



Assessment of Member States' progress in the implementation of Programmes of Measures during the first planning cycle of the Water Framework Directive

Member State Report:

France (FR)

Disclaimer: this report was prepared by consultants contracted by the European Commission, and it does not necessarily reflect the views of the Commission.

1. Introduction

The Water Framework Directive (WFD) requires that Member States (MS) establish Programmes of Measures to achieve the objectives established under Article 4. Measures are required to reduce the pressures to levels that are compatible with the achievement of the objectives such as the achievement of good water status by 2015.

Programmes of Measures for the first planning cycle were due to be published in December 2009 and should have been made operational in Member States by December 2012. Progress with implementation of the measures was to be reported electronically to the Commission in December 2012 through the Water Information System for Europe (WISE).

A preliminary assessment of the 2012 electronic WISE reports was undertaken in 2013 through the use of templates comprising a number of pre-defined questions, the answering of which by consultant Member State assessors provided the assessment of Member States' progress. The results were presented to the Commission by the consultants in a Preliminary Assessment report in January 2014.

The preliminary assessment was taken further by undertaking an in-depth assessment of some key processes in developing programmes of measures and in relation to five key aspects/pressures (agriculture, chemicals, hydromorphology, urban waste water treatment and water abstraction) of the Water Framework Directive. This was again facilitated by the use of pre-defined questions within templates answered by Member State assessors.

The results were reported to the Commission in December 2014 as a European Overview report that provided an overview of the progress made by Member States in the development and implementation of programmes of measures for the first planning cycle. It was also based on the conclusions from the Commission's 2012 assessment of the first River Basin Management Plans¹, Member States' electronic (WISE) reports to the Commission in December 2012 on the progress with implementation of their programmes of measures (summarised in the Preliminary Assessment report) and the information arising from the Commission's bilateral meetings with Member States on their first River Basin Management Plans during 2013 and 2014. The report was used in support of the Commission's Communication to the European Parliament and Council on progress with Water Framework Directive implementation and its associated Commission Staff Working Document, both to be published in March 2015.

This report is a summary of the findings of the preliminary and in-depth assessment of the progress with the implementation of the programmes of measures in France.

References to River Basin Management Plans (RBMPs) and programmes of measures (PoMs) throughout this document relate to the first planning cycle unless explicitly stated otherwise.

¹ http://ec.europa.eu/environment/water/water-framework/impl_reports.htm

2. Questions used in the assessments

For the **preliminary assessment** the following assessment questions were asked:

- Question 1. What is the reported progress between 2009 and 2012 with the implementation of the Basic Measures set out in Article 11.3.a?
- Question 2. What is the reported progress between 2009 and 2012 with the implementation of the Other Basic Measures set out in Article 11.3b-I?
- Question 3. What is the progress with the implementation of Supplementary Measures between 2009 and 2012?
- Question 4. Are there Supplementary Measures in place to tackle each of the significant pressures for which Basic Measures are reported by Member States to be not enough to achieve WFD objectives? Which pressures are not tackled?
- Question 5. Which measures reported to be implemented in the first RBMP/PoM in 2009 have not been reported in 2012?
- Question 6. What is the status of implementation of the Key Types of Measures identified in the Member State, and what progress is expected over the duration of the first RBMP?
- Question 8. What is the reported overall progress on implementing the Programme of Measures? Are there differences between the RBDs in the Member State? What are the main obstacles to successful implementation (if any)?
 - 8a) What are the main achievements?
 - 8b) Improvements in status of water bodies?
 - 8c) What are the main obstacles?
 - 8d) Overall Progress?
- Question 9. How are the measures being financed? What are the main achievements, progress and obstacles in securing the budget for the PoMs?
 - 9a) Securing finance for the PoMs?
 - 9b) Funding source?
 - 9c) Overall progress?

For the **in-depth assessment** the following assessment questions were asked:

- Question 1. What are the impacts on water bodies reported for 2009?
- Question 2. Have the sources of the impacts been identified?

- Question 3. If the sources of at least some of the impacts were identified, please indicate the relevant sources and pressures in the Excel spreadsheet provided in the document area to answer this question
- Question 4. Have the identified impacts been apportioned between the sources and sectors/drivers responsible for the pressures?
- Question 4a. Are there different approaches to source apportionment between the RBDs within the MS?
- Question 5. If no source apportionment was undertaken, how were measures assigned to the sectors to reduce pressures?
- Question 6. How were the measures assigned across the polluters and activities/sectors responsible for the impacts?
- Question 7a. Has the scale of the pressures arising from agriculture been quantified in terms of the reductions required to achieve WFD objectives?
- Question 7b. How much of the gap to the achievement of WFD objectives was expected to be achieved by the Nitrates Action Programmes?
- Question 7c. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.3.h basic measures?
- Question 7d. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.3.g basic measures?
- Question 7e. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.4 supplementary measures?
- Question 8a. Has the scale of the pressures arising from emissions, discharges and losses of chemicals been quantified in terms of the reductions required to achieve WFD objectives?
- Question 8b. How much of the gap to the achievement of WFD objectives was expected to be achieved by the Basic Measures required by Article 11.3.a (measures required by the IPPC Directive (96/61/EC and 2008/1/EC) which was superseded by the Industrial Emissions Directive (2010/75/EU) on 7 January 2014)?
- Question 8c. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.3.g and Article 11.3.k basic measures?
- Question 8d. What measures are in place to address the related objectives under the Environmental Quality Standards Directive (2008/105/EC)?
 - Is there an inventory of the sources of chemical pollution?
 - Are mixing zones being used?
 - If mixing zones are used, does the plan indicate measures taken to reduce the extent of the mixing zone in the future?
 - Are there specific measures with the aim of progressively reducing pollution from priority substances?

- Are there specific measures with the aim of ceasing or phasing out emissions, discharges and losses of priority hazardous substances?
- Question 8e. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.4 supplementary measures?
- Question 9a. Has the scale of hydromorphological pressures been quantified in terms of the reductions required to achieve WFD objectives?
- Question 9b. How much of the gap to the achievement of WFD objectives was expected to be achieved by the Basic Measures required by Article 11.3.a?
- Question 9c. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.3.i basic measures?
- Question 9d. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.4 supplementary measures?
- Question 10a. Has the scale of the pressures arising from urban waste water treatment been quantified in terms of the reductions required to achieve WFD objectives?
- Question 10b. How much of the gap to the achievement of WFD objectives was expected to be achieved by the national programmes for the implementation of the Urban Waste Water Treatment Directive?
- Question 10c. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.3.g basic measures?
- Question 10d. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.4 supplementary measures?
- Question 11a. Has the scale of the pressures arising from water abstraction been quantified in terms of the reductions required to achieve WFD objectives?
- Question 11b. How much of the gap to the achievement of WFD objectives was expected to be achieved by the Basic Measures required by Article 11.3.a?
- Question 11c. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.3.c and 11.3.e basic measures?
- Question 11d. How much of the gap to the achievement of WFD objectives was expected to be achieved by the implementation of Article 11.4 supplementary measures?
- Question 12a. Was a cost effectiveness analysis undertaken during the development of the programme of measures?
- Question 12b. Did the cost effectiveness analysis influence the selection of measures?
- Question 12c. What were the main factors that limited the use of a cost effectiveness analysis?
- Question 13. What are the effects/consequences of uncertainty in the Article 5 pressures and impacts analysis, monitoring and classification of status on targeting of measures to reduce pressures to achieve WFD objectives?
- Question 14. What are the main changes and improvements envisaged for the second planning cycle?

3. Contextual information on France

France has identified 13 River Basin Districts (RBDs, see Table 3.1), of which 4 are overseas territories. Among them six are shared with another European country: Rhône, Adour Garonne, Rhin-Meuse, Artois Picardie, Seine and Normandie, with Belgium, Luxemburg, Germany, Switzerland, Italy and Spain. Four of the French RBDs are islands (Corsica, La Réunion, Martinique and Guadeloupe). For the Meuse river basin, two separate but linked RBDs were designated (Sambre and Meuse). Mayotte was not a French territory by the date of the adoption of the RBMPs (2009). The RBMP for FRM Mayotte will be prepared for the next cycle (2015). France has a number of major international river basins in its territory with established international co-operation, and RBMPs (Rhine, Meuse, Scheldt). There are also a number of river basins where small stretches of river cross the national frontiers, such as part of the river Po (mainly in Italy), and small parts of the Ebro (mainly in Spain and Andorra). The Rhône river basin is shared with Switzerland. In some of these cases there is established co-operation on a bilateral level, although no international RBMPs have been adopted. Each of these French RBDs are therefore considered as international. There is a strong national approach in WFD implementation in the different RBDs.

Table 3.1 French River Basin District codes and names

RBD	Name
FRA	Scheldt, Somme and coastal waters of the Channel and the North Sea
FRB1	Meuse
FRB2	Sambre
FRC	Rhine
FRD	Rhone and Coastal Mediterranean
FRE	Corsica
FRF	Adour, Garonne, Dordogne, Charente and coastal waters of Aquitania
FRG	Loire, Brittany and Vendee coastal waters
FRH	Seine and Normandy coastal waters
FRI	Guadeloupe
FRJ	Martinique
FRK	Guyana (French)
FRL	Réunion Island

In 2009 it was reported that 33.8 % of the water bodies in the RBDs were facing no pressures. The most significant pressures include (in order of importance): diffuse sources, point source, water abstraction, water flow regulations and morphological alterations and river management.

4. Role of basic measures and supplementary measures

Article 11.3 of the WFD states that basic measures **are the minimum requirements** to be complied with and **shall** consist of ²:

Paragraph a: those **measures required to implement Community legislation** for the protection of water, including measures required under the legislation specified in Article 10 and in part A of Annex VI (*e.g. measures to achieve compliance with the Nitrates Directive and Urban Waste Water Treatment Directive*)

Paragraphs b to l: measures that largely require binding rules in terms of, for example, the control of abstractions (paragraph e) (*e.g. requires abstraction permits to be revised in line with WFD requirements*), diffuse sources (paragraph h) (*e.g. where phosphate, pesticides, sediment, organic pollution and ammonia from agriculture are identified as a pressure affecting the achievement of overall good status, controls must be established*), and activities that affect hydromorphological conditions (paragraph i) (*e.g. controls should be defined to ensure that actions in or near rivers do not negatively impact on morphological condition*) that go beyond the national implementation of Article 11.3.a measures for the achievement of WFD objectives.

In certain situations basic measures alone will not be sufficient to achieve good status and so Article 11.4 supplementary measures may be needed. MS must first have basic measures that are compliant with Article 11.3 and second define supplementary measures and have a credible plan for securing and tracking progress on the established supplementary measures. Supplementary measures can be, for example, technical measures, advisory services or cooperative agreements between groups of stakeholders (see WFD Annex VI.B).

Basic and supplementary measures must add up to what is needed to address the pressures to allow the achievement of the WFD objectives.

² Meeting of the Strategic Co-ordination Group, 4 November 2013, Agenda point 4.a. Clarification on WFD programmes of measures (Article 11).

5. Targeting of measures to reduce pressures and impacts to achieve WFD objectives

Measures should be targeted in terms of their type and extent to ensure that pressures are addressed and that this will deliver improvements towards achieving good status or potential in the individual water bodies (WBs). The measures should be designed based on the assessment of the actual status of the water body, supplemented with the information from the analysis of pressures and impacts affecting the water body.

In terms of the objective of achieving good status by 2015, the aim would be to identify the gap in water body status/potential expected by 2015 and the status required by the Water Framework Directive. How large the gap that must be filled to achieve WFD objectives in any particular River Basin District and Member State will depend, for example, on how Member States have implemented the requirements under other Directives (e.g. the relative stringency of measures in national Nitrates Action Plans) and policies, as well as differences in the type, extent and magnitude of pressures on water bodies. The gap should be filled with measures that would be implemented under the Water Framework Directive for those water bodies expected to be failing objectives in 2015 without exemptions.

The gap to the achievement of objectives will be caused by significant pressures on water bodies: the sources and sectors responsible will have to be identified to determine where actions on the ground are needed to reduce pressures to levels in/on water bodies compatible with the achievement of objectives. This may be achieved through the use of source apportionment to give a clear picture of the most important sources for a given pressure or impact. In this context a source might be considered as a combination of a pressure type (e.g. diffuse or point source pollution combined with the responsible sector or driver (e.g. diffuse – agriculture, diffuse – forestry)).

The required reduction of the pressures to fill the gap to the achievement of objectives should then be quantified: this can be expressed in different ways depending on the nature of the pressure. For example: for nutrient pollution it could be in terms of the required reduction in the loads of nitrogen and phosphorus in the receiving water bodies; for pressures arising from the hydromorphological alteration of water bodies it could be expressed as number of barriers that have conditions not compatible with the achievement of Water Framework Directive objectives; and, for water abstractions the volume of water abstracted or diverted that has to be reduced to achieve objectives.

Apportionment of impacts and pressures to sources

As described above source apportionment information is required so that measures can be targeted effectively at sources to reduce the pressures to levels compatible with the achievement of WFD objectives.

For France, the main pressures were identified in all RBMPs. A quantitative apportionment was done based on the contribution of some of the different sources to their main pressures.

A circular 'Circulaire DCE 2003/02' and a methodological guide were produced by the minister of ecology and sustainable development in 2003 to help water basins identifying pressures and impacts under the WFD (basin characterisation). However, the level of detail and the accuracy in the quantification of sources was not the same in all RBDs' characterisation documents.

For most of the RBDs, only an apportionment between domestic / agricultural / industrial sectors for phosphorus, organic matter and nitrogen was done, without any differentiation between point sources and diffuse sources. For some sources (e.g. pesticides from agriculture), indicators were used to assess the

pressure. For the Rhine (FRC), however, a quantification of emissions for nutrients was done for point sources and diffuse sources.

Different methodologies and models were used to assess diffuse pollution amongst sub-basins within the RBD depending on the level of data available. It seems that for the Rhine, a quantitative apportionment was only available for nutrient / organic pollution in surface water. The rest was assessed qualitatively. For the Meuse and Sambre (FRB1 and FRB2), the organic pollution coming from point sources was quantified and apportioned between the different sources. Diffuse nitrate pollution coming from agriculture was also quantified. Metal pollution was apportioned between different sources (erosion, runoff, farm effluent, etc.). The quantification of pollutant discharge was also quite accurate for Brittany and Seine. In Brittany's characterisation document there is, for example, an apportionment between sources contributing to the bacteriological pollution of coastal waters. For the Seine, chemical oxygen demand (COD), suspended matter and nitrogen flows were apportioned between urban runoff, agriculture, domestic and industrial sources. Pollution by metals due to deposits was also quantified.

Approaches of assigning measures to sectors/sources to reduce pressures

The link between the status and the measures is generally unclear. Basic measures are applied everywhere, when relevant: France reported that the basic measures set out in Article 11.3.a are implemented in all RBDs with the exception of measures under the Birds and Habitats Directives which are not applied to the French overseas territories, since these are specifically aimed towards European species and habitats. Other basic measures set out in Article 11.3.b-i have been implemented in the national legislation and are applied in all RBDs. No information was found on how basic measures were defined and how measures were assigned to the sectors to reduce pressures.

While basic measures are defined at the national scale, supplementary measures are designed and implemented at RBD or sub-basin level and for some of them per water body. Supplementary measures were defined when basic measures were considered to be not enough to achieve the environmental objectives of the WFD. A supplementary measure was assigned for each 'significant pressure'. A single pressure or a combination of several pressures should be considered as 'significant' when it may lead to failure in the achievement of the WFD objectives. A first list of supplementary measures was submitted to an assessment of economic feasibility and a consultation with stakeholders and the general public. The list was then adapted as necessary.

Assigning measures across the polluters and activities/sectors responsible for the impacts

Supplementary measures were taken to tackle pressures having a significant impact on water bodies failing to achieve the WFD objectives. According to the Circulaire DCE 2006/17 which sets the methodology for developing the PoM, the selection of supplementary measures leading to a common objective was based on a Cost-Effectiveness Analysis (CEA). A CEA was only done for supplementary measures and not for basic measures. No information was found on how basic measures under Article 11.3.b-i were selected.

Cost effectiveness

Cost-effectiveness analysis (CEA) is an appraisal technique that provides a ranking of alternative measures on the basis of their costs and effectiveness, where the most cost-effective has the highest ranking.

Uncertainty on costs, effectiveness and time-lagged effects of measures needs to be dealt with throughout the economic analysis process associated with the WFD, and more generally throughout the process of identifying measures and developing the RBMP. Sources of uncertainty are highly diverse according to

situations and river basins, but will exist with regards to the assessment of pressures, impacts, baseline, costs or measures effectiveness. It is important that key areas of uncertainty and key assumptions made for the analysis are clearly spelt out and reported alongside the results of the analysis.

In the notes from the bilateral meeting between France and the Commission, it is mentioned that a Cost Benefit Analysis was done for each WB with consideration of affordability per sector. According to the MS Summary, a cost benefit analysis was performed on the first extended list of supplementary measures. The cost effectiveness analysis is part of the methodology set out by France in its Circulaire DCE 2006/17 related to the development of the PoM. According to this Circulaire, the cost effectiveness analysis only has to be undertaken on supplementary measures (under Article 11.4 of the Directive) and aims to identify the best and the least expensive way to achieve the objective.

According to the Circulaire DCE 2006/17 related to the development of the PoM, the cost effectiveness analysis has two goals:

- to select the most cost efficient measure to attain the objective
- if only one solution exists to tackle the pressure, to set out geographical priorities and to define the planning of implementation of measures.

In the bilateral meeting, France explained that, in terms of environmental costs, costs for resources were too complex and therefore not evaluated.

Assessment of Disproportionate costs

An extended time to the achievement of objectives or less stringent objectives can be justified on the grounds of disproportionately expensive measures (Articles 4.4 and 4.5).

A cost-benefit analysis was used for the justification of exemptions under Article 4(4) and 4(5) (disproportionate costs). However, no clear justification has been provided in the RBMPs.

Effects of uncertainties

Measures should be targeted in terms of their type and extent to ensure that pressures are tackled and reduced, and that this will deliver improvements towards achieving good status or potential in the individual water bodies. The measures should be designed based on the assessment of the actual status of the water body, supplemented with the information from the analysis of pressures and impacts affecting the water body.

Therefore, uncertainty in the robustness and suitability of methods used in the Article 5 analysis of pressures and impacts, and/or in the confidence of the results of monitoring and the subsequent assessment of ecological and chemical status can fundamentally affect how measures are targeted at water bodies at risk of failing objectives or those that are assessed as being at less than good status from all significant pressures in a RBD.

The monitoring data that was available and used to establish significant pressures was not complete or homogenous. Therefore, the assessment was completed by modelling and expert judgment.

In each RBMP there is an indication of the level of confidence to express the uncertainty in the classification of ecological status for each water category. This level is deduced from the availability of data and its coherence with the significant pressure that has been identified.

The improvements necessary to reduce the level of uncertainty are also given. In 2010 (after the adoption of the RBMPs) a national methodology for assessing confidence in the classification of ecological and

chemical status was defined (Arrêté du 25 janvier 2010 relatif aux règles d'évaluation de l'état des eaux de surface). This law describes three levels of confidence: 3 (high), 2 (medium), 1 (low).

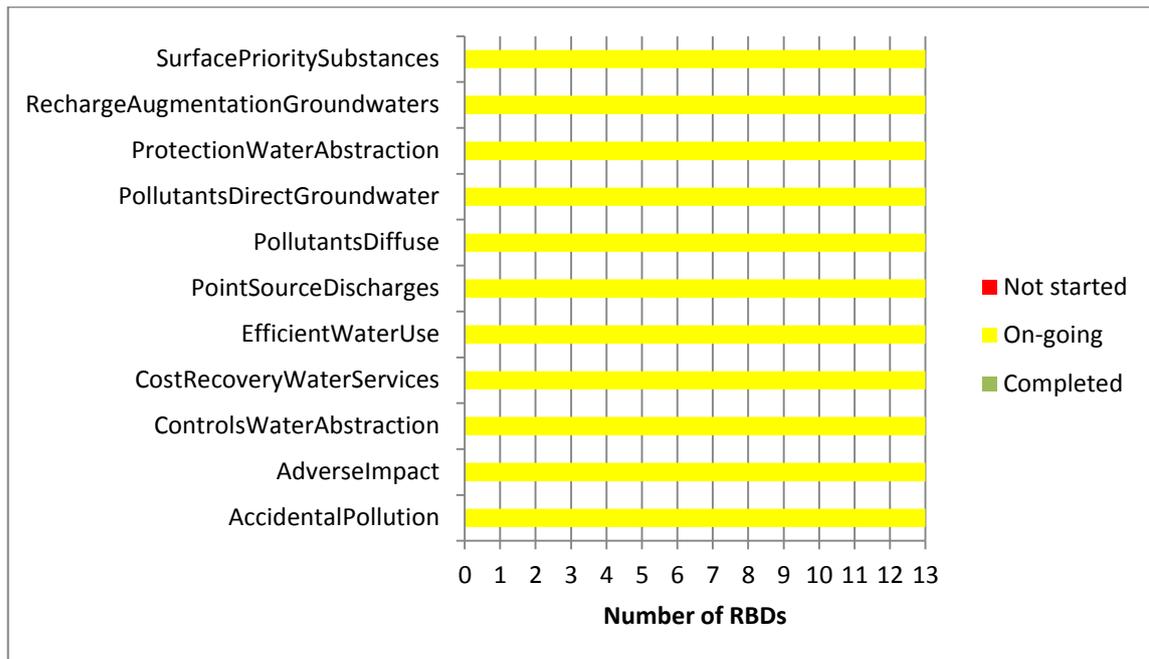
6. Progress with the implementation of the Basic Measures set out in Article 11.3.a

France reported that all eleven Directives were implemented in all RBDs, where relevant. The Birds and Habitats Directives are not applied to the French overseas territories because these are aimed towards European species and habitats. In general there is a description of the relevant national Regulations, required actions and of those responsible for the actions. In most cases no link with the WFD is reported. There has been some progress/changes in the implementation of the Directives between the publication of the RBMP in 2010 and the 2012 report, e.g. the Plant Protection Products (PPP) Directive and the Integrated Pollution Prevention and Control (IPPC) Directive.

7. Progress with the implementation of Basic Measures set out in Article 11.3b-I

Reported progress

Figure 7.1 Reported progress with implementation of basic measures (Article 11.3 (b) to (l) in 2012) (PoM aggregation report)



Source: WISE PoMs Aggregation Report 2-2 - Implementation of Other Basic Measures in 2012

France reported that other basic measures (Article 11.3.b-l) are implemented and ongoing. Details on the measures were provided. Funding mechanisms are in place for all measures. Some measures relating to reduction of pollution from diffuse source (agriculture) face delays due to technical difficulties, the economic situation and inertia of the stakeholders. It is therefore unclear whether the target will be achieved by 2015 for these measures.

Delays in implementation

Member States were asked to report if there were substantial delays in the implementation of basic measures required under Article 11.3. b to l.

In France, 8% of measures had a justification for their implementation status (reasons given were legislation / regulation / administration barriers), while only 1% of the measures have substantial delays, which are attributed to funding / finance obstacles.

Financing of measures

Member States were asked to report on the source of EU funds for the financing of Article 11.3.b to l basic measures.

For most measures in France (87%), non-EU funds were used to finance these measures, while rural development, structural funds and other EU funds were being used for 10%, 2% and 1% of measures, respectively.

8. Supplementary measures (Article 11.4)

The need for supplementary measures

Supplementary Measures are those measures designed and implemented in addition to the Basic Measures where they are necessary to achieve the environmental objectives of the WFD as established in Article 4 and Annex V. Supplementary Measures can include additional legislative powers, fiscal measures, research or educational campaigns that go beyond the Basic Measures and are deemed necessary for the achievement of objectives.

In 2010, Member States reported details of the Supplementary Measures planned (in 2009) to tackle significant pressures on surface and ground waters where Basic Measures were not enough to meet WFD environmental objectives. Details of the measures were reported in a List of Supplementary Measures specific to each RBD. Each Supplementary Measure was to be reported with a national code. In some Member States, national codes and measures may be common to more than one RBD, whereas in others the same measure may have a different code in each RBD. Therefore, the number of different measures used at a national level does not necessarily equate to the sum of the different measures used in the component RBDs. Also, the same Supplementary Measure may be applicable to more than one pressure type.

Member States were asked to report which Supplementary Measures were used to tackle specific pressures (at an aggregated and/or disaggregated level) when Basic Measures were not enough: these are indicative of those that have been applied or planned in 2009. There are also examples of where not all Supplementary Measures in the List of Supplementary Measures are reported to be used or planned in 2009.

In 2012, Member States reported some additional aspects on Supplementary Measures including their state of implementation ('not started', 'on-going' or 'completed'), whether their implementation was substantially delayed and, if so, the reasons for the delay.

Figure 8.1 Number of sub-units within the Member State (FR) where basic measures are enough (Yes) or not enough (No) to tackle significant pressures on surface water bodies (36 sub-units reported in FR).
Source: WISE PoM reports

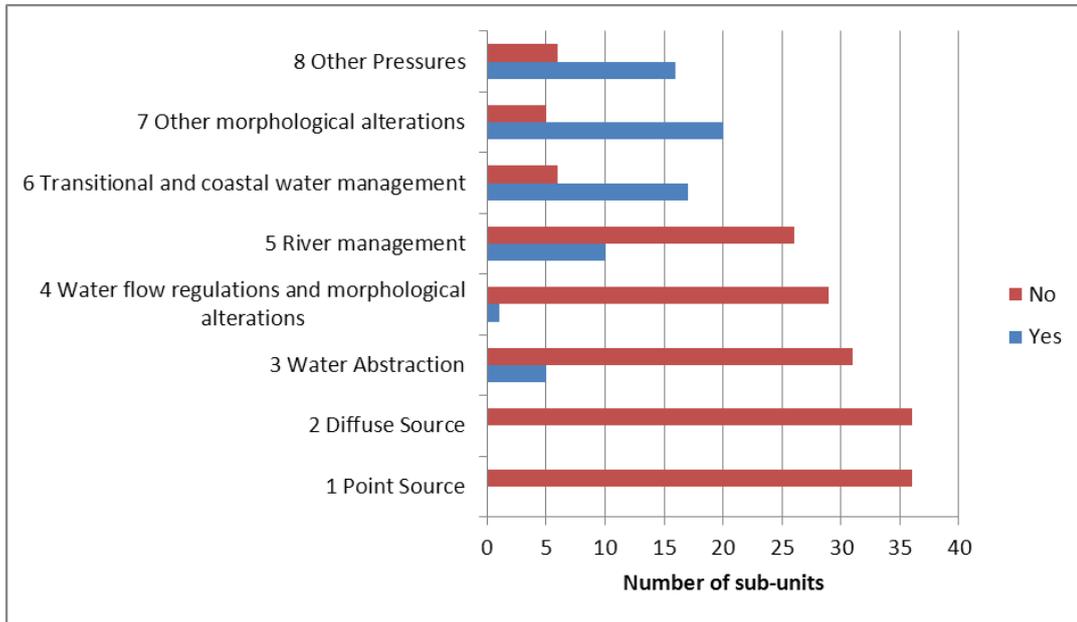
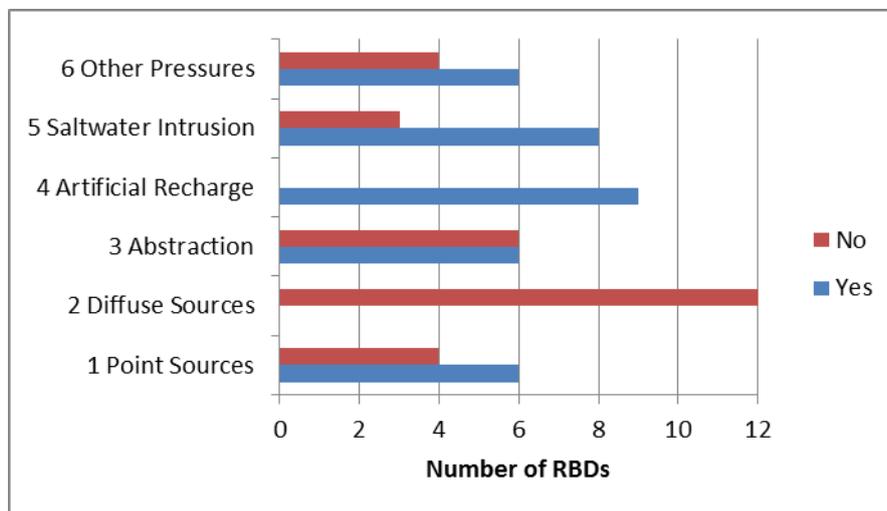


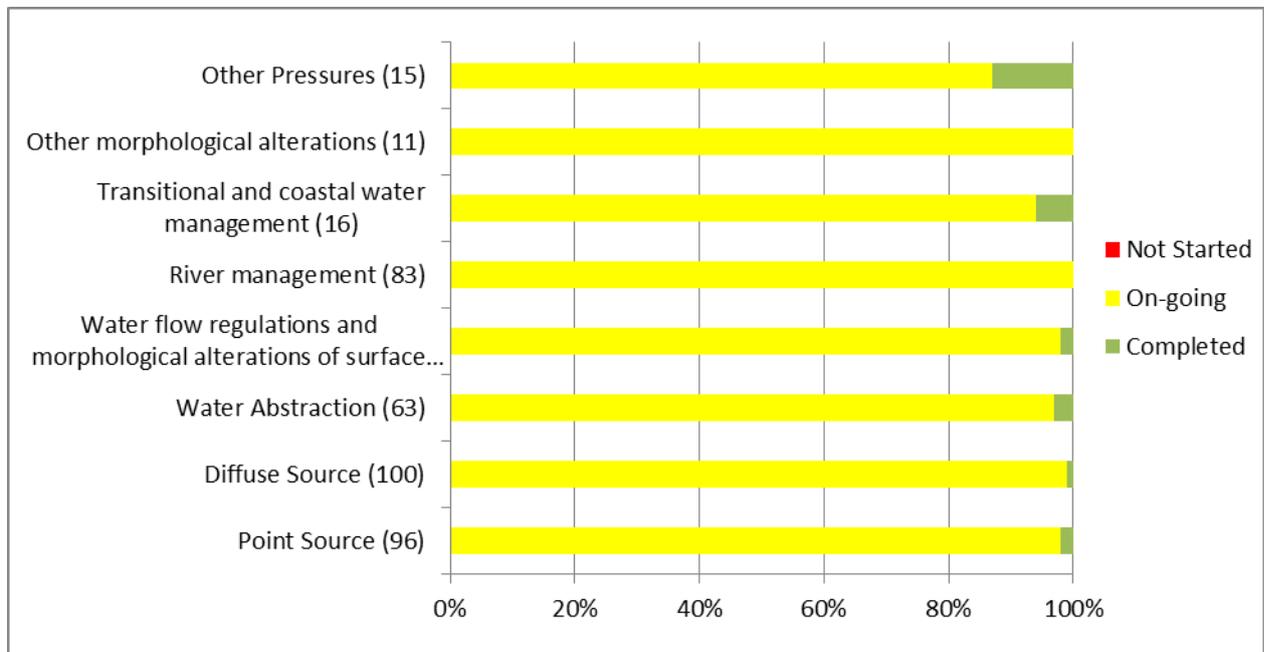
Figure 8.2 Number of river basin districts within the Member State (FR) where basic measures are enough (Yes) or not enough (No) to tackle significant pressures on ground water bodies. 13 RBDs reported in FR.
Source: WISE PoM reports



Progress with the implementation of Supplementary Measures between 2009 and 2012

Surface Waters

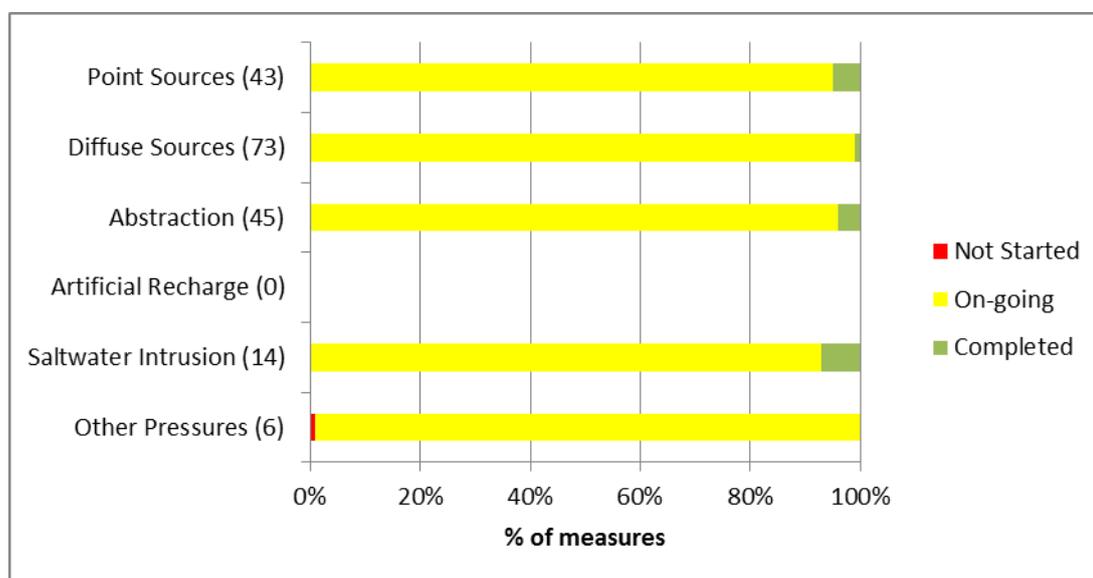
Figure 8.3 State of implementation of supplementary measures in relation to significant pressures of surface waters in 2012



Number in brackets is the number of supplementary measures tackling the pressure.
 Note: a measure may tackle more than one pressure.
 Source: WISE PoMs Reports

Groundwater

Figure 8.4 State of implementation of supplementary measures in relation to significant pressures on ground waters in 2012



Number in brackets is the number of supplementary measures tackling the pressure.
Note: a measure may tackle more than one pressure

All supplementary measures have been started: the majority of them are ongoing, and only a small proportion of the measures is reported to have been completed. It cannot be assessed from the reported information whether the supplementary measures will be completed by 2015.

Delays in implementation

As with Article 11.3 b to l basic measures, Member States were asked to report whether there was a substantial delay in implementing supplementary measures included in the first RBMPs in 2009, and to explain any such delays.

In France, 3.6% of measures were reported to be delayed because of legislation / regulation / administration barriers. Other reasons were technical barriers (3.1%), funding obstacles (1.1%), general description only available (0.5%), planned to start later (0.3%), investigative / research work needed (0.2%) and measures not needed (0.2%).

Financing of supplementary measures

Member States were also asked to report on the source of EU funds for the financing of supplementary measures.

As for Article 11.3.b to l basic measures, non-EU funds were mostly used to finance supplementary measures in France (70%), with EU structural funds, rural development, Life+ and other EU funds are financing 19%, 11%, 3% and 1% of measures, respectively.

Supplementary Measures in place to tackle each of the significant pressures for which Basic Measures are not enough to achieve WFD objectives

According to the reported information, supplementary measures to tackle the diverse pressures in water bodies are in place in all RBDs, except for the RBDs and pressures described hereafter.

No additional measures were reported for FRK (French Guyana) to deal with point source pressures (although water bodies are subject to this pressure). Concerning water bodies subject to water flow pressures, no measures are reported in FRG, FRJ and FRK. Although some of the water bodies in FRL (Réunion) are facing significant pressures relating to water flow, no supplementary measures are in place. No supplementary measures are in place in FRG, FRK and FRL to deal with other pressures.

All supplementary measures reported in 2009 were also reported in 2012.

9. Reporting of Key Types of Measures

In 2012, Member States were asked to report on 16 defined Key Types of Measures (KTM). These were expected to incorporate Article 11.3 (b to l) basic measures and supplementary measures. Their implementation and completion were expected to deliver the bulk of the actions required to achieve WFD objectives, i.e. to reduce significant pressures to the extent required to achieve good status or to prevent deterioration of status in high and good status water bodies. The defined KTMs were:

- 1 Construction or upgrades of wastewater treatment plants beyond the requirements of the Directive on Urban Waste Water Treatment;
- 2 Reduce nutrient pollution in agriculture beyond the requirements of the Nitrates Directive;
- 3 Reduce pesticides pollution in agriculture;
- 4 Remediation of contaminated sites (historical pollution including sediments, groundwater, soil);
- 5 Improving longitudinal continuity (e.g. establishing fish passes, demolishing old dams);
- 6 Improving hydromorphological conditions of water bodies other than longitudinal continuity;
- 7 Improvements in flow regime and/or establishment of minimum ecological flow;
- 8 Water efficiency measures for irrigation (technical measures);
- 9 Progress in water pricing policy measures for the implementation of the recovery of cost of water services from households;
- 10 Progress in water pricing policy measures for the implementation of the recovery of cost of water services from industry;
- 11 Progress in water pricing policy measures for the implementation of the recovery of cost of water services from agriculture;
- 12 Advisory services for agriculture;
- 13 Drinking water protection measures (e.g. establishment of safeguard zones, buffer zones etc.);
- 14 Research, improvement of knowledge base reducing uncertainty;
- 15 Measures for the phasing-out of emissions, discharges and losses of priority hazardous substances or for the reduction of emissions, discharges and losses of priority substances;
- 16 Upgrades or improvements of industrial wastewater treatment plants (including farms) beyond the requirements of the Integrated Pollution Prevention and Control (IPPC) Directive.

Member States also were given the possibility to report different or additional KTMs according to their specific situations and requirements.

Quantitative indicators for the scale and progress with the implementation of measures were proposed for each of the defined Key Types of Measure. Member States could also report their own indicators if the proposed ones were not appropriate for their specific national situations.

Sections 10 to 14 show and describe the progress made by France in the implementation of KTMs primarily associated with the five key topics subject to the in-depth assessment: not all KTMs were reported and/or applicable to the situation in France. Some of the KTMs are not necessarily associated with the 5 selected Topics: these are described in section 15. As indicated above, Member States were also able to report different KTMs from the defined KTMs; these are also described in section 15.

10. Progress with implementation of measures to reduce pressures (nutrients, organic matter) from agriculture

Quantification of the scale of agricultural pressures

Agriculture has been identified as one of the main pressures in all mainland RBDs, mainly for diffuse pollution, including nitrogen, phosphorus, pesticides, metals and micro-pollutants. Agriculture was not identified as a main pressure in the Corsican RBD.

Water abstraction and transfers for agriculture purposes are considered as significant pressures in the Adour-Garonne, Loire, Martinique, Réunion and Guadeloupe RBDs. Morphological pressures due to farming activity are highlighted in the Scheldt, Sambre and Loire RBDs. Eutrophication is significant in the Scheldt, Meuse, Sambre, Rhine, Rhone, Seine, Loire, Martinique and Guyana RBDs. Diffuse sources of nitrates, phosphates and pesticides are of relevance in almost all RBDs. All RBMPs, except that for Guyana, include information on the specific substances causing failure to achieve good chemical status. Pesticides were reported to be responsible for failure in 9 of the 13 RBMPs.

As mentioned before, the assessment of pressures was not uniform among all the RBDs. In the RBMP for Scheldt-Somme, for example, the flow of Nitrogen, Phosphorus and Organic Matter (in kg per day) due to agriculture is given. The agricultural sector is reported to be responsible for between 75 and 95 % of the nitrogen load in groundwater.

Assessment of measures for the achievement of WFD objectives

Measures to reduce pressures from agriculture are in place, however it is not clear how much of the gap will be filled to achieve the WFD objectives.

In France, basic measures are defined on the national scale.

The Nitrates Directive (ND) was implemented in the national legislation across all 13 RBDs, including overseas territories. In 2012, France reported a positive change in water quality in the west of France, but a negative change of the water quality in wheat production areas. Enhanced action was therefore needed to reverse the continuing degradation and enhance signs of improvement. Vulnerable areas were revised in 2012 based on data from 2010 to 2011. In the bilateral meeting between France and the European Commission, in reply to the question of the Commission on the effectiveness of the current ND action programme, France stressed the improvements reported in an assessment report for 2008-2011 on nitrogen fertilisation practices and intercrops management. However, there is no indication (as there is no specific information available) on the effectiveness of the basic measures or any of the additional measures implemented. Basic measures under the Nitrates Directive were reported to be not enough in rivers for two RBDs due to diffuse - agricultural sources and two RBDs due to river management - agricultural enhancement.

The Article 11.3h measures implemented in France are mostly related to the authorisation process. Several national plans are also on-going: "plan algues vertes" and Areas with Environmental Restrictions (AER). The latter is voluntary but can become mandatory if the expected results are not achieved after 3 years. Basic measures under Article 11.3.h were reported to be not enough for rivers due to diffuse - agricultural source in one RBD.

The reduction of nutrient pressures from point sources is addressed by a national regulation regarding water discharge from classified installations for environmental protection (ICPE). Livestock farms above a certain size come under this regulation. There is no information on whether this basic measure was enough or not.

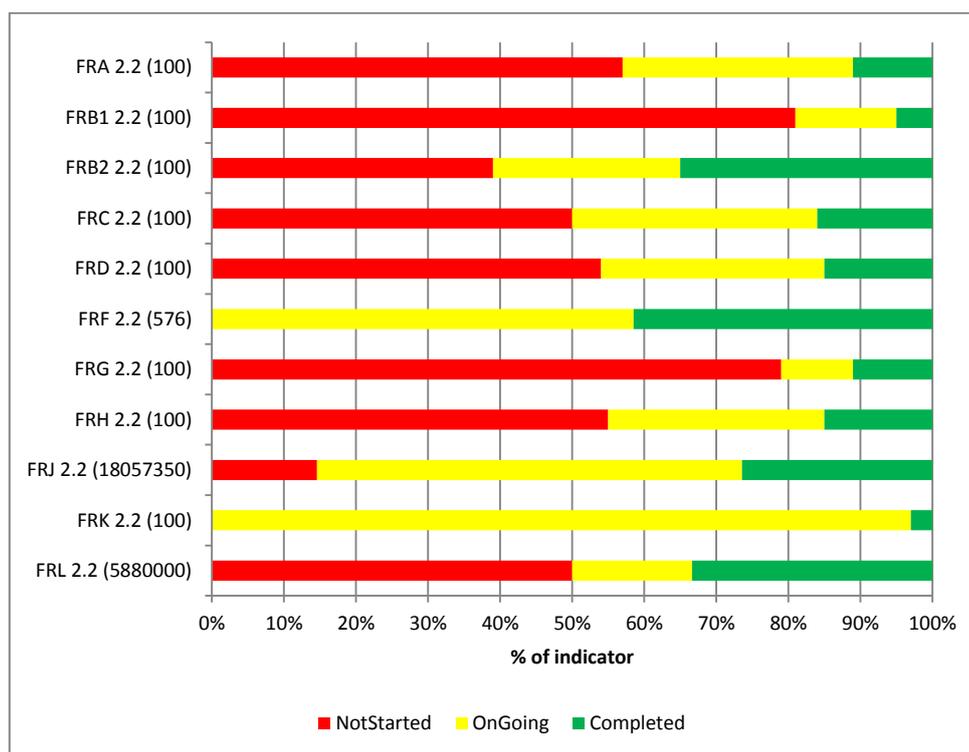
Supplementary measures were defined to tackle significant pressures characterised in the Article 5 analysis. However, the step from status to objective is not described in a quantitative way and there is no clear link between the status and the measures. As a consequence, the gap expected to be achieved by the implementation of supplementary measures is not quantified. The methodology used to develop the PoM was set out at a national level (Circulaire DCE/2006/17). There is therefore consistency between all RBMPs.

In the bilateral meeting between France and the Commission, France gave a presentation on the different agriculture measures in place. The measures are mainly technical (e.g. reduction/modification of fertiliser application or pesticides application, measures against soil erosion) and non-technical measures (e.g. farm advice and training, codes of agricultural practice, land use planning). Economic instruments are limited to water pricing specifications for irrigators and, for a couple of RBDs, compensation for land cover. It is unclear how far these measures will go in addressing agriculture's impact on water.

Key types of measure

KTM2. Reduce nutrient pollution in agriculture beyond the requirements of the nitrates directive

Figure 10.1 Percentages of measures/indicators associated with KTM2 that were reported as being not started, on-going and completed in 2012



Key to indicators:

The annotations next to each bar in the Figure shows "RBDCode: Indicator number: (value of the indicator when 100% completed)":

2.2 Estimated Total Costs (€) of the measures

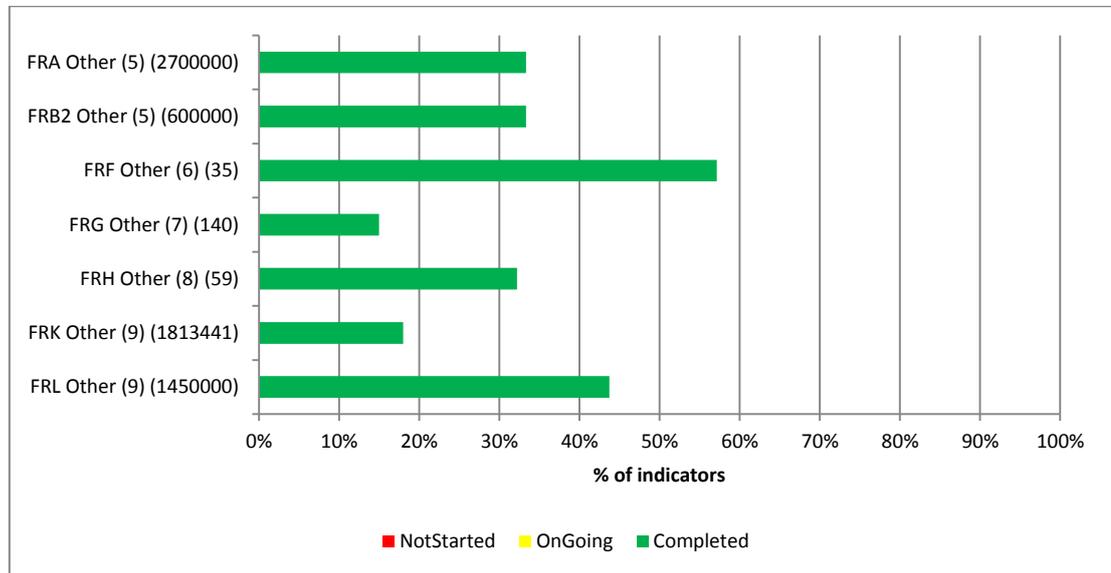
Source: WISE PoM Reports

France reported on the progress with KTM2 and provided information on the different measures and actions included under this KTM. Projects and measures for a total of €1.583 billion were reported. One measure was reported using a different indicator and this cost was not included in the total cost calculation.

65 % of the measures have not started; 22 % of the measures are on-going, while 13 % of the measures have been completed.

KTM12: Advisory services for agriculture

Figure 10.2 Percentages of indicator/baseline associated with KTM12 that were reported as being not started, on-going and completed in 2012



Key to indicators:

The annotations next to each bar in the Figure shows “RBDCode: Indicator number: (value of the indicator when 100% completed).”
 Other (5) estimated total cost of measures for management training actions for agricultural users of pollutants, awareness, animation.
 Other (6) Water Agency funded training actions and awareness raising
 Other (7) estimated cost over 2010-2015
 Other (8) Cost of advice services
 Other (9) Cost of actions
 Source: WISE PoM Reports

France reported on progress with the implementation of KTM12 and provided information on the different measures and actions. One measure used the number of projects as an indicator. The other six actions used the estimated total costs (€) of the measures as an indicator. The reported measures included actions for a total of €205.6 million. 20 % of the measures have not started; 20 % of the measures have been completed. For the measures using the number of actions as an indicator, of a total of 57 foreseen projects 57 % have been completed.

11. Progress with implementation of measures to reduce pressures from chemicals

Quantification of the scale of chemical pressures

It was not possible to assess the status of water bodies for all pollutants at the beginning of the first cycle as the monitoring data were from 2006/2007. Environmental Quality Standards (EQS) were applied (except biota EQS), with the exception of the water EQS for mercury, hexachlorobenzene and hexachlorobutadiene. There is no clear reference to the EQS Directive substances for the Meuse, Rhine and Rhone RBMPs. For these RBDs it is not clear which substances have been used for the assessment of chemical status.

Assessment of measures for the achievement of WFD objectives

Basic and supplementary measures

Measures to reduce pressures from chemicals are in place, however it is not clear how much of the gap will be filled to achieve the WFD objectives.

The Integrated Pollution Prevention Control Directive (IPPCD) was implemented in the national legislation in 2009 across all 13 RBDs. Permits for over 5000 Industrial installations were reported to have been re-examined for their conformity with the Directive. Industrial emissions were reported to be a source of chemical pollution for all RBDs. 9 RBDs reported that basic measures under Article 11.3.a were not enough for river quality (6 due to point sources, 2 due to point-IPPC plants (EPRTTR) and 1 due to diffuse sources). Supplementary measures (e.g. measures to reduce emissions of chemicals, prevention of accidental spills, etc.) were taken in these RBDs.

Measures under Article 11.3.g are mostly related to the authorisation process. Other measures concern for example the obligation of municipalities to organise waste water treatment, obligations related to waste treatment, etc. Basic measures under Article 11.3.g were reported as not sufficient for several RBDs (in rivers) due to urban waste water treatment (UWWT) point sources and non-IPPC point sources.

There are two basic measures under Article 11.3.k for France: one national plan to prevent, reduce or eliminate pollution by priority substances; and the establishment of the list of priority substances for which fees are applicable. For rivers, basic measures under Article 11.3.k are not sufficient for 6 RBDs due to point sources, 1 RBD due to point sources (non IPPC), 6 RBDs due to diffuse sources at a general level and 2 RBDs due to "other" diffuse sources.

The status (general status, not only chemical or ecological) of all water bodies and the pressures having significant impact on those water bodies was characterised in the Article 5 analysis. Supplementary measures were defined to tackle these significant pressures. However, the step from status to objective is not described in a quantitative way and there is no clear link between the status and the measures. As a consequence, the gap expected to be achieved by the implementation of supplementary measures is not quantified. The methodology used to elaborate the PoM was set out at a national level (Circulaire DCE/2006/17). There is therefore consistency between all RBMPs.

A number of different measures have been included in all the French PoMs to address chemical pollution (measures to reduce emissions of chemicals and the prevention of accidental spills; measures to characterise and diminish waste and dangerous substances; modalities for taxes on polluting substances and penalties for polluting; sanitation of polluted sites, etc.). Some specific measures have also been taken as necessary in some RBDs, such as measures to reduce pollution in the harbours of Dunkerque,

Boulogne and Calais; supplementary measures to reduce industrial emissions of organic matter and nutrients and self-monitoring (Sambre), local planning for sewage sludge recycling (Rhône), defining a management system for pollution from the harbour (Corsica), and to reduce the use of pesticides (Loire).

Measures required by the EQS Directive

The EQSD includes a number of obligations related to priority substances, such as monitoring of sediment and biota and the establishment of an inventory of emissions, discharges and losses. Next to this, the EQSD also contains a provision to designate mixing zones.

Inventory of the sources of chemical pollution

Only Corsica, Guyana and Réunion didn't include an inventory of the sources of chemical pollution in their RBMPs. All of the inventories include nutrients and deoxygenating substances (except Loire for the latter). Priority substances are included in Meuse, Sambre, Rhine, Rhône, Adour, Martinique and Guadeloupe. Rhône, Adour, Martinique and Guadeloupe also include other non-priority specific pollutants.

Use of mixing zones

Most of the RBDs reported that mixing zones were not being used. For the others (FRD, FRF, FRG, FRL), the use of mixing zones was unclear.

However, the national guidance document mentions that good chemical status is attained when compliance with EQS is achieved in all points of a water body outside a mixing zone (i.e. EQS may be exceeded within the mixing zone and good chemical status can still be achieved).

In the Arrêté of 25 January 2010, which sets the methodology to assess the ecological and chemical status of water, a national approach for mixing zones has been described. According to this document, monitoring sites should be outside of a mixing zone. If a monitoring site is within a mixing zone, there must be other monitoring of the same water body outside of the mixing zone, in order to ensure that the monitoring is representative.

Measures taken to reduce the extent of the mixing zone in the future

Not applicable.

Specific measures with the aim of progressively reducing pollution from priority substances

For mercury, cadmium and hexachlorocyclohexane, specific measures are formulated in national legislation (transposition of EU Directives) and are part of the PoM. There are national targets for reduction of emissions, production and/or use of a long list of dangerous substances such as nonylphenols, biocides, HAPs, pesticides, etc. Others measures are included in some RBMPs. For example, for the Meuse and Rhine, specific substances such as chlorines and chlorinated solvents are tackled by measures. For Corsica, only one specific measure is formulated for metals.

Measures mostly target a group of pollutants (e.g. pesticides) instead of a specific pollutant.

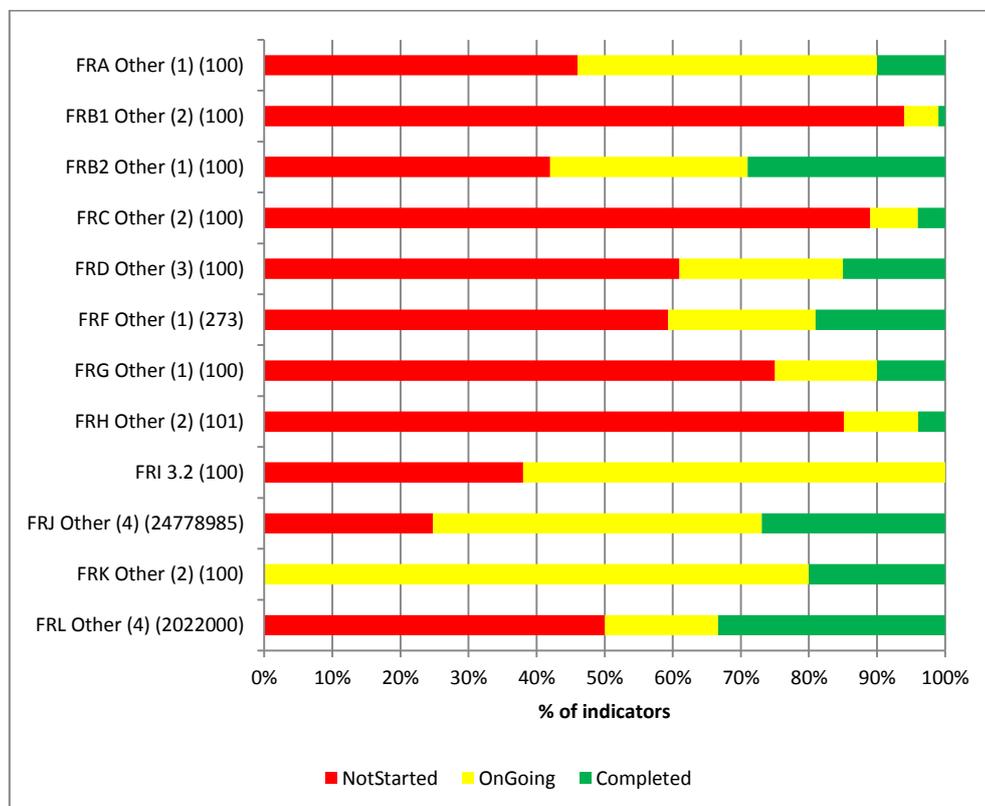
Specific measures with the aim of ceasing or phasing out emissions, discharges and losses of priority hazardous substances

As indicated above, there are specific measures related to ceasing or phasing out of priority substances.

Key types of measure

KTM3. Reduce pesticides pollution in agriculture

Figure 11.1 Percentages of indicator/measures associated with KTM3 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators:

The annotations next to each bar in the Figure shows "RBDCCode; Indicator number; (value of the indicator when 100% completed)":

3.2 Number of projects/measures

Other (1) aid paid or contracted out under the rural development program for actions to reduce pollution from pesticides

Other (2) % of cost of measure

Other (3) project cost for reduction of pollution caused by nitrates under CAP

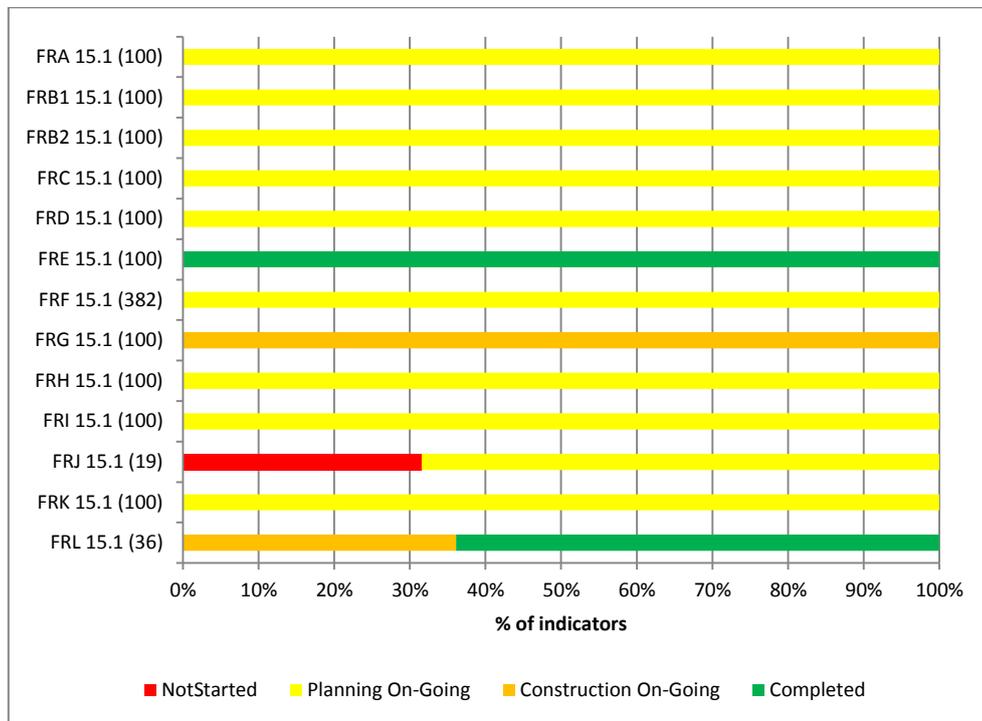
Other (4) estimated cost of measure

Source: WISE PoM Reports

France reported on the progress with KTM3 and provided information on the different measures and actions included under this KTM. Two actions used a different indicator and this cost was not included in the calculations of progress percentages and total cost. The reported percentages of one action contained an error (sum of percentages exceeding 100). The reported actions included projects and measures for a total of €1.945 billion. 67 % of the measures have not started; 21 % of the measures are on-going while 12 % of the measures have been completed. The PAOT project includes 32 projects: 38 % have not started while 62 % of the projects are on-going. The MAET plan includes 273 projects: 59 % not started, 22 % on-going and 19 % completed.

KTM15: Measures for the phasing-out of emissions, discharges and losses of priority hazardous substances or for the reduction of emissions, discharges and losses of priority substances

Figure 11.2 Percentages of indicator/measures associated with KTM15 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators

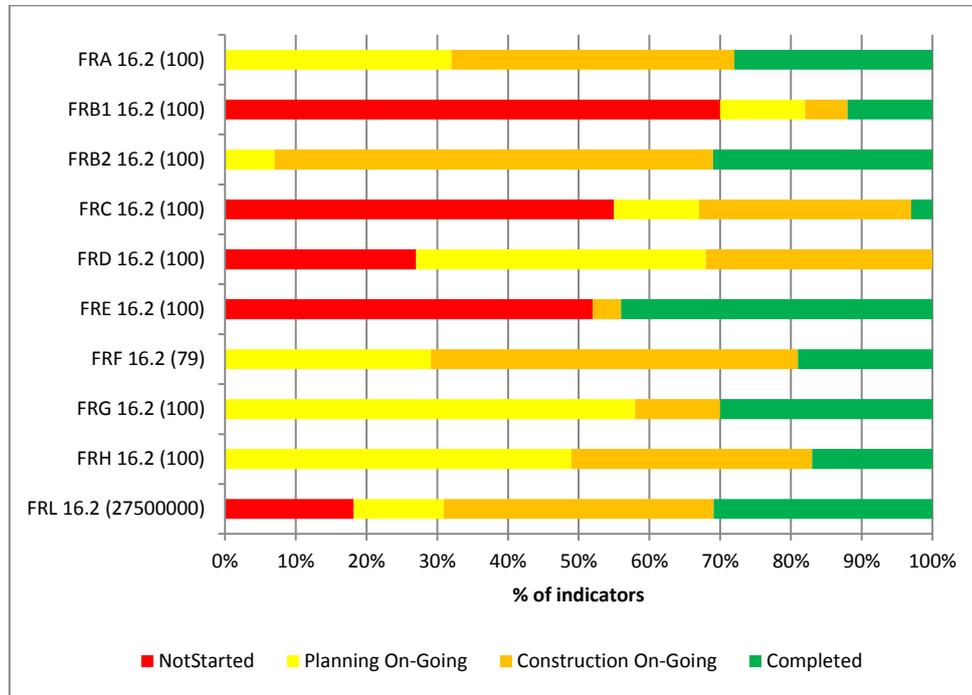
The annotations next to each bar in the Figure shows "RBDCCode: Indicator number: (value of the indicator when 100% completed)":

15.1 Number of permits issued or updated

France reported on the progress with KTM15 and provided information on the number of permits issued or updated. Of a total of 1437 permits, 8 % have been completed, 8 % are under development, 83 % are planned and less than 1 % have not been initiated.

KTM16: Upgrades or improvements of industrial wastewater treatment plants (including farms) beyond the requirements of the Integrated Pollution Prevention and Control (IPPC) Directive

Figure 11.3 Percentages of indicator/measures associated with KTM16 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators

The annotations next to each bar in the Figure shows "RBDCode: Indicator number: (value of the indicator when 100% completed)":

16.2 Estimated Total Costs (€)

France reported on the progress with KTM16 and provided information on the different measures and actions. One measure used the number of projects as an indicator (the Adour basin). The other reported measures used the estimated total costs (€) as an indicator. The reported measures included actions for a total of €708 million. 11 % of the actions have not started, 42 % are in the planning phase (on-going), 33 % are in the construction phase and 14 % have been completed. For the measures using the number of projects as a indicator: of a total of 79 projects, 23 are in the planning phase, 41 are in the construction phase and 15 have been completed.

12. Progress with implementation of measures to reduce pressures from hydromorphological alterations

Quantification of the scale of pressures from hydromorphological alterations³

Assessment methods for ecological status have not been developed for hydromorphology. River continuity, hydrological regime and morphological conditions have generally not been assessed for hydromorphological characteristics. In addition, no standards have been defined for hydromorphological quality elements. The assessment has been based on the information that is available on pressures.

The RBD characterisation documents include a description of pressures on hydromorphology. As an example, for the Seine, the assessment of the impact of hydromorphological disturbances on watercourses takes into account the following three parameters:

- hydrology (water abstraction, water diversion and changing flows);
- continuity without taking into account the highly migratory species (transverse structures and water impoundment); and
- physical integrity of the river bed and banks (longitudinal development on major rivers, works for agricultural use on small rivers and land use).

There is also an overview of the fish migration bottlenecks that has been inventoried in rivers.

Morphological pressures on coastal and transitional waters were assessed based on extraction of aggregates, dredging and installations.

For the Rhine RBMP, the total length (km) of watercourse affected by hydromorphological pressures was given. However, there is no clear link between the pressure and the water body status. There is no information on how much the pressures have to be reduced to achieve objectives.

Assessment of measures for the achievement of WFD objectives

Measures to reduce pressures from hydromorphological alterations were reported. However no assessment is available on how much of the measures will contribute to the achievements of the WFD objective.

Basic measures associated with the Habitats Directive were reported to be not sufficient to tackle water flow regulations and morphological alterations of surface water (regarding water regulation, diversions and weirs) for 6 RBDs. Measures associated with the Environmental Impact Assessment (EIA) Directive were reported to be not enough in 3 RBDs regarding water flow regulations and morphological alterations of surface water and 1 RBD regarding river management. Basic measures under Article 11.3.i were reported to be not enough in 6 RBDs to tackle water flow regulations and morphological alteration, and in 6 RBDs for river management.

Specific hydromorphological measures (for FRF, FRG, FRI, FRJ and FRL) related to flood protection, hydropower, navigation, urbanisation, water regulation and water supply were taken to tackle pressures

³ This section is based on the consultant's assessment of the quantification of the scale of pressures from hydromorphological alterations in France.

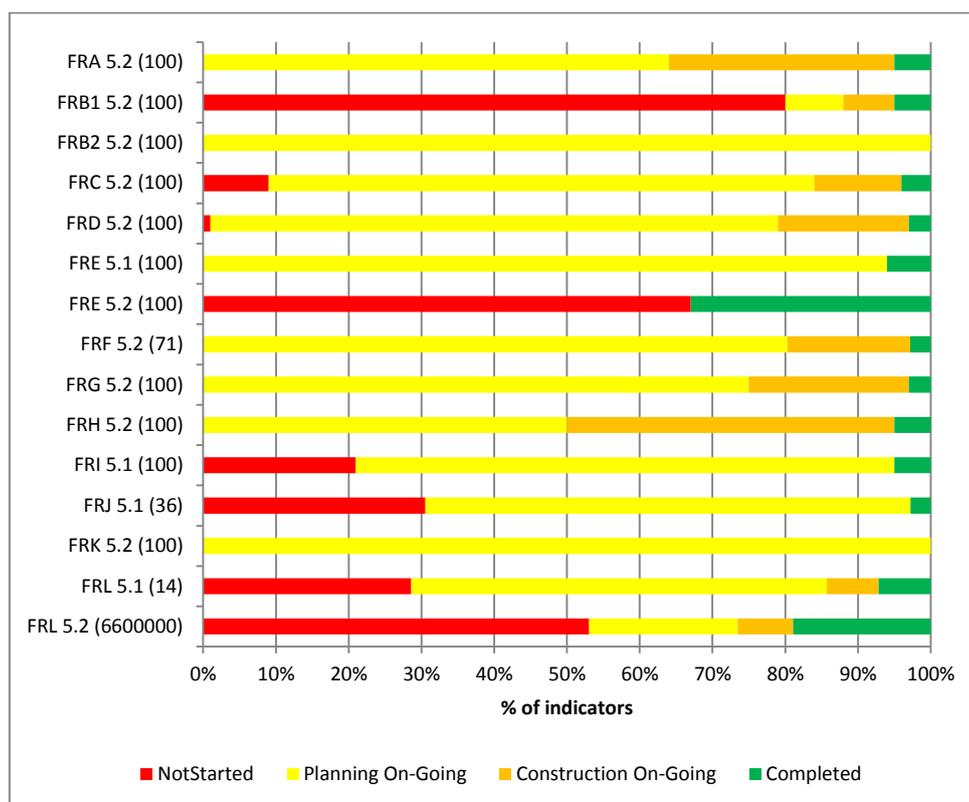
such as bank reinforcement, channelisation, cross profile, intakes, modification of substrate and longitudinal profiles. Fish ladders and restoration of bank structures are the most common measures followed by removal of structures, habitat restoration and reconnection of meander beds and side arms.

However, hydromorphological measures are not clearly linked to water uses and pressures. Furthermore, there is no clear link between the measures and the current status or explanations about the potential improvement in status.

Key types of measure

KTM5: Improving longitudinal continuity (e.g. establishing fish passes, demolishing old dams)

Figure 12.1 Percentages of indicator/measures associated with KTM5 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators

The annotations next to each bar in the Figure shows "RBDCode; Indicator number; (value of the indicator when 100% completed)":

5.1 Number of projects/measures to improve longitudinal continuity

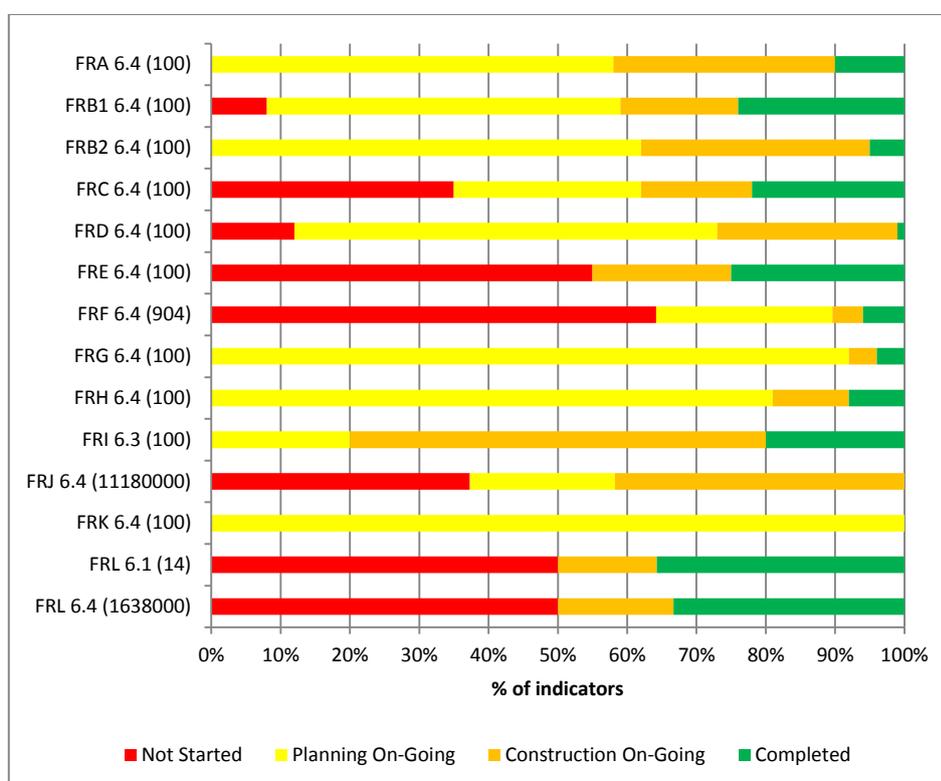
5.2 Estimated Total Costs (€) of the measures

Source: WISE PoM Reports

France reported on the progress with KTM5 and provided information on the different measures and actions. Five actions used the number of projects as an indicator. The other actions used the estimated total costs (€) of the measures as an indicator. The reported actions included actions for a total of €384 million. 5 % of the actions have not started; 67 % of the measures are on-going; 23 % are in the construction phase and 4 % have been completed. For the actions using the number of actions as a parameter: of a total of 321 projects, 36 % have not started yet, 257 are in the planning phase, 4 % are in the construction phase and 5 % have been completed.

KTM6: Improving hydromorphological conditions of water bodies other than longitudinal continuity

Figure 12.2 Percentages of indicator/measures associated with KTM6 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators

The annotations next to each bar in the Figure shows "RBDCode; Indicator number; (value of the indicator when 100% completed)":

6.1 Length of rivers (km) affected by measures

6.3 Number of projects/measures

6.4 Estimated Total Costs (€) of the measures

Source: WISE PoM Reports

France reported on the progress with KTM6 and provided information on the different measures and actions. Two actions used the number of projects as an indicator. One action used the 'length of rivers (km) affected by measures to improve hydromorphological conditions' as an indicator. The other actions used the estimated total costs (€) of the measures as an indicator. The reported actions covered a total of €2,597 billion. 4 % of the actions have not started; 78 % of the measures are on-going; 12 % are in the construction phase and 6 % have been completed. For the actions using the number of actions as a parameter: of a total of 1004 projects, 58 % have not started yet, 25 % are in the planning phase, 10 % are in the construction phase and 7 % have been completed. Of a total length of 14 km of river affected by measures to improve hydromorphological conditions, 50 % have not started yet, 14 % are in the construction phase and 36 % have been completed.

13. Progress with implementation of measures to reduce pressures from urban waste water treatment

Quantification of the scale of the pressures

There is no clear link between UWWT data (for example number of industries connected to sewage network) and the failure to achieve WFD objectives. Significant pressures have been identified qualitatively. In most of the RBMPs, the flow of pollution resulting from UWWT was given in terms of population equivalent (pe) or in terms of phosphorus, nitrogen and COD (t/y for example). A distinction is made between domestic UWWT and industrial UWWT. The number and percentage of water bodies (coastal, lake, transitional or river water body) being subject to the UWWT pressures were reported.

Assessment of measures for the achievement of WFD objectives

Measures to reduce pressures from urban waste water treatment are in place, however it is not clear how much of the gap will be filled to achieve the WFD objectives.

France reported in 2009 that the Urban Wastewater Treatment Directive (UWWTD) was implemented in the French legislation across all 13 RBDs, including overseas territories. France reported in 2012 that only 5 % of the 3400 sewage treatment stations were not achieving the required quality standards. These 74 remaining stations were expected to achieve the targets by 31 December 2013.

However, 8 RBDs reported that basic measures under the UWWTD were not enough due to point source pressures and (in one RBD) due to diffuse pollution associated with urban run-off (only rivers considered).

In addition, basic measures under Article 11.3.g were reported not to be enough in 2 RBDs for UWWT < 2000 pe; 2 RBDs for UWWT < 10,000 pe; 2 RBDs for UWWT <15,000 pe, 2 RBDs for UWWT <150,000 pe and 1 RBD for UWWT >150,000.

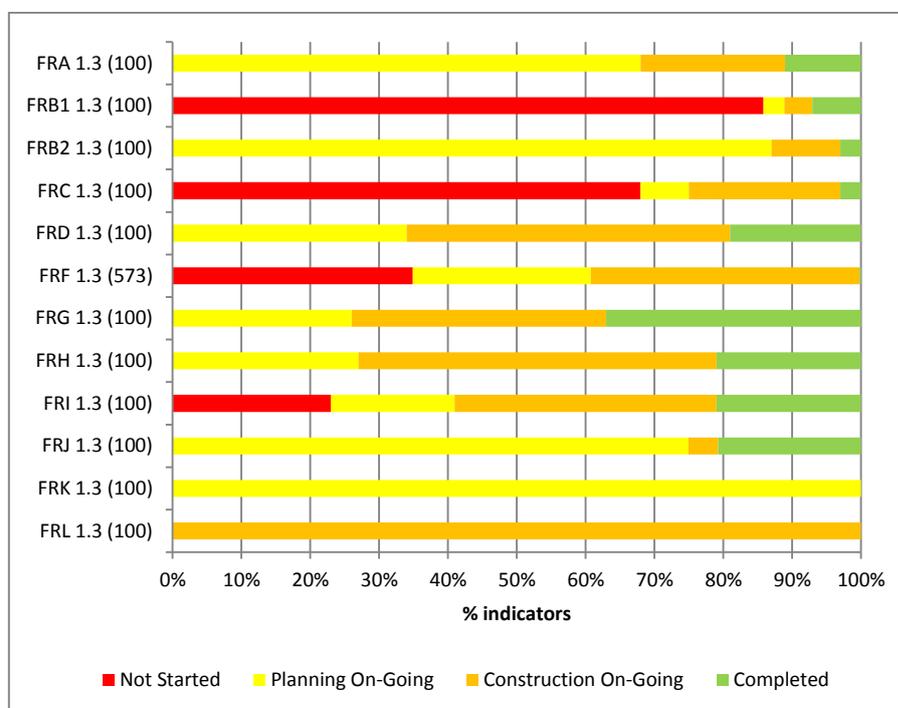
Supplementary measures to reduce pressures from urban waste water treatment are related, for example, to water collection, centralised sludge treatment unit, size of sludge storage, etc.

The status (general status, not only chemical or ecological) of all water bodies and the pressures having significant impact on those water bodies were characterised in the Article 5 analysis. Supplementary measures were defined to tackle these significant pressures. However, the step from status to objective is not described in a quantitative way and there is no clear link between the status and the measures. As a consequence, the gap expected to be achieved by the implementation of supplementary measures is not quantified.

Key types of measure

KTM1. Construction or upgrades of wastewater treatment plants beyond the requirements of the directive on urban waste water treatment

Figure 13.1 Percentages of indicator/measures associated with KTM1 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows "RBDCCode; Indicator number; (value of the indicator when 100% completed)"

1.3 Estimated Total Costs (€) of the measures

Source: WISE PoM Reports

France reported on the progress with KTM1 and provided information on the different measures and actions included under KTM1. Projects and measures for a total of €5.076 billion were reported. The cost of one particular action was not reported and could not be included in the total cost calculation. 2 % of the measures have not been started; 40 % of the measures are in the planning phase; 39 % of the measures are in the construction phase while 19 % of the projects have been completed.

14. Progress with implementation of measures to reduce pressures from water abstractions

Quantification of the scale of the pressure

Abstraction from surface water was identified as a significant pressure in 8 RBDs while abstraction from groundwater has been identified as a significant pressure in 10 RBDs. The approach of the status assessment of groundwater has varied significantly in the different RBDs. There are national guidance documents on this issue, but this guidance seems to have been interpreted differently in different RBDs. There is no information on whether a national approach was used to assess water abstraction pressure in surface water. As an example, for the Loire, the volume of surface water and groundwater consumed is estimated and apportioned between the three sectors: industry, agriculture and public water supply. However, there is no clear link between the pressures in terms of water consumption and the impacts. One can conclude that there is no information on how much of the pressure has to be reduced to achieve objectives.

Assessment of measures for the achievement of WFD objectives

Basic measures were not enough for the Seine, Loire, Corsica, Rhine, Rhone, Guyana, Reunion and Guadeloupe (RBDs where supplementary measures were taken). There is no specific indication of whether the basic measures required by Article 11.3.a were enough or not.

From the consultation of the programmes of measures, basic measures to tackle the overexploitation of groundwater and surface water include: a management plan of water resources for drinking water, a regime of authorisation and declaration, rules for abstraction and classification of facilities and activities involving water abstraction, and definition of areas for the allocation of water to different uses.

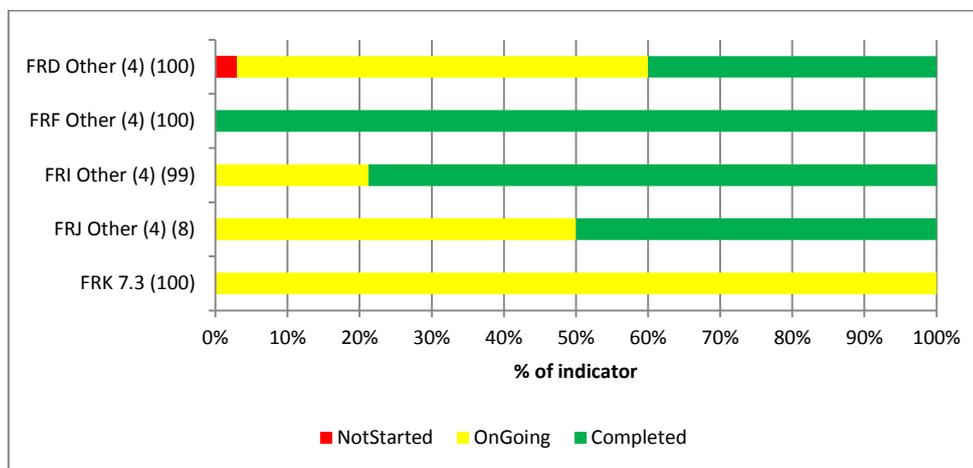
Some examples are given of supplementary measures which are relevant for groundwater, surface water or both: The RBMP of the Seine includes measures to reduce water abstraction and studies and governmental actions concerning water scarcity; measures in the Loire RBMP are related to efficient water use; the RBMP of Corsica includes a definition of strategic points to monitor groundwater to ensure balanced management of the resource; the Rhine RBMP includes measures for water saving by industry, farmers, households and communities; improved controls of water abstractions and improvement of the efficiency of the drinking water system; actions for rain water recovery; in Rhone, the definition of the piezometric level of reference was included. In the overseas departments and territories (DOM-TOM), one of the measures of the Guyana RBMP aims to ensure coherence between authorisation for water abstractions and the needs of the aquatic environment and available volumes in groundwater bodies; in Reunion, the PoM includes the assessment of demand against availability of resources, including future trends and scenarios; the promotion of programmes to reduce water use; the development of a regional drought management plan; a campaign to encourage farmers to abstract water sustainably; development of a regional plan for water use; identifying the qualitative and quantitative needs for abstractions and assessment of the options for transfers; and Guadeloupe is addressing salt water intrusion.

There is no assessment of the gap filled by the implementation of supplementary measures. The status of groundwater water bodies and the pressures having significant impact on those water bodies were characterised in the Article 5 analysis. Supplementary measures were defined to tackle these significant pressures. However, the step from status to objective is not described in a quantitative way and there is no clear link between the status and the measures.

Key types of measure

KTM7: Improvements in flow regime and/or establishment of minimum ecological flow

Figure 14.1 Percentages of indicator/measures associated with KTM7 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows "RBDCode; Indicator number; (value of the indicator when 100% completed)"

7.3 (% of) estimated Total Costs (€) of the measures

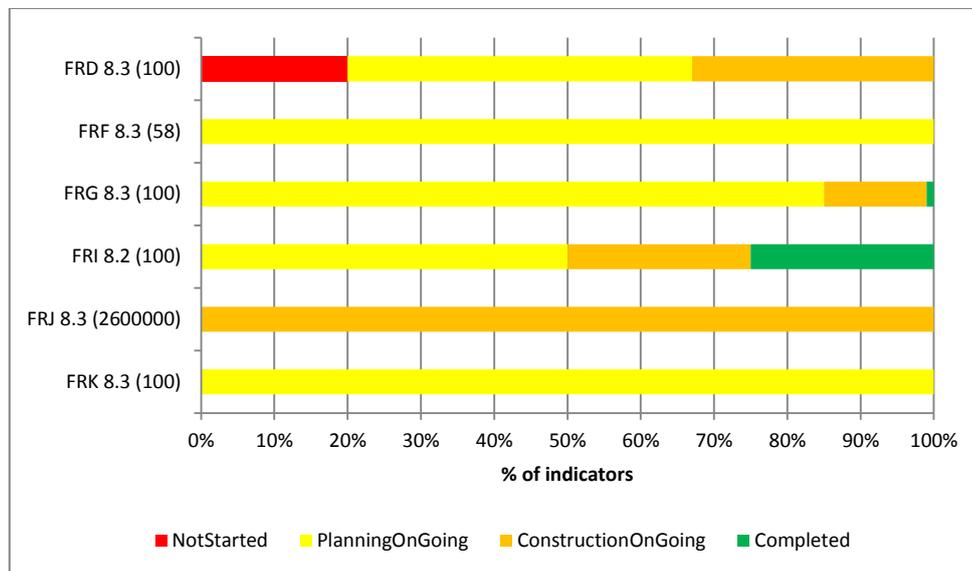
Other (4) Number of catchments for which reference flows were defined

Source: WISE PoM Reports

France reported on the progress with KTM7 and provided information on projects to determine the minimum river flows or reference river flows. The reference river flows have been determined and completed for all the sub-basins in the Adour-Garonne RBD. A further total of 117 projects to determine minimum river flow/reference flow has been reported. Of these, 2 % have not started, 45 % are on-going and 53 % have been completed. In FRK the measures are 100 % on-going (total cost: €417,851).

KTM8: Water efficiency measures for irrigation (technical measures)

Figure 14.2 Percentages of indicator/measures associated with KTM8 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows "RBDCCode; Indicator number; (value of the indicator when 100% completed)"

8.2 Number of projects/measures;

8.3 Estimated Total Costs (€)

France reported on the progress with KTM8 and provided information on projects on water efficiency measures for irrigation (technical measures). The reported actions included actions for a total of €190 million. 9 % of the actions have not started; 67 % of the measures are on-going; 22 % are in the construction phase and 2 % have been completed. The "MAET" programmes include measures with a total of 58 projects, all of which are on-going.

15. Reporting of other Key Types of Measure

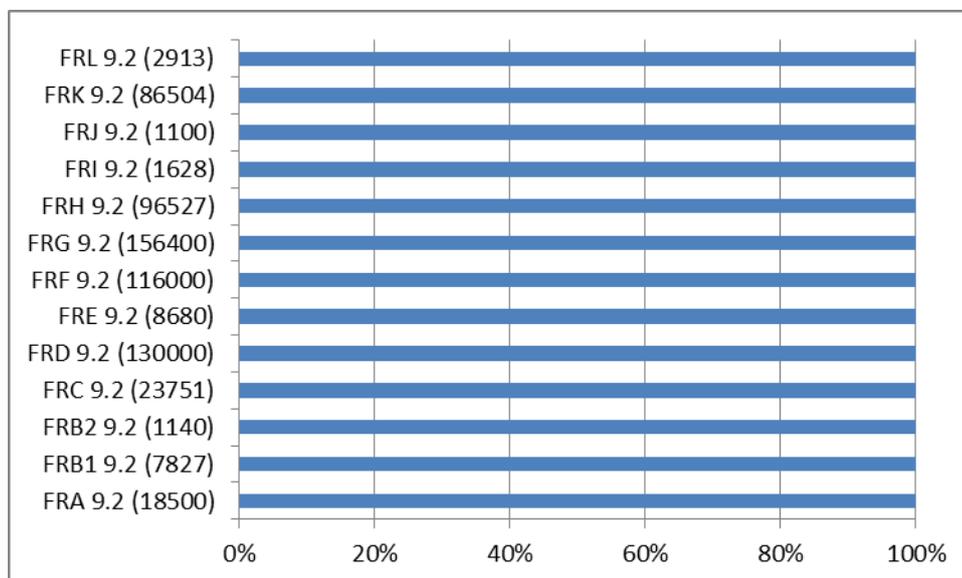
This section summarises the progress with the implementation of the defined KTM's not included within the assessment of the specific pressures/issues. Member States were also given the possibility to report different or additional KTM's according to their specific situations and requirements: these are also summarised in this section.

KTM4: Remediation of contaminated sites (historical pollution including sediments, groundwater, soil)

This KTM was not reported by France.

KTM9: Progress in water pricing policy measures for the implementation of the recovery of cost of water services from households

Figure 15.2 Progress associated with KTM9 reported in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows "RBDCode; Indicator number; (value of the indicator when 100% completed)"

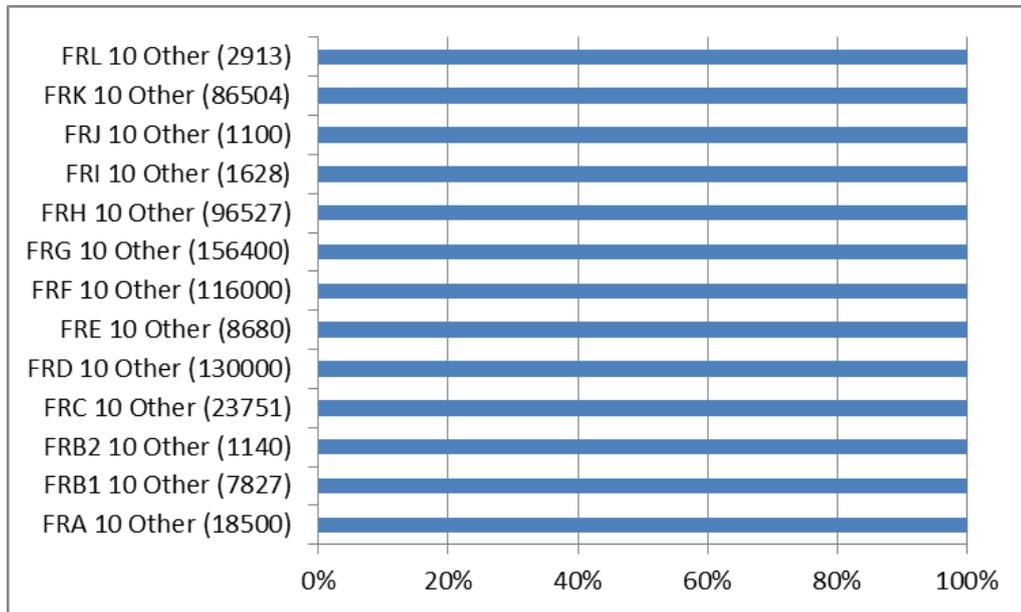
9.2 Area (km²) covered

Source: WISE PoM Reports

France reported that the water pricing policy measures for the implementation of the recovery of cost of water services from households cover the full area of all 13 river basin districts (100 %).

KTM10: Progress in water pricing policy measures for the implementation of the recovery of cost of water services from industry

Figure 15.3 Progress associated with KTM10 reported in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows “RBDCode; Indicator number; (value of the indicator when 100% completed)”

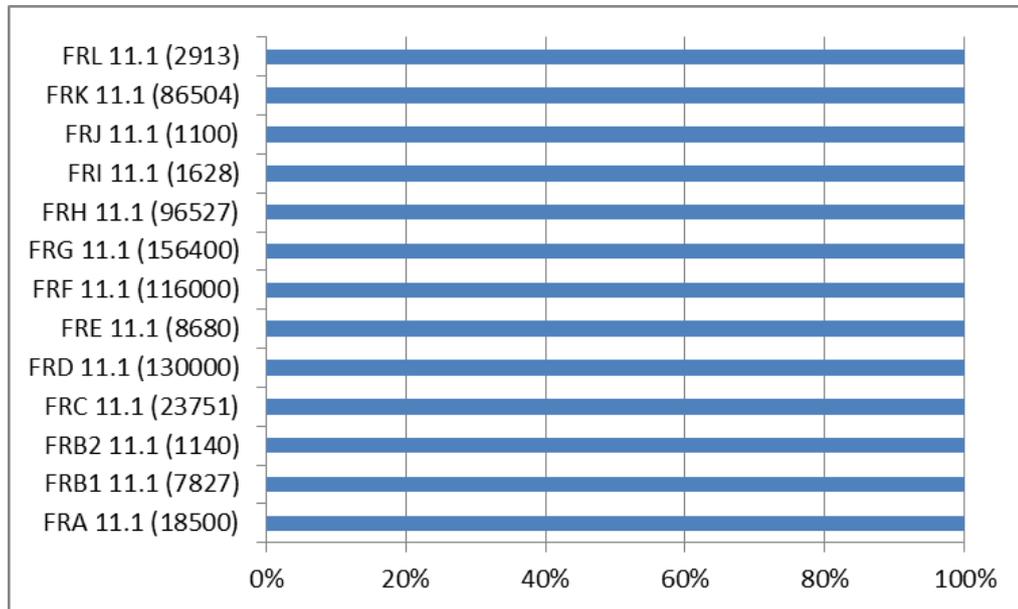
Other Area covered in km²

Source: WISE PoM Reports

France reported that the water pricing policy measures for the implementation of the recovery of cost of water services from industry cover the full area of all 13 river basins districts (100 %).

KTM11: Progress in water pricing policy measures for the implementation of the recovery of cost of water services from agriculture

Figure 15.4 Progress associated with KTM11 reported in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows “RBDCode; Indicator number; (value of the indicator when 100% completed)”

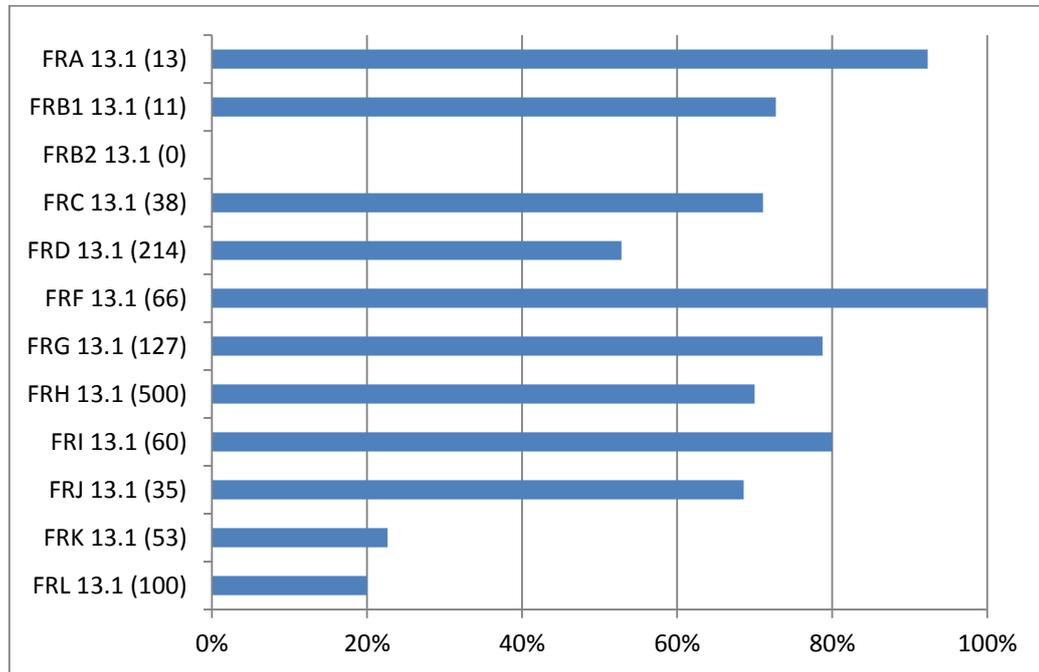
11.1 Area (km²) affected

Source: WISE PoM Reports

France reported that the water pricing policy measures for the implementation of the recovery of cost of water services from agriculture cover the full area of all 13 river basins districts (100 %).

KTM13: Drinking water protection measures (e.g. establishment of safeguard zones, buffer zones, etc.)

Figure 15.5 Progress associated with KTM13 reported in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows “RBDCode; Indicator number; (value of the indicator when 100% completed)”

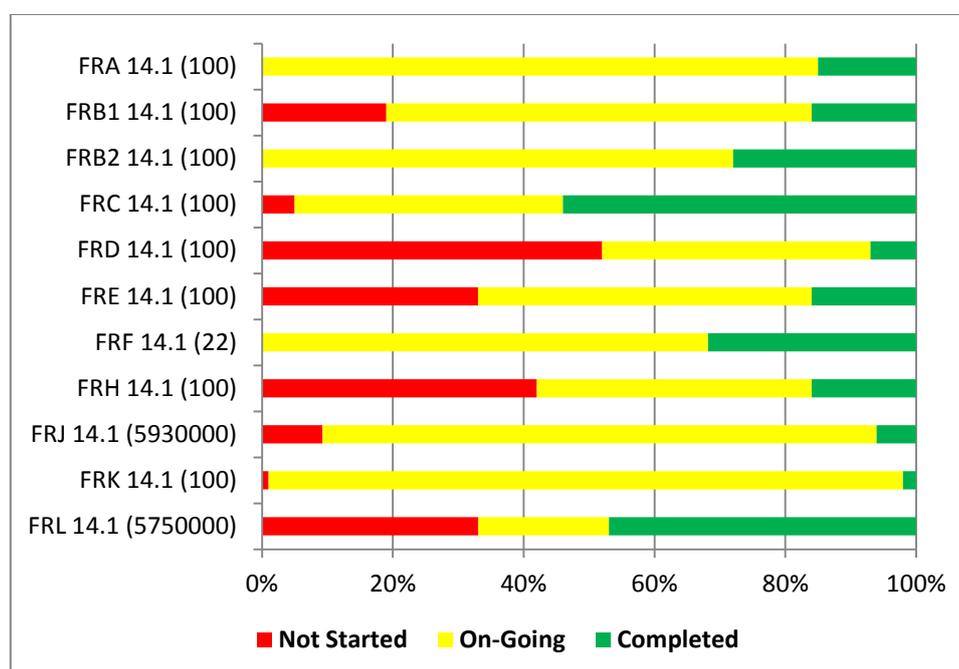
13.1 Number of drinking water protection zones

Source: WISE PoM Reports

A total of 800 drinking water protection zones were reported to be planned. 61 % of the protection zones are effectively in place. One reported measure was omitted from this calculation since it was not clear what the values meant.

KTM14: Research, improvement of knowledge base reducing uncertainty

Figure 15.6 Percentages of indicator/measures associated with KTM14 that were reported as being not started, planning on-going, construction on-going and completed in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows "RBDCCode; Indicator number; (value of the indicator when 100% completed)"

14.1 Estimated Total Costs (€)

Source: WISE PoM Reports

France reported on the progress with KTM14 and provided information on the different measures and actions. One measure used the number of projects as an indicator. The other actions used the estimated total costs (€) of the measures as an indicator. The reported measures included actions for a total of €170 million. 41 % of the actions have not started, 47 % are on-going while 12 % have been completed. For the measures using the number of projects as a indicator: of a total of 22 general measures 15 are on-going while 7 measures have been completed.

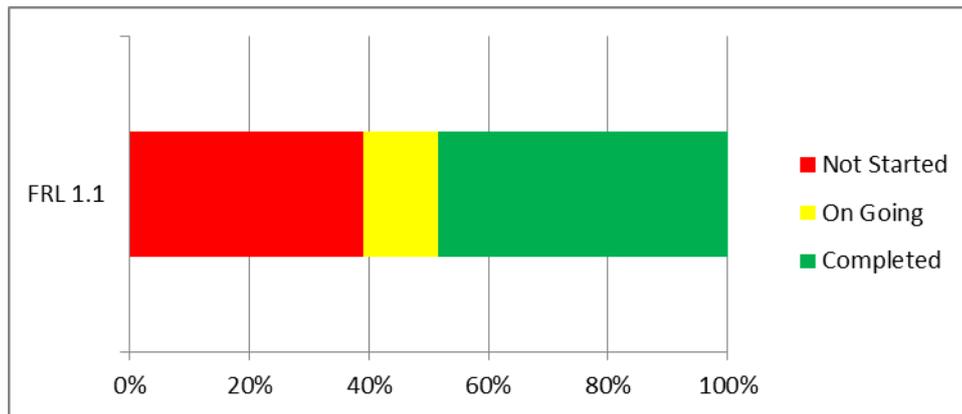
Summary assessment on the state of implementation of Key Types of Measure

Good progress has been reported with KTM1,7,8,9,10,11,12,15,16. For these KTMs it is reported that most of the measures (>80 %) are being planned, constructed or have been completed. Because it is reported that a significant proportion of KTMs 2,3,5,6,13 and 14 have not been initiated yet (>30%) it is unclear whether will these will be completed by 2015. These mostly refer to technical projects, buffer zones and projects involving the agricultural sector. There seems to be a discrepancy between progress with supplementary measures and the progress with KTMs. All supplementary measures seem to have been started (see Section 8), while a significant number of the KTMs have not been started yet.

New Key Types of Measures

France reported that there is one New Key Type of Measure, called 'Activités des services de police de l'eau' (Activities of the Water Service Police).

Figure 15.7 Percentages of indicator/measures associated with New KTM1 that were reported as being not started, on-going and completed in 2012



Key to indicators measures

The annotations next to each bar in the Figure shows "RBDCCode; Indicator number"

Source: WISE PoM Reports

16. Overall progress with the Programme of Measures

The achievements, obstacles and progress described in this section are based on the Member State's own conclusions on these aspects.

Main achievements

France reported that the drinking water consumption per capita is decreasing, as a result of the measures taken.

No specific information is provided on whether the measures have resulted in improvements of the status of surface water bodies.

Main obstacles

The implementation of some measures is facing delays due to the economic crisis. For this reason, project developers and local governments face a reduction of financial means for measures relating to drinking water, sanitation and hydromorphological restoration.

Some delays are caused by the reforms of local governments and inter-municipal drinking water cooperation that is taking place in France. Although the reforms will be beneficial in the future for implementation of the WFD, the current stakeholders are reluctant to make commitments in this changing environment.

It is reported that the implementation of measures relating to the reduction of diffuse pollution from pesticides in agriculture is facing delays for economic reasons, technical reasons and inertia of the stakeholders. The hydromorphological restoration of rivers is also facing delays due to the complexity of the projects and low public acceptance of such measures (with wrong perceptions of e.g. increased flooding risks). One other obstacle is the complexity of the translation of directives in the field. The programme of measures faces some delays in Guadeloupe due to the strike of 2009.

Overall Progress

Overall, the PoM is progressing reasonably well in France. France reported that the measures identified in the programmes and operational measures were being implemented by 22 December 2012, as required by the Directive. Concrete results were reported (but not specified) relating to: the implementation of the UWWTD, management of irrigation water, the many studies that have been undertaken to improve knowledge on pressures, impacts and specification of actions to be taken. Local actions to reduce micropollutants have been initiated. A reduction of drinking water consumption is reported as a result of awareness campaigns among users.

17. Progress in financing measures

Information on the overall amount of funding is not provided, nor is there information on the proportions of the total provided by different sources. This information was not provided in 2010. France reported that, although significant efforts have been made, economic resources have decreased due to the economic crisis, resulting in less investment from private actors, lower tax revenues and increased difficulties to access credit. Financial resources for implementation of the programme of measures have therefore decreased. This has implications for measures relating to hydromorphological restoration and (to a lesser extent) water sanitation services. The climate for investing in transformation towards more environmentally friendly production in agriculture is also not encouraging because of the economic crisis, and compensation of the players is becoming increasingly difficult due to the limited resources of the government.