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Quality of bathing water — 2009 bathing season

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European Environment Agency

Quality of bathing water — 2009 bathing season

European Environment Agency

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Foreword

Each year millions of Europeans spend their weekends at their local beach or visit Europe's hugely diverse and beautiful beaches and bathing areas. Naturally, they have a keen interest in the quality of the bathing waters. The European Environment Agency (EEA) and the European Commission are therefore pleased to present this year's bathing water report, which will help Europeans make informed choices about the bathing sites they visit. The report assesses bathing water quality in all 27 EU Member States in 2009, thereby also indicating where the best quality bathing is likely to be found this year.

The overall message of this report is that in 2009, 95.6 % of Europe's coastal bathing waters and 89.4 % of inland bathing waters met the minimum water quality standards set by the European Bathing Water Directive. This is consistent with the pattern of the last decade when bathing water quality in Europe has largely remained high. Between 2008 and 2009 there was a slight deterioration in the number of bathing waters meeting minimum standards, with reductions of 0.7 % for coastal sites and 2.6 % for inland bathing waters. While such fluctuations are not unusual by the standards of recent years, they remind us of the need for continuing efforts to ensure that the quality of bathing waters is constantly maintained and improved.

Photo: © Peter Kristensen

This report also illustrates how interested citizens can access more information about bathing waters than ever before. In addition to the annual bathing water report, online tools now let them access data for a selected country or region and make comparisons with previous years. Geospatial mapping programmes also allow users to visualise data in new ways. Such tools help respond to the demand for reliable local information, which has grown rapidly in recent years.

Citizens also share a sincere interest in the quality of the marine environment and inland waters more generally. Efforts to improve the quality of bathing waters should therefore not be seen in isolation but in the context of the good ecological and environmental status we aim for in implementing the Water and Marine Framework Directives.

We encourage readers to make full use of all the information sources presented in this publication. We also encourage you to get more actively involved in protecting the environment and helping to improve Europe's bathing areas.

We wish you a pleasant summer!

Janez Potočnik
European Commissioner for the Environment

Jacqueline McGlade
Executive Director,
European Environment Agency

1 EU bathing water legislation

Almost two out of three Europeans consider that the quality of water in their country is a serious problem, according to a European Commission survey in 2009 ([1]). To allow Europeans to make an informed choice about which beach to visit, the European Union (EU) publishes an annual report on the quality of coastal and freshwater bathing areas, as reported by EU Member States. Since 2009 the European Environment Agency (EEA) and its European Topic Centre on Water have prepared the report in cooperation with the European Commission Directorate-General for the Environment.

This report provides a comprehensive synopsis of the quality of bathing waters in the Member States of the European Union in the 2009 bathing season. It thereby gives an indication of the areas where the quality of bathing is expected to be good during 2010. In addition, the report shows the evolution of bathing water quality from 1990 to 2009.

The first European bathing water legislation, the 'Bathing Water Directive' ([2]) was adopted in 1975 and came into force in 1976. Its main objectives are to safeguard public health and protect the aquatic environment in coastal and inland areas from pollution. Bathing waters covered by the Bathing Water Directive can be coastal waters or inland waters (rivers, natural lakes, reservoirs and ponds) in which bathing is explicitly authorised by the competent authorities of each Member State, or not prohibited and traditionally practiced by a large number of bathers. Swimming pools and waters for therapeutic purposes are not covered. The period during which bathers can be expected in bathing areas depends largely on local bathing rules and weather conditions. A bathing season can also vary within a Member State. In the European Union it usually runs from the end of May until the end of September.

New European legislation on bathing water was adopted in 2006 ([3]). The 'New Bathing Water Directive' updates the measures of the 1975 legislation and simplifies its management and surveillance methods. It also provides for a more proactive approach to informing the public on water quality and creates four quality categories for bathing waters — 'poor', 'sufficient', 'good' and 'excellent'. The classification of bathing water quality is determined on the basis of a three- or four-year trend instead of a single year's result, as was the case for the Bathing Water Directive. Therefore, the procedure for assessing quality classes of bathing waters under the New Bathing Water Directive gives more reliable and realistic results than the assessment under the Bathing Water Directive.

The classification under the New Bathing Water Directive is also less susceptible to bad weather or one-off incidents. Heavy rain or similar exceptional situations may cause pollution problems for a few days. In such situations authorities have to introduce immediate measures to lower health risk to bathers.

Photo: © Felix Zaska, Irish Environmental Protection Agency

([1]) Majority of Europeans believe quality and quantity of water is a serious problem. Eurobarometer press release of 29 March 2009. Available at http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/446&format=HTML&aged=0&language=EN&guiLanguage=en [Accessed 3 May 2010].
([2]) Directive 76/160/EEC concerning the quality of bathing water.
([3]) Directive 2006/7/EC concerning the management of bathing water quality and repealing Directive 76/160/EEC.

They are allowed, however, to exclude such events from their overall assessment of bathing water quality, as presented in this report.

The New Bathing Water Directive is based on scientific knowledge on protecting health and the environment, as well as environmental management experience. It lays down provisions for more sophisticated monitoring, assessment and classification of bathing water quality. It also provides for better and earlier public information about bathing water quality and public participation, as well as for comprehensive and modern management measures. It requires bathing water profiles to be drawn up describing bathing waters and potential impacts and threats to water quality. These serve both as information for citizens and as a management tool for the responsible authorities, and enable grouping of bathing waters.

The new European legislation was transposed into national law in 2008 but Member States have until December 2014 to implement it. Member States can choose to report either under the Bathing Water Directive or the New Bathing Water Directive until the 2012 bathing season when the reporting under the New Bathing Water Directive will become obligatory.

By the 2009 bathing season, 14 countries were monitoring and reporting under the New Bathing Water Directive. In 2005 Sweden was the first country to monitor under the New Bathing Water Directive and has reported results from the 2008

Photo: © Peter Kristensen

bathing season. Luxembourg started to monitor under the New Bathing Water Directive in the 2006 bathing season and started to report from the 2007 bathing season. Malta started to monitor under the New Bathing Water Directive in the 2006 bathing season and started to report from the 2009 bathing season. Another ten countries ([4]) started to monitor and report according to the New Bathing Water Directive's more stringent requirements in the 2008 bathing season, and the Netherlands changed their monitoring and reporting from the 2009 bathing season.

Photo: © Press and Information Office (PIO) – Cyprus

([4]) Cyprus, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Slovakia and Spain.

2 Testing bathing water quality

The results presented in this report are based on sampling carried out by the authorities in all EU Member States reporting under the Bathing Water Directive or the New Bathing Water Directive.

Bathing Water Directive (76/160/EEC)

The results of sampling are checked against a set of physical, chemical and microbiological parameters. These include testing for the presence of coliform bacteria normally found in faeces and other sources, the colour of the water, residues of petrol-based mineral oils, foam from detergents and toxic acids such as phenol. Other tests can be conducted to verify the presence of salmonella or the acidity (pH) of the bathing water.

Using the results of the sampling for five parameters (total coliforms, faecal coliforms, mineral oils, surface-active substances and phenols) the bathing waters are then classified into the following categories:

- those that comply with the mandatory values;
- those that comply with the more stringent guide values;
- those that do not comply with the mandatory values;
- those that are banned or closed (temporarily or throughout the bathing season).

Member States must begin sampling two weeks before the start of the bathing season. Sampling must be carried out every other week at places where the daily average of bathers is highest throughout the bathing season. If the water quality gets a good rating for two consecutive years (compliance with mandatory or guide values), the sampling frequency can be reduced to one sample per month.

New Bathing Water Directive (2006/7/EC)

The New Bathing Water Directive reduces the number of key microbiological parameters to two: intestinal enterococci and *Escherichia coli.* These are the most robust and relevant microbiological indicators for human health. The sampling is complemented by visual inspection to identify, for example, algae bloom and oil.

Using the monitoring results of the sampling for *Escherichia coli* and intestinal enterococci, the inland and coastal bathing waters are then classified into the following categories:

- those that have excellent quality;
- those that have good quality;
- those that have sufficient quality;
- those that have poor quality;
- those that are closed temporarily or throughout the bathing season;
- those that are new (not yet classification possible);
- those where changes occur that affect the classification of a bathing water (meaning that classification is not yet possible after the changes).

Member States that are monitoring under the more stringent new requirements must take one sample

at each bathing place shortly before the start of the bathing season and continue sampling until the end of the season, with at least one sample per month for *Escherichia coli* and intestinal enterococci.

Transition period

The transition period for bathing water assessment is the period when the necessary data set for assessing bathing water quality under the New Bathing Water Directive has not yet been compiled. During the transition period, samples of intestinal enterococci and *Escherichia coli* are reported under the New Bathing Water Directive but assessment is done according to the assessment rules of the Bathing Water Directive. The parameters 'intestinal enterococci' and '*Escherichia coli*' are evaluated according to the mandatory values defined in the Annex to the Bathing Water Directive for the parameter 'faecal coliforms' and the guide values defined in the Annex for the parameters 'faecal streptococci' and 'faecal coliforms' (see Table 2.1).

When a set of samples of intestinal enterococci and *Escherichia coli* for four years and three years respectively is available, the assessment is done according to the assessment rules of the New Bathing Water Directive.

Table 2.1 Parameters used to assess bathing water quality during the transition period

Parameter in Directive 2006/7/EC	Corresponding parameter in Directive 76/160/EEC	Guide values	Mandatory values	Minimum sampling frequency
1. Intestinal enterococci (cfu/100 ml)	3. Faecal streptococci/100 ml	100	– ([a])	([b])
2. Escherichia coli (cfu/100 ml)	2. Faecal coliforms/100 ml	100	2000	Fortnightly ([c])

Note: ([a]) There is no mandatory standard for the parameter 'faecal streptococci' under Directive 76/160/EEC. This means that only the parameter 'faecal coliforms' is taken into account for evaluating the compliance of bathing water with mandatory values. Evaluation of compliance with guide standards is based on both parameters.

([b]) Concentration to be checked by the competent authorities when an inspection in the bathing area shows that the substance may be present or that the quality of the water has deteriorated.

([c]) When a sample taken in previous years produced results that are appreciably better than those in Directive 76/160/EC Annex and when no new factor likely to lower the quality of the water has appeared, the competent authorities may halve the sampling frequency.

Photo: Holiday and sport resort in Prešov © Peter Holent

3 Informing European citizens of bathing water quality in their area

Member States are obliged to provide the results of their samples for that year's bathing season to the European Commission before 31 December. The Commission, together with the European Environment Agency from 2009 onwards, publishes in early June each year an EU-wide report covering all 27 Member States, available in print and online. The EEA European Topic Centre on Water is responsible for handling the data and producing draft reports.

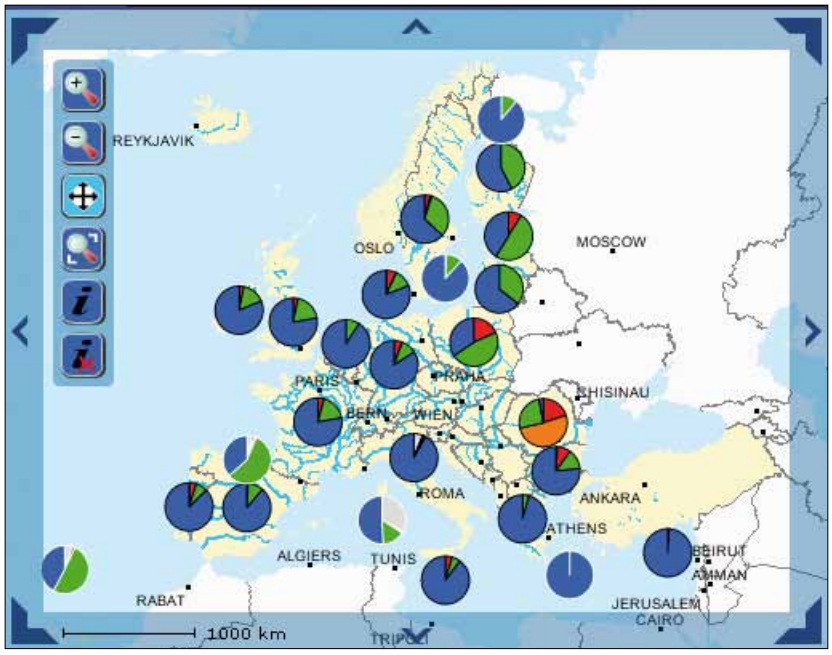
The present report presents the 2009 bathing season results and the trends in bathing water quality. More information on bathing water quality in EU Member States — including the reports for 27 Member States and the present EU summary report — can be found on the European Environment Agency's bathing water website ([5]) and the European Commission's bathing water quality website ([6]).

Interactive information on bathing water quality — WISE and Eye On Earth

The bathing water section of the Water Information System for Europe (WISE), which is accessible at the EEA bathing water website ([5]), allows users to view the quality of the bathing water at more than 20 000 coastal beaches and freshwater sites across Europe. Users can check bathing water quality on an interactive map or can download data for a selected country or region and make comparisons with previous years. Downloaded data can also be visualised in geospatial mapping programmes such as Google Earth and Bing maps.

The WISE map viewer (see Figure 3.1) is an online map viewer for visualisation of European spatial data. It includes a lot of interactive layers, allowing water themes to be visualised at different scales.

Figure 3.1 WISE bathing water map viewer



Note: WISE map viewer is available via www.eea.europa.eu/themes/water/mapviewers/bathing.

([5]) www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water.
([6]) http://ec.europa.eu/environment/water/water-bathing/report_2010.html.

Broad resolutions display the aggregated data by Member State. At finer resolutions the locations of monitoring stations are displayed.

The WISE Bathing Water Quality data viewer combines text and graphical visualisation (see Figure 3.2), providing for a quick check on locations and statistics on the quality of coastal and freshwater bathing waters. It also documents how bathing waters have changed throughout Europe in recent years and provides a full summary of Europe's bathing water quality. Users can search information at three spatial levels — country, region and province — and observe specific bathing water locations on the Google Earth, Google maps or Bing maps.

The Eye On Earth — Water Watch application allows users to zoom in on a given section of the coast, riverbank or lake, both in street map or, where available, bird's eye viewing formats (see Figure 3.3). A 'traffic-light' indicator (red, amber, green) of bathing water quality, based on the official bathing water data, is put alongside the ratings of people who have visited the bathing site, including any comments users wish to make. For historical data, Water Watch uses a simplified index of bathing water quality data. The Eye On Earth application will be updated during the 2010 bathing water season with online bathing water quality results, providing an indication of the current quality. More detailed information can usually be found at national or local websites.

Information on EU bathing water legislation

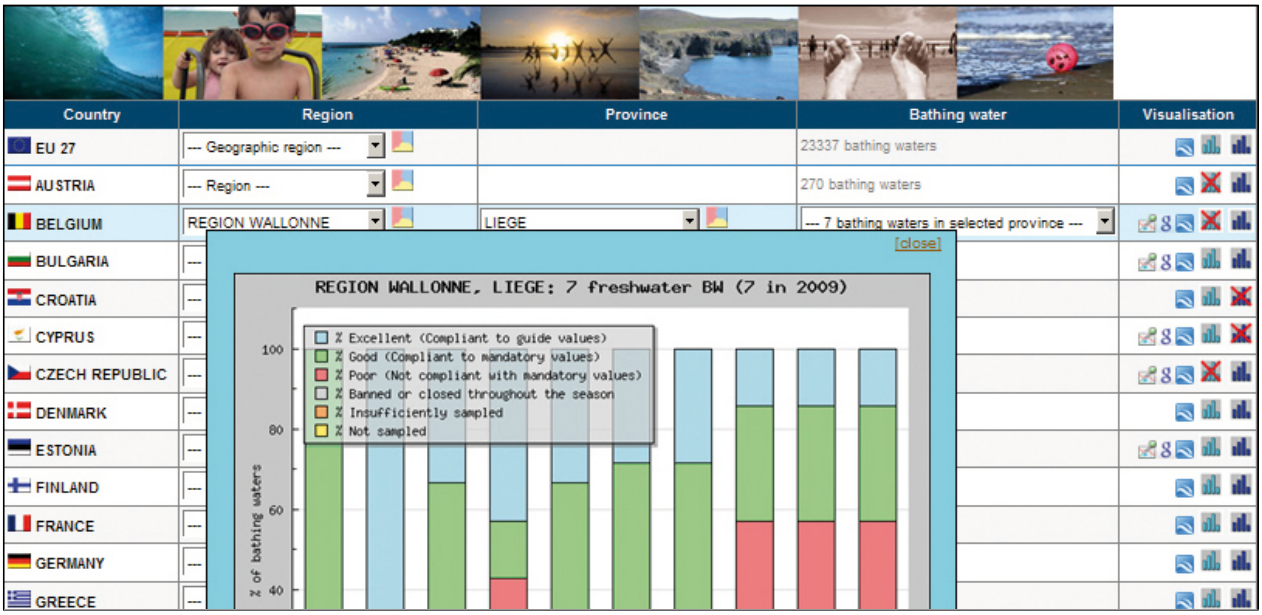
EU Member States will have to comply with the stricter and more ambitious requirements laid out in the New Bathing Water Directive by 2015 at the latest. The new legislation requires more effective monitoring and management of bathing waters, greater public participation and improved information dissemination. More on the new legislation can be found on the European Commission's legislation website ([7]).

Specific questions can be asked on bathing water quality by e-mailing the Commission at env-water@ec.europa.eu or by writing to the Commission at:

European Commission
Environment Directorate-General
Unit D2
1049 Brussels
Belgium

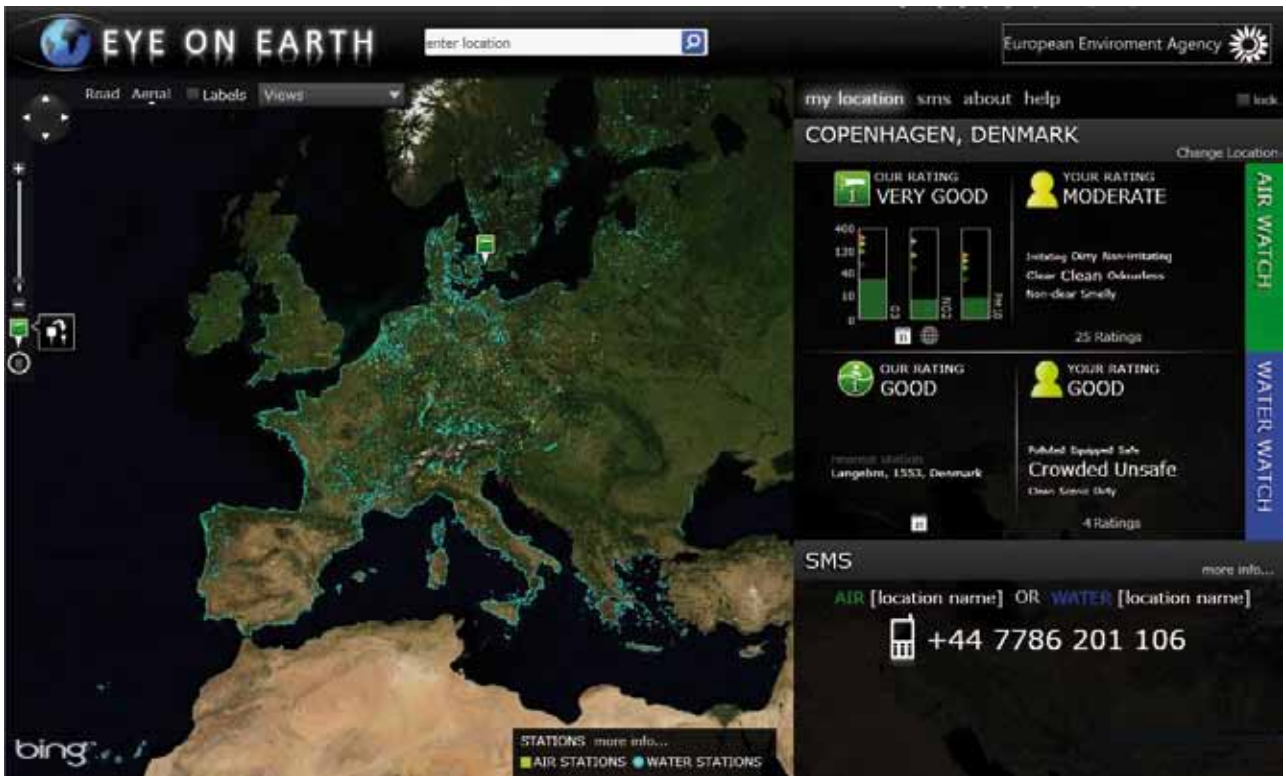
([7]) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF.

Figure 3.2 Bathing water data viewer



Note: The bathing water data viewer is available via www.eea.europa.eu/themes/water/status-and-monitoring/bathing-water-data-viewer.

Figure 3.3 Eye On Earth — Water Watch



4 Bathing water quality in 2009 and trends

Europeans have a huge diversity of beautiful beaches and bathing areas at their disposal. More than 20 000 bathing waters were monitored in the 27 Member States for the 2009 bathing season. Around two-thirds were coastal bathing waters and one-third were inland bathing waters (rivers, lakes and ponds).

From 1990 to 2009 the number of reported bathing waters increased significantly (Figure 4.1). In 1990 seven EU Member States reported on 6 165 coastal and 1 374 inland bathing waters, whereas in 2009 the 27 EU Member States reported on 13 741 coastal waters and 6 867 inland bathing waters (not including the 830 Greek bathing waters that were not adequately monitored in 2009). These rises are the result of Member States increasing the number of bathing waters that they report on but also reflect the fact that EU membership has more than doubled since 1990.

In 2009, Member States reported on six fewer bathing sites than in 2008 but the total number of bathing waters assessed in 2009 was actually 836 fewer than in the preceding year. This disparity was due to events in Greece, where delays in commissioning the monitoring programme meant that 830 bathing waters were not adequately monitored. Those waters are therefore not included in the analysis of overall bathing water quality in the EU.

Three Member States (Cyprus, Malta and Romania) only reported data for coastal areas while five others (Austria, the Czech Republic, Hungary, Luxembourg and Slovakia) only have inland bathing waters. The remaining 19 Member States reported data for coastal and inland bathing waters.

Details of all Member States bathing waters are presented in Table 5.2 at the end of this report and

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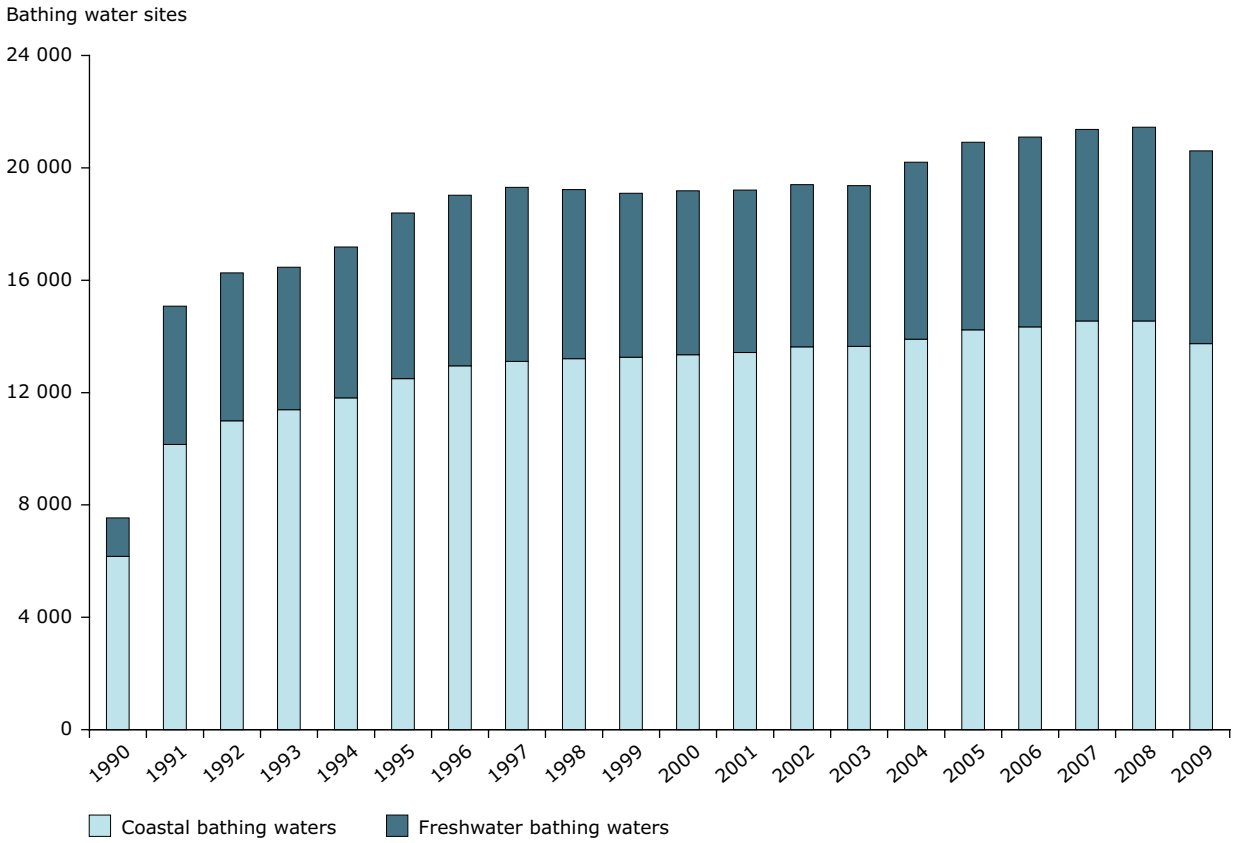
© Lower left: Lidija Globevnik
© Upper right: Helena Hrebeňaková, Regional Public Health Authority in Svidník
© Lower right: Petr Pumann, National Institute of Public Health, Prague

Figure 4.1 Total number of bathing waters reported in the European Union since 1990



Source: WISE Bathing Water Quality database based on annual reports by EU Member States.

can also be found in national bathing water reports or on the European Environment Agency's bathing water website ([8]) and the European Commission's bathing water website ([9]).

Table 5.1 in Chapter 5 of this report displays the compliance of European Union coastal and inland bathing waters with quality targets, both in absolute and percentage terms.

Fourteen Member States reported bathing water quality during the 2009 bathing season according to the New Bathing Water Directive. Classification of bathing waters during the 2009 bathing season is based on transition period rules for 12 of these 14 Member States because they currently lack sufficient samples and sampling years. For Luxembourg and Malta, the assessment was done according to the assessment rules of the New Bathing Water Directive because data for three previous seasons were also reported.

For the purpose of generating an aggregated assessment of bathing water quality across the EU, the quality classes are transformed to harmonise them with those under the original Bathing Water Directive. Bathing waters that have 'excellent' quality are classified as compliant with the guide values; bathing waters that have 'good' or 'sufficient' quality are classified as compliant with the mandatory values; and bathing waters that have 'poor' quality are classified as not compliant with mandatory values.

As the 2012 deadline for reporting under the New Bathing Water Directive approaches, Member States are adjusting the frequency of sampling towards achieving compliance with the new rules.

The assessment for the 2009 bathing season is based on two rules regarding sampling frequency: the first sample should be taken not later than 10 days after the start of the bathing season; and the interval

([8]) www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water.
([9]) http://ec.europa.eu/environment/water/water-bathing/report_2010.html.

between samples during the bathing season that should not exceed 41 days.

In Hungary, 125 of the country's 260 bathing waters were clustered into 42 groups. As such, the 177 Hungarian bathing waters assessed in the present report comprise a mixture of individual bathing waters and bathing water groups.

4.1 Coastal bathing waters

The overall water quality of coastal bathing waters slightly decreased in the European Union in 2009 relative to 2008. Some 95.6 % of coastal bathing waters in the European Union complied with the mandatory values of the Bathing Water Directive during the 2009 bathing season (Figure 4.2). This is a decrease of 0.7 percentage points compared to the previous year. However, some 89 % of coastal bathing waters complied with the Bathing Water Directive's more stringent guide values, which is a 0.4 percentage point increase from 2008. A small number of coastal bathing waters (1.6 %) did not comply with mandatory values, which is a 0.2 percentage point increase. Only 2.3 % of bathing waters were banned or closed during the season, which also represents a 0.2 percentage point increase from 2008.

The quality of the European Union's coastal bathing waters has improved significantly since 1990 (Figure 4.2). The number of bathing waters not complying with the Bathing Water Directive's provisions decreased from 9.2 % to 1.6 % in 2009, with the lowest level (1.2 %) attained in 2003. Compliance with mandatory values improved dramatically, increasing from just fewer than 80 % in 1990 to over 95 % in 1999, and has remained quite stable since then. Compliance with guide values likewise rose from over 68 % to over 89 % in 2003 and has slightly decreased thereafter.

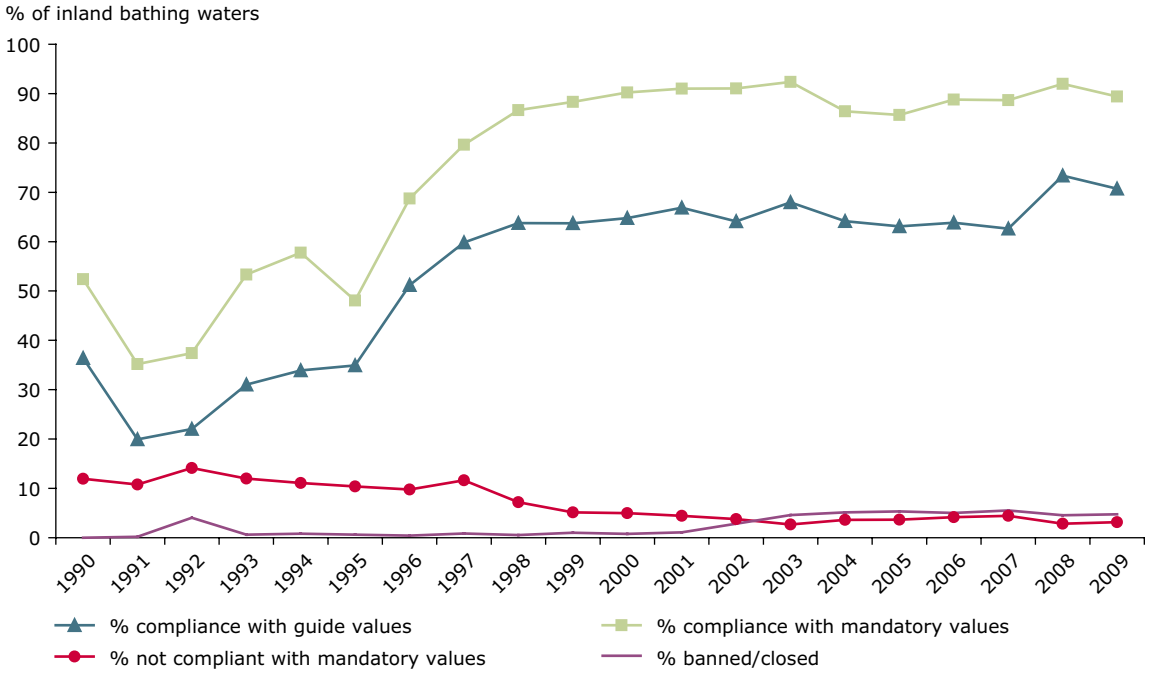
4.2 Inland bathing waters

In 2009, the quality of inland bathing waters decreased relative to 2008. Almost nine in ten reported inland bathing waters (89.4 %) in the European Union complied with the mandatory values during the 2009 bathing season, 2.6 percentage points less than in the previous year (Figure 4.3). The percentage of inland bathing waters complying with the more stringent guide values also decreased by 2.7 percentage points, reaching 70.7 %. Only 3.1 % of inland bathing areas in the European Union did not comply with mandatory values, which represented a 0.3 percentage point increase. The share of bathing waters that were banned or

Figure 4.2 Coastal bathing water quality in the European Union

Source: WISE Bathing Water Quality database based on annual reports by EU Member States.

Figure 4.3 Inland bathing water quality in the European Union



Source: WISE Bathing Water Quality database based on annual reports by EU Member States.

closed during the season in 2009 is 4.7 %, a slight increase of 0.1 percentage points.

The overall quality of inland bathing areas in the EU has markedly improved since 1990 but with greater variations than coastal bathing waters. In 1990, some 52 % of inland bathing areas complied with mandatory values and this number reached 90 % by the early 2000s and decreased slightly afterwards before recovering to 92 % in 2008. Similarly, the rate of compliance with guide values moved from 36.4 % in 1990 to over 70 % since 2008. That represented an increase of approximately 10 percentage points compared to 2005. The number of bathing areas not complying with mandatory values decreased from 11.9 % in 1990 to 3.1 % in 2009.

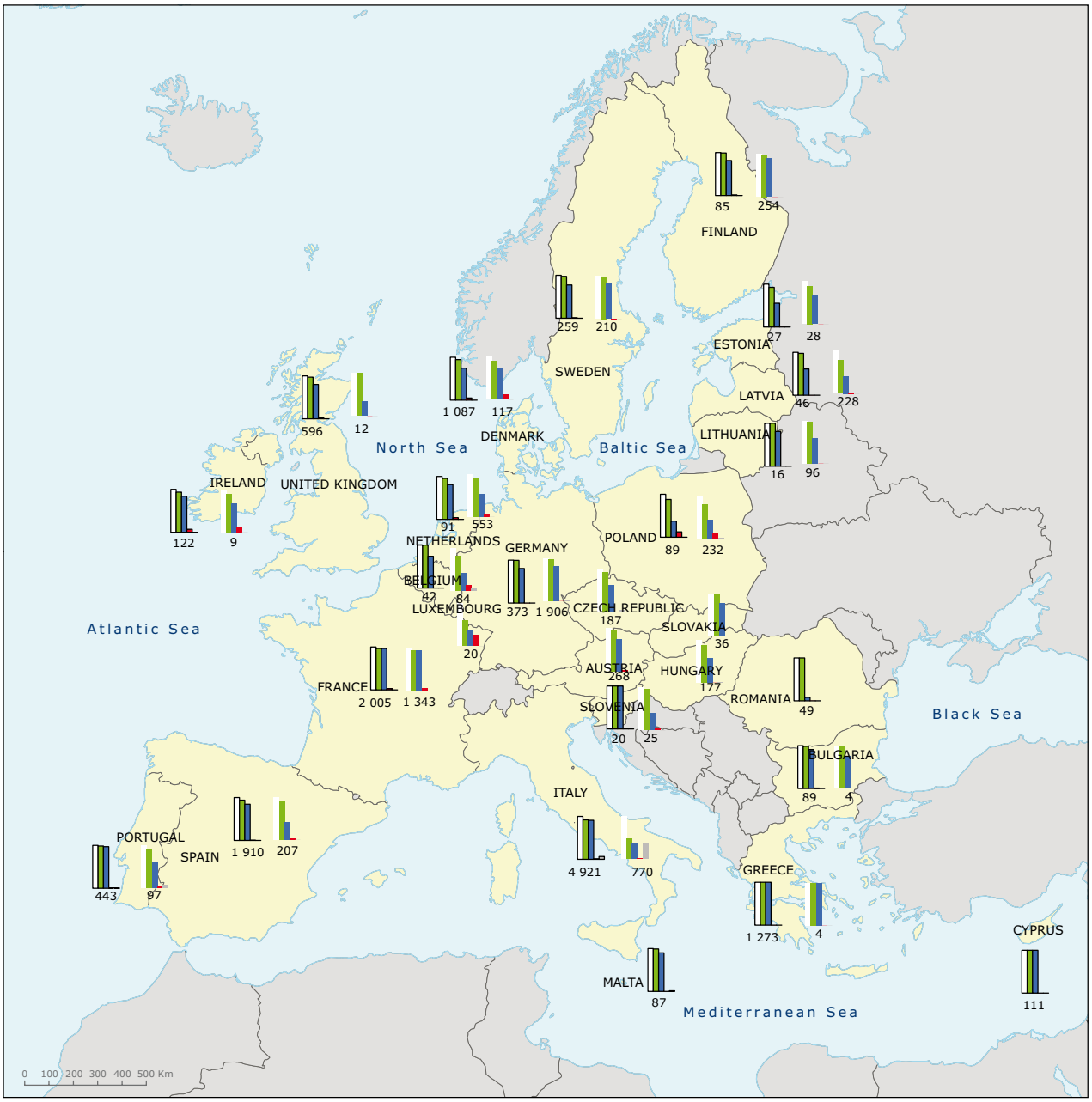
EU bathing water quality results for the 2009 bathing season are shown in Map 4.1. The bar charts represent the quality assessment for the bathing water of each Member State. Inland and coastal bathing areas are displayed using separate bar charts. Quality assessments for each Member State are set out in Table 5.2 in Chapter 5 of this report.

4.3 Bathing water quality by country

Italy (4 921), France (2 005), Spain (1 910), Greece (1 273 ([10])) and Denmark (1 087) have the highest number of coastal bathing waters. The United Kingdom has 596. Figure 4.4 (a) shows the national share of coastal bathing waters in the European Union.

([10]) It should be noted that delays in commissioning the monitoring programme in Greece meant that 830 bathing waters were not adequately monitored.

Map 4.1 Bathing water quality in EU Member States



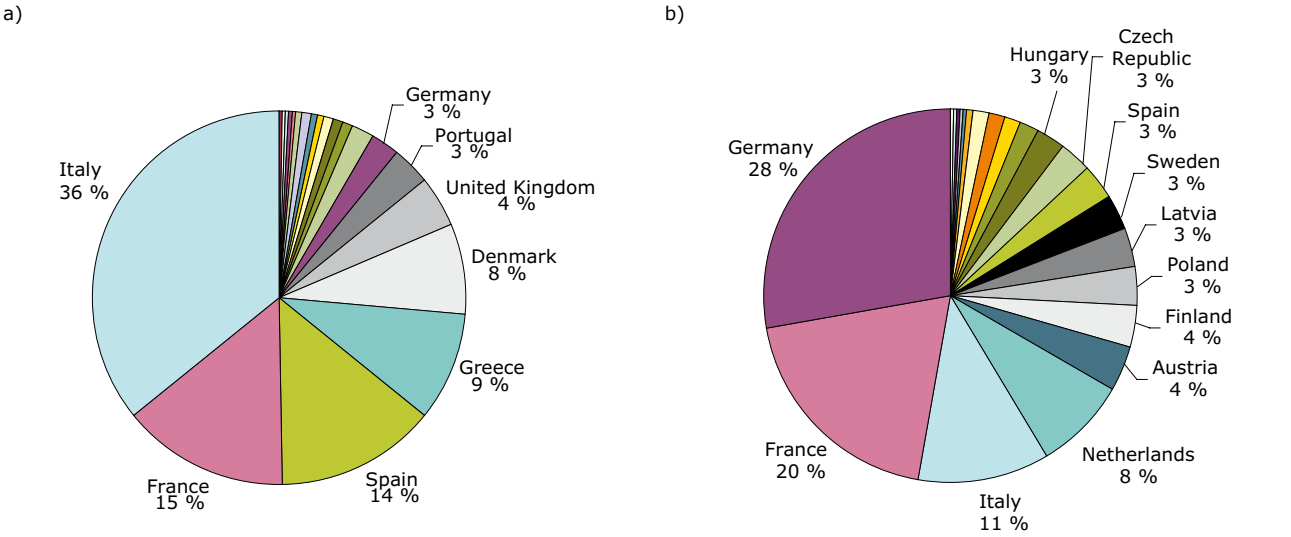
Bathing water quality in EU Member States

- Total number of bathing waters
- Compliant with mandatory values
- Compliant with guide values
- Not compliant with mandatory values
- Closed (temporarily or throughout the season)
- Inland bathing waters
- Coastal bathing waters
- EU Member States

Note: More data on bathing water quality on: www.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO.

Figure 4.4 National shares of the total number of EU coastal (a) and inland bathing waters (b)

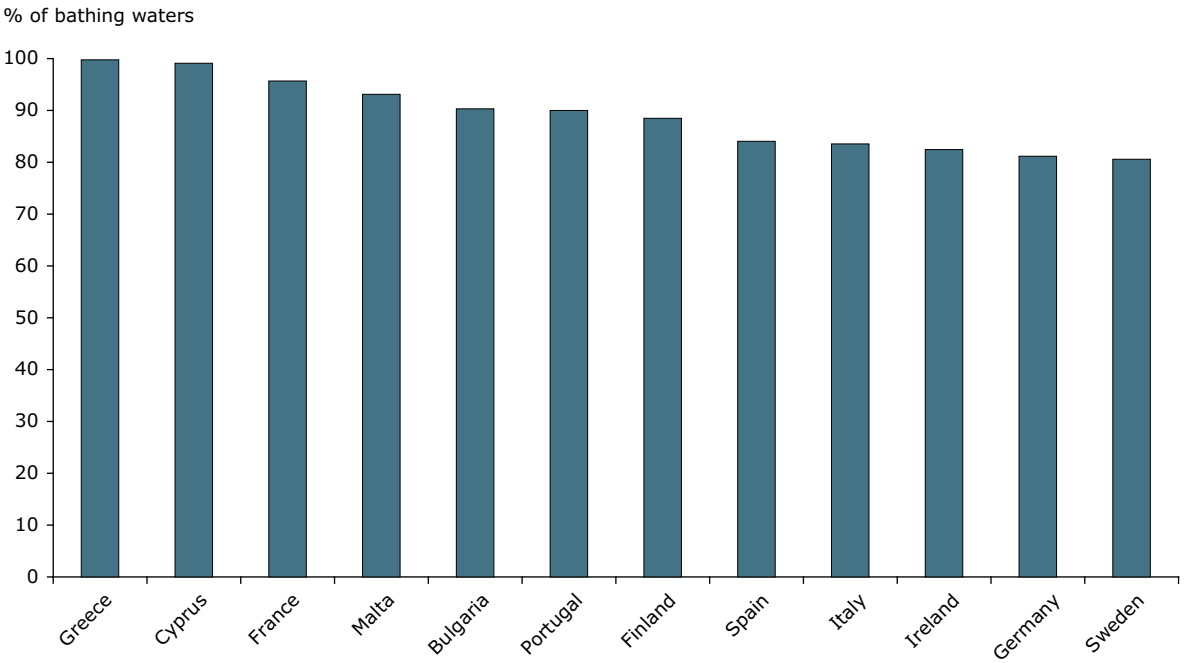


Source: WISE Bathing Water Quality database based on annual reports by EU Member States.

Germany and France have the highest number of inland bathing waters (1 906 and 1 343 respectively). The other countries with more than 500 inland bathing waters are Italy (770) and the Netherlands (553). Figure 4.4 (b) shows the share of inland bathing waters for countries in the European Union.

The countries where the highest percentage of bathing waters met the guide values (Figure 4.5) are Greece (99.8 % ([10])), Cyprus (99.1 %), France (95.7 %), Malta (93.1 %), Bulgaria (90.3 %) and Portugal (90 %). Countries where more than 80 % of bathing waters meet guide values are Finland (88.5 %), Spain (84 %), Italy (83.5 %), Ireland (82.4 %), Germany (81.2 %) and Sweden (80.6 %).

Figure 4.5 EU Member States with the highest compliance with guide values



Source: WISE Bathing Water Quality database based on annual reports by EU Member States.

Eight countries have a significant number of non-compliant bathing waters. These are France (129 or 3.9 % of all bathing waters), Denmark (68 or 5.6 % of all bathing waters), Italy (56 or 1 % of all bathing waters), the Netherlands (46 or 7.1 % of all bathing waters), Poland (44 or 13.7 % of all bathing waters), Spain (15 or 0.7 % of all bathing waters), the United Kingdom (14 or 2.3 % of all bathing waters) and Belgium (11 or 8.7 % of all bathing waters).

Six countries have more than five bathing waters that were banned or closed during the season. These are Italy (583 or 10.2 % of all bathing waters), Germany (20 or 0.9 % of all bathing waters), Portugal (nine or 1.7 % of all bathing waters), the Czech Republic (eight or 4.3 % of all bathing waters), Spain (seven or 0.3 % of all bathing waters) and Poland (six or 1.9 % of all bathing waters).

Countries assessed under New Bathing Water Directive (2006/7/EC)

In Malta, 93.1 % of bathing waters had excellent quality and 6.9 % of bathing waters had good quality. No bathing water had poor quality.

In Luxembourg, 55 % of bathing waters had excellent quality and 45 % of bathing waters had poor quality.

In Sweden, complete data for the assessment under the New Bathing Water Directive is not available for all bathing waters, and the overall assessment is done under transition period rules. Three hundred and fifty nine bathing waters in Sweden (76.5% of all bathing waters) were assessed under the New Bathing Water Directive. Of these, 264 had excellent quality, 77 had good quality and 15 had sufficient quality. Three bathing waters had poor quality.

Other countries

Croatia as a European Union candidate country reported under the New Bathing Directive in the 2009 season for the first time. A total of 905 coastal bathing waters in Croatia belong to the Mediterranean region. Some 99.6 % of bathing waters met the mandatory water quality in 2009. The rate of compliance with the guide values is also high (97.9 %). No bathing water was non-compliant and no bathing waters had to be closed during the season.

Switzerland reported bathing water quality results for the first time in 2010. For some Swiss bathing waters, data for two parameters (Eschericia coli and intestinal enterococci) were reported, while for others only included data on Eschericia coli were provided.

Results from these two countries are presented via the map and data viewers.

4.4 Bathing water quality by geographic region

The European Union's overarching water legislation — the Water Framework Directive — uses river basins rather than administrative or political boundaries to define water management areas. Bathing water quality in each Member State can be influenced by that State's activities or those of neighbouring States that occupy the same river basins.

This section presents bathing water quality results by river basins found in the major geographic regions of the European Union:

- the Mediterranean Sea (coastal bathing waters) and the river basin districts flowing out into the Mediterranean Sea (inland bathing waters);
- the Atlantic Ocean (coastal bathing waters) and the river basin districts flowing out into the Atlantic Ocean (inland bathing waters);
- the North Sea (coastal bathing waters) and the river basin districts flowing out into the North Sea (inland bathing waters);
- the Baltic Sea (coastal bathing waters) and the river basin districts flowing out into the Baltic Sea (inland bathing waters);
- the Black Sea (coastal bathing waters) and the river basin districts flowing out into the Black Sea (inland bathing waters).

The analysis of bathing water quality by geographic region is based on the bathing water geographic coordinates reported by Member States.

The majority of coastal bathing waters are located in the Mediterranean region (8 121), representing 59.1 % of all coastal bathing waters in EU. In the North Sea and Atlantic regions the number of coastal bathing waters is around 2 000 (2 043 and 2 005, respectively). In the Black Sea region there are 138 coastal bathing waters.

The highest number of inland bathing waters is located in the North Sea region (2 486). In the Baltic

Sea region there are 1 255 inland bathing waters and in the Mediterranean region 1 383. The Black Sea and Atlantic regions have less than 1 000 inland bathing waters, with 870 and 844 respectively. The Baltic Sea region has approximately the same number of coastal and inland bathing waters (1 229 and 1 255 respectively).

Bathing seasons vary between and within Member States but generally run from the end of May until the end of September in the EU. The bathing season generally differs in northern and southern parts of each region. In the northern Mediterranean Sea region the bathing season runs from the start of July until the end of September while in the southern part it runs from the start of May until the end of October. In the northern part of the Atlantic Sea region the bathing season runs from the start of July until the end of August while in the southern part it runs from the start of June until the end of September. In the northern part of the North Sea region the bathing season runs from the start of June until end of August while in the southern part it runs from the start of May until the end of September. In the northern part of the Baltic Sea region the bathing season runs from the start of July until the end of August while in the southern part it runs from the start of June until the end of September. In the northern part of the Black Sea region the bathing season runs from the start of July until the end of August while in the southern part it runs from the start of June until the end of September.

Compliance of coastal bathing areas with mandatory water quality values is lower on average on the Mediterranean coasts (94.9 %) than in the rest of EU regions where the compliance is above 95.9 %. Only the Mediterranean coasts have above average compliance rates with the more stringent guide values. For inland bathing areas, the Black Sea, North Sea, Atlantic and Baltic Sea do best compared to the mandatory values, while the first three also do well with the more stringent criteria. Only the inland bathing areas of the Mediterranean fall below the European average in complying with the mandatory values.

Photo: © Peter Kristensen

4.4.1 Mediterranean Sea

A total of 8 121coastal bathing areas and 1 383 inland bathing sites were reported by the eight Members States in the EU part of the Mediterranean basin area.

Coastal bathing waters

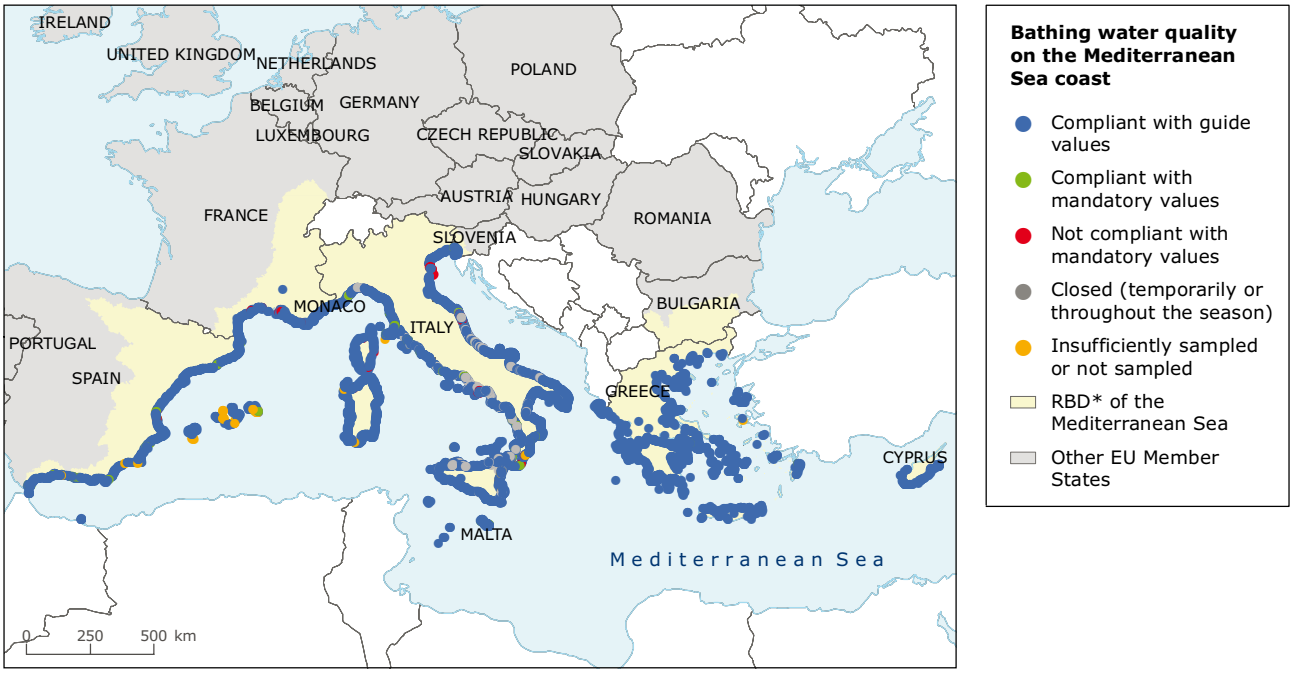
The Member States that border the Mediterranean Sea are Cyprus, France, Greece, Italy, Malta, Slovenia, Spain and United Kingdom (Gibraltar). Italy reported more than half of the coastal bathing areas (61 %) for the region.

About 94.9 % of coastal bathing areas in the Mediterranean complied with the mandatory quality values, which is below the European average of 95.6 %. Cyprus, Malta, Slovenia and the United Kingdom (Gibraltar) achieved 100 % compliance while Greece (99.9 %) almost achieved full compliance. Only Italy had compliance rates below the European average.

Some 93.4 % of bathing sites complied with the more stringent guide values, which was higher than the European average of 89 %. Malta and Italy had compliance rates slightly above the European average. Slovenia and the United Kingdom (Gibraltar) achieved 100 % compliance, while Greece (99.8 %) and Cyprus (99.1 %) almost achieved full compliance.

Bathing was banned or closed during the season at 310 bathing sites (3.8 %); all were located in Italy. A total of 77 bathing sites (0.9 %) did not comply with mandatory values of which 51 were located in Italy, 21 in France and five in Spain.

Map 4.2 Bathing water quality on the Mediterranean Sea coast



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

Inland bathing waters

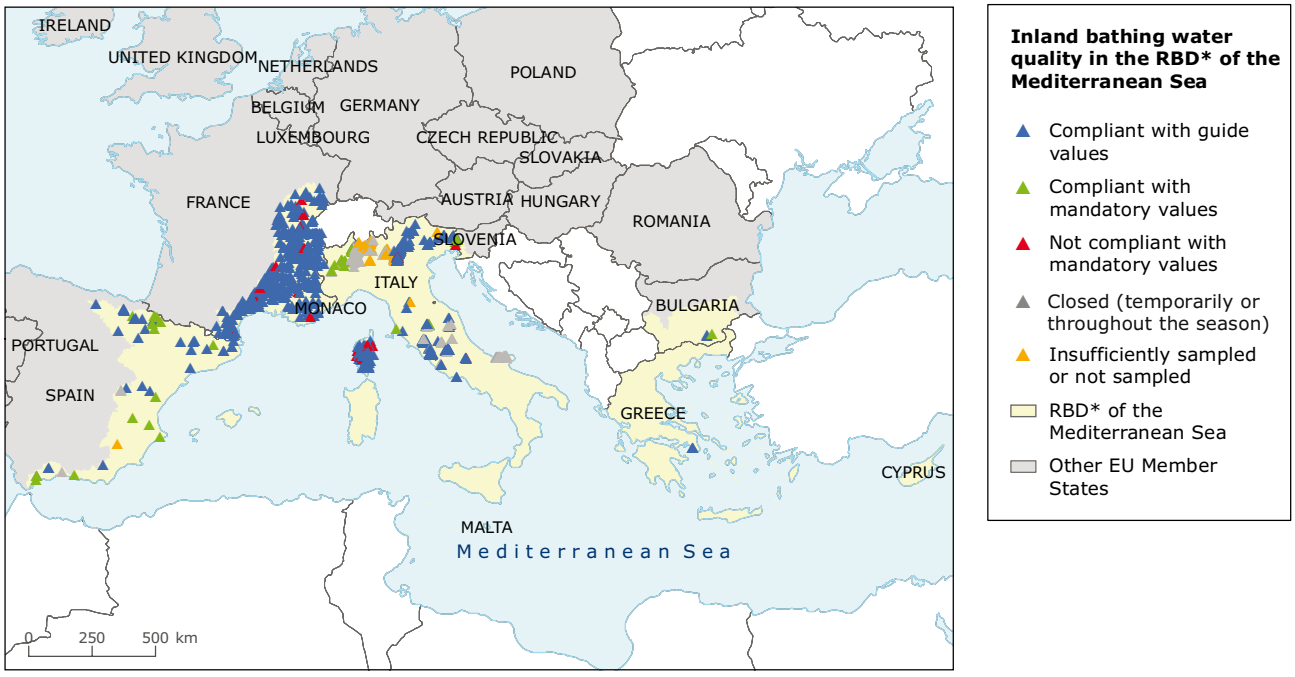
Of the 1 383 inland bathing waters reported for the Mediterranean Sea region, 95 % were located in France and Italy.

Some 68.1 % of bathing waters complied with mandatory values, somewhat below the European average of 89.4 %. Only Bulgaria, Greece and France had more than 95 % of inland bathing waters complying with mandatory values, with 100 % compliance for the three Bulgarian and four Greek inland bathing waters. Italy had a compliance rate below 50 %.

In the Mediterranean area, 61.7 % of inland bathing waters complied with guide values, which was below the European average of 70.7 %. Except for France and Greece (where 95.8 % and 100 % were compliant), no other Member State reached 70 %.

A total of 29 bathing waters (2.1 %) did not meet mandatory values, of which 23 were located in France. Bathing was banned or closed during the season at 276 inland bathing sites (20 %), of which 273 were located in Italy and three in Spain.

Map 4.3 Inland bathing water quality in the RBD* of the Mediterranean Sea



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

4.4.2 *Atlantic Ocean*

A total of 2 005 coastal bathing waters and 844 inland bathing areas were reported for the Atlantic region during the 2009 bathing season.

Coastal bathing waters

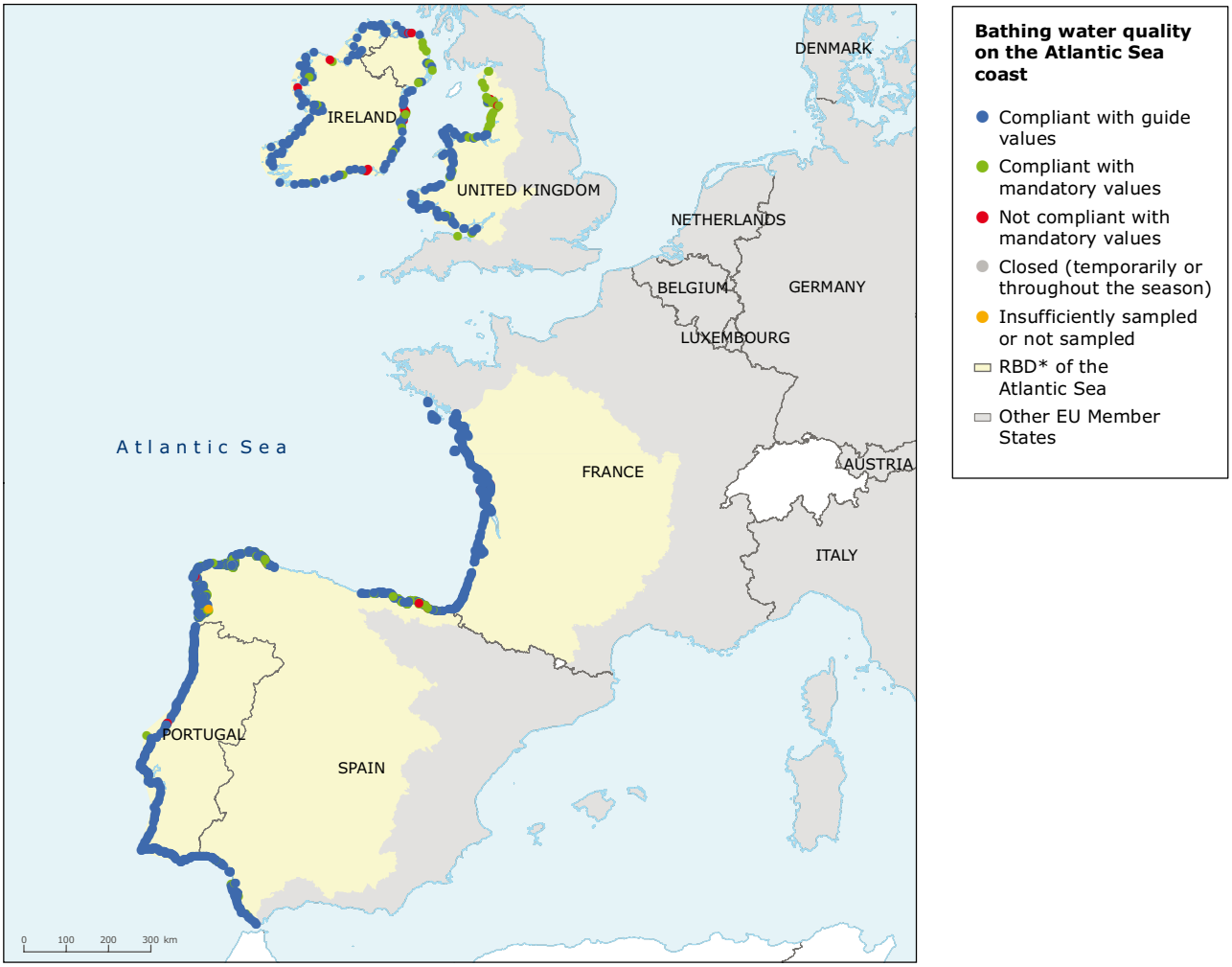
Five EU Member States have coasts on the Atlantic Ocean — France, Ireland, Portugal, Spain and the United Kingdom. France and Spain represent about 65 % of bathing areas in this group.

In the Atlantic area, 98 % of the coastal bathing waters complied with mandatory values in 2009, which was higher than the European average of 95.6 %. This figure was above 98 % in France and Portugal and below 95 % in Ireland.

Compliance with the more stringent guide values (87.4 %) was above the European average of 89 % with compliance rates varying between 68.1 % in the United Kingdom and 99.2 % in France.

Some 23 bathing areas (1.1 %) did not meet mandatory values. The highest rate of non-compliance was reported in Ireland (6.6 %) and the lowest in Spain (0.4 %). Bathing was banned or closed during the season at four inland bathing sites (0.2 %), located in Portugal and Spain.

Map 4.4 Bathing water quality on the Atlantic Sea coast



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

Inland bathing waters

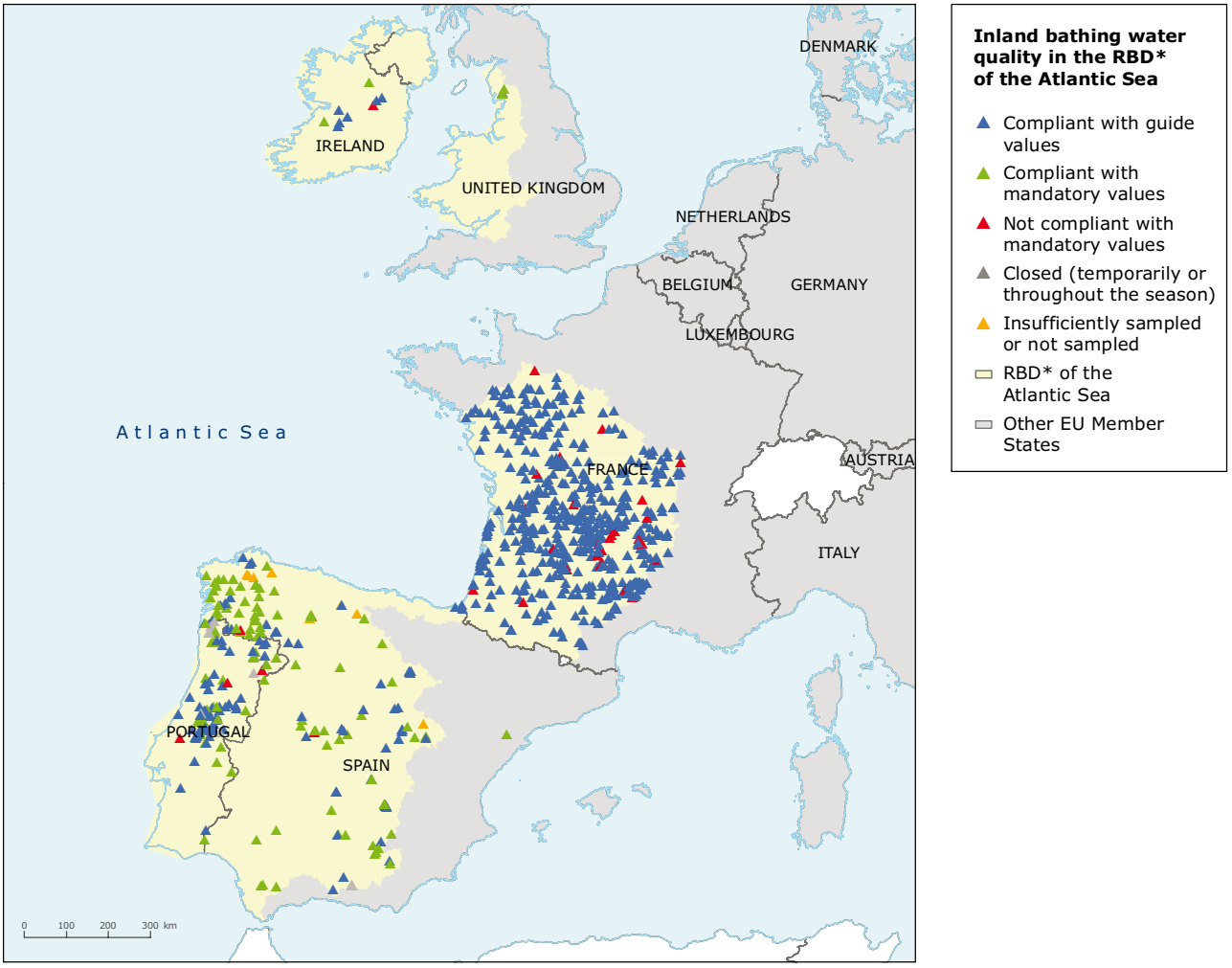
The Atlantic region covers part of the inland waters of France, Ireland, Portugal, Spain and the United Kingdom. France accounts for more than 69 % of the inland bathing waters in the Atlantic region and there are few inland bathing waters in Ireland and the United Kingdom.

Some 94.3 % of inland bathing areas in the Atlantic region complied with mandatory values compared to a European average of 89.4 %. The compliance rate was below the European average only in Ireland (88.9 %). The compliance rate was above 95 % in France, while the United Kingdom secured 100 % compliance for three bathing waters.

Bathing areas in this region performed relatively well against the more stringent guide values, with 79.6 % of bathing sites complying, compared to the European average of 70.7 %. The United Kingdom had the lowest compliance rate at 33.3 %, with only three sites reported. The second lowest compliance rate of 35.9 % was in Spain, while the highest compliance rate of 95.3 % was in France.

A total of 37 bathing sites (4.4 %) did not meet mandatory values, 27 of which were located in France. Ireland had the highest percentage of non-compliant bathing waters, with only one out of nine bathing sites (11.1 %) not complying. Bathing was banned or closed during the season at nine inland bathing sites (1.1 %), of which seven were located in Portugal.

Map 4.5 Inland bathing water quality in the RBD* of the Atlantic Sea



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

4.4.3 North Sea

During the 2009 bathing water season a total of 2 043 coastal and 2 486 inland bathing sites were reported for the North Sea region.

Coastal bathing waters

Seven Member States have coasts on the North Sea: Belgium, Denmark, France, Germany, the Netherlands, Sweden and the United Kingdom. Denmark, France and the United Kingdom reported the majority (83.9 %) of North Sea coastal bathing areas.

Some 96.4 % of bathing waters located on the North Sea complied with mandatory values, slightly above the European average of 95.6 %. The rate of compliance was higher than 95 % for all Member States in the region, with all bathing waters complying in Belgium and 99 % of bathing waters complying in Germany.

The share of coastal bathing areas complying with the guide values stood at 86 %, which was lower than the European average of 89 %. This varied between 72.5 % in Sweden and 96 % in France.

Exactly 66 bathing waters (3.2 % of the total) did not meet mandatory values, with the highest rate reported on the coasts of the Netherlands (4.4 %) and France (4 %).

Map 4.6 Bathing water quality on the North Sea coast

Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

Inland bathing waters

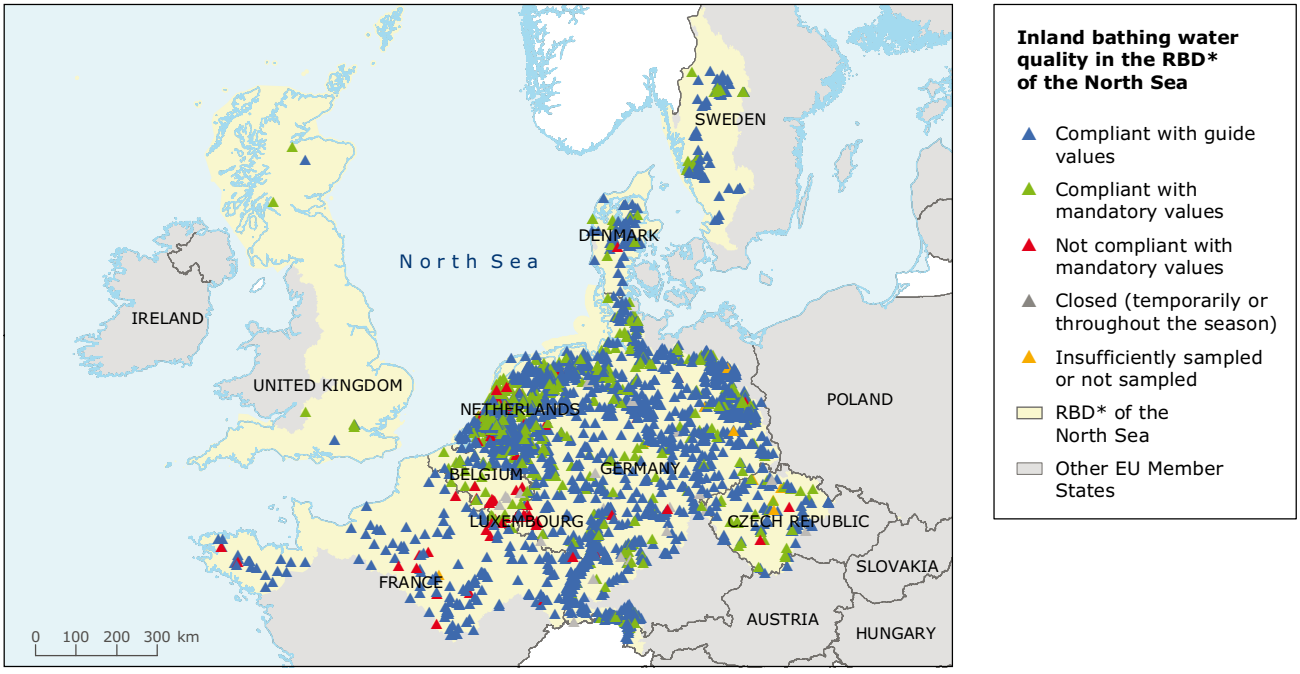
A total of 2 486 inland bathing waters were reported in 2009 for the North Sea region. This represents more than a third of reported inland bathing areas in the European Union and covers part of the inland waters of Austria, the Czech Republic, Denmark, France, Germany, Sweden and the United Kingdom, and all of the inland waters of Belgium, Luxembourg and the Netherlands. More than half of these inland waters are located in Germany (53.5 %) and 22.2 % in the Netherlands.

Some 95.4 % of inland bathing waters complied with mandatory values, which was higher than the European average of 89.4 %. The rate of compliance was higher than 90 % for all Member States in the region, except Belgium and Luxembourg. In Austria, Sweden and the United Kingdom all inland bathing waters complied with the mandatory values.

About 73.2 % of bathing waters complied with the more stringent guide values compared to the European average of 70.7 %. This varied between 33.3 % in the United Kingdom and 94.4 % in Austria.

A total of 84 bathing waters (3.4 %) did not meet mandatory values and bathing was banned or closed during the season in 22 bathing sites (0.9 %), of which 15 were located in Germany.

Map 4.7 Inland bathing water quality in the RBD* of the North Sea



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

4.4.4 *Baltic Sea*

Within the Baltic Sea region 1 229 coastal and 1 255 inland bathing sites were reported in 2009.

Coastal bathing waters

Eight EU Member States border the Baltic Sea: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden. Denmark represents 43.1 % of the reported coastal bathing sites within this region, Germany 21.8 % and Sweden 13.7 %.

Around 95.9 % of bathing areas complied with mandatory quality values, which was around the European average of 95.6 %. In Lithuania and Latvia all bathing areas complied with the mandatory values. The rate of compliance was higher than 90 % for all Member States in the region, except for Poland, where 87.6 % of bathing sites complied.

Regarding the more stringent guide values, the compliance rate for coastal bathing sites in the Baltic Sea stood at 70.7 %, significantly lower than the European average of 89 %. In Germany, Finland, Lithuania and Sweden the average was above 80 %. Elsewhere the rate of compliance was much lower, reaching 37.1 % in Poland, 50 % in Latvia and 55.6 % in Estonia.

A total of 45 bathing waters (3.7 %) did not meet the mandatory values. The highest proportion was in Poland (12.4 %), whereas in some Member States in the region (Estonia, Germany, Latvia, Lithuania and Sweden) all bathing waters met the mandatory values.

Map 4.8 Bathing water quality on the Baltic Sea coast

Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

Inland bathing waters

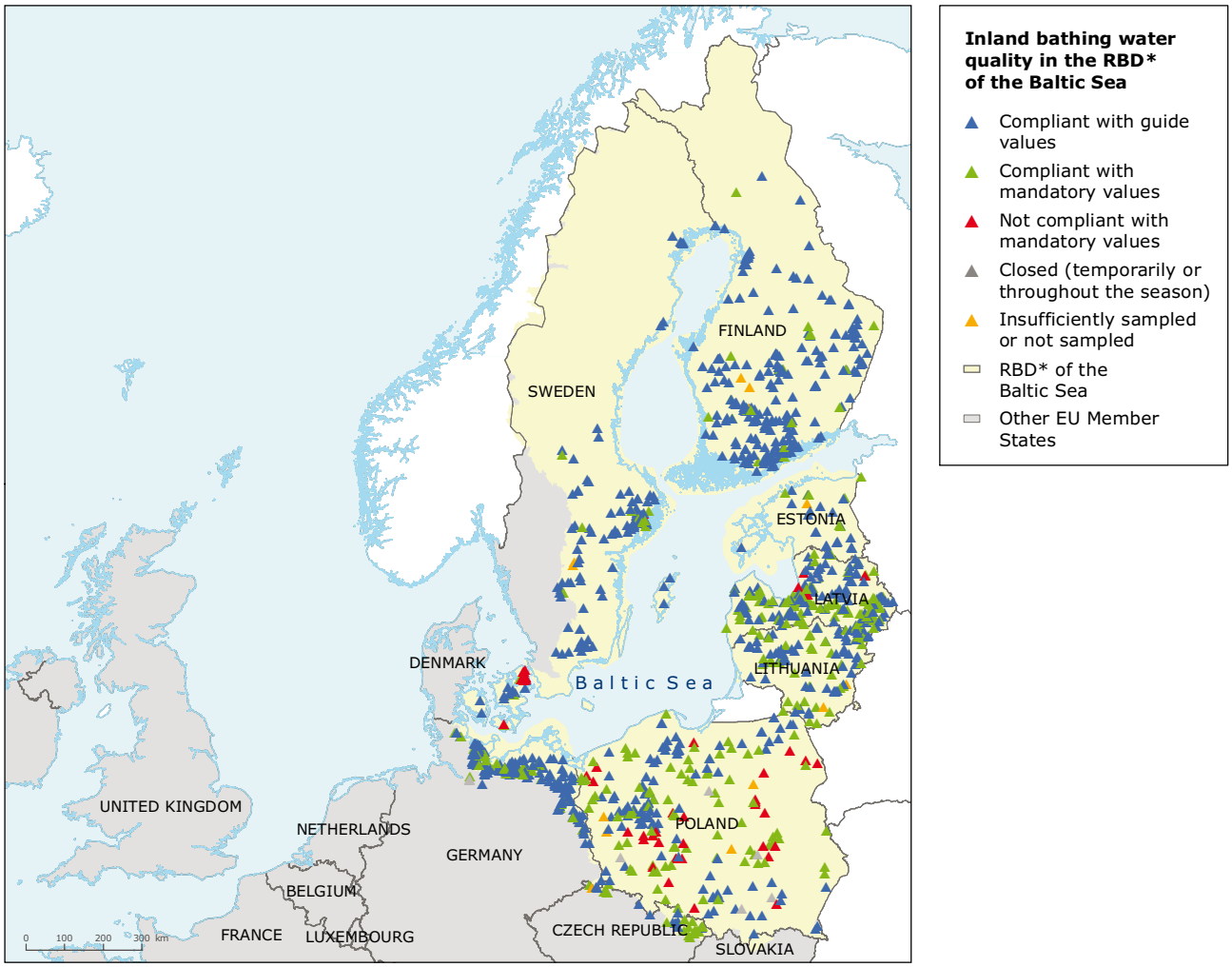
Nine EU Member States have bathing areas in the Baltic Sea region: the Czech Republic, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden.

In 2009 a total of 1 255 inland bathing areas were monitored in the Baltic Sea region. Of these, 94.3 % complied with mandatory values, which was higher than the European average of 89.4 %. Only Denmark with 57.1 % and Poland with 81.5 % had a compliance rate below 90 %.

Some 67.6 % of bathing waters in the region complied with the more stringent guide values, compared to the European average of 70.7 %. The rate of compliance was above 80 % in Finland, Sweden and Germany.

Bathing was banned or closed during the season in ten bathing sites (0.8 %), and 51 sites (4.1 %) did not comply with mandatory values. Six bathing waters were banned in Poland. With 42.9 % Denmark had the largest share of non-compliant bathing sites.

Map 4.9 Inland bathing water quality in the RBD* of the Baltic Sea



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

4.4.5 Black Sea

In the Black Sea region 138 coastal and 870 inland bathing areas were reported during the 2009 bathing season.

Coastal bathing waters

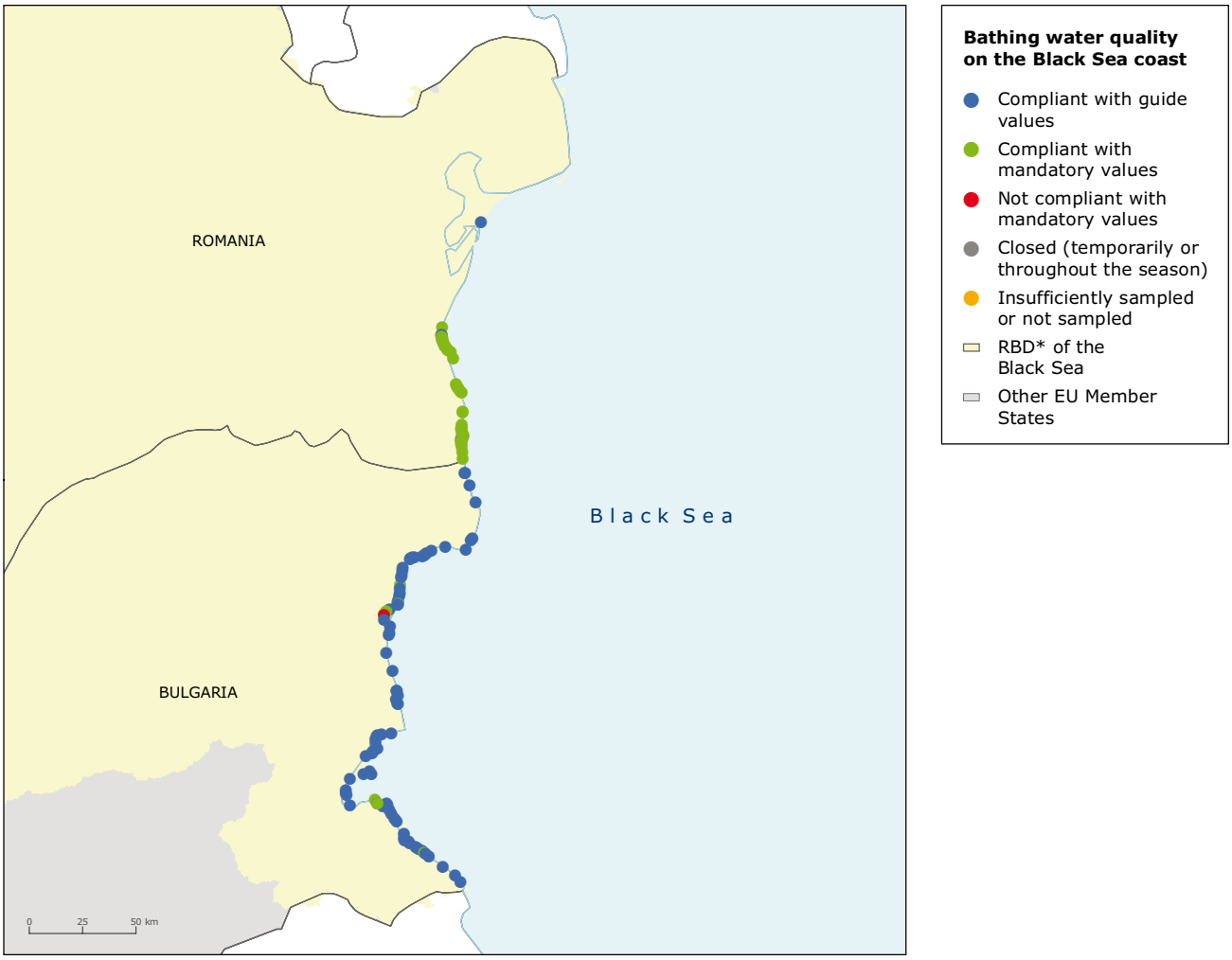
There are only two EU Member States located on the Black Sea: Bulgaria and Romania. Both are comparatively new Member States and started reporting the quality of their bathing waters in 2007.

About 99.3 % of bathing areas complied with the mandatory quality values, which was higher than the European average of 95.6 %. The compliance rates were 100 % in Romania and 98.9 % in Bulgaria.

Compliance with the more stringent guide values stood at 61.6 %, markedly below the European average of 89 %. Only four bathing site (8.2 %) in Romania met the guide values compared to 91 % of bathing sites in Bulgaria.

Only one bathing area (0.7 %) did not meet the mandatory values.

Map 4.10 Bathing water quality on the Black Sea coast



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

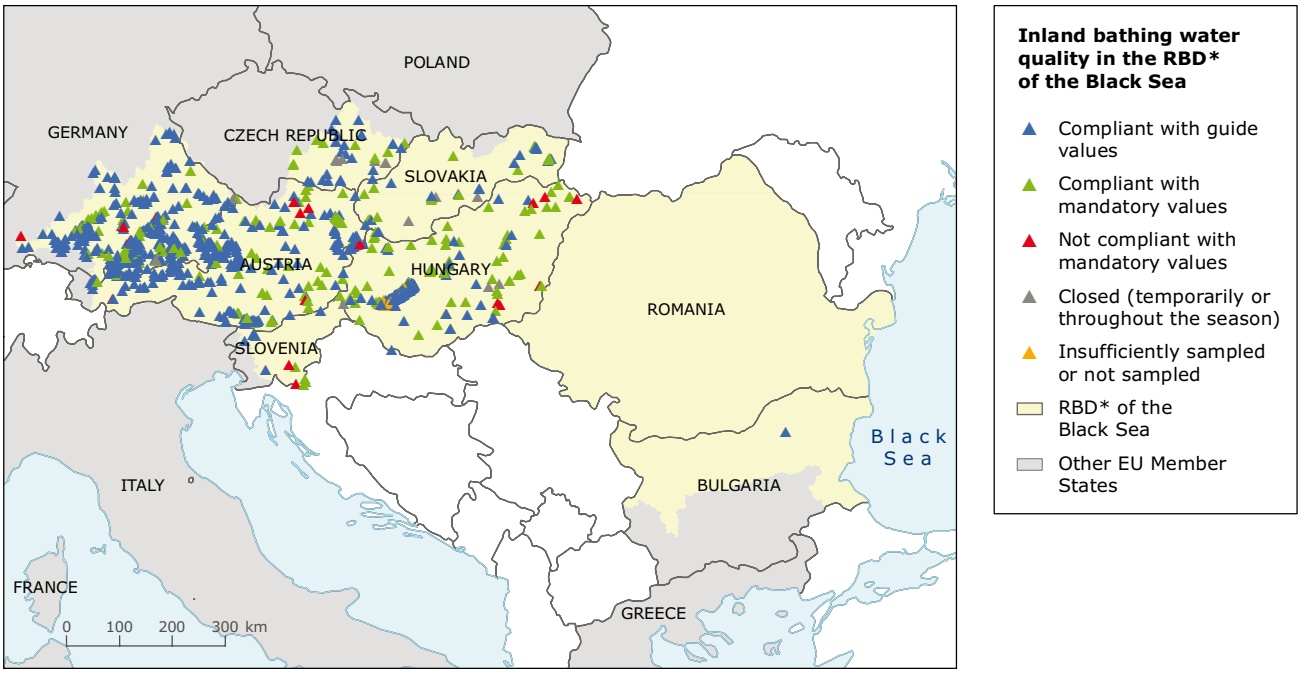
Inland bathing waters

Eight Member States have bathing areas in the Danube River region, which stretches from the Black Sea (Romania and Bulgaria) inland to Hungary, Slovakia, the Czech Republic, Slovenia, Austria and Germany. A total of 953 inland bathing areas were monitored in 2009 in the region but Bulgaria has limited monitoring of inland bathing waters and Romania reports none.

Some 95.1 % of bathing waters complied with the mandatory values, which was above the European average of 89.4 %. Compliance was below 90 % in the Czech Republic and Hungary, and reached as high as 100 % in Bulgaria and Slovenia.

Compliance with the guide values stood at 73.4 %, around three percentage points more than the European average (70.7 %). Bathing was banned or closed during the season in nine inland bathing areas (1 %); five of them were located in the Czech Republic and two in Hungary. A total of nine bathing waters (1 %) did not meet the mandatory values, all located in Austria and Germany.

Map 4.11 Inland bathing water quality in the RBD* of the Black Sea



Note: * River Basin District.
More data on bathing water quality on www.eea.europa.eu/themes/water/mapviewers/bathing.

Source: National boundaries: GISCO; bathing waters data and coordinates: Member States' authorities.

5 Summary of results

Each year millions of Europeans spend their weekends at their local beach or travel on holiday to Europe's huge diversity of beautiful beaches and bathing areas. High quality bathing waters are an important asset, enabling people to enjoy the water environment safely. All possible sources of pollution must be recognised and controlled in order to protect and, where necessary, improve water quality.

Pollution takes many forms. For recreational activities, such as swimming, faecal contamination from sewage makes water aesthetically unpleasant and unsafe. Twenty to forty years ago, large quantities of largely uncontrolled, untreated or partially treated municipal and industrial wastewater were discharged into many of Europe's waters. Thankfully, due to EU and national water policies and actions to reduce pollution and treat wastewater, Europe's bathing waters are today much cleaner.

Overall in 2009, 95.6 % of Europe's coastal bathing waters and 89.4 % of inland bathing waters met the minimum water quality standards set by the European Bathing Water Directive. The overall quality of bathing waters in the EU has also markedly improved since 1990. Between 2008 and 2009 there was a slight deterioration in the percentage of coastal and inland bathing waters meeting minimum water quality standards, with reductions of 0.7 and 2.6 percentage points respectively. During the last ten years the overall bathing water quality has been consistently high and has only fluctuated a little from year to year. The decrease from 2008 to 2009 partly reflects such fluctuations but also indicates that further work is necessary to ensure that the quality of bathing waters is constantly improved and maintained.

The countries where the highest percentage of bathing waters met the guide values are Greece (99.8 %) ([11]), Cyprus (99.1 %), France (95.7 %), Malta (93.1 %), Bulgaria (90.3 %) and Portugal (90 %). Countries where more than 80 % of bathing waters meet guide values are Finland (88.5 %), Spain (84 %), Italy (83.5 %), Ireland (82.4 %), Germany (81.2 %) and Sweden (80.6 %).

The first European Bathing Water Directive was adopted in 1975 and came into force in 1976. The new Bathing Water Directive was adopted in 2006. The new Directive updates the measures of the 1975 legislation and simplifies its management and surveillance methods. The new European legislation was transposed into national law in 2008 but Member States have until December 2014 to implement it. During the bathing season 2009, 14 Member States monitored and reported bathing water quality according to the New Bathing Water Directive.

Of the more than 20 000 bathing areas monitored throughout the European Union, two-thirds are in coastal waters and the rest in rivers and lakes. The largest number of coastal bathing waters can be found in Italy, Greece, France, Spain and Denmark, while Germany and France have the highest number of inland bathing waters.

In 2009, Member States reported on six fewer bathing sites than in 2008 but the total number of bathing waters assessed in 2009 was actually 836 fewer than in the preceding year. This disparity was due to events in Greece, where delays in commissioning the monitoring programme meant that 830 bathing waters were not adequately monitored.

([11]) It should be noted that delays in commissioning the monitoring programme in Greece meant that 830 bathing waters were not adequately monitored.

As reported in Chapter 3 of this report, interested citizens now have access to more bathing water information than ever. In addition to annual bathing water report like this one, online tools allow users to access data for a selected country or region and make comparisons with previous years. The data can also be visualised in geospatial mapping programs such as Google Earth and Bing maps. This information allow the public to get more actively involved in protecting the environment and help protect and improve Europe's bathing areas.

Clean unpolluted water is essential for our ecosystems and economic activities such as tourism. Plants and animals react to changes in their environment caused by changes in water quality. We need to manage our water resources well to sustain human and economic development and improving the essential functions of our water ecosystems. The solutions lie in more integrated and sustainable water resource management, including full implementation of the Water Framework Directive, with its objective that all water bodies should have achieved 'good status' by 2015.

Photo: © Helen Witt Qvist, Friluftsrådet, Blå Flag

Table 5.1 European Union bathing water quality from 1990 to 2009

		Total number of bathing areas	Compliance with guide values		Compliance with mandatory values		Not complying		Banned/closed temporarily or throughout the season	
			number	%	number	%	number	%	number	%
Coastal bathing waters	1990 (a)	6 165	4 208	68.3	4 920	79.8	565	9.2	0	0
	1991 (a)	10 152	5 963	58.7	8 208	80.9	782	7.7	30	0.3
	1992 (b)	10 996	7 821	71.1	9 048	82.3	865	7.9	42	0.4
	1993 (b)	11 386	8 518	74.8	9 800	86.1	726	6.4	25	0.2
	1994 (b)	11 813	9 067	76.8	10 500	88.9	725	6.1	19	0.2
	1995 (c)	12 500	9 271	74.2	10 575	84.6	640	5.1	18	0.1
	1996 (c)	12 948	10 636	82.1	11 865	91.6	598	4.6	14	0.1
	1997 (c)	13 114	10 847	82.7	12 232	93.3	699	5.3	17	0.1
	1998 (c)	13 210	11 070	83.8	12 496	94.6	596	4.5	19	0.1
	1999 (c)	13 255	11 300	85.3	12 599	95.1	471	3.6	16	0.1
	2000 (c)	13 346	11 446	85.8	12 689	95.1	365	2.7	16	0.1
	2001 (c)	13 428	11 594	86.3	12 806	95.4	359	2.7	23	0.2
	2002 (c)	13 625	11 851	87	13 046	95.8	238	1.7	140	1
	2003 (c)	13 641	12 180	89.3	13 208	96.8	159	1.2	191	1.4
	2004 (d)	13 901	12 297	88.5	13 441	96.7	206	1.5	209	1.5
	2005 (e)	14 234	12 676	89.1	13 673	96.1	188	1.3	272	1.9
	2006 (e)	14 340	12 678	88.4	13 787	96.1	217	1.5	283	2
	2007 (f)	14 552	12 526	86.1	13 855	95.2	318	2.2	313	2.2
	2008 (f)*	14 548	12 889	88.6	14 006	96.3	208	1.4	307	2.1
	2009 (f)*	13 741	12 235	89.0	13 139	95.6	221	1.6	316	2.3
Inland bathing waters	1990 (a)	1 374	500	36.4	720	52.4	164	11.9	0	0
	1991 (b)	4 923	981	19.9	1 733	35.2	531	10.8	10	0.2
	1992 (b)	5 264	1 159	22	1 970	37.4	744	14.1	214	4.1
	1993 (b)	5 076	1 575	31	2 706	53.3	609	12	32	0.6
	1994 (b)	5 368	1 819	33.9	3 100	57.7	596	11.1	44	0.8
	1995 (c)	5 894	2 059	34.9	2 834	48.1	612	10.4	36	0.6
	1996 (c)	6 078	3 111	51.2	4 177	68.7	593	9.8	27	0.4
	1997 (c)	6 189	3 702	59.8	4 930	79.7	721	11.6	52	0.8
	1998 (c)	6 012	3 833	63.8	5 209	86.6	434	7.2	33	0.5
	1999 (c)	5 838	3 719	63.7	5 157	88.3	299	5.1	59	1
	2000 (c)	5 833	3 778	64.8	5 262	90.2	291	5	46	0.8
	2001 (c)	5 784	3 867	66.9	5 264	91	257	4.4	63	1.1
	2002 (c)	5 774	3 701	64.1	5 258	91.1	217	3.8	165	2.9
	2003 (c)	5 729	3 893	68	5 291	92.4	154	2.7	263	4.6
	2004 (d)	6 295	4 039	64.2	5 440	86.4	229	3.6	323	5.1
	2005 (e)	6 677	4 214	63.1	5 720	85.7	244	3.7	357	5.3
	2006 (e)	6 753	4 312	63.9	5 995	88.8	281	4.2	338	5
	2007 (f)	6 816	4 270	62.6	6 044	88.7	302	4.4	378	5.5
	2008 (f)*	6 896	5 059	73.4	6 342	92.0	196	2.8	315	4.6
	2009 (f)*	6 867	4 856	70.7	6 140	89.4	216	3.1	326	4.7

Note: Bathing areas insufficiently sampled or not sampled according to the Bathing Water Directive or the New Bathing Water Directive were not included in this table. In some cases the sum of the different categories will not be equal to the total number of bathing areas.
Bathing waters compliant with guide values were also compliant with mandatory values.
*: Changes after official EU report for 2008 bathing season – Delays in commissioning the monitoring programme meant that Greek 830 bathing waters were not adequately monitored.
(a) 7 Member States
(b) 12 Member States
(c) 14 Member States
(d) 21 Member States
(e) 25 Member States
(f) 27 Member States

Table 5.2 Bathing water quality results in 2009 for the 27 EU Member States

			Total number of bathing areas	Compliance with guide values		Compliance with mandatory values		Not complying		Banned/closed temporarily or throughout the season	
				number	%	number	%	number	%	number	%
Coastal bathing waters	BE	Belgium	42	31	73.8	42	100.0	0	0.0	0	0.0
	BG	Bulgaria	89	81	91.0	88	98.9	1	1.1	0	0.0
	CY	Cyprus	111	110	99.1	111	100.0	0	0.0	0	0.0
	DE	Germany	373	302	81.0	371	99.5	0	0.0	2	0.5
	DK	Denmark	1 087	808	74.3	1 027	94.5	55	5.1	0	0.0
	EE	Estonia	27	15	55.6	26	96.3	0	0.0	0	0.0
	ES	Spain	1 910	1691	88.5	1 883	98.6	9	0.5	2	0.1
	FI	Finland	85	70	82.4	84	98.8	1	1.2	0	0.0
	FR	France	2 005	1 932	96.4	1 932	96.4	61	3.0	0	0.0
	GR	Greece*	1 273	1 270	99.8	1 272	99.9	0	0.0	0	0.0
	IE	Ireland	122	102	83.6	114	93.4	8	6.6	0	0.0
	IT	Italy	4 921	4 467	90.8	4 536	92.2	51	1.0	310	6.3
	LI	Lithuania	16	13	81.3	16	100.0	0	0.0	0	0.0
	LT	Latvia	46	23	50.0	46	100.0	0	0.0	0	0.0
	MT	Malta***	87	81	93.1	87	100.0	0	0.0	0	0.0
	NL	Netherlands	91	74	81.3	87	95.6	4	4.4	0	0.0
	PL	Poland	89	33	37.1	78	87.6	11	12.4	0	0.0
	PT	Portugal	443	429	96.8	437	98.6	4	0.9	2	0.5
	RO	Romania	49	4	8.2	49	100.0	0	0.0	0	0.0
	SE	Sweden	259	202	78.0	254	98.1	2	0.8	0	0.0
	SI	Slovenia	20	20	100.0	20	100.0	0	0.0	0	0.0
	UK	United Kingdom	596	477	80.0	579	97.1	14	2.3	0	0.0
		EU	**13 741**	**12 235**	**89.0**	**13 139**	**95.6**	**221**	**1.6**	**316**	**2.3**
Inland bathing waters	AT	Austria	268	200	74.6	260	97.0	7	2.6	0	0.0
	BE	Belgium	84	35	41.7	69	82.1	11	13.1	4	4.8
	BG	Bulgaria	4	3	75.0	4	100.0	0	0.0	0	0.0
	CZ	Czech Republic	187	118	63.1	171	91.4	2	1.1	8	4.3
	DE	Germany	1 906	1 548	81.2	1 875	98.4	9	0.5	18	0.9
	DK	Denmark	117	86	73.5	104	88.9	13	11.1	0	0.0
	EE	Estonia	28	19	67.9	27	96.4	0	0.0	0	0.0
	ES	Spain	207	88	42.5	193	93.2	6	2.9	5	2.4
	FI	Finland	254	230	90.6	250	98.4	0	0.0	1	0.4
	FR	France	1 343	1 271	94.6	1 271	94.6	68	5.1	0	0.0
	GR	Greece*	4	4	100.0	4	100.0	0	0.0	0	0.0
	HU	Hungary**	177	102	57.6	153	86.4	0	0.0	2	1.1
	IE	Ireland	9	6	66.7	8	88.9	1	11.1	0	0.0
	IT	Italy	770	287	37.3	357	46.4	5	0.6	273	35.5
	LI	Lithuania	96	58	60.4	94	97.9	0	0.0	0	0.0
	LT	Latvia	228	117	51.3	222	97.4	5	2.2	1	0.4
	LU	Luxembourg***	20	11	55.0	11	55.0	9	45.0	0	0.0
	NL	Netherlands	553	295	53.3	511	92.4	42	7.6	0	0.0
	PL	Poland	232	104	44.8	189	81.5	33	14.2	6	2.6
	PT	Portugal	97	57	58.8	87	89.7	3	3.1	7	7.2
	SE	Sweden	210	176	83.8	209	99.5	1	0.5	0	0.0
	SI	Slovenia	25	9	36.0	24	96.0	1	4.0	0	0.0
	SK	Slovakia	36	28	77.8	35	97.2	0	0.0	1	2.8
	UK	United Kingdom	12	4	33.3	12	100.0	0	0.0	0	0.0
		EU	**6 867**	**4 856**	**70.7**	**6 140**	**89.4**	**216**	**3.1**	**326**	**4.7**

Note: Bathing areas insufficiently sampled or not sampled according to the Bathing Water Directive or the New Bathing Water Directive were not included in this table.
In some cases the sum of the different categories will not be equal to the total number of bathing areas. Bathing waters compliant with guide values were also compliant with mandatory values.
Notes by countries:
* A total of 830 incompletely sampled bathing waters in Greece are not included in total number of bathing waters.
** A total of 125 out of 260 bathing waters in Hungary were grouped into 42 groups.
*** For Luxembourg and Malta, classification under the New Bathing Water Directive is adapted to classification during transition period.

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