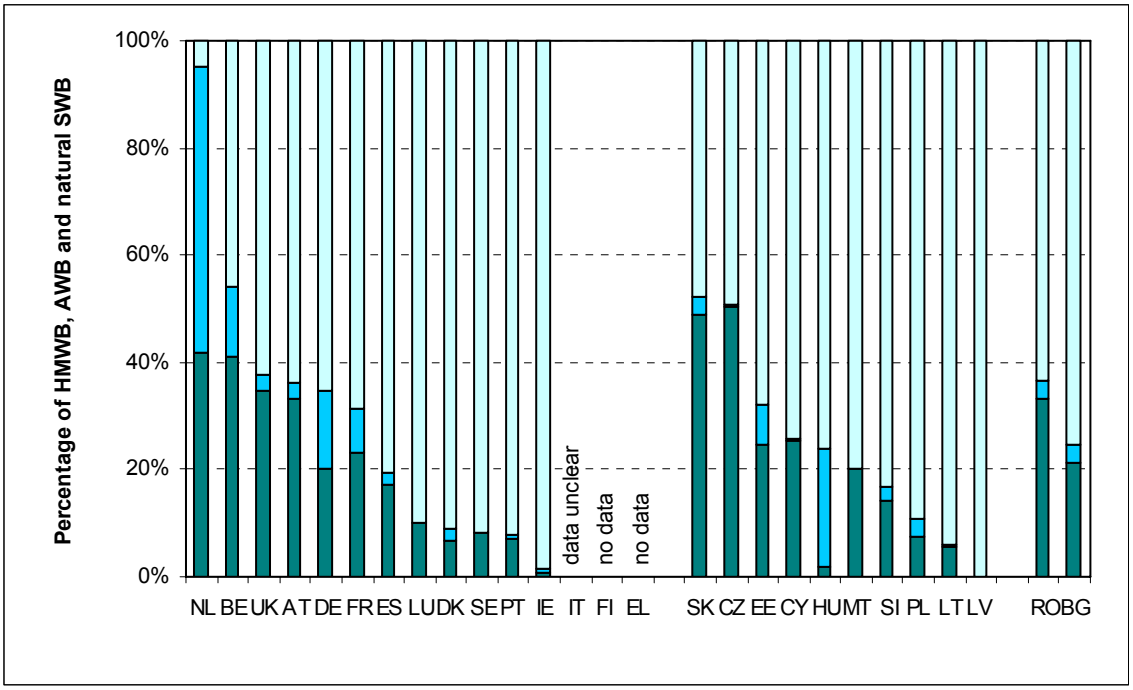

Figure 5: Percentages of provisionally identified Heavily Modified Water Bodies (■ = HMWB), Artificial Water Bodies (■ = AWB) and Natural Surface Water Bodies (■ = Natural SWB) per Member State (based on data reported by Member States).

Notes for Figure 5:
1) Finland and Greece: percentage of HMWB, AWB and natural SWB not reported.
2) Italy reported unclear data.

Pressure and impact analysis and risk assessment for surface and groundwater

Figure 6 shows the percentage of **surface water bodies at risk** of failing WFD objectives in the Member States. A map showing the surface water bodies at risk per river basin district is available at http://water.europa.eu.

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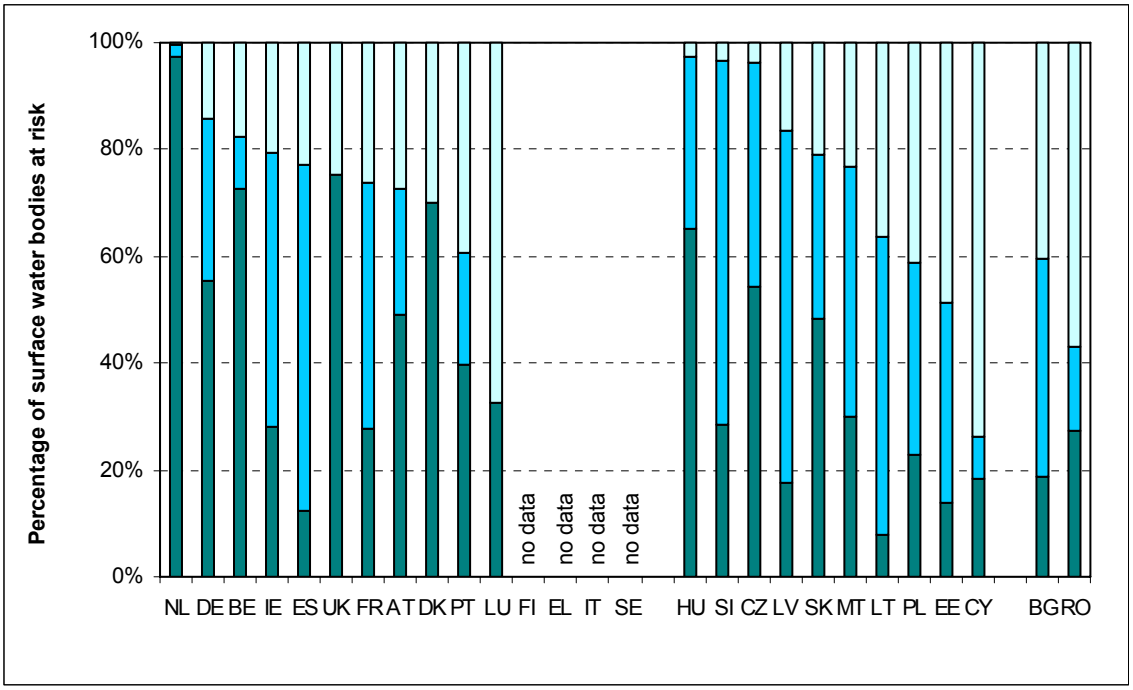

Figure 6: Percentage of surface water bodies at risk of failing WFD objectives per Member State - ■ = 'at risk', ■ = 'insufficient data', ■ = 'not at risk' (based on data reported by Member States).

Notes for Figure 6:
1) Finland, Sweden, Greece and Italy: no risk assessments reported for surface water bodies.
2) Slovak Republic: data for risk assessment do not cover all surface water bodies. Water bodies not assessed have been allocated to the 'insufficient data' category.

An average of 40% of surface water bodies in EU have been identified as being at risk and around 30% as not being at risk of failing to achieve the environmental objectives by 2015. For the rest of surface water bodies (around 30%), the result of the risk assessment is not conclusive due to insufficient data. This lack of data is more important in the case of coastal and transitional waters.

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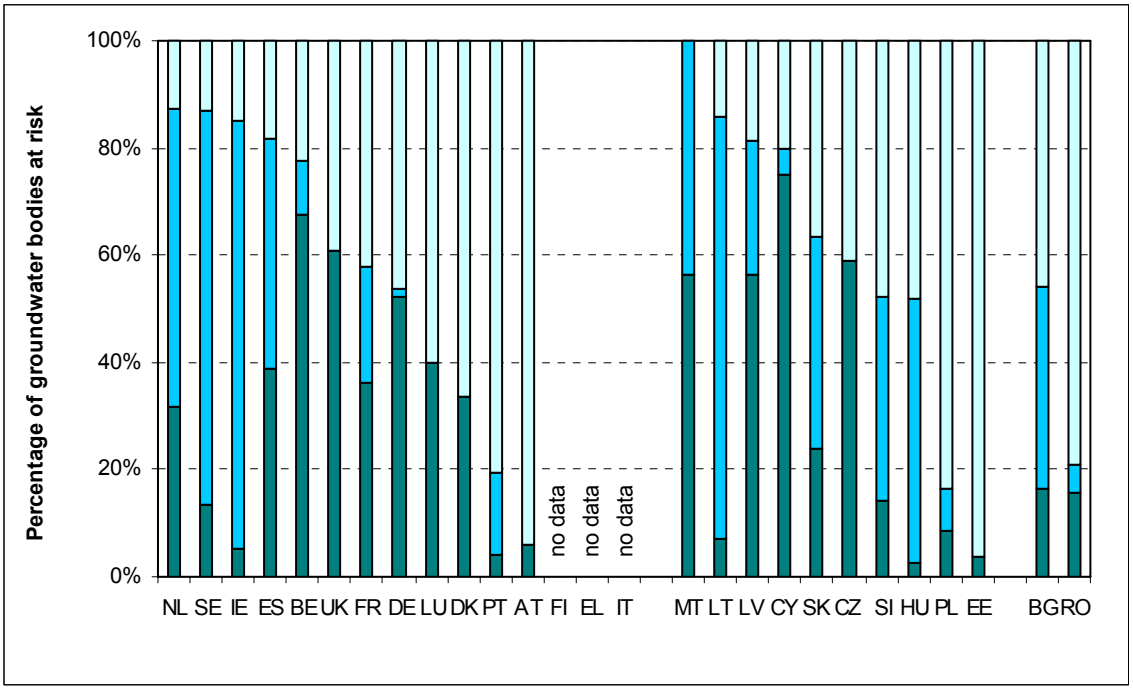

Figure 7: Percentage of groundwater bodies at risk of failing WFD objectives per Member State - ■ = 'at risk', ■ = 'insufficient data', ■ = 'not at risk' (based on data reported by Member States).

Notes for Figure 7:
1) Finland, Greece and Italy: no risk assessments reported for groundwater bodies.
2) Germany, Sweden, France and Lithuania: data for risk assessment do not cover all groundwater bodies. Groundwater bodies not been assessed have been allocated to the 'insufficient data' category.

Figure 7 shows the result of the risk assessment for groundwater bodies. A map showing the groundwater bodies at risk per river basin district is available at http://water.europa.eu. An average of 30% of groundwater bodies in EU have been identified as being at risk and around 25% as not being at risk of failing to achieve the environmental objectives by 2015. For the rest of groundwater bodies (45%), the result of the risk assessment is not conclusive due to insufficient data.

The result of the risk assessment in many countries shows high percentages of water bodies identified as at risk of failing to meet the WFD objectives by 2015. These high figures can be attributed to a number of reasons. First, the WFD establishes new environmental objectives addressing pressures and impacts that were not considered in previous water policies, for example hydromorphological changes. Second, the limited information on how some of these newly addressed pressures actually impact the aquatic ecosystems may have led in general to a precautionary approach, contributing to an increase in the percentage of water bodies identified as at risk or under the insufficient data category. In addition to that, at the moment the risk assessments were carried out, a precise operational definition of the WFD water status classes was not available, and this fact may have also played a role in increasing the uncertainty of the results for a significant number of water bodies.

Finally, Member States have often not taken into account in their risk assessment the environmental measures that were already in the pipeline and that can have an influence on the achievement of the WFD objectives. Most of Member States based their risk assessment

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on current impact data and did not take into account the further implementation of environmental legislation and the prediction of economic trends up to 2015.

From the information in the Article 5 reports it is difficult to extract detailed information on which **pressures and impacts** cause the high number of water bodies at risk. Only 12 Member States have reported information on the relative importance of different pressures and impacts for surface waters. Only 5 Member States have provided complete information on the following main pressures: point source pollution, diffuse source pollution, water flow regulations/morphological alterations and water abstraction (see Figure 8).

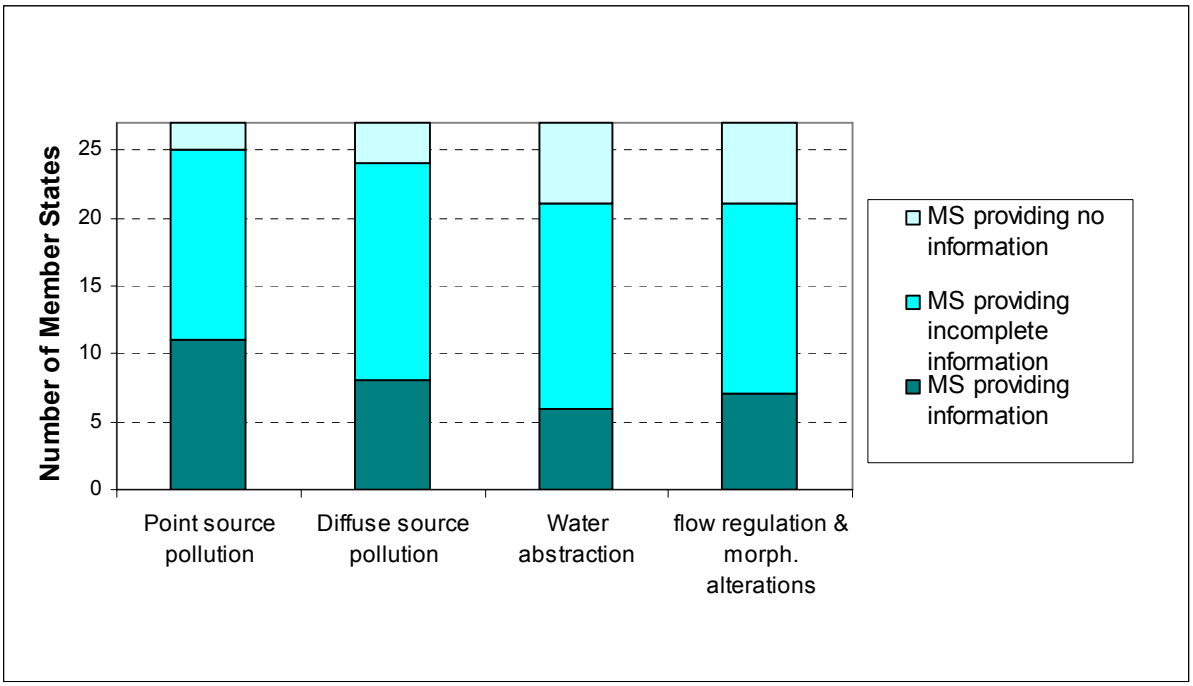

Figure 8: Level of information provided by Member States on pressures.

From the available information, it can be concluded that point source pollution, diffuse source pollution and water flow regulations/morphological alterations are important pressures. Water abstraction is on average said to be a less important pressure.

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Chemical pollution and priority substances

As part of the Article 5 analysis, Member States had to complete an assessment on pressures (i.e. an inventory of significant point and diffuse sources) and impacts (e.g. an assessment of exceedances of national or international environmental quality standards) for priority substances of Annex X WFD and pollutants of Annex VIII WFD. This analysis is important for the preparation of the programme of measures, but also very relevant for the implementation of Article 16 and the related Commission proposal (see section 2.3). One of the main findings of the review of the Member States' reports is that information on chemical substances such as priority substances and other dangerous substances varies considerably in Member State Article 5 reports and is often very incomplete. Based on the available information, the following preliminary conclusions can be drawn:

- A significant number of Member States did not provide information on whether the risk to surface water bodies was with respect to chemical status, i.e. the impact analysis was lacking or inappropriate. Where an assessment of compliance with EQS has taken place, the levels of EQS vary considerably between Member States.

- Regarding information requested on chemical pollutants such as lists of relevant substances at the national / RBD level, most Member States have no systematic mechanism in place to identify additional pollutants which are of significance for water protection in their country.

- Inventories of significant pollutants emitted and pollutant loads have often not been provided. This point and the point above are even more surprising since many Member States identify relevant pollutants and compile inventories in the context of implementation (or infringement procedures) related to Directive 76/464/EEC (now consolidated and replaced by 2006/11/EC).

- A significant number of Member States did identify gaps in their monitoring programs for chemical substances which should be addressed in the next few years.

- Given the absence of appropriate inventories, the development of methodologies to estimate pressures from diffuse sources is another key issue which was not addressed in many cases either.

In summary, the current implementation of chemical pollution and priority substances is inappropriate and inconsistent with other legislation that is already in place. The Commission services will make an in-depth assessment to evaluate the country-specific shortcomings in more details and take appropriate action thereafter. Furthermore, the Commission proposal on environmental quality standards already includes components (e.g. the proposal for an inventory or the harmonisation of EQS) which would clarify some aspects and strengthen the implementation in this area.

For groundwater, a large part of the identification of water bodies at risk was related to diffuse sources of pollution and quantitative pressures. The importance of quantitative pressures in some Member States is confirmed in the first interim report on Water Scarcity and Drought[43].

Quantitative pressures causing a groundwater body being at risk are especially a problem in Member States which are highly dependent on groundwater for their water resources. For example in Cyprus, more than 75% of the water bodies is identified as 'at risk', while groundwater aquifers are still being over-pumped and salt intrusion by sea water is observed. A similar situation has been observed in Malta and several other coastal regions.

[43] See http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/scarcity_droughts

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The main **driving forces** behind the above-mentioned predominant pressures are agriculture, navigation, hydropower, flood protection and industrial and municipal waste water discharges. This conclusion is based on the results of a questionnaire sent out to the Member States in 2005 and published in the CIS report 'Key Issues and Research Needs under the Water Framework Directive'[44]. The importance of specific driving forces related to hydromorphological pressures are identified in the 2006 screening assessment on heavily modified water bodies[45].

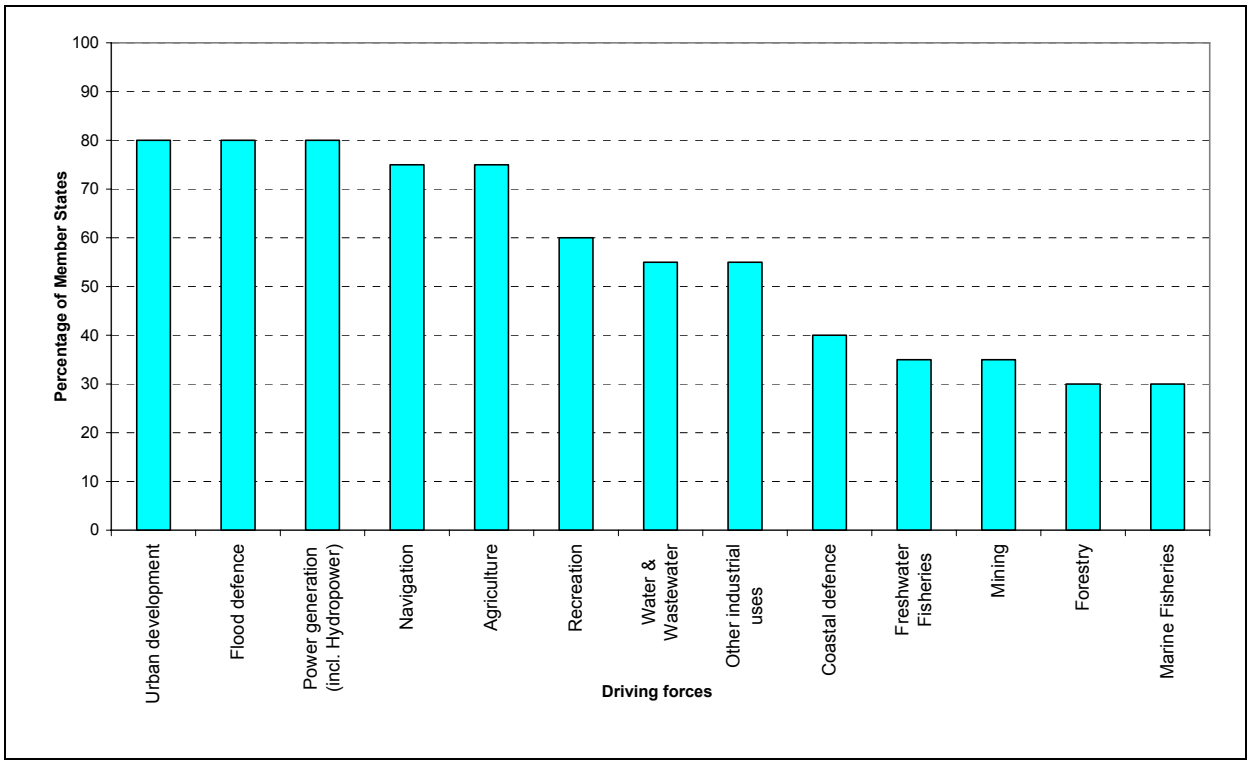

Figure 9: Percentage of Member States indicating a driving force related to hydromorphological pressures as significant. This figure is based on an in-depth assessment in 2006, for which the Article 5 reports of only 20 Member States were taken into account[45]. This was due to a lack of data in the other Member States or the lack of availability of other reports.

44 See http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/thematic_documents/relevant_research/research_2005pdf/_EN_1.0_&a=d.

45 See http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/thematic_documents/heavily_modified

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Overview of the status of European waters: some preliminary conclusions and interpretations from the Article 5 environmental analysis

The information in the Article 5 reports shows differences in the importance of different pressures between EU15 and EU12 Member States. In general waste water discharges are less important in EU15 than in the new EU12 Member States. On the other hand, agriculture appears as most relevant in some EU15 Member States. Hydromorphology is considered significant all over EU27.

Agriculture is strongly dependent on clean water. Unfortunately, certain agricultural practices lead to a number of significant problems in waters. The improper use of nutrient and pesticides results in diffuse pollution that has become the number one water quality problem, in particular in those regions where point source pollution has been successfully tackled. In Annex 2, information can be found on the state of play of the implementation of the Nitrates Directive, which aims to reduce and prevent nitrate pollution from agricultural sources.

The other top pressures emerging from the WFD analysis are so-called hydromorphological alterations. This term summarises all structural and physical modifications including river regulation, channelisation, damming, regulation of water flow and level, embankments and so on. Some of these alterations are so significant that an alternative category of heavily modified water bodies had to be created. Through the WFD, it is now clearer than before that the heritage of the industrialisation of the past 200 years considerably degraded European waters which used to be healthy ecosystems. Although we should not forget the benefits of the development of **navigation**, **hydropower**, **agriculture**, **urbanisation** and **dams for water supply,** the main drivers causing this degradation, there is a risk that significant water system degradation and biodiversity loss will continue in the future with infrastructure developments that are implemented without fully taking account of the EU environmental legislation.

Another often identified pressure was point sources, mainly from **industrial and municipal waste water**. Some Member States from EU12 have identified them as significant. This is in line with the transitional periods that most new Member States have for the Urban Waste Water Treatment Directive and the IPPC Directive.

In some parts of Europe, mainly in the South, the abstraction and use of water exceeds the natural recharge capacity. Often the main water use is irrigation. It is likely that such situations of water stress are getting worse as a consequence of climate change. This additional pressures and the need for management of water demand was not always indicated in the Article 5 reports.

Despite these overall worrying perspectives, there are some positive trends. The reform of the Common Agriculture Policy increasingly promotes practices with less undesirable impacts for the environment. As diffuse sources of water pollution, particularly from agriculture, will dominate future water policy, further steps could be taken in the next CAP review. Infrastructure projects (e.g. on navigation or hydropower) assess the environmental consequences in advance and introduce mitigating factors (e.g. fish ladders and minimum ecological flow for hydropower). Implementation of current and future EU legislation, will address many of these issues (e.g. the proposed directive on the sustainable use of pesticides[46]). Finally, EU funding mechanisms for 2007-2013 offer plenty opportunities to address the identified problems[47].

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46 COM(2006)373 final of 12.7.2006.

47 See http://ec.europa.eu/environment/integration/cohesion_policy_en.htm and http://ec.europa.eu/environment/funding/intro_en.htm

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Economic analysis

Most Member States provided incomplete reports on the Article 5 economic analysis. Therefore it is difficult to draw conclusions on the results of implementation across the EU.

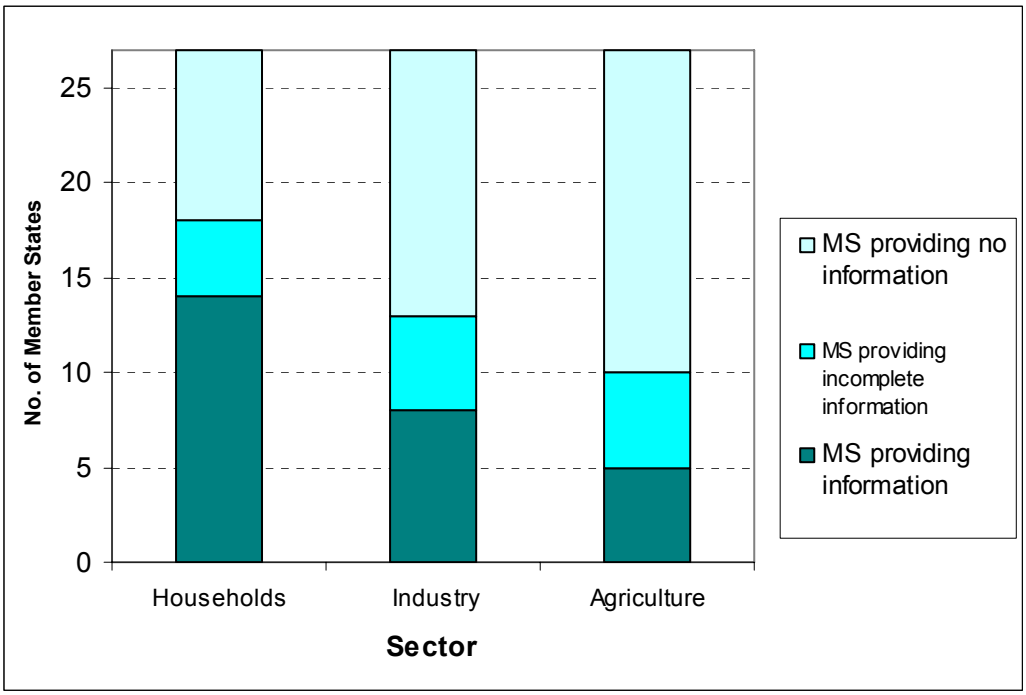

Figure 10: Level of information provided by Member States on sectors to be covered in cost recovery of water services.

Regarding the sectors to be covered for cost recovery, the sector of households was addressed most often, followed by industry and then agriculture (see Figure 10). However, half of the Member States have not supplied information at all on cost recovery for the main sectors agriculture, households and industry. Because of the lack of information, it is not possible to give an average on the percentage of cost recovery across the EU. Member States that have provided information on households have indicated a cost recovery rate of services for households between 70 and 100%. For industry, the Member States providing information reported a cost recovery rate between 40 and 100%. For agriculture the cost recovery rate is reported to vary between 1 and 100%.

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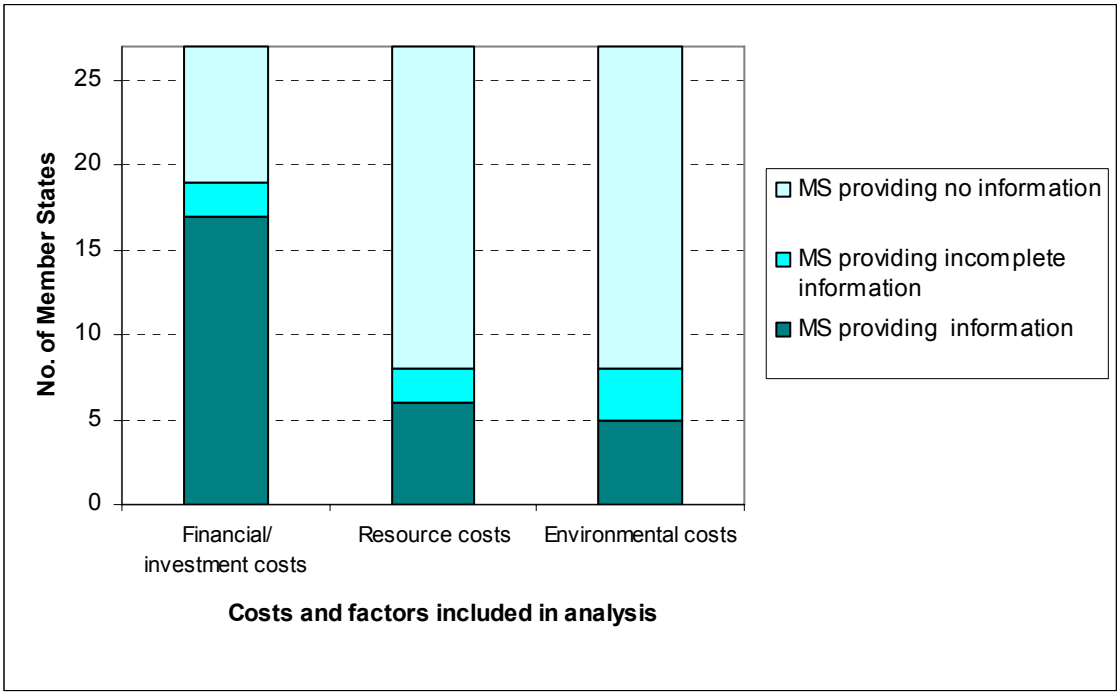

Figure 11: Level of information provided by Member States on types of costs taken into account in the economic analysis.

Regarding types of cost taken into account in the cost recovery analysis, most Member States having supplied information on cost recovery have not taken into account environmental and resource costs (see Figure 11).

Most Member States where not able to clearly identify water services. Few Member States have provided clear assessments of the baseline scenario for the implementation of the WFD. This renders the further economic assessment of the costs and benefits of the measures difficult.

International coordination

It is clear that the highest level of international co-operation in the implementation of Article 5 has been achieved in the international river basin districts which have submitted a joint international report to the European Commission.

The areas where international co-operation has been attempted are the characterisation and risk assessments. In contrast, very little information is available concerning international co-operation on the economic analysis.

In more than ten international river basin districts transboundary surface water bodies are identified. In half of these transboundary groundwater bodies are identified. The typology has been harmonised in very few cases, whilst in some other cases the typology was elaborated at national level, followed by comparisons at international level.

Similarly, the risk assessments were often carried out at national level, but some attempts of subsequent comparison and harmonisation have been made.

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3.3.5. *Results of performance checking*

Overall, the quality of the Article 5 analyses varies considerably across the EU and also between river basin districts within a Member State. There are some Member States with overall high score in the performance assessment. A high score on a certain key issue does not automatically mean that the implementation is compliant or consistent with the Directive. The overall score for Article 5 is shown in Figure 12. For countries providing individual reports for river basin districts, the range of scores of individual reports is indicated.

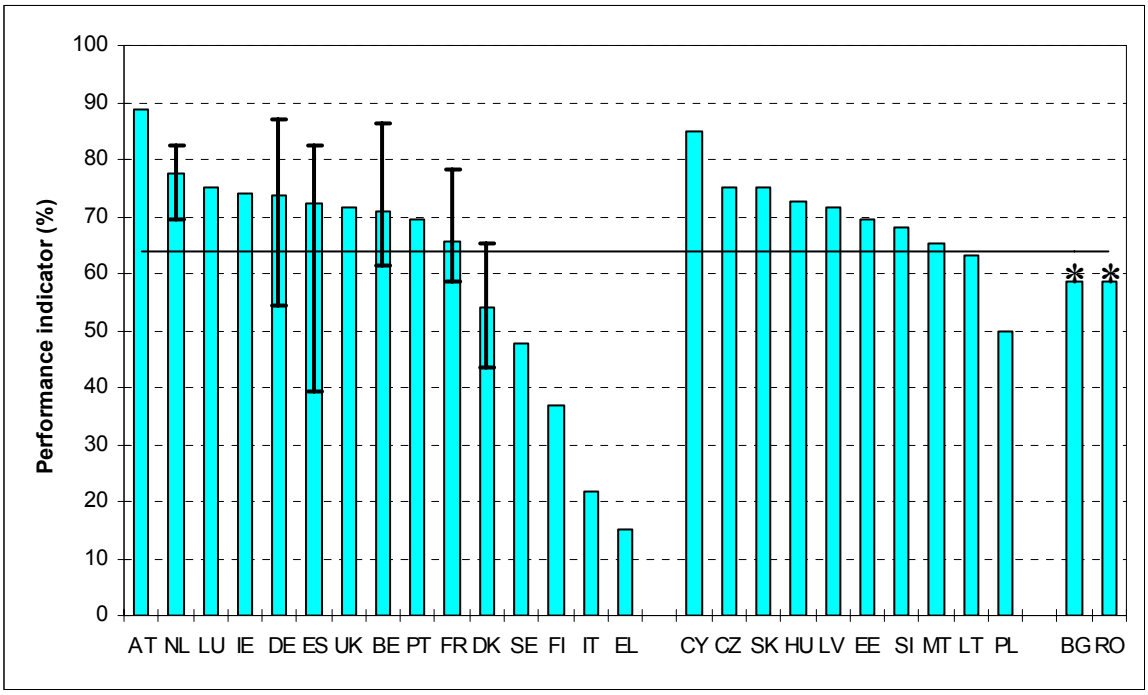

Figure 12: Performance indicator per Member State regarding the ***overall implementation of the environmental and economic analysis*** *– Article 5 WFD – including the EU-27 average (based on the assessment of Member States' reports). For each Member State providing separate reports for their river basin districts, the black lines indicate the range of the different river basin districts. For UK and PL, there is no difference in the score of the different river basin districts for the subject of this chart. *The scores for BG and RO are based on preliminary assessments.*

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On the **analysis of characteristics** of each river basin district, most Member States appear to perform well (see Figure 13). This includes the delineation of surface water bodies and ground water bodies and the preliminary designation of heavily modified water bodies and artificial water bodies. This includes as well the differentiation of rivers, lakes, coastal and transitional waters.

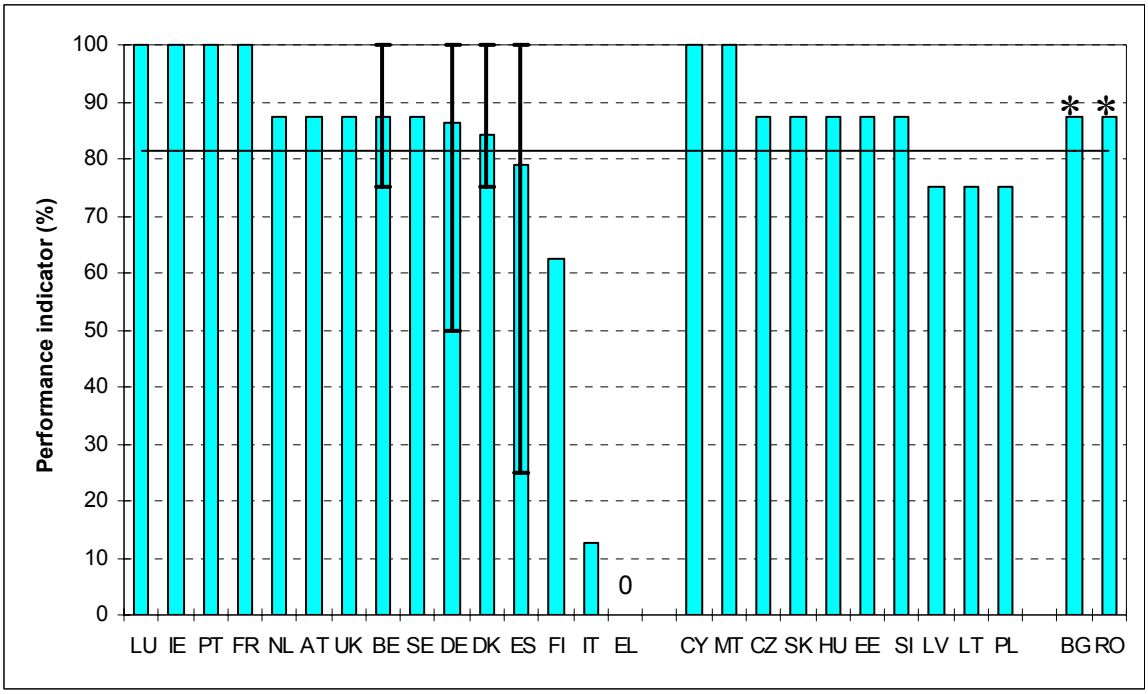

*Figure 13: Performance indicator per Member State regarding Article 5 – **analysis of characteristics** - including the EU-27 average (based on the assessment of Member States' reports). For each Member State providing separate reports for their river basin districts, the black lines indicate the range of the different river basin districts. For NL, UK and PL, there is no difference in the score of the different river basin districts for the subject of this chart. *The scores for BG and RO are based on preliminary assessments*

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Member States performed much weaker on the key issue of Article 5 **pressures and impact analysis and risk assessment for surface waters** (see Figure 14).

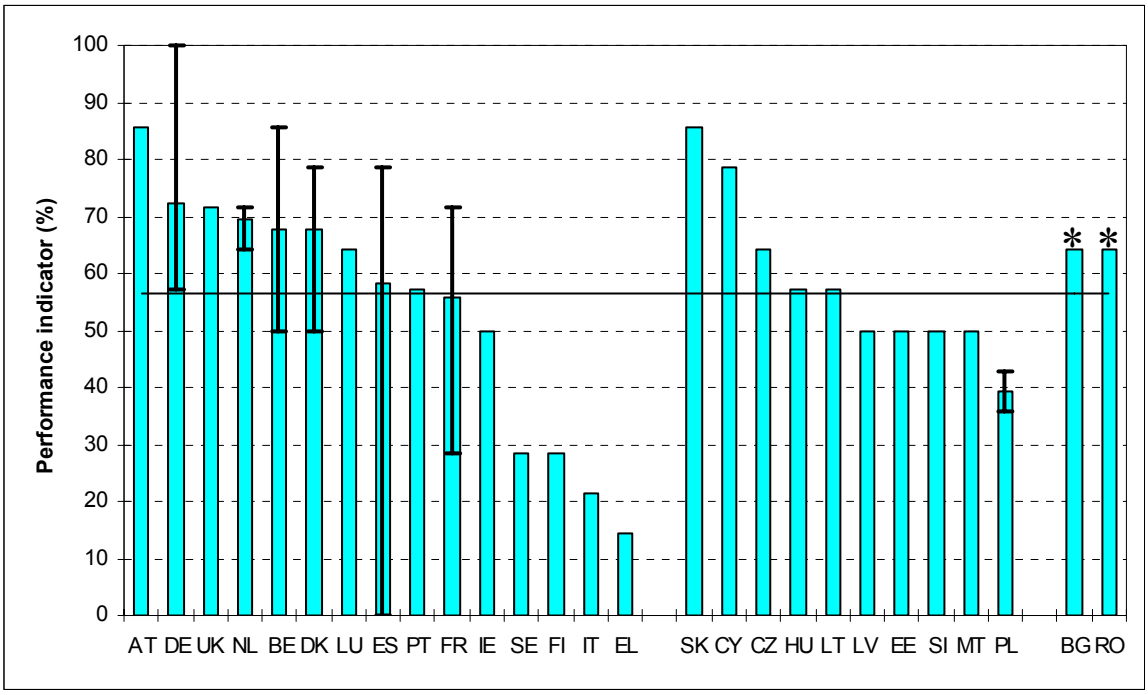

Figure 14: Performance indicator per Member State regarding Article 5 — ***pressures and impact analysis and risk assessment for surface waters*** *- including the EU-27 average (based on the assessment of Member States' reports). For each Member State providing separate reports for their river basin districts, the black lines indicate the range of the different river basin districts. For UK there is no difference in the score of the different river basin districts for the subject of this chart. *The scores for BG and RO are based on preliminary assessments.*

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The same can be seen from the chart on performance on impacts of **pressures and impact analysis and risk assessment for groundwater** (see Figure 15). This figure shows again a large variation in performance between Member States, mainly related to the level of detail of information provided.

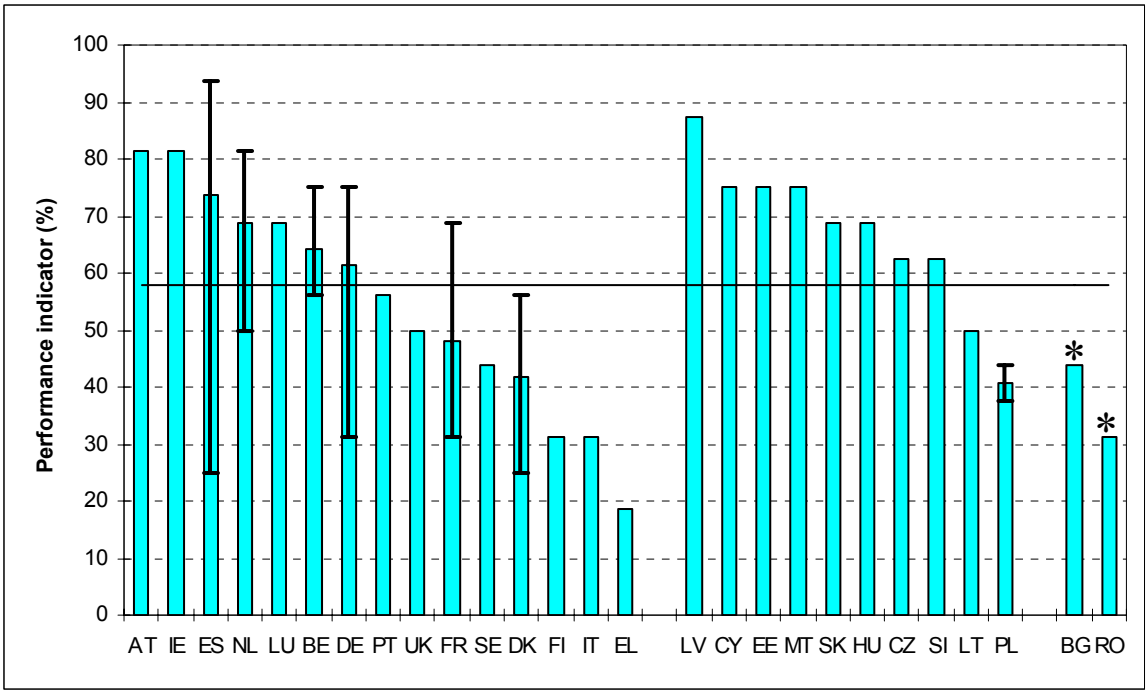

*Figure 15: Performance indicator per Member State regarding Article 5 — **pressures and impact analysis and risk assessment for groundwater** - including the EU-27 average (based on Member States' reports). For each Member State providing separate reports for their river basin districts, the black lines indicate the range of the different river basin districts. For UK there is no difference in the score of the different river basin districts for the subject of this chart. *The scores for BG and RO are based on preliminary assessments.*

For both groundwater and surface water, the methodologies for the risk assessments are not necessarily comparable across Member States. Differences have also been identified among river basin districts within the same country. This makes it difficult to judge whether Member States have a similar ambition and whether the implementation is consistent with the Directive.

The **economic analysis** was the weakest part of the Article 5 reports (see Figure 16). On the basis of the information provided as described in paragraph 3.3.4, a comparable performance analysis could only be made on a few topics for which most information was available, being the sectors for which the level of cost recovery has been supplied, an overview of the socio-economic importance of water uses in the RBD in relation to the significant pressures and a summary of the work completed to establish a baseline scenario. The Commission will investigate this further in an in-depth analysis.

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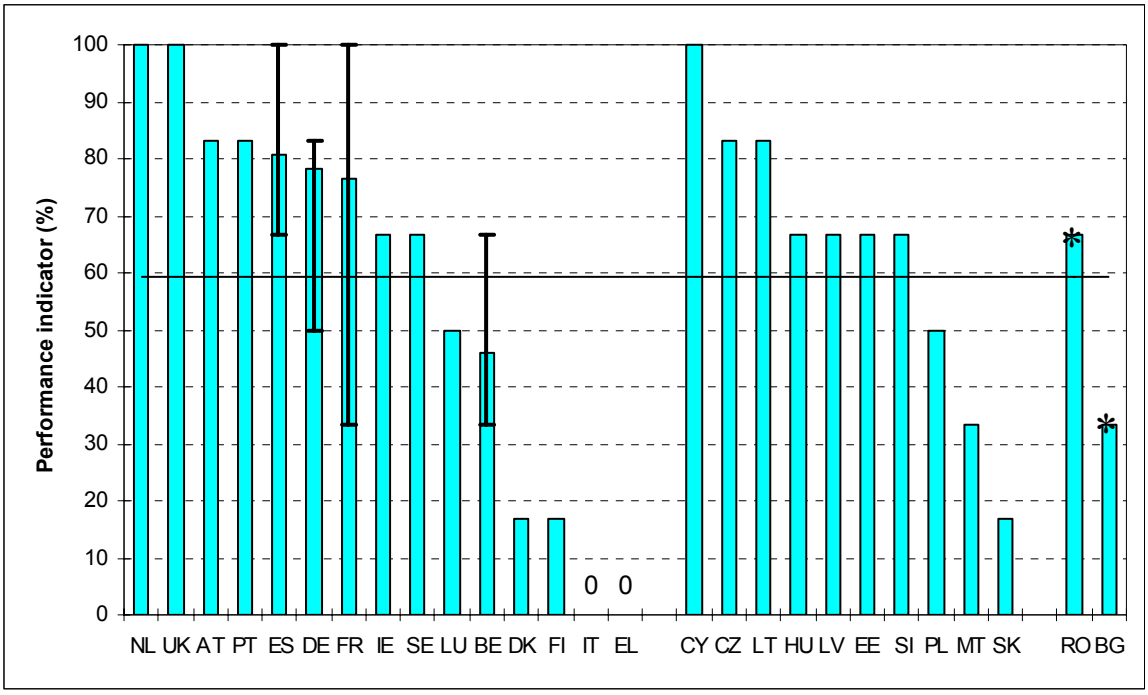

Figure 16: Performance indicator per Member State regarding Article 5 — ***economic analysis*** *(Italy and Greece have scored zero points in the performance assessment of the economic analysis). This performance chart is based only on three questions related to the economic analysis (is information on the level of cost recovery provided, is there an overview of socio-economic importance of water uses in relation to pressures and is a baseline scenario established?) and therefore is not related to all requirements in Annex III. For each Member State providing separate reports for their river basin districts, the black lines indicate the range of the different river basin districts. For NL, PL and UK there is no difference in the score of the different river basin districts for the subject of this chart. *The scores for BG and RO are based on preliminary assessments.*

Regarding **protected areas**, most Member States have established the register. Only, Sweden and Cyprus have provided no information on a register for protected areas and Denmark, Germany and Estonia have provided this information partially.

3.3.6. Open issues and next steps

The Article 5 reports show that the percentage of water bodies for which the risk assessment was not conclusive (presented in this report under the category 'insufficient data') is very high for most Member States. In addition, detailed information on the types of pressures leading to the identification of water bodies at risk was often not provided and a complete risk analysis per water category is in most cases missing. This illustrates the need to refine the risk assessments in the coming months and years, in particular taking into account the information collected through the monitoring programmes during 2007 and 2008. This refinement in the identification of the water bodies at risk of failing to meet the WFD objectives is considered crucial in order to build up a solid basis for the development of the river basin management plans and the programmes of measures in 2009.

In this sense, the information available on the status of development of biological monitoring methods in many Member States is particularly worrying. This information has been collected informally through specific workshops held in Brussels in April 2006 and in Ispra in January

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2007, and through a questionnaire circulated among the experts represented at the Ecological Status Working Group. It shows that there are still important gaps in the development of the assessment methods at Member State level for some of the biological quality elements. This situation brings in uncertainty on to what extent the monitoring networks will bring in complete and comprehensive information on the status of water bodies. It should be recognised that the investment in monitoring can be extremely cost-effective as it can help taking well-informed decisions in the programme of measures, preventing investing potentially higher amounts in the wrong places.

The delineation of groundwater bodies has been discussed among the Member States in order to follow common principles[48], taking experiences made by the Pilot River Basin network into account. It has been stressed in this respect that the scale of the groundwater bodies will have implications on monitoring and on qualitative and quantitative management. This strengthens the need to refine the water body delineation in the period before the publication of the first river basin management plan.

The information on pressures and impacts on groundwater will need to be complemented in the light of the requirements of the new Groundwater Directive (see section 2.2) as a more detailed evaluation of pressures and impacts will be required for the establishment of groundwater threshold values, trend identification and prevent/limit measures.

For several aspects of the characterisation and the impact analysis, the methodologies need to be refined and made more comparable, if not harmonised. This is particular relevant for the identification of water bodies, the designation of heavily modified water bodies and analysis of water bodies at risk.

The economic analysis of most Member States are incomplete and is therefore one of the biggest shortcomings in the WFD implementation so far. This concerns in particular the definition of water services, and the information for the calculation of recovery of costs of water services, particularly information on environmental and resource costs and information on sectors to be affected by cost recovery.

Towards the river basin management plans, further steps have to be set in international cooperation. For cooperation between some Member States, the arrangements and the implementation are still inadequate. This also concerns enhanced coordination and cooperation with the relevant non-Member States, with the aim of achieving the objectives of the WFD throughout the river basin districts partly outside the EU.

As climate change impacts could enhance the risk of non-attainment of the objectives of the WFD, further steps are also needed to include climate change as an additional pressure on the EU waters. Already now, it is clear that all hydrological processes are affected by climate change. Variables of primary importance in water management, such as river discharges and water levels in rivers, lakes and ground and soil moisture are determined by the climate driven precipitation, evaporation and snowmelt. Long term trends in precipitation have already been observed in many regions.

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48 Groundwater body characterisation, Technical Report of a workshop held in Brussels on 13 October 2004, http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/groundwater_library

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3.4. Reporting performance

3.4.1. Methodology for performance checking

In addition to the assessment of compliance and the performance of the Member States in relation to the provisions of the WFD, an additional category was analysed, the reporting performance. This assessment takes into account whether the reports provided by the Member States allowed for a timely, comprehensive and clear assessment of the implementation progress. The assumption is that if a poorly drafted report arrives with significant delays, the Commission will not be able to analyse the situation appropriately and fairly.

Thus, the assessment criteria are:

- submission date of report(s) (in time or extent of delay);
- clarity and completeness of report;
- in case implementation is not complete, gap analysis and identification of follow up.

The detailed assessment templates are enclosed in Annexes 5 and 6 (administrative performance tables).

In particular, the completeness and the clarity of the report will facilitate the assessment and ensure that the Member States are evaluated in a comparable way and that consistency with the Directive can be demonstrated.

For the purpose of this report, the results of the reporting performance for the Article 3 and the Article 5 submissions were combined and a total score was calculated. In comparison to the other scoring system above, the reporting performance is a reflection of the Member States' efforts for the particular report. The score does not say anything about the quality of the implementation. However, it may provide a valuable feedback and may help to improve performance for future reporting.

3.4.2. Overview on reporting performance

The results show significant differences between Member States. Since the reporting guidance had not harmonised the reporting in time, there were considerable differences in the quality and the level of detail of the reporting.

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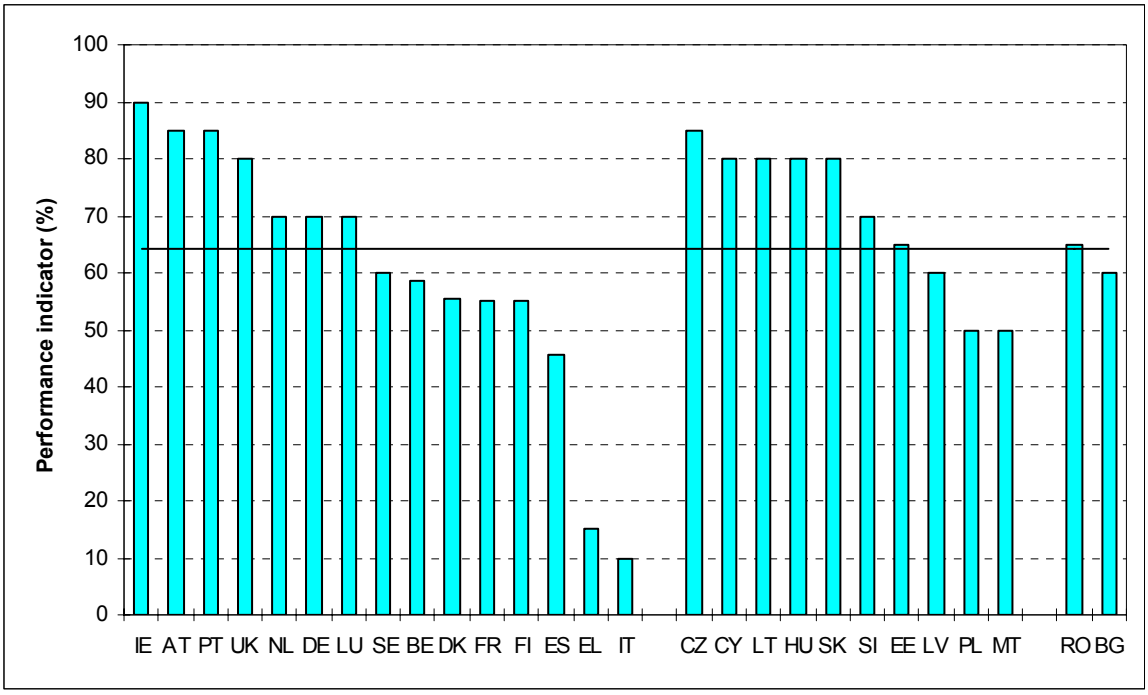

Figure 17: Indicator per Member State regarding its reporting performance and the EU-27 average (based on Member States' reports).

There are several Member States with a good performance and which can provide an example of "best practice" for others. There are certain correlations between the reporting performance and the quality assessments for Article 3 and 5 above. Some of the poorer performing Member States in the implementation assessment have also provided the reports late and in a quality that made the compliance assessment difficult. Assuming that the implementation is more advanced in reality, these Member States can achieve much better results in the compliance assessment if they provide better and more timely reports in the future.

4. OTHER IMPLEMENTATION ASPECTS

4.1. Common Implementation Strategy

Already during the final negotiations on the Directive, the Member States and the Commission had the idea to continue working closely together during the implementation. This was the result of the experiences from previous directives in the water field where, often after many years of implementation, differences of opinion and interpretation of the concepts of the directives led to uneven implementation across Member States and in some cases to infringements procedures launched by the Commission.

Consequently, in May 2001, the then EU Member States, Norway and the Commission agreed to engage in a Common Implementation Strategy (CIS) for the Water Framework Directive[49]. The overall objectives of the CIS are to:

- Promote coherence and comparability;

[49] http://ec.europa.eu/environment/water/water-framework/implementation.html

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- Develop common understanding and common approaches;
- Carry out joint efforts and activities;
- Limit risks of bad application;
- Share experience and information;
- Improve the information management.

The key activities in the joint work programmes fall in the categories: information sharing, development of guidance on technical issues, information and data management, application, testing and validation in pilot river basins and raising awareness and information of the public.

The first focus until 2002 was the development of a set of guidance documents. Following their finalisation, the work programme was reviewed and the organisation re-structured in 2003. Updates of the work programmes were agreed in 2004 and 2006 with the current one covering the period from 2007 to 2009[49].

To date, the CIS process has produced numerous results including, e.g.[50]:

- 15 published Guidance Documents[51];
- Several technical reports, other supporting documents and training products;
- Experience reports from pilot river basins[52];
- Leaflets and brochures in all Community languages and a CD-ROM;
- Regular newsletters[53];
- Workshops and awareness raising events.

In addition, the CIS has created a network of over 1000 experts from over 30 countries and 25 pan-European stakeholders and other organisations who are providing input into the EU documents and are regularly informed about the progress in all Member States. Thus, the CIS provides the platform for capacity building.

For the period 2007-2009, six permanent working groups and several other ad-hoc groups will focus on a significant number of activities to support the preparation of the river basin management plans.

In conclusion, more than five years experiences with the Common Implementation Strategy have produced significant positive results. It has been established an essential part of a

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50 All documents available in the WFD CIRCA library: http://forum.europa.eu.int/Public/irc/env/wfd/library

51 http://ec.europa.eu/environment/water/water-framework/guidance_documents.html

52 http://viso.ei.jrc.it/wfd_prb/index.html

53 http://ec.europa.eu/environment/water/water-framework/wfd_newsletter.html

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proactive cooperation process in order to prevent poor implementation and promote best practices.

4.2. Reporting and the Water Information System for Europe (WISE)

Reporting from the Member States to the Commission is part of the implementation of EU legislation. It will allow the Commission to fulfil its role as "guardian of the treaty" by ensuring consistent and comparable efforts by all Member States. This process of compliance checking includes the assessment of consistency of national implementation with the Community directives and comparability of minimum ambitions and efforts between Member States.

Furthermore, the Commission is required to report to the other EU institutions on the implementation progress, in particular to the European Parliament (see Article 18 WFD). These published reports also provide information to the public in order to allow a transparent and democratic scrutiny of Community action.

In the past, the reporting of water legislation has been a burdensome and inefficient process, both for the Commission and the Member States, which has not produced the required results[54]. As a consequence, a long term vision and concept for reporting on water was developed, first amongst the leading EU institutions and bodies (mainly DG Environment, Eurostat, Joint Research Centre and the European Environment Agency) and then in close consultation with the Member States. The resulting Concept Paper outlined the following long term objective:

"The European Commission (DG ENV, Eurostat and JRC) and the EEA are committed to continue the development of a new, comprehensive and shared European data and information management system for water, including river basins, following a participatory approach towards the Member States, in order to have it operational as soon as possible and to implement it, including all the various elements set out in this document, by 2010."

On the basis of this concept paper, the Water Information System for Europe (WISE) was developed. Due to the short deadlines in the WFD and the ambitious work programme, the new approach was introduced step by step as part of a transition period. For the first reports under the WFD, this meant that they still had to be done in the "old" style. This resulted for Article 3 and 5 in more than 25000 pages of paper documents in most Community languages all structured in a different way and providing a different level of detail.

However, in parallel to the official reporting, the development of WISE was pursued and the Article 3 and 5 reporting was used to build a prototype on which the later information system can be based. This prototype was filled with electronic data on the basis of informally agreed reporting sheets. As a result of this development process, it will be possible to switch entirely to electronic reporting from the next reporting step onwards. The upcoming Article 8 reporting on monitoring networks due in March 2007 will be solely done through WISE. This will significantly simplify and streamline the reporting burden whilst increasing the efficiency of the subsequent compliance assessment.

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[54] See reporting concept paper for details : http://ec.europa.eu/environment/water/pdf/concept_report.pdf

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This success was only possible due to the strong, coordinated and joint leadership role of the EU bodies and the cooperative and proactive attitude of the Member States. To date 25 and 15 Member States submitted electronically, and in addition to their formal reports, Article 3 data and Article 5 data, respectively. Some of these data are used to provide information to the public through the new WISE web portal (http://water.europa.eu).

The current assessment on compliance is built on the original, official paper-based reports submitted by the Member States. Due to the timelines, the electronic WISE submissions for Article 3 and 5 were only used partially, if at all. The main difficulties in assessing the paper-based reports were, in particular:

- the data aggregation for statistics and indicators was limited due to the different formats, units and levels of details provided by the Member States;
- the comparison of information was difficult or not meaningful due to different reference points and approaches in the Member States;
- the extraction of relevant information was burdensome, time consuming and cost-intensive;
- the information in the reports may already be outdated since certain areas were indicated as work in progress;
- the data management and allowing access to the public was inefficient;

The switch to a purely electronic-based system will resolve many of these points. Furthermore, the long-term concept for the implementation of WISE will provide additional opportunities for streamlining reporting and improving compliance assessment. The Commission and the European Environment Agency are committed to work closely with the Member States to fully set up WISE by 2010.

4.3. Cost benefit analysis of the Water Framework Directive

The costs and benefits of the implementation of the WFD have been much debated. The Commission committed itself to study these aspects during the implementation process. In 2006, an exploratory cost-benefit analysis was commissioned to look at the work that had been carried out on Member State level, the available methodologies and examples, in particular in relation with agriculture. The study is still ongoing and the final workshop is planned for April 2007. Some preliminary conclusions are:

- More than 150 relevant studies have been compiled and another 25 studies were identified which are currently in progress. However, most of them only cover a very particular aspect on either costs or benefits. Only few comprehensive cost-benefit studies on water management are available;
- Only three Member States (the United Kingdom, the Netherlands and France) have carried out more comprehensive national work of costs and benefits of the WFD implementation. Some are currently working on the issue or intending to do so at a later stage and for six Member States there appears to be no information available at all. Only two Member State have looked at the administrative costs associated with the WFD implementation;

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- There are many methodological difficulties and data gaps, in particularly on the benefit side that prevent the preparation of a pan-European cost-benefit analysis. Furthermore, it is difficult to carry out a full cost-benefit analysis since the costs of implementation will depend on the level of ambition of the programme of measures which will only be known in 2009 following the finalisation of the river basin management plans.

- Another complication is the difficulty in estimating the economic baseline as regards the costs of implementation of other policies (for instance the UWWT or Nitrates Directive) and to estimate exactly how much implementation of such policies in the pipeline will contribute to the achievement of the environmental objectives of the WFD.

- Common methodologies and related data needs are lacking and should be developed and applied on EU level.

The Commission intends to publish the final study report later in 2007. The exploratory study will be the starting point for a more systematic and long-term process on economic assessment tools for water policy. It will also look into implementation differences, in particular are regards the economic instruments in the WFD (e.g. definition of water services). This process can and should be closely linked with similar and parallel developments on "water accounts". A more detailed work programme will be elaborated over the coming months.

5. CONCLUSIONS AND OUTLOOK

The first stage in the implementation of the Water Framework Directive is now concluded with mixed results.

On the positive side, all Member States have made significant progress since the Directive came into force and most of them were able to report in time. This means that it is possible to implement the Directive within the deadlines agreed by the Council and the European Parliament. The implementation has also brought new impetus to water management and significant progress (e.g. restructuring of administrations, compilation of information and assessments, public awareness raising campaigns) is observed in most Member States. Moreover, the implementation of the Article 3 provisions is largely satisfactory and the quality and added value of many Article 5 reports provide a good starting point for preparing river basin management plans. Finally, some international cooperation on implementing the WFD between Member States and also with some neighbouring countries is inspiring and encouraging.

On the negative side, there are a number of significant shortcomings in the implementation. In particular the legal transposition of the Directive into national law is poor and in many cases inadequate. The Article 5 analysis has been carried out with different levels of detail. One of the main objectives of the Article 5 analysis is to identify the water bodies that are at risk of failing to achieve the WFD objectives. This is considered an important knowledge base for the development of the river basin management plans, as these water bodies will be subject to the programme of measures or to the application of exemptions to the objectives, if applicable. In general, insufficient data has prevented Member States to present a conclusive risk assessment for a large percentage of water bodies. Still, a significant number of water

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bodies have been identified as at risk in all Member States. Some Member States have not provided any evidence that they are committed to address this lack of information in the run up to the river basin management plans.

Furthermore, there are some Member States where there appears to be a systematic and serious problem with the WFD implementation resulting in significant delays. These, admittedly few, countries need to change their attitude and speed if they were to catch up the lost time. Finally, all Member States, no matter how advanced in the implementation, will have to make additional and significant efforts to meet the ambitions of the WFD and deliver on the river basin management plans.

In the coming years, it will be essential to address these shortcomings in order to achieve the WFD objectives. The recently established monitoring networks offer an opportunity to fill the data gaps. Thereafter, the active involvement of the public can strengthen the approaches. The ultimate aim should be the finalisation of a comprehensive and ambitious river basin management plan by the end of 2009. This milestone will be decisive on whether and to what level the WFD can achieve real results for the water environment.

The Commission is offering a continuous partnership to the Member States in order to address some of the difficult questions and share experiences and best practices. The work programme for the Common Implementation Strategy has already been set up for the period 2007-2009. On the basis of the past achievements, it will provide the platform for working together.

Furthermore, the Water Information System for Europe (WISE) is going to be the centrepiece of a modern, efficient and transparent reporting and compliance approach. The tool will be used to provide up-to-date information to the EU institutions, feedback to the Member States and transparency of the implementation process to the European citizens. And the potential for WISE are far greater, in particular as regards a tool for the assessment of policy effectiveness and for the performance of future scenarios and modelling. This will become increasingly important in the context of climate change and the necessary adaptation measures that water management will have to prepare for.

In summary, this first report on the implementation of the Water Framework Directive illustrates that we have made significant steps forward 'Towards Sustainable Water Management in the European Union'. However, there is still a long and challenging road ahead.

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ANNEX 1

Overview of other relevant Community policies contributing to water policy

A non-exhaustive overview of other relevant EU policy areas is presented below. These policies are contributing to the achievement of environmental objectives of the Water Framework Directive.

1. COMMON AGRICULTURE POLICY: MAIN PROVISIONS RELATED TO WATER ISSUES

The CAP contains several tools that could contribute to the objectives of the WFD.

First pillar (Market and income policy)

The 2003 CAP reform introduced a single income payment per farm, decoupled from production. **Decoupling** is expected to reduce incentives for intensive production.

Through **cross-compliance**, the full granting of the direct payments is conditioned on the respect of a number of statutory management requirements, including those stemming from the implementation of five environmental Directives. The WFD, as such, is not part of these directives. However, the Nitrates and Groundwater Directives are.

Modulation became mandatory with the 2003 reform. It makes it possible to transfer funds from the first to the second pillar, which can increase the budget available for measures that help implement the WFD.

Market set-aside has also played a role in reducing pressure on water quality (fertilizers, plant production products) and many Member States have further enhanced the environmental benefits e.g. by restricting the use of inputs on set-aside lands.

Second pillar (Rural Development policy)

Programming period 2000-2006

Some examples of rural development measures related to water saving, implemented by Member States during the 2000-2006 programming period (Regulation 1257/1999), include:

- Water saving solutions for agriculture (improving on-farm water management, combating leakages in watering systems, up-grading irrigation infrastructure, …)
- Investments into new water saving technologies
- Support to water saving rotation systems in areas affected by water handicaps
- Wetland management or restoration
- Support to the development of infrastructures related to water management.

As regards water quality, a report on the evaluation of agri-environmental measures, delivered to the Commission in November 2005, showed that a number of measures had positive effects on water quality (e.g., fallow-land, diversification of rotations, maintenance of grasslands,

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buffer strips, conversion of arable land to grassland, winter soil cover, organic farming, reduction of agricultural inputs).

Programming period 2007-2013

The current Rural Development policy (Reg. 1698/2005) provides for several possibilities to support the implementation of the WFD:

a) Support to farmers for commitments going beyond the minimum standards can be granted via the agri-environment schemes (Art. 39).
b) Support to farmers for compliance with demanding, newly introduced, Community standards, such as those resulting from the WFD, can be given via the measure on meeting standards (Art. 31).
c) Other measures under Rural Development, such as payments linked to Directive 2000/60 (Art. 38), investments, and training are also relevant.

It is up to the Member States to decide which measures they wish to include into their rural development programmes according to their priorities.

2. COHESION AND REGIONAL POLICY

In the framework of the Cohesion Policy[55], the Structural Funds and the Cohesion Fund can provide support to contribute to sustainable water management, according to the objectives, rules and procedures applicable to these funds.

The Strategic Guidelines on Cohesion recommend addressing the significant needs for investment in infrastructure, particularly in the Convergence regions and especially in the new Member States, to comply with environmental legislation in the field of water. Moreover, it recommends undertaking risk prevention measures through improved management of natural resources. Financial assistance depends on the type of regions.

In the regions covered by the Cohesion Fund, assistance can be given within the priorities assigned to the Community environmental protection policy under the policy and action programme on the environment (see article 2.1.b of Regulation 1084/2006).

In the Convergence regions (see Article 4.4 and 4.5 of Regulation 1080/2006), financial assistance from the European Regional Development Fund (ERDF) is possible for investments connected with water supply, water management and waste water treatment. It is also available for prevention of risks, including development and implementation of plans to prevent and cope with natural risk, e.g. floods.

In the Regional Competitiveness regions (see Article 5.2 of Regulation 1080/2006), financial assistance from the ERDF to water management is limited, in particular, to developing plans and measures to prevent and cope with natural risks such as droughts and floods.

Under the territorial cooperation objective (see Article 6 of Regulation 1080/2006), covering cross-border, transnational and interregional issues, financial assistance from the ERDF is

[55] http://ec.europa.eu/regional_policy/index_en.htm

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focussed, in particular, on water management, including protection and management of river basins, and on the prevention of the related risks.

Moreover, improving quality of water supply and treatment, on the one hand, and preventing and reducing floods, on the other hand, have been proposed as themes under the recent Commission initiative "Regions for economic change" which aims at promoting interregional cooperation and networking for exchanging best practice with a view to enhance the contribution of European cohesion policy to economic modernisation and increased competitiveness.

3. TRANSPORT POLICY - NAVIGATION

The European Commission's 2001 Transport White Paper and its mid-term review of 22 June 2006 set out a series of targets to ensure competitiveness and sustainable mobility by 2010. As a result of both the continuing growing overseas trade and EU enlargement towards Central and Eastern Europe, freight transport volumes in Europe are expected to increase by one third until 2015. Present patterns of transport growth and its reliance on road transport have become a synonym to congestion and pollution, the costs of which are expected to double to 1% of Europe's annual GDP by 2010. Together with rail, **maritime transport** and **inland waterway transport** can contribute to the sustainability of the transport system, as recommended by the White Paper.

Transport by **inland waterways** plays an important role for the carriage of goods in the EU. More than 35.000 km of waterways connect hundreds of cities and industrial regions. In the EU-15 Member States, more than 450 million tons, or around 130 billion ton-kilometres, are transported by inland waterway. Enlargement added some 6.25 billion tkm (5 %). Inland waterway transport contributes significantly to coping with the present traffic volumes in Europe and is able to cope with even more. While it accounts statistically for 6,5% of the total freight traffic in the EU-25, its modal share in some regions and along certain corridors is remarkably higher (e.g. 44 % in NL).

In the context of an entirely liberalised inland navigation market since 1 January 2000 the European Commission aims to promote and strengthen the competitive position of the inland waterway transport in the transport system, and to facilitate its integration into the intermodal logistic chain. The European Commission's **Communication "NAIADES" on the promotion of inland waterway transport** includes an Integrated Action Programme for the development of this transport mode. The Action Programme focuses on five strategic and equally important areas, namely on the creation of favourable conditions for services and new markets, on the modernisation of the fleet, in particular its environmental performance, on jobs and skills, and on the promotion of Inland Waterway Transport as a successful business partner. Part V of the Action Programme relates to the waterway infrastructure. It proposes *inter alia* that a European Development Plan for improvement and maintenance of waterway infrastructures and transhipment facilities should be initiated to make trans-European waterway transport more efficient while respecting environmental requirements. The Communication underlines that the development of waterway infrastructure should happen in a co-ordinated and integrated way, by fostering the mutual understanding of multi-purpose use of waterways and to reconcile environmental protection and sustainable mobility.

Considering its geography, its history and globalisation the European Union is still very dependent on the **maritime transport**. Nearly 90% of its external trade and more than 40% of

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its internal trade goes by sea;-almost 2 billion tons of freight are loaded and unloaded in EU ports each year and volumes are increasing, particularly in unitised cargoes (i.e. containers). Maritime companies belonging to European Union nationals control nearly 40% of the world fleet; the majority of EU trade is carried on vessels controlled by EU interests.

The European Union's seaports are vital both to the competitiveness of its internal and international trade, and as links to its islands and outlying regions. Seaports in turn rely on efficient and effective connections to the hinterland, *inter alia* via inland waterways. To accommodate anticipated future growth in freight traffic without putting further pressure on Europe's already congested road network, waterborne transport will assume an ever more important role. The European Commission has an active policy to promote Short Sea Shipping to help meeting the objectives of the European Transport Policy.

4. ENERGY POLICY

The key priorities for the European Union energy policy are to address the Union's growing dependence on energy imports from outside the Union, to tackle climate change as well as meet EUs overall and Member States individual targets to reduce CO_2 emissions. The promotion of renewable energy has an important role to play in these tasks.

The increasing energy consumption for water supply and treatment as well as the importance of sufficient water supply for energy production are also challenges to be tackled.

Over the last decade, different EU policy papers have been adopted to enhance the development of renewable energy sources.

The Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal market (RES-E directive) aims at a significant increase in the contribution of renewable energy sources to electricity production, including hydropower together with all other renewable energy sources[56], and to create a basis for a more comprehensive framework for the development of electricity from renewable energy sources. The Directive does not make a distinction between the various renewable energy sources with regard to what is more or less favourable to develop, but leaves this choice to the Member States.

The directive sets an important target of 21% share of renewable electricity in total electricity consumption in the EU by 2010, by which Member States have set up their own national indicative targets. The directive gives a quantitative framework within which each Member State implements the most appropriate measures necessary to achieve their targets.

In the context of this policy paper, it is also important to mention that the RES-E Directive requires Member States to simplify administrative procedures for developing renewable electricity

In the recently adopted Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy (COM(2006)105) the Commission has suggested a series of measures to

[56] Renewable energy sources, as defined in the Directive 2001/77/EC, shall mean renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plants, gas and biogases).

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address the challenges of global warming. In particular, it proposes that the EU prepares a new Road Map for renewable energy sources in the EU, with possible targets beyond 2010, in order to provide a stable investment climate to generate more competitive renewable energy sources in Europe.

The newly adopted Communication on support of electricity from renewable energy sources (COM(2005) 627) recommends that clear guidelines for authorisation procedures, especially regarding the relationship with European environmental legislation, should be established in Member States. The Communication also recommends that Member States should establish pre-planning mechanisms in which regions and municipalities are required to assign locations for different renewable energies, and that lighter procedures should be created for small projects.

Development of hydropower

Hydropower dominates currently the RES-E generation in the EU25. As for future potential of renewable energy sources, recent analyses suggest that wind energy and biomass have a leading role. These two technologies can be expected to deliver most of the increase in electricity from renewable sources in the EU for 2010.

The baseline and the choice made by the different Member States to reach their national indicative targets on renewable electricity may vary considerably[57]. Thus, the importance of further development of hydropower is likely to be different in various Member States. Part of the potential for development may also come from the modernisation of existing hydropower facilities.

Large scale hydropower with storage reservoirs might still be an attractive option when seen in the context of all the synergies arising from multi-purpose uses of reservoirs (water supply, flood defence, irrigation, recreation). In a narrower sense, seen only as a source of electricity, the merits of large hydropower (meeting peak demand, providing ancillary services) should not be neglected.

However, hydropower has been identified as one of several drivers to hydromorphological alterations and it is therefore important that hydropower is carried out in an appropriate manner in order to avoid and minimize the potentially negative effects on water bodies.

Energy efficiency

Energy efficiency is considered as important as renewable energy in combating climate change and increasing security of supply. Energy efficiency measures make it easier to achieve the overall renewable energy and the renewable electricity targets for the EU by reducing the total volume of consumption against which the shares are calculated. The EU has an active policy on energy efficiency and the European Parliament and the Council have newly adopted a directive on energy end-use efficiency and energy services (Directive 2006/32/EC), which includes a general energy end-use target of 9% for 9 years, covering the period from 2008 until 2017. This directive will also serve as an "umbrella" to complement and improve the implementation of existing EU energy efficiency legislation.

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[57] More information on the performance of the Member States in the frame of the RES-E Directive can be found on: http://ec.europa.eu/energy/res/legislation/electricity_member_states_en.htm

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5. RESEARCH POLICY

The Treaty establishing the European Union indicates that Research Framework Programmes have to serve two main strategic objectives. First, it provides a scientific and technological basis for industry and encourages its international competitiveness. And second, it promotes research activities in support of other EU policies. To this end, Framework Programmes are designed to help solving problems and responding to major socio-economic challenges faced by society. The Research Framework Programme (FP) is the European Union's main instrument for funding research and development. The Sixth FP has terminated at the end of 2006, relayed by Seventh FP which began on 1 January 2007 and will run until the end of 2013.

Water policies have been supported by a range of RTD funding activities within the FP6, in particular those covered by the Priority 6.3 "Global Changes and Ecosystems". Among the many projects directly or indirectly supporting water policies, worth to be highlighted are those actions resulting from the "Scientific Support to Policies" (SSP) in which DG Environment had identified specific research needs. Examples of projects of which the results were directly used in the implementation of the WFD are the REBECCA (ecological/chemical status relationships) and BRIDGE (methodology for the establishment of groundwater threshold values) projects. Other on-going projects are also actively contributing to WFD implementation (see http://ec.europa.eu/research/index.cfm).

The FP6 was the Commission's response to the requirements of the Lisbon Summit in March 2000. The summit called for a better use of European research by creating an internal market for science and technology (the European Research area). The seventh Research Framework Programme is designed to build on the achievements of its predecessor and to move forward in the creation of a European knowledge economy and society. FP7 is to respond to Europe's employment needs, competitiveness and quality of life. Within the Seventh Framework Programme (formally adopted by the European Parliament and the Council on the 18 December 2006), the Environment (including climate change) theme has a budget of 1890 millions euros for the period 2007-2013 (on a total budget of 50 521 millions euros).

Within FP7, water research areas are covered by several activities, namely "Climate Change, pollution and risks" (Activity 6.1), "Sustainable management of resources" (Activity 6.2), "Environmental technologies (Activity 6.3), and "Earth observation and assessment tools for sustainable development" (Activity 6.4).

6. EXTERNAL POLICY

In the framework of the European Neighbourhood Policy and the Action Plans which have been agreed with partners[58], the Commission is promoting enhanced water protection and management in partner countries and territories as well as the implementation by the partners of water related multilateral agreements. Cooperation with Russia on cross-border management of common water basins is an important element of the environmental dialogue implementing the EU/Russia Common Economic Space.

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[58] The European Neighbourhood Policy covers Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, the Palestinian Authority, Syria, Tunisia and Ukraine. Action Plans have been agreed with Armenia, Azerbaijan, Egypt, Georgia, Israel, Jordan, Lebanon, Morocco, the Palestinian Authority, Tunisia and Ukraine.

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ANNEX 2

Progress of implementation of the Nitrates Directive

The Nitrates Directive (Directive 91/676/EEC) is aimed at reducing and preventing water pollution from agricultural sources through a number of steps which shall be fulfilled by Member States: water monitoring with regard to nitrate concentration and eutrophic status, designation of nitrate vulnerable zones and establishment of action programmes and codes of good agricultural practice. Its full implementation is essential for the achievement of the good water status.

The Third Report[59] on the implementation of the Nitrates Directive, related to the period 2000-2003, shows that progress has been made in the recent years, but implementation is still incomplete. This is confirmed by ongoing infringement procedures against some Member States, mainly for insufficient designation and non conformity of action programmes.

To fulfil their obligations under article 6 of the Directive, Member States have established monitoring networks which give a good overview of nitrate concentration in their waters, both current status and trends. Extent and quality of monitoring significantly improved since the previous reporting period, both for ground and surface waters (approximately 20.000 groundwater monitoring station and 22.000 surface water monitoring stations).

Monitoring results concerning groundwater show that nitrate pollution is still widespread in EU 15. Globally, In the period 2000-2003, 17% of groundwater monitoring stations had nitrates concentrations above 50 mg NO_3/l and 7% were in the range 40-50 mg/l, but in individual Member states or regions up to 60% of monitoring stations recorded values exceeding 50 mg/L. Comparison with the data of the previous reporting period showed that 64% of the stations had decreasing or stable groundwater concentration, but 36% still had an upwards trend.

Regarding surface waters, average nitrate concentrations were below 10 mg/L in approximately 53% of the monitoring stations; 2,5% exceeded 50 mg/l and 4% recorded values in the range 40 to 50 mg/l. Member States with the highest proportion of sampling points showing nitrates concentration above 50 mg/L were United Kingdom, France and The Netherlands. The comparison with the 1996-1999 surveys showed that, in the large majority of surface waters, nitrate concentration was decreasing or stable (respectively 55% and 31%); in 14% of monitoring stations, however, the concentration is still increasing. In respect to vulnerable zones, designation increased from approximately 35,5% of the territory at the end of 1999 to 44% at the end of 2003. However, based on review of available information on nitrogen pressure and water quality, the Commission still considers that there are gaps in designation.

As far as action programmes are concerned, several areas of non conformity still exists, for instance non compliance with the standard of 170 kg per hectare per year for nitrogen from livestock manure, insufficient provisions on manure storage, on periods of prohibition of fertiliser application and on total fertilisation levels admitted. However progress is being made in this area. Revised action programmes in recent years in compliance with the

[59] The Report obligation for the period 2000-2003 referred to EU 15 but also some Member States EU 10 reported on Directive implementation.

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Directive's requirements have allowed the Commission to evaluate positively the derogation requests submitted by some Member States regarding the limit of 170 kg per hectare per year of nitrogen from livestock manure. Derogations are subject to very strict conditions, they are limited in scope and temporary (maximum four year validity).

Implementation of nitrates directive is ongoing in new Member States. The Commission is analysing the designation of nitrates vulnerable zone and the action programmes to assess their compliance with the requirements of the directive. Three out of ten new Member States (Malta, Slovenia and Lithuania) took a “whole territory approach” and implement an action programme on the whole territory. Seven MS designated as nitrates vulnerable zones a percentage of the territory ranging from 2,5% (Poland) to 48% (Hungary).

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ANNEX 3

List of river basin districts identified in accordance with Article 3 (1) WFD

Member States	Name of the River Basin Districts	Size (km^2)	Part of an Int. RBD?
Austria	Danube	80565	Y
	Rhine	2365	Y
	Elbe	921	Y
Belgium	Meuse	13851	Y
	Scheldt	17338	Y
	Rhine	749	Y
	Seine	80	Y
Bulgaria	Danube	42847	Y
	Black Sea	20966	N
	East Aegean	35230	Y
	West Aegean	11966	Y
Cyprus	Cyprus	11015	N
Czech Republic	Danube	21688	Y
	Odra	7246	Y
	Elbe	49933	Y
Denmark[DK1]	Jutland and Funen	32263	N
	Zealand	9362	N
	Bornholm	595	N
	Vidaa-Krusaa	1101	Y
Estonia [EE1]	Western Estonia	23478	N
	Eastern Estonia	19047	Y
	Koiva	1335	Y
Finland[FI1]	Vuoksi	58158	Y
	Kymijoki-Gulf of Finland	57074	N
	Kokemäenjoki-Archipelago Sea-Bothnian Sea	83357	N
	Oulujoki-Iijoki	68084	N
	Kemijoki	54850	Y
	Åland	9131	N
	Tenojoki-Näätämöjoki-Paatsjoki	25566	Y
	Tornionjoki	14587	Y
France [FR1]	Meuse	7787	Y
	Sambre (part of the Meuse int RBD)	1099	Y
	Rhine	23653	Y
	Scheldt, Somme	18738	Y
	Seine	93991	Y
	Loire	156490	N
	Rhone	120427	Y
	Adour, Garonne, Dordogne, Charente	116475	Y
	Martinique	1102	N
	Reunion	2512	N
	Guadeloupe	1780	N
	Guyanne	90000	N
	Mayotte	Ni	N
	Corse	8713	N

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Member States	Name of the River Basin Districts	Size (km^2)	Part of an Int. RBD?
Germany [DE1]	Danube	56295	Y
	Rhine	102809	Y
	Elbe	97175	Y
	Meuse	3993	Y
	Ems	15008	Y
	Odra	9756	Y
	Eider	4757	Y
	Schlei/Trave	6184	Y
	Weser	49000	N
	Warnow/Peene	13645	N
Greece	Aegean Islands	9104	N
	Attica	3207	N
	Central Macedonia	10390	Y
	Crete	8336	N
	Eastern Macedonia	7281	Y
	Eastern Peloponnese	8477	N
	Eastern Sterea Ellada	12341	N
	Epirus	10026	Y
	Northern Peloponnese	7310	N
	Thessalia	13377	N
	Thrace	11177	Y
	Western Macedonia	13440	Y
	Western Peloponnese	7301	N
	Western Sterea Ellada	10199	N
Hungary	Danube	93030	Y
Ireland	Shannon	19452	Y
	North Western	14792	Y
	Neagh Bann	8120	Y
	Eastern	6657	N
	South Eastern	13941	N
	South Western	15077	N
	Western	16952	N
Italy	Eastern Alps	39385	Y
	Middle Appenines	35800	N
	Northern Appenines	39000	N
	Sardinia	24000	N
	Serchio	1600	N
	Sicily	26000	N
	Southern Appenines	68200	N
	Po	74115	Y
Lithuania	Daugava	1857	Y
	Nemunas	46695	Y
	Lieluppe	8938	Y
	Venta	6360	Y
Latvia [LV1]	Daugava	27062	Y
	Gauga	13051	Y
	Venta	15625	Y
	Lieluppe	8849	Y

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Member States	Name of the River Basin Districts	Size (km^2)	Part of an Int. RBD?
Luxembourg	Meuse	65	Y
	Rhine	2521	Y
Malta	Malta	399	N
Netherlands	Ems	3129	Y
	Meuse	7875	Y
	Rhine	34036	Y
	Scheldt	4470	Y
Portugal	Minho and Lima	2466	Y
	Douro	19220	Y
	Tagus	30007	Y
	Guadiana	11610	Y
	Cavado, Ave and Leça	3584	N
	Vouga, Mondego and Lis	12639	N
	Sado and Mira	12149	N
	Algarve	5511	N
	Azores	10047	N
	Madeira	2248	N
Poland [PL1]	Odra	131207	Y
	Vistula	220008	Y
	Danube	Ni	Y
	Pregolya	Ni	Y
	Elbe	Ni	Y
	Nemunas	Ni	Y
	Dniestr	Ni	Y
	Jarft	Ni	Y
	Świeżej	Ni	Y
	Ücker	Ni	Y
Romania	Danube	237391	Y
Slovak Republic [SK1]	Danube	47084	Y
	Vistula	1950	Y
Slovenia	Danube	16422	Y
	Adriatic	4136	Y
Spain	Minho	17610	Y
	Galician Coast	13131	N
	Basque County internal basins	2268	N
	Northern Spain	20826	Y
	Duero	78889	Y
	Tagus	55772	Y
	Guadiana	55461	Y
	Guadalquivir	57527	N
	Andalusia Mediterranean Basins	17956	N
	Andalusia Atlantic Basins	10743	N
	Segura	18987	N
	Jucar	42989	N
	Ebro	85554	Y
	Internal Basins of Catalonia	16494	Y
	Balearic Islands	5005	N
	Gran Canaria	1560	N

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Member States	Name of the River Basin Districts	Size (km^2)	Part of an Int. RBD?
	Fuerteventura	1660	N
	Lanzarote	846	N
	Tenerife	2034	N
	La Palma	708	N
	La Gomera	370	N
	El Hierro	269	N
	Ceuta	20	N
	Melilla	13	N
Sweden [SE1]	Bothian Bay	147625	Y
	Bothian Sea	141638	Y
	Skagerrak and Kattegat	69546	Y
	North Baltic	36959	N
	South Baltic	54420	N
United Kingdom	Shannon	2.5	Y
	North Western	4785	Y
	Neagh Bann	5740	Y
	Anglian	27881	N
	Dee	2140	N
	Humber	26115	N
	North West	13351	N
	Northumbria	9028	N
	Scotland	113819	N
	Severn	21045	N
	Solvay Tweed	17380	N
	Sout East	10197	N
	South West	21652	N
	Thames	16135	N
	Western Wales	16815	N
	North Eastern	3074	N
	Gibraltar	94	N

Notes:

Ni No information

DK1 In their first designation, Denmark had identified 1 international RBD: Vidaa-Krusaa and 12 national RBDs: Aarhus, Bornholm, Fyn, Greater Copenhagen, Nordjylland, Ribe, Ringkjoebing, Soenderjylland, Storstroem, Vejle, Vestsjaelland, Viborg. Since the 1 January 2007, the list of national Danish RBDs has been reduced from 12 to 3. The Danish Vidaa-Krusaa RBD is shared with two German RBDs, Schlei/Trave and Eider RBDs.

DE1 The Danish Vidaa-Krusaa RBD is shared with two German RBDs, Schlei/Trave and Eider RBDs.

EE1/LV1 The Koiva RBD (EE) and the Gauja RBD (LV) are part of the same international river basin.

FI1 Although Finland has only identified two international RBDs, the River Basin District of Tornionjoki is shared with Sweden and the River Basin District of Tenojoki-Paatsjoki is shared with Norway. In addition the Kemijoki and Vuoksi RBDs should also be identified as international- as these two RBDs are transboundary with Russia.

FR1 France has identified 14 RBDs. For one of this RBD, Mayotte, no information has been submitted. The Sambre RBD is actually a sub-basin of the Meuse international RBD. Although France has only identified 4 RBDs as international: i.e. the Sambre, the Meuse, the Schedt and the Rhine; the Seine,

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Adour-Garonne and the Rhone RBDs are also transboundary and should be identified as international RBDs.

IT1 Italy has designated 8 RBDs but this designation needs to be revised. For example, the coverage of the 8 districts do not include the territory of the Lagoon of Venice and its corresponding water basin; two of the RBDs – the northern and central Apennine RBDs – have rivers that drain into opposite and thus non-contiguous coastlines: into the Adriatic Sea on the east and the Tyrrhenian on the west. In addition, information on the interface between the eight districts and international river basins is not complete. Two RBDs should be identified as international – the Po and Eastern Alps.

PL1 In their first submission, Poland had identified only two RBDs; the Vistula and the Odra. It has since amended its legislation and has identified ten RBDs: Vistula and Odra, and Dniestr, Danube, Jarft, Elbe, Nemunas, Pregoły, Świeżej, and Ücker.

SE1 Torniojoki RBD is part of the same river catchment as the Bothian Bay (SE).

SK1 In their first submission, Slovakia had identified 6 RBDs; which were in fact sub basins; 5 are sub-basins of the Danube international RBD and one part of the Vistula international RBD. It is understood that this was a misuse of the term RBD and that they were in fact referring to river basins. There is in fact only 2 RBDs designated in Slovakia.

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ANNEX 4

List of competent authorities identified in accordance with Article 3 (2) WFD

Country	Name:	Address:	Webpage/Email:	RBD names
Austria	*Main competent authority:*			
	Bundesminister für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft (Federal Ministry of Agriculture, Forestry, Environment and Water Management)	Stubenring 1 Wien (Vienna) Austria 1012	www.lebensministerium.at	Danube, Elbe Rhine
Belgium	Belgian Federal Government	CAE Batiment Vésale 20 Rue Montagne de l'Oratoire B-1010 Bruxelles Belgium		Coastal waters
	Flemish Region:			
	Coördinatiecommissie Integraal Waterbeleid (Co-ordination Committee Integrated Water Policy)	Alfons Van de Maelestraat 96 Erembodegem (Erembodegem) Belgium 9320		Scheldt, Meuse
	Walloon Region:			
	Direction générale des Ressources naturelles et de l'Environnement (Directorate-General for Natural Resources and Environment)	Avenue Prince de Liège, 15 Namur (Namur) Belgium 5100	c.delbeuck@mrw.wallonie.be http://environnement.wallonie.be	Scheldt, Meuse, Rhine, Seine
	Ministère de l'Equipement et des Transports - Direction générale des Voies Hydrauliques (Directorate-General for Waterways)	Boulevard du Nord, 8 Namur (Namur) Belgium 5000	jlaurent@met.wallonie.be http://voies-hydrauliques.wallonie.be	Scheldt, Meuse, Rhine, Seine
	Brussels Capital Region:			Scheldt
	Institut Bruxellois pour la Gestion de l'Environnement (Brussels Institute for Management of the Environment)	Gulledelle 100 Bruxelles (Brussels) Belgium 1200	Monsieur Jean-Pierre Hannequart Directeur-général +32 2 775 76 02 jph@ibgebim.be http://www.ibgebim.be	
	Ministerie van het Brussels Hoofdstedelijk Gewest / Ministere de la Region de Bruxelles Capitale (Ministry of the Brussels Capital Region - Administration of Equipment and Mobility)	CCN - Rue de progrès, 80 bte 1 Bruxelles / Brussel (Brussels) Belgium 1035	egd@ibgebim.be http://www.bruxelles.irisnet.be	Scheldt
Bulgaria	Water Directorate, Ministry of Environment	22 Maria Luisa Blvd 1000 Sofia	vro@moev.government.bg http://www.moew.government.bg/.	Danube, East Aegean West Aegean
Cyprus	Υπουργός Γεωργίας, Φυσικών Πόρων και Περιβάλλοντος (Minister of Agriculture, Natural Resources and Environment)	Λευκωσία (NICOSIA) 1411	registry@moa.gov.cy www.moa.gov.cy	Cyprus

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Country	Name:	Address:	Webpage/Email:	RBD names
Czech Republic	The Ministry of Environment	Vršovická 65 101 00 Praha 10	Tel: +420 267 121 111 http://www.env.cz/.	Danube, Elbe, Odra
	The Ministry of Agriculture	Těšnov 17 117 05 Praha 1	Tel: +420 221 811 111 http://www.mze.cz/.	Danube, Elbe, Odra
Denmark	Danish Environment Protection Agency Ministry for the Environment (since 1.1.2007)	Miljøstyrelsen Strandgade 29 1401 København K Denmark	http://www.mst.dk/Vand/Vandramme direktivet/	All
Estonia	Keskkonnaministeerium (Ministry of the Environment)	Toompuiestee 24 Tallinn (Tallinn) 15172	http://www.envir.ee	West Estonia, East Estonia and Koiva
Finland	*Main competent authorities:*			
	Ympäristöministeriö (Ministry of the Environment)	Kasarminkatu 25 Helsinki (Helsinki) Finland PL 35, 00023 VALTIONEUVOSTO	http://www.ymparisto.fi	All
	Maa- ja metsätalousministeriö (Ministry of Agriculture and Forestry)	Hallituskatu 3 A Helsinki (Helsinki) Finland PL 30, 00023 VALTIONEUVOSTO	http://www.mmm.fi/fi/index/virhe.html	All
France	Préfet coordonnateur de bassin Artois Picardie (Co ordinating prefect of the basin of Artois Picardie)	2 rue Jacquemars Giélée LILLE (LILLE) France 59039	www.eau-artois-picardie.fr.	
	Préfet coordonnateur de bassin Rhin Meuse (Co ordinating prefect of the basin Rhine Meuse)	9 place de la Préfecture METZ (METZ) France 57000	http://www.eau-rhin-meuse.fr/.	Rhine, Meuse
	Préfet coordonnateur de bassin Seine Normandie (Co ordinating prefect of the basin Seine Normandy)	29 rue Barnet de Jouy PARIS (PARIS) France 75700	http://www.eau-seine-normandie.fr/.	Seine
	Préfet coordonnateur de bassin Loire Bretagne (Co ordinating prefect of the basin Loire Bretagne)	181 rue de Bourgogne ORLEANS (ORLEANS) France 45000	http://www.eau-loire-bretagne.fr/.	Loire
	Préfet coordonnateur de bassin Adour Garonne (Co ordinating prefect of the basin of Adour Garonne)	1 place Saint Etienne TOULOUSE (TOULOUSE) France 31000	http://www.eau-adour-garonne.fr/.	Adour, Garonne, Dordogne, Charente RBD
	Préfet coordonnateur de bassin Rhône Méditerranée (Co ordinating prefect of the basin Rhone and Mediterranean)	106 rue Pierre Corneille LYON (LYON) France 69419	http://www.eaurmc.fr/.	Rhone
	Président du Conseil Exécutif de	22 cours Grandval BP 215	http://www.eaurmc.fr/.	Corse

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Country	Name:	Address:	Webpage/Email:	RBD names
	Corse (Chairman of the executive council of Corsica)	AJACCIO (AJACCIO) France 20187		
	Préfet coordonnateur de bassin de la Guadeloupe (Co ordinating prefect of the basin of Guadeloupe)	rue Lardenoy BASSE TERRE (BASSE TERRE) France 97100		Guadeloupe
	Préfet coordonnateur de bassin de la Martinique (Co ordinating prefect of the basin of Martinique)	rue Victor Sévère FORT DE FRANCE (FORT DE FRANCE) France 97200	http://www.martinique.ecologie.gouv.fr	Martinique
	Préfet coordonnateur de bassin de la Réunion (Co ordinating prefect of the basin of Réunion Island)	rue Fiedmon CAYENNE (CAYENNE) France 97300		Reunion
	Préfet coordonnateur de bassin de la Guyane (Préfet coordonnateur de bassin de la Guyane)	1 avenue Victoire SAINT DENIS (SAINR DENIS) France 97400		French Guyana
Hungary	Környezetvédelmi és Vízügyi Minisztérium (Ministry of Environment and Water)	Fő utca 44-50. Budapest (Budapest) Hungary 1011	jelinek@mail.kvvm.hu www.kvvm.hu	Danube
Germany	Ministerium für Landwirtschaft, Umweltschutz und Raumordnung des Landes Brandenburg	103 Heinrich Mann Allee Potsdam 14473 Deutschland	www.mluv.brandenburg.de.	Warnow Peene, Ems
	Senatsverwaltung für Stadtentwicklung	6 Brückenstrasse Berlin 10179 Deutschland	www.stadtentwicklung.berlin.de.	All
	Ministerium für Umwelt und Verkehr Baden-Württemberg (Ministery for Environment and Traffic of Baden Württemberg)	103439 Postfach Stuttgart 70029 Deutschland	www.um.baden-wuerttemberg.de.	Danube
	Bayerisches Staatsministerium für Umwelt, Gesundheit und Verbraucherschutz (Bavaria state ministery for environment, health and protection of the citizen)	2 Rosenkavalierplatz Muenchen D-81925 Deutschland	www.stmugv.bayern.de/.	Danube, Weser

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Country	Name:	Address:	Webpage/Email:	RBD names
	Senator für Bau, Umwelt und Verkehr der Freien Hansestadt Bremen (Senator for construction, environment, traffic of the city of Bremen)	2 Ansgaritorstrasse Bremen 28195 Deutschland	www.bauumwelt.bremen.de/.	Weser
	Hessisches Ministeriums für Umwelt, lõndlichen Raum und Verbraucherschutz (Ministery of Environment, Rural Areas and Consumer protection of Hessen)	80 Mainzer Strasse Wiesbaden 65189 Deutschland	www.hmulv.hessen.de/.	Odra,
	Behörde für Stadtentwicklung und Umwelt der Freien und Hansestadt Hamburg (Commissioner for Environment and Health of the city of Hamburg)	84 Billstrasse Hamburg 22539 Deutschland	http://fhh.hamburg.de/stadt/.	
	Umweltministerium Mecklenburg-Vorpommern (Ministery of Environment of Land Mecklenburg-Vorpommern)	6-8 Schlossstrasse Schwerin 19053 Deutschland	www.um.mv-regierung.de/.	Warnow Penne, Schlei/Trave
	Niedersõchsisches Umweltministerium (Ministery of the Environment of Lower Saxony)	2 Archivstrasse Hannover 30169 Deutschland	www.mu.niedersachsen.de/.	Weser
	Ministerium für Umwelt und Naturschutz, Landwirtschaft und Verbraucherschutz des Landes Nordrhein-Westfalen (Ministery for Env, Natureprotection, Agriculture and CP of North Rhine Westphalia)	3 Schwannstrasse Düsseldorf 40476 Deutschland	www.munlv.nrw.de/.	Meuse,
	Ministerium für Umwelt und Forsten Rheinland-Pfalz	1 Kaiser-Friedrich-Strasse Mainz D-55116 Deutschland	www.mufv.rlp.de/.	Rhine
	Ministerium für Umwelt, Naturschutz und Landwirtschaft Schleswig-Holstein (MUNL)	3 Mercatorstrasse Kiel 24106 Deutschland	http://landesregierung.schleswig-holstein.de/coremedia/generator/System/Startseite.html.	Eider, Elbe, Schlei/Trave
	Ministerium für Umwelt des Saarlandes	18 Keplerstrasse Saarbrücken 66117 Deutschland	www.umwelt.saarland.de/.	Rhine
	Sachsisches Staatsministerium für Umwelt und Landwirtschaft	1 Archivstrasse Dresden 01097 Deutschland	http://www.sachsen.de/de/bf/staatsregierung/ministerien/index_umwelt.html.	Odra, Elbe
	Ministerium für Landwirtschaft und Umwelt des Landes Sachsen-Anhalt (MLU)	4 Olvenstedter Strasse Magdeburg 39108	www.mlu.sachsen-anhalt.de/.	Weser

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Country	Name:	Address:	Webpage/Email:	RBD names
		Deutschland		
	Thüringer Ministerium für Landwirtschaft, Naturschutz und Umwelt	3 Beethovenstrasse Erfurt 99096 Deutschland	www.thueringen.de/tmlnu/.	Weser
Greece	Ministry of Environment and Public Works (as well as the Regional Directorates of Water)	Patission Str. 147 EL-11251 Athens Greece	a.lazarou@dpers.minenv.gr http://www.minenv.gr/welcome_gr.html	All
Ireland	*Main competent authority:*			
	Environment Protection Agency (EPA)	PO Box 3000 Johnstown Castle Estate County Wexford Ireland	t.stafford@epa.ie http://www.wfdireland.ie/	All
Italy	Autorità di Bacino dei Fiumi Liri - Garigliano e Volturno (River Liri - Garigliano e Volturno Basin Authority)		www.autoritadibacino.it.	
	regione Campania (Campania Region)		http://www.regione.campania.it/.	
	Autorità di bacino nazionale del fiume Adige (River Adige national basin authority)		www.bacino-adige.it/.	
	Autorità di Bacino del fiume Serchio (River Serchio basin authority)		www.serchio-autoritadibacino.it/.	Serchio
	Autorità di Bacino del Fiume Po (river Po basin authority)		www.adbpo.it/.	Po
	Autorità di bacino interregionale del fiume Magra (River Magra interregional basin authority)		www.adbmagra.it/.	
	Autorità di Bacino del Fiume Arno (River Arno basin authority)		www.arno.autoritadibacino.it/.	
	Autorità di bacino del fiume Tevere (River Tiber basin authority)		www.abtevere.it/.	
	Regione Liguria (Liguria Region)		www.regione.liguria.it.	
	Regione del Veneto (Venetian Region)		www.regione.veneto.it/.	
	Provincia autonoma di Trento (Trento autonomous Province)		www.provincia.tn.it/.	
	Autorità di Bacino interregionale del fiume Fiora (River Fiora interregional basin authority)		www.adbfiora.it/.	
	Regione Piemonte (Piedmont Region)		www.regione.piemonte.it/.	

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Country	Name:	Address:	Webpage/Email:	RBD names
	Autorità di Bacino dei fiumi Isonzo, Tagliamento, Livenza, Piave, Brenta-Bacchiglione (River Basin Authority for Isonzo, Tagliamento, Livenza, Piave, Brenta-Bacchiglione)		www.adbve.it/.	
	Autorità di Bacino del fiume Reno (River Reno basin authority)		www.regione.emilia-romagna.it/bacinoreno/.	
Latvia	Latvijas Vides, ģeoloģijas un meteoroloģijas aģentūra (Latvian Environment, Geology and Meteorology Agency)		www.lvgma.gov.lv/.	Daugava, Gauga, Venta, Lieluppe
	Ministry of Environment of Republic of Latvia (MOE)	25 Peldu Riga Latvia LV 1494	www.vidm.gov.lv.	All
	Latvian Environment Agency (LEA)	2 Straumes Jurmala Latvia LV 2015	www.lva.gov.lv	All
Lithuania	Aplinkos apsaugos agentūra (Environmental protection agency)	A. Juozapaviciaus 9 Vilnius (Vilnius) Lithuania LT-09311	m.gudas@gamta.lt http://aaa.am.lt	Daugava, Nemunas, Lieluppe, Venta
Luxem-bourg	Ministère de l'Intérieur et de l'Aménagement du territoire (Ministry of the Interior)	19, rue Beaumont Luxembourg (Luxembourg) L-1219	eau@eau.etat.lu http://www.waasser.lu	Meuse, Rhine
Malta	Awtorita ta' Malta dwar ir-Rizorsi (Malta Resourcess Authority) (MRA)	Millenia Aldo Moro Road Marsa LQA 06	John.mangion@mra.org.mt http://www.mra.org.mt.	Malta
	Awtorita' ta' Malta dwar l-Ambjent u l-Ippjanar (Malta Environment and Planning Authority) (MEPA)	St Francis Ravelin Floriana CMR 01	Louis.vella@mepa.org.mt http://www.mepa.org.mt.	Malta
Nether-lands	Ministerie van Verkeer en Waterstaat (Ministry of Transport, Public Works and Water Management)	Postbus 20901 Den Haag (The Hague) 2500 EX	www.verkeerenwaterstaat.nl	Ems, Meuse, Rhine, Scheldt
Poland	Minister właściwy ds. gospodarki wodnej (obecnie funkcje tą pełni Minister Środowiska) (Minister for water management (at present the Minister of Environment is carrying out the duties))	Ministerstwo Środowiska, ul. Wawelska 52/54, 00922 Warszawa Warszawa (Warsaw) Poland 00 922	www.mos.gov.pl	Odra, Vistula, Danube, Pregolya, Elba, Nemunas, Dniestr, Jarft, Swiezej, Ucker
Portugal	Insituto da Agua (INAG) (Water Institute)	30 Av. Alm. Gago Coutinho Lisboa Portugal P-1049-066	www.inag.pt	Norte, Tajo, Douro, Guadiana
	Comissão de Coordenação e Desenvolvimento Regional do Norte (Regional Coordination and Development Commission – North)	251 Rua D.Estefânia Porto Portugal	www.ccr.n.pt	Cavado

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Country	Name:	Address:	Webpage/Email:	RBD names
		P-4150-304		
	Comissão de Coordenação e Desenvolvimento Regional do Centro (Regional Coordination and Development Commission – Centre)	80 Rua Bernardim Ribeiro Coimbra Portugal P-3000-069	www.ccr.c.pt	Vouga
	Comissão de Coordenação e Desenvolvimento Regional de Lisboa e Vale do Tejo (Regional Coordination and Development Commission - Lisbon and Tagus Valley)	33 Rua Artilharia Um Lisboa Portugal P-1269-145	www.ccr-lvt.pt	Tagus
	Comissão de Coordenação e Desenvolvimento Regional do Alentejo (Regional Coordination and Development Commission – Alentejo)	193 Estrada das Piscinas Évora Portugal P-7000-758	www.ccr-alt.pt	Sado and Mira
	Comissão de Coordenação e Desenvolvimento Regional do Algarve (Regional Coordination and Development Commission – Algarve)	2 Praça da Liberdade Faro Portugal P-8000-164	www.ccr-alg.pt	Algarve
	Secretaria Regional do Ambiente (SRA) (Regional Secretariat for the Environment and the Sea)	Apt.140 Colónia Alemã Horta P-9900-014	www.sra.azores.gov.pt/	Azores
	Secretaria Regional do Ambiente e Recursos Naturais (SRARN) (Regional Secretariat for the Environment and Natural Resources)	21_A,5º Av. Arriaga Funchal Portugal P-9000-528	www.sra.pt/	Madeira
	Comissão para a Aplicação e o Desenvolvimento da Convenção	30 Av. Alm. Gago Coutinho Lisboa Portugal P-1049-066	www.inag.pt	All
Romania	Ministry of Environment and Water Management	Ministry of Environment and Water Management 12 Libertatii Blvd., Sect. 5 04129 Bucharest	http://www.mmediu.ro/home/home.php	Danube
	National Administration 'Apele Romane'	6 Edgar Quinet Str. Sector 1, 70106 BUCHAREST	http://www.rowater.ro/	Danube
	Interministerial Commission of Waters	NI		Danube
Slovakia	*Main competent authority:*			
	Ministerstvo životného prostredia Slovenskej republiky (The Ministry of the Environment of the Slovak Republic)	Nám. Ľ. Štúra 1 Bratislava (Bratislava) Slovakia 81235	www.enviro.gov.sk	Danube and Vistula
Slovenia	Ministrstvo za okolje in prostor (Ministry for the Environment and Spatial Planning)	Dunajska 48 Ljubljana (Ljubljana) Slovenia 1000	gabrijela.grcar@gov.si www.sigov.si/mop	Danube, Adriatic
Spain	Confederación Hidrográfica del Ebro	Paseo de Sagasta, 24-28	www.chebro.es	Ebro

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Country	Name:	Address:	Webpage/Email:	RBD names
	(Hydrographic Confederation of the Ebro)	Zaragosa 50071		
	Agencia Catalana del Agua (Government of Catalonia. Catalan Water Agency)	Provenza,204-208 Barcelona 08036	www.gencat.net/aca	Internal Basins of Catalonia
	Confederación Hidrográfica del Norte (North Hydrographic Confederation)	Plaza de España,2 Oviedo 330071	www.chnorte.es	North
	Confederación Hidrográfica del Tajo (Hydrographic Confederation of the Tagus)	Avenida de Portugal, 81 Madrid 28071	www.chtajo.es	Tagus
	Confederación Hidrográfica del Duero (Hydrographic Confederation of the Duero)	Calle Muro, 5 Vallodolid 47004	www.chduero.es	Duero
	Confederación Hidrográfica del Guadiana (Hydrographic Confederation of the Guadiana)	Avda. Sinforiano Madroñero, 12 Badajoz 06011	www.chguadiana.es	Guadiana
	Confederación Hidrográfica del Guadalquivir (Hydrographic Confederation of the Guadalquivir)	Plaza de España, sector II Sevilla 41071	www.chguadalquivir.es	Guadalquivir
	Confederación Hidrográfica del Segura (Hydrographic Confederation of the Segura)	Plaza Fontes, 1 Murcia 30001	www.mma.es/cuencas/segura/.	Segura
	Confederación Hidrográfica del Júcar (Hydrographic Confederation of the Júcar)	Avda. Blasco Ibáñez, 98 Valencia 46010	www.chj.es	Jucar
	Gobierno Vasco.Departamento de Medio Ambiente y Ordenación Territorial (Basque Government-department of environment and regional planning)	C/Donostia-San Sebastián, Vitoria 01010	www.ingurumena.ejgv.euskadi.net/r49-387/es/	Internal basins of the Basque Country
	Xunta de Galicia. Consellaría de Medio Ambiente y Desarrollo Sostenible (Government of Galicia. Ministry Council of Environment and sustainable development)	San Lázaro s/n Santiago de Compostela 15781	www.xunta.es/conselle/cma/GL/index.htm.	Galician Coast
	Junta de Andalucía. Consejería de Medio Ambiente (Government of Andalucia. Ministry council of environment)	Paseo de Reding, 20 Málaga 29016	www.agenciaandaluzadelagua.com/v2/index.php	Mediterranean Basins of Andalucia
	Gobierno de las Islas Canarias. Consejería de Obras Públicas, vivienda y Aguas (Canary island government. Minsitry council of infrastructure, transports and housing)	Avda. De Anaga, 35 Edif. Usos múltiples I, planta 9a Santa Cruz de Tenerife 38071	www.gobiernodecanarias.org/index.html	Canary Islands
	Gobierno Balear. Consejería de Medio Ambiente. Dirección general de recursos hidrúalicos	Gran Vía Asima, 4, B-1o dcha Palma	www.//web2.caib.es/owa/g0.frame_page2?codi=209.	Balearic Island

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Country	Name:	Address:	Webpage/Email:	RBD names
	(Balearic government. Ministry Council of Environment. Directorate General of water resources)	07006		
Sweden	Vattenmyndighet i Södra Östersjöns vattendistrikt (Swedish Water Authority for the South Baltic River Basin District)	Länsstyrelsen i Kalmar län Kalmar (Kalmar) 391 86	http://www.vattenmyndigheterna.se/vattenmyndigheten/amnen/Södra+Östersjön/Personal_och_organisation/.	South Baltic
	Vattenmyndighet i Norra Östersjöns vattendistrikt (Swedish Water Authority for the North Baltic River Basin District)	Länsstyrelsen i Västmanlands län Västerås (Västerås) 721 86	http://www.vattenmyndigheterna.se/vattenmyndigheten/amnen/Norra+Östersjön/Personal_och_organisation/Vattenmyndigheten.htm.	North Baltic
	Vattenmyndighet i Bottenhavets vattendistrikt (Swedish Water Authority for the Bothnian Sea River Basin District)	Länsstyrelsen i Västernorrlands län Härnösand (Härnösand) 871 86	http://www.vattenmyndigheterna.se/vattenmyndigheten/amnen/Bottenhavet/.	Bothnian Sea
	Vattenmyndighet i Bottenvikens vattendistrikt (Swedish Water Authority for the Bothnian Bay River Basin District)	Länsstyrelsen i Norrbottens län Luleå (Luleå) 971 86	http://www.vattenmyndigheterna.se/vattenmyndigheten/amnen/Bottenviken/.	Bothnian Bay
	Vattenmyndighet i Västerhavets vattendistrik (Swedish Water Authority for the Skagerrak and Kattegat River Basin District)	Länsstyrelsen i Västra Götalands län Göteborg (Gothenburg) 403 40	http://www.vattenmyndigheterna.se/vattenmyndigheten/amnen/Västerhavet/Vattenmyndigheten+Vasterhavet/.	Skagerrak and Kattegat
United Kingdom	Secretary of State	123 Victoria Street London SW1E 6DE	Alice.baverstock@defra.gsi.gov.uk www.defra.gov.uk.	All
	Environment Agency	Rio House Waterside Drive Aztec West Almondsbury Bristol BS32 4 UD	Martin.griffiths@environment-agency.gov.uk www.environment-agency.gov.uk.	Anglian Dee Thames South-East Humber Severn South West Northunbria North West
	National Assembly for Wales	Cathays Park Cardiff CF10 3NQ	www.wales.gov.uk.	Western Wales
	Scottish Ministers	St Andrew's House Regent Road Edinburgh EH1 3 DG	www.scotland.gov.uk.	Scotland Solvay Tweed
	SEPA Scottish Environment Protection Agency	SEPA Corporate Office Eskine Court Castle Business Park Stirling FK9 4TR	Campbell.gemmell@sepa.org.uk www.sepa.org.uk.	Scotland Solvay Tweed
	Department of the Environment Northern Ireland	DOENI River House High Street Belfast	www.doeni.gov.uk.	Shannon Neagh BannNorth Western North Eastern

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Country	Name:	Address:	Webpage/Email:	RBD names
		BT1 2AW		
	Gibraltar Government	Joshua Hassan House Secretary's Lane Gibraltar	mgil@tsd.gov.gi www.gibraltar.gov.gi	Gibraltar

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ANNEX 5

Empty performance assessment tables for Article 3

The tables below are filled in per Member State.

Table 1: Administrative performance of Article 3 report

Code	Key issue	Question	Comments	Score
GQ1	Deadline	Has the report been delivered on time? *(3 points: submitted by or before end of June 2004 / 2: submitted max. 3 months late/1: submitted 3-12 months late/0: not submitted or more than 12 months late)*		(3)
GQ2	Completeness	Is the report complete, does it provide all the information requested in the reporting guidance? *Focus is on 5 key issues: designation of RBD, attribution of CAs, administrative set-up and coordination, international cooperation, Data/GIS submission.* *3 points: report complete/2: max. 1 key issue has minor shortcomings /1: 2-3 key issues have shortcomings regarding completeness/ 0: more than 3 key issues have shortcomings regarding completeness)*		(3)
GQ3	Clarity	Is the report clear, understandable and provide references to other documents, where necessary? *(Focus is on 5 key issues: designation of RBD, attribution of CAs, administrative set-up and coordination, international cooperation, Data/GIS submission.* *2 points: 1 key issue needs minor clarification from MS/1: 2-3 key issues have shortcomings regarding clarity/0: more than 3 key issues have shortcomings regarding clarity)*		(2)
GQ4	Gaps/ Uncertainties Follow up	Is the report transparent by identifying deficiencies and incomplete implementation? Does the report contain a section on gaps and uncertainties? Does the report provide information on possible follow up? *(2 points: no deficiencies OR information on all gaps/uncertainties provided including follow-up/1 point: some gaps/uncertainties /follow-up provided/0 points: info. on gaps/uncertainties/follow-up not provided*		(2)
			TOTAL	**(10)**

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Table 2: Quality of implementation of Article 3

Code	Key issue	WFD article	Question	Comments	Score
3Q1	Designation of river basin district	3.1	Is the RBD designated (largely) on the basis of hydrological catchment boundaries? Are the coastal and groundwaters clearly attributed to the RBD? *(this question does not address the aspect of international RBDs, see question 3Q4) (5 points: RBD clearly and correctly designated/4 - 1: designation incomplete and/or unclear, points according to extend/0: no designation or designation entirely unacceptable regarding Art. 3)*		(5)
3Q2	Competent authorities	3.2 Annex I Point i, iii and iv	Have the competences been clearly attributed to authorities, in particular river basin management and reporting? *(5 points: distribution of competences clear and complete/4-1: distribution of competences incomplete and/or unclear, points according to extend/0: no information on the issues)*		(5)
3Q3	Administrative set-up & coordination	3.2 and 3.4 Annex I Point v	Is the relationship/hierarchy between authorities clearly described? Where there is more than one CA for a RBD, are the coordinating and decision-making mechanisms clear? *(5: relationship/hierarchy/coordinating and decision-making mechanisms clear?)/4-1: relationship unclear, coordination mechanisms unclear and/or may not deliver, points according to extend/0: no information on these issues)*		(5)
3Q4	International co-operation	3.3 and 3.4 and 3.5 Annex I Point vi	Are international RBDs identified where they exist? Is an appropriate coordinating mechanism in place? *(5: international RBDs identified and cooperation mechanism in place/4-1: some int, RBD not (clearly) identified and/or coordination mechanisms absent or unclear, points according to extend/0: no information on the issues)*		(5)
3Q5	Data submission	Annex I Point ii	Have all relevant GIS files been submitted? Is the quality of the data sets acceptable and useable without major follow up work? *(5 points: GIS data provided in good quality/4-1: GIS data provided, but low quality, points according to quality of the data/0: GIS data not provided)*		(5)
				TOTAL	**(25)**

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ANNEX 6

Empty performance assessment tables for Article 5

The tables below are filled in per Member State in case a Member State submitted one Article 5 report for all the river basin districts within its territory. In case a Member State submitted different Article 5 reports for its river basin districts, these tables were filled in per river basin district report. The scores were then added up later (see paragraph 3.3.3).

Table 1: Administrative Performance of Article 5 report

Code	Key issue	Question	Comments	Score
GQ5_1	Deadline	Has the report been delivered on time (i.e 22 March 2005)? *(3 points: submitted by or before WFD deadline (Reports received until end of March '05 will be rewarded full points)/ 2 points: submitted max. 3 months late/ 1 point: submitted 3-12 months late/ 0 points: not submitted or more than 12 months late)*		(3)
GQ5_2	Completeness	Is the report complete, does it provide all the information requested in the reporting guidance? *See almost all questions, sub b)* *(Focus is on 4 key issues: analysis of characteristics, impact of human activity, economic analysis, protected areas)* *3 points: report complete/2: max. 1 key issue has shortcomings / 1 point: 2-3 key issues have shortcomings regarding completeness/ 0 points: more than 3 key issues have shortcomings regarding completeness)*		(3)
GQ5_3	Clarity	Is the report clear, understandable and does it provide references to other documents, where necessary? *See almost all questions, sub b)* *For reference: e.g. SWPI2-5, SWPI8-3, GWP10-3, RPA1-3* *(Focus is on 4 key issues: analysis of characteristics, impact of human activity, economic analysis, protected areas)* *2 points: no clarification needed and references available/ 1 point: 1-2 key issues need clarification and references partly available/ 0 points: 3 or more key issues have shortcomings regarding clarity)*		(2)
GQ5_4	Gaps/ Uncertainties Follow up	Is the report transparent by identifying deficiencies and incomplete implementation? Does the report contain a section on gaps and uncertainties? Does the report provide information on possible follow up? *E.g. SWB3-4, SWPI8-1, SWPI8-2, GWPI10-1,GWPI10-2 and ECO1-6* *(2 points: if most subquestions are answered with Yes/ 1 point: if subquestions are partly answered with Yes/ 0 points: info. on gaps/uncertainties/follow-up not provided)*		(2)
			TOTAL	**(10)**

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Table 2: Quality of implementation of Article 5

Code	Key issue	Question	Comments	Scores
5Q_1	Analysis of characteristics	Does the methodology appear to be appropriate? *1-typology consistent with Annex II WFD (SWB1-3)* *2-is the methodology for delineation of surface waterbodies clear and consistent with the stepwise approach in guidance Nr 2? (SWB2-8))Has it been applied?* *3-is there a clear approach for the designation of HMWBs and AWBs? (SWB3-1, SWB3-2, SWB3-3)* *4-is the approach to delineate groundwater bodies clear? (GWB1-3, GWB1-4)*		(8)
5Q_2	Impact of human activity	Does the methodology for surface waterbodies appear to be appropriate? *1-Are surface waterbodies classified in 3 categories (at risk, insufficient data, not at risk)? (SWPI2-1)* *2-are reasons given for wbs being at risk? (SWPI2-2)* *3-Point sources: is information on significant pollutants and their loads provided? (SWPI3-1, SWPI3-2, SWPI3-3 and SWPI3-4)* *4-Diffuse sources: is information on significant pollutants and their loads provided? (SWPI4-1, SWPI4-2, SWPI4-3)* *5-Water abstraction: is information on abstraction points and volume provided? (SWPI5-1, SWPI5-2, SWPI5-3)* *6-Water flow regulation and significant morphological alterations: is information on nr of alterations and nr of wb at risk due to these alterations provided? (SWPI6-1, SWPI6-2)* *7-Is information on impacts on surface waterbodies provided? (SWPI7-1)*		(14)

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		Does the methodology for groundwater bodies appear to be appropriate? *1-Are groundwater bodies classified in 3 categories (at risk, insufficient data, not at risk)? (GWPI2-1)* *2-Are reasons given for groundwater bodies being at risk? (GWPI2-2)* *3- Diffuse sources: is information on significant pollutants and their loads provided? (GWPI3-1, GWPI3-2)* *4- Point sources: is information on significant pollutants and their loads provided? (GWPI4-1,GSWPI4-2, GWPI4-3)* NB: questions below will only be answered in case there is abstraction, recharge or saltwater intrusion. If indicated that one or more of these do not exist, please normalise the score (see score) *5-Groundwater abstraction: is information on abstraction point ,volume and resulting risk provided? (GWPI5-1 and GWPI5-2)* *6-Groundwater recharge: is information on nr of recharges, volume and resulting risk provided? (GWPI6-1 and GWPI6-2)* *7-Is number of saltwater intrusions or other intrusions provided? (GWPI7-1)* *8-Is information on further characterisation- assessment of human impacts provided? (GWPI8-1)*		(16)
5Q_3	Economic analysis of water use	Does the methodology appear to be appropriate? *1-Has information of the level of cost recovery been supplied for the three categories (households, agriculture, industry)? (ECO1-1)* *2 -Is there an overview of the socio-economic importance of water uses in the RBD in relation to the significant pressures for surface water and groundwater? (ECO1-3)* *3-Is there a summary of the work completed to establish a baseline scenario? (ECO1-8)*		(6)
5Q_4	Protected areas	Has a register been established? (RPA1-2)		(2)
			TOTAL	**(46)**

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ANNEX 7

Non-exhaustive overview of assessment criteria for the preliminary designation of heavily modified water bodies (HMWB)

Member State	Criteria for preliminary designation of HMWB
Austria	A water body is provisionally identified as HMWB if it fulfils at least one of the following criteria: o Hydromorphological impacts are classified according to their intensity in 5 classes. More than 70% of the water body falls into classes 3-5 or more than 30% in classes 4-5. o A hydromorphology pressures screening is made to classify the modifications in three categories: strong, normal and minor. If more than 70% is modified or strongly modified or more than 30% is strongly modified the water body is provisionally designated as HMWB. o Large reservoir or several small reservoirs o Migration barriers (in altitudes less than 500 m) o Change in flow pattern with low/peak relationship greater than 1:5. o Modification implies a change in water category
Cyprus	River water bodies are provisionally identified as heavily modified if they are downstream of a dam as this structure changes the hydrology of the downstream water body.
Bulgaria	Water bodies are provisionally designated as HMWB if they fall in any of these cases: o For modified river segments (dikes, support walls, weirs): if the modification affects more than 70% of the water body. o Dams constructed in a river (change in water category). o Abstraction of water of more than 30% of multi-annual flow o Discharge flow left by derivation is less than 50% of the 95% multi-annual flow. o Expert judgement

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France	The following criteria for hydromorphological pressures are taken into account to provisionally identify HMWB: o Urbanisation at riverside or lakeside o Roads and dikes: – for low land rivers: designation if the distance between the infrastructure and the river is less than twice the river width it is provisionally (expert judgement for 2 to 6 times) – for narrow valleys: the effective reduction in space for the river is greater than 50% o Navigation: all navigable rivers are provisionally designated o Channels and river diversion: designation if it appears not possible to rectify o Dams: provisional designation if the uses served by the reservoir are under 4.3. In case of flow derivation, the impacted water body is designated if the derived flow is greater than 90% of the annual average (for cases between 50 and 90% expert judgement is required). In case of locks, the water body is designated if the peak to minimum flow is greater than 15 (expert judgement for between 5 and 15). After this first analysis of pressures, the segments pre-identified as HMWB are summed up to assess the percentage of modification of each water body: o If more than 70% of the water body is modified, it is provisionally identified as HMWB o If between 30 and 70% of the water body is modified, the analysis is on a case by case o If less than 30% of the water body is modified, it is considered that the good status should be possible to attain
Lithuania	For impoundments: size larger than 0.5 km^2 and a length of impoundment of more than 1.5 km.
Portugal	The following are provisionally identified as HMWB: o For impoundments: size larger than 0.4 km2 o River segments downstream of reservoirs with significant hydromorphological modifications o River, coastal and transitional segments affected by urbanisation or presenting significant hydromorphological modifications o Navigation channels and ports.
Spain	Reservoirs larger than 0.5 km^2 or affecting more than 5 km. River segments modified in more than 5 km, affected by channelisation or downstream a dam with high regulation and peak flows.

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