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European Bathing Water Quality in 2018

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Foreword

The European Environment Agency (EEA) and the European Commission are pleased to present this year's European bathing water report, which assesses bathing water quality in the 2018 season. The report aims to help Europeans make informed choices about the bathing sites they wish to visit, where they can enjoy one of the great assets our nature offers. Together with this year's bathing water report, the EEA has also released country reports and an updated interactive map showing the performance of each bathing site in Europe.

People appreciate the good quality of bathing waters but our ecosystems also need clean and healthy waters to thrive. Efforts to improve the quality of bathing waters should therefore not be seen in isolation but in the context of the ecological and environmental status of all water bodies, which the Water Framework Directive and the Marine Strategy Framework Directive aim to improve.

Europe's bathing water quality has improved markedly over the last 40 years, following the introduction of the EU Bathing Water Directive. Effective monitoring and management introduced under the Directive led to a drastic reduction in pollutants released through untreated or partially treated urban waste waters. As a result, more and more bathing sites are not only meeting the minimum 'sufficient' quality standards but have reached 'excellent' quality. This shows how solid and well-implemented policies can make a difference.

Water is essential for people, nature and the economy. The European Union's water policies are helping to protect our valuable water resources and the ecosystem services they provide. The improved quality of bathing sites in the EU is a good example of this progress.

We wish you a pleasant summer and safe bathing!

Karmenu Vella

European Commissioner for the Environment, Maritime Affairs and Fisheries

Hans Bruyninckx

Executive Director, European Environment Agency

Executive summary

Every summer, millions of Europeans use water for swimming, recreation and relaxation. They may spend their weekends at the local beach, or go on holiday by the water. The start of the bathing season in spring is, therefore, an appropriate time to draw attention to the quality of bathing waters.

The European Environment Agency (EEA), in cooperation with the European Commission, has prepared an annual report on the quality of bathing areas, as reported by the 28 EU Member States, plus Albania and Switzerland. This report gives an overview of 2018 bathing water quality, indicating where the best quality bathing sites are likely to be found this year.

Local authorities collect water samples at officially identified bathing sites throughout the bathing season. The samples are then analysed for two types of bacteria that indicate pollution from sewage or livestock. Depending on the levels of bacteria detected, the bathing water quality is classified as 'excellent', 'good', 'sufficient' or 'poor'. In the 2018 bathing season, more than 22 000 bathing waters were monitored throughout Europe, and the countries involved identified 445 new bathing waters.

In 2018, 95.4 % of EU bathing sites met the minimum 'sufficient' quality requirement and 85.1 % of bathing water sites met the Bathing Water Directive's most stringent 'excellent' quality standards. This gives a good indication of where to find good quality bathing water during the coming summer.

All reported bathing water sites in Cyprus, Greece, Latvia, Luxembourg, Malta, Romania and Slovenia achieved at least sufficient quality in 2018. In four countries, 95 % or more of bathing waters were assessed as being of excellent quality: Cyprus (99.1% of all sites), Malta (98.9 % of all sites), Austria (97.3 % of all sites) and Greece (97.0 % of all sites).

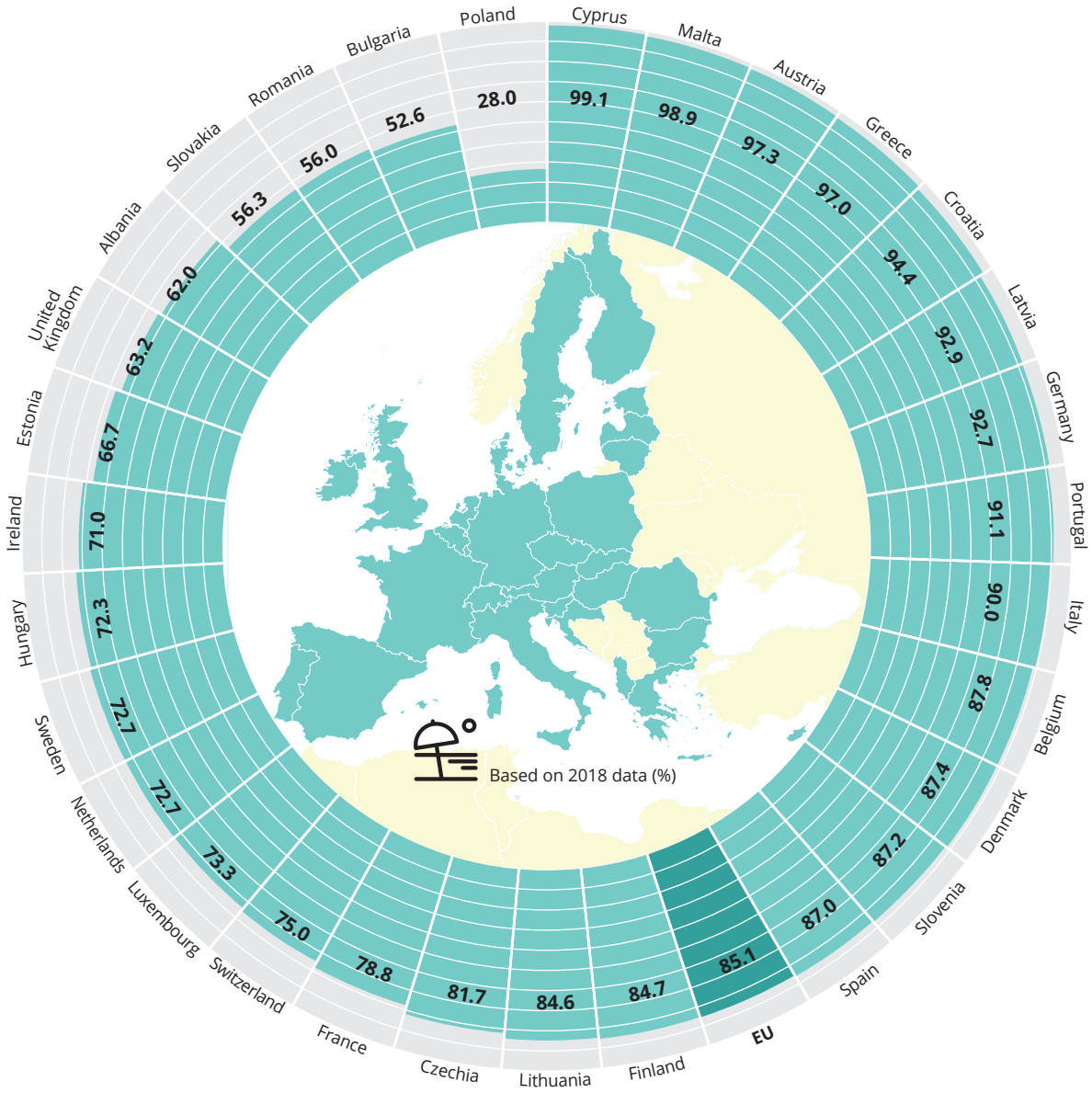
In 2018, 289 (1.3 %) EU bathing water sites were rated as having 'poor' water quality, which is slightly lower than the 2017 figures. Such poor quality, polluted water can have impacts on human health, causing stomach upsets and diarrhoea if swallowed. Many years of investment in the sewerage system and better waste water treatment have helped clean Europe's bathing waters.

Today, the public has access to high-quality information on bathing water quality. At the European level, bathing water information is made available to the public through the EEA's bathing water web pages ([1]). These allow users to view bathing water quality at the more than 22 000 coastal beaches and inland sites across Europe. Users can check bathing water quality on an interactive map, and download data and individual country reports. They can also make comparisons with water quality in previous years.

Countries run national or local websites with detailed information on each bathing water site. These websites usually include a map search function and allow public access to monitoring results, both in real time and for previous seasons.

([1]) EEA bathing water webpages available at https://www.eea.europa.eu/themes/water/europes-seas-and-coasts/thematic-assessments/state-of-bathing-water.

Figure ES.1 Proportion of bathing water sites with excellent water quality in European countries



1 Bathing waters in Europe

The EU's efforts to ensure clean and healthy bathing water began 40 years ago with the first Bathing Water Directive ([2]). Today, Europe's bathing waters are much cleaner than in the mid-1970s, when large quantities of untreated or partially treated municipal and industrial waste water were discharged into clean water.

During the 2018 bathing season, all EU Member States manage their bathing waters according to the provisions set out in the Bathing Water Directive. Before the beginning of the season, countries identify national bathing water sites, establish their own monitoring calendars and define the length of the bathing season.

Local authorities collect water samples at officially identified bathing sites throughout the season. The samples are then analysed for two types of bacteria that indicate pollution from sewage or livestock. Polluted water can have impacts on human health, causing stomach upsets and diarrhoea if swallowed. Depending on the levels of bacteria detected, the bathing water quality is classified as 'excellent', 'good', 'sufficient' or 'poor'.

1.1 Bathing water quality and trends in 2018

A total of 22 131 bathing water sites were monitored in Europe in 2018, of which 21 831 were in the 28 EU Member States. Albania and Switzerland also monitored and reported on the quality of their 300 bathing water sites. In 2018, two thirds of all sites were coastal bathing waters, while one third were situated at rivers and lakes.

Figure 1.1 Total number of bathing waters reported in the European Union since 1990

Source: WISE bathing water quality database (data from annual reports by EU Member States).

([2]) http://ec.europa.eu/environment/water/water-bathing/index_en.html

Box 1.1 New bathing water sites, 2015-2018

Any surface water where a large number of people are expected to bathe should be identified as a bathing water site and should be managed according to the Bathing Water Directive. While national legislation and the exact criteria that determine bathing water vary across Member States, the number of identified bathing waters in Europe has been increasing, as shown in Figure 1.1.

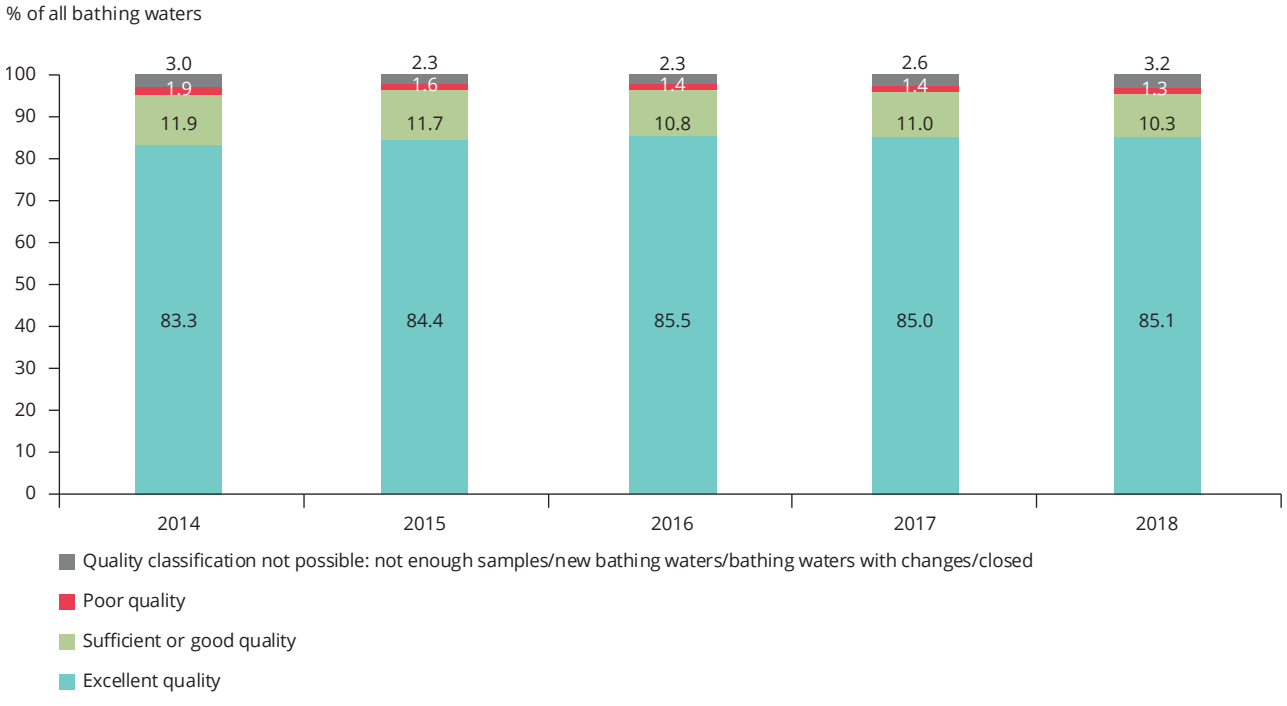
During the period 2015-2018, as many as 931 new bathing waters (445 in 2018) were identified throughout Europe and these still exist today. Poland identified 229 new bathing waters in this time, 92 % of which were reported for the first time in the 2018 season, although as yet, an insufficient number of observations have been made for them to be quality classified. These new bathing waters are spread across Poland, and comprise 130 coastal, 63 lake and 36 river bathing water sites.

In the last 4 years, Spain reported 111 new bathing waters. The majority already have the 'excellent' quality classification, although the water quality at 17 new bathing water sites was classified as 'poor' in the 2018 season. All sites except one are situated on rivers, concentrated in the Tajo river basin.

There are also a large number of newly identified bathing waters in:

- Greece (92), with virtually all concentrated on the coasts of the Aegean Sea;
- France (83);
- Italy (72), with a large concentration (19) on Lake Como, some of which were of 'poor' quality in the 2018 season;
- Croatia (54), among them 13 urban bathing waters in the coastal towns of Dubrovnik, Rijeka, Split, Trogir, Vodice, and Zadar; and
- Portugal (53), with as many as 13 bathing waters on the island of Madeira and nine on the islands of the Azores.

Figure 1.2 Overall bathing quality in the European Union between 2014 and 2018



Source: WISE bathing water quality database (data from annual reports by EU Member States).

The objective of the Bathing Water Directive is for the water quality at all bathing water sites to be classified as at least 'sufficient'. This minimum water quality standard was met by 95.4 % of all EU bathing water sites for the 2018 bathing season, which constitutes a minor drop compared with 2017 (96.0 %). This drop is explained by the opening of new bathing water sites for which an insufficient number of samples had been taken to classify bathing water quality. These new bathing waters are included in the 3.2 % of unclassified bathing waters. The share of bathing water sites in the EU with excellent water quality increased from 83.3 % in 2014 to 85.1 % in 2018.

The share of poor quality bathing waters in the EU dropped slightly from 294 (1.4 %) in 2017 to 289 (1.3%) in 2018. Where bathing water quality is poor, it is imperative to assess the sources of pollution in the bathing catchment area and implement management measures where possible. At those bathing sites for which the origins or causes of pollution are difficult to identify, special studies of the sources might be needed.

Overall, bathing water quality has been improving over time. It is encouraging to observe that more and more bathing water sites have reached the minimum 'sufficient' quality standard. Furthermore, it is reassuring to note that water quality at more and more bathing water sites can be classified in the highest 'excellent' quality standard.

1.2 Bathing water quality by country in 2018

Bathing water quality results for each country for the 2018 bathing season are shown in Figure 1.3. Tabular information regarding 2018 bathing water quality in Europe by country is available in Annexes 1-3.

In four countries, 95 % or more of bathing waters were found to be of excellent quality: Cyprus (99.1% of all sites), Malta (98.9 % of all sites), Austria (97.3 % of all sites) and Greece (97.0 % of all sites). All reported bathing water sites in Cyprus, Greece, Latvia, Luxembourg, Malta, Romania and Slovenia were of at least sufficient quality in 2018.

The three countries with the highest numbers of poor quality bathing water sites are Italy (89 bathing water sites or 1.6 %), France (54 sites or 1.6 %) and Spain (50 sites or 2.2 %). In comparison with the 2017 season, the number of poor quality bathing water sites in France decreased (from 80 in 2017 to 54 in 2018), while there was an increase in poor quality bathing waters in Italy (from 79 to 89) and in Spain (from 38 to 50).

In five EU countries, 3 % or more of bathing waters were of poor quality: the Netherlands (25 bathing waters or 3.4 %), Ireland (five bathing waters or 3.4 %), the United Kingdom (21 bathing waters or 3.3 %), Hungary (eight bathing waters or 3.2 %) and Slovakia (one bathing water or 3.1 %).

In Albania, 10 bathing water sites (or 9.3 %) were classified as poor, which is 2.5 percentage points fewer than in 2017. This also marks a significant reduction since 2015, when 31 bathing water sites (or 39.1 %) were assessed as poor. This improvement can be associated with the five waste water treatment plants constructed in Albania in recent years, which provide waste water treatment for almost half a million residents and contribute to better bathing and overall water quality.

For some countries, quality classification of a large share of bathing waters was not possible because they were either newly identified, not operational or not yet assessed due to changes, or because the required number of samples for assessment had not been provided. The greatest share of these waters was in Poland (62.3 %) and Switzerland (17.7 %). Of the 749 bathing waters in Europe for which quality could not be assessed, 442 were newly identified. More than half of them (229) are in Poland, which explains the extremely high share of unclassified bathing waters in the country.

1.3 Improvement and deterioration in bathing water quality

Swimming at bathing sites with poor water quality can result in illness. Bathing water sites classified as poor have to be closed throughout the following bathing season and must have measures in place to reduce pollution and eliminate hazards to the health of bathers.

In 2017, 294 bathing water sites in the EU were of poor quality, while a total of 182 bathing waters remained poor in 2018. Some 68 bathing waters improved their water quality to at least sufficient between 2017 and 2018, while the other (44) bathing waters were either excluded from the monitoring programme or could not be assessed due to changes, closure or not having enough samples. The countries with the highest number of bathing water sites where water quality improved from poor to at least sufficient are France (23 sites), Italy (11) and Spain (8).

However, in the same period, 82 bathing water sites changed their status from at least sufficient quality to poor quality. The deterioration in the quality of individual bathing water sites was most significant in Italy and France, where water quality at 20 and

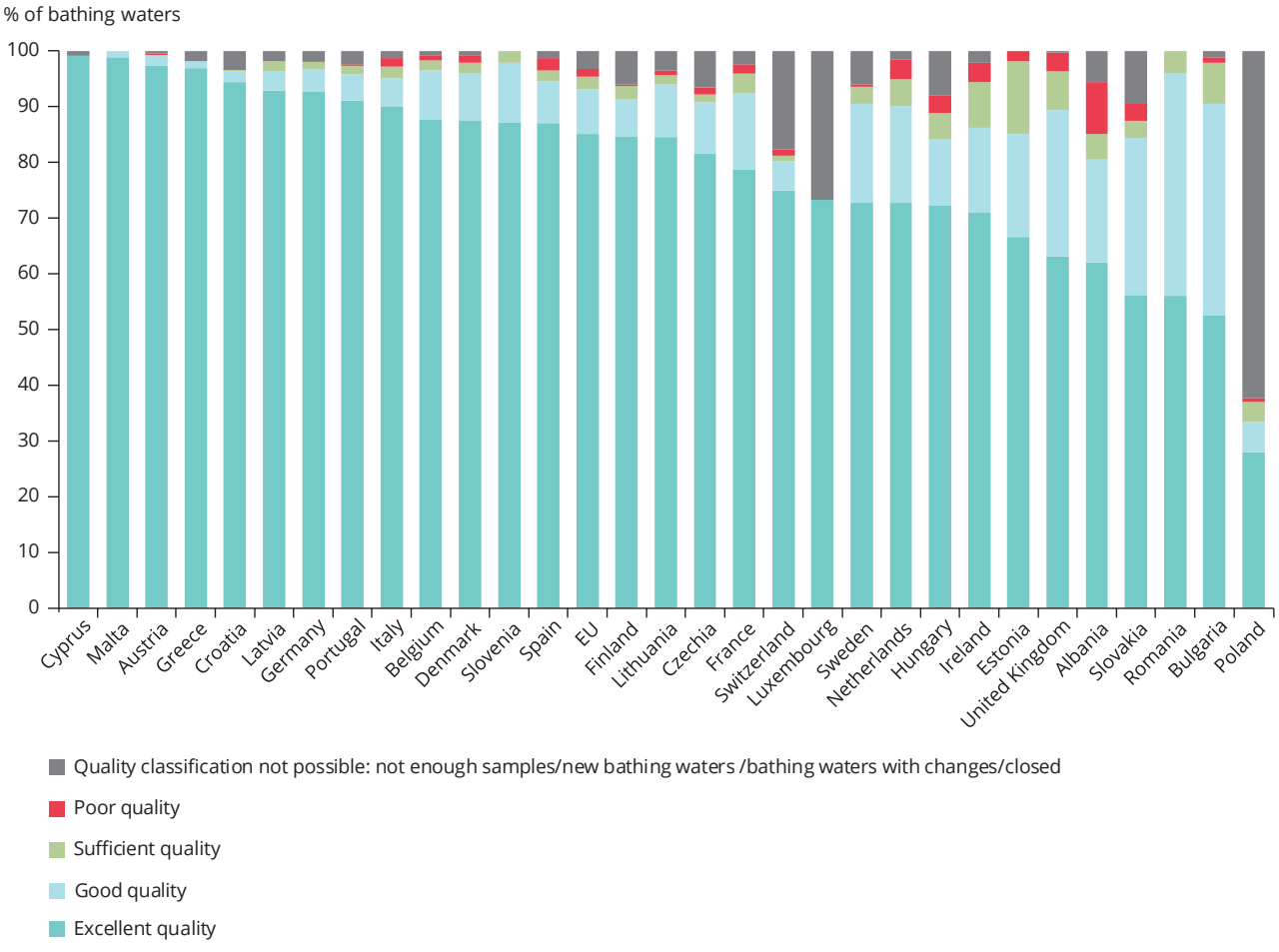
19 bathing water sites respectively changed from at least sufficient to poor quality. Deterioration in quality is also significant in the Netherlands and Spain (10 sites), and Denmark and the United Kingdom (5).

Bathing must be permanently prohibited or permanent advice against bathing put in place at bathing water sites that have been classified as poor for 5 consecutive years or more. In 2018, this was the case for 57 bathing water sites: 38 in Italy, six in Spain, five in France, two in Sweden, and one each in Bulgaria, Czechia and the Netherlands.

As the results show, there are still bathing water sites where water quality is poor. Management measures are primarily expected to be implemented at those bathing water sites where water quality is sufficient or poor. The Directive requires Member States to:

- Introduce adequate measures, including bathing prohibition or advice against bathing, with a view to preventing bathers' exposure to pollution;
- Identify the causes and sources of pollution, and reasons for the failure to achieve sufficient quality status;
- Take adequate measures to prevent, reduce or eliminate the causes of pollution such as implementation of the Urban Waste Water Treatment Directive (UWWTD) ([3]) and a focus on reducing sewer overflows;
- Alerting the public through a clear and simple warning sign, and informing them of the causes of the pollution and measures taken;

Figure 1.3 Bathing water quality in 2018 for the 28 EU Member States, Albania and Switzerland



Source: WISE bathing water quality database (data from annual reports by EU Member States).

([3]) http://ec.europa.eu/environment/water/water-urbanwaste/index_en.html

- Assure that bathing water profiles provide an up-to-date indication of pollution sources in the bathing catchment area, together with historical data on rainfall, stream flow and sea currents, including information on the sources to be targeted with management measures.

1.4 Informing the public about bathing water quality

The Bathing Water Directive requires public participation in the implementation of the Directive and active information dissemination. Today, countries have national or local websites ([4]) with detailed information on each bathing water site. These websites generally include a map-search function and allow public access to monitoring results, both in real time and for previous seasons.

At the European level, bathing water information is made available to the public through the EEA's bathing water web pages ([5]). These allow users to view bathing water quality at nearly 22 000 bathing water sites across Europe. Users can check bathing water quality on an interactive map, download data and individual country reports, explore details through a link to the national online bathing water profile and make comparisons with previous years.

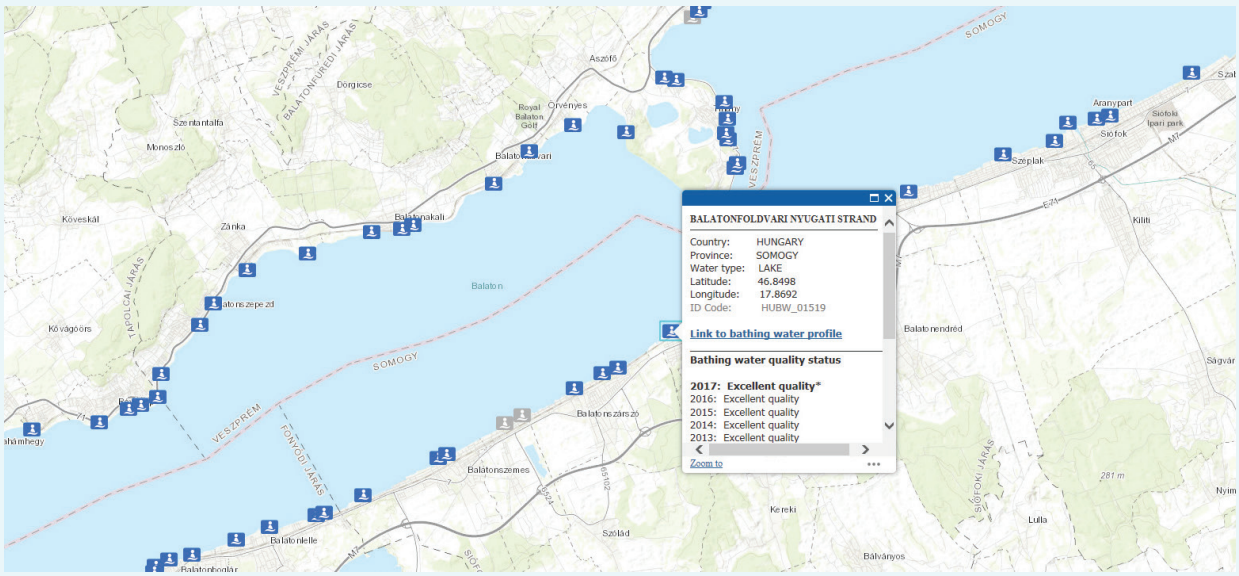
By means of information technologies, the public can access illustrative information, understand bathing water management and the current situation, and ultimately become more actively involved in protecting the environment and helping to improve Europe's bathing areas.

1.5 EU water policy

The European Union is a global leader in environmental protection. Its water policy has been successful in helping protect water resources and the ecosystem services they provide. The improved quality of bathing sites over the last 40 years is a good example of this. Many years of investment in

Box 1.2 Bathing water quality near you

Why not take a few minutes to find out how clean the bathing water is near you or your summer holiday destination? Visit the interactive map viewer on bathing water quality and simply enter your geographical area of interest (http://www.eea.europa.eu/themes/water/interactive/bathing/state-of-bathing-waters), or use one of the national or regional websites for bathing water quality (https://www.eea.europa.eu/themes/water/europes-seas-and-coasts/assessments/state-of-bathing-water/national-or-regional-pages).



([4]) National or regional websites for bathing water quality available at https://www.eea.europa.eu/themes/water/europes-seas-and-coasts/assessments/state-of-bathing-water/national-or-regional-pages.
([5]) EEA bathing water webpages available at https://www.eea.europa.eu/themes/water/europes-seas-and-coasts/assessments/state-of-bathing-water.

sewerage systems and waste water treatment have led to better implementation of the Urban Waste Water Treatment Directive ([6]) and national legislation. Together, these have contributed substantially to making Europe's bathing waters much cleaner today.

Information on bathing water policy and recent Commission activities in the field can be found on the bathing water ([7]) section of the Europa website. In preparation of the evaluation of the Bathing Water Directive, the Commission services have made results from two projects available:

- WHO Recommendations ([8]) on updating Annex 1 of the Bathing Water Directive, based on cooperation between the Commission services and the World Health Organization. This 2018 document presents recent scientific literature on the parameters of the existing Bathing Water Directive, examines the feasibility of possible additional parameters and considers wider emerging issues.

- A 'reality check' on the implementation of the Bathing Water Directive in the EU, carried out in 2017-2018. This focused on practical challenges linked to the monitoring and assessment of bathing waters, and resulted in an EU Overview report ([9]) and 28 Member State reports ([10]).

The results of both projects are to be used in the forthcoming evaluation of the Directive.

In addition to the good quality of bathing water, ecosystems need clean and healthy water. Efforts to improve the quality of bathing water 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 Strategy Framework Directives.

The European Commission has published reports on the assessment of the implementation of the Water Framework Directive and the Floods Directive ([11]), and has begun a Fitness Check of EU Water Legislation ([12]). To accompany and inform this process, the EEA produced the report *European waters – assessment of status and pressures 2018* ([13]). This report presents results on the status of EU waters, based on the second River Basin Management Plans (RBMPs); the pressures that are causing less than good status; and the progress achieved during the first RBMP cycle (2010-2015).

The EEA has also published the *Chemicals in European Waters* ([14]) report, which aims to improve understanding of which chemicals continue to pose significant risks to the environment, especially when they are present in water. It also looks at how better knowledge and understanding can help improve controls designed to minimise harm. The report gives an overview of information about pollutants used in the assessment of water quality under the Water Framework Directive and describes some of the newer techniques available for the assessment of water quality.

Antimicrobial resistance (AMR) is a worldwide, increasing threat to human health (WHO, 2018 ([15])). The EU launched its One Health action plan against AMR in 2017, motivated by the need to fight AMR. The overarching goal of the plan is to preserve the possibility of effective treatment of infections in humans and animals (EU, 2017 ([16])). The significance of the environment in the transmission of AMR is as yet unclear, so in 2018, the EEA held an expert meeting to improve understanding of aspects of AMR and urban waste water treatment (EEA, 2019 ([17])).

([6]) http://ec.europa.eu/environment/water/water-urbanwaste/index_en.html
([7]) http://ec.europa.eu/environment/water/water-bathing/index_en.html
([8]) https://www.who.int/water_sanitation_health/publications/who-recommendations-to-european-water-directive/en
([9]) http://ec.europa.eu/environment/water/water-bathing/pdf/BWD_EU_Report.pdf
([10]) http://ec.europa.eu/environment/water/water-bathing/pdf/BWD_country_reports.zip
([11]) http://ec.europa.eu/environment/water/water-framework/impl_reports.htm
([12]) http://ec.europa.eu/environment/water/fitness_check_of_the_eu_water_legislation/index_en.htm
([13]) https://www.eea.europa.eu/publications/state-of-water
([14]) https://www.eea.europa.eu/publications/chemicals-in-european-waters
([15]) https://www.who.int/en/news-room/fact-sheets/detail/antimicrobial-resistance
([16]) https://ec.europa.eu/health/amr/sites/amr/files/amr_action_plan_2017_en.pdf
([17]) https://forum.eionet.europa.eu/nrc-eionet-freshwater/library/meeting-note-antimicrobial-resistance-and-urban-waste-water-treatment

Annex 1 Bathing water quality results in 2018

Country	Total number of bathing waters	Excellent quality		Good quality		Sufficient quality		Poor quality		Not classified (*)	
	2018 (2017)	Number	%	Number	%	Number	%	Number	%	Number	%
AT (Austria)	263 (263)	256	97.3	5	1.9	0	0.0	1	0.4	1	0.4
BE (Belgium)	115 (113)	101	87.8	10	8.7	2	1.7	1	0.9	1	0.9
BG (Bulgaria)	95 (95)	50	52.6	36	37.9	7	7.4	1	1.1	1	1.1
CY (Cyprus)	113 (113)	112	99.1	0	0.0	0	0.0	0	0.0	1	0.9
CZ (Czechia)	153 (154)	125	81.7	14	9.2	2	1.3	2	1.3	10	6.5
DE (Germany)	2 289 (2 287)	2 123	92.7	93	4.1	27	1.2	6	0.3	40	1.7
DK (Denmark)	1 026 (1 029)	897	87.4	87	8.5	20	1.9	14	1.4	8	0.8
EE (Estonia)	54 (54)	36	66.7	10	18.5	7	13.0	1	1.9	0	0.0
ES (Spain)	2 228 (2 219)	1 939	87.0	168	7.5	42	1.9	50	2.2	29	1.3
FI (Finland)	301 (299)	255	84.7	20	6.6	7	2.3	1	0.3	18	6.0
FR (France)	3 351 (3 379)	2 640	78.8	461	13.8	116	3.5	54	1.6	80	2.4
GR (Greece)	1 598 (1 598)	1 550	97.0	18	1.1	0	0.0	0	0.0	30	1.9
HR (Croatia)	1 008 (976)	952	94.4	20	2.0	2	0.2	1	0.1	33	3.3
HU (Hungary)	253 (257)	183	72.3	30	11.9	12	4.7	8	3.2	20	7.9
IE (Ireland)	145 (142)	103	71.0	22	15.2	12	8.3	5	3.4	3	2.1
IT (Italy)	5 539 (5 531)	4 987	90.0	279	5.0	116	2.1	89	1.6	68	1.2
LT (Lithuania)	117 (114)	99	84.6	11	9.4	2	1.7	1	0.9	4	3.4
LU (Luxembourg)	15 (12)	11	73.3	0	0	0	0.0	0	0.0	4	26.7
LV (Latvia)	56 (56)	52	92.9	2	3.6	1	1.8	0	0.0	1	1.8
MT (Malta)	87 (87)	86	98.9	1	1.1	0	0.0	0	0.0	0	0.0
NL (Netherlands)	725 (719)	527	72.7	126	17.4	36	5.0	25	3.4	11	1.5
PL (Poland)	483 (205)	135	28.0	26	5.4	18	3.7	3	0.6	301	62.3
PT (Portugal)	608 (603)	554	91.1	29	4.8	9	1.5	2	0.3	14	2.3
RO (Romania)	50 (50)	28	56.0	20	40.0	2	4.0	0	0.0	0	0.0
SE (Sweden)	436 (441)	317	72.7	78	17.9	13	3.0	2	0.5	26	6.0
SI (Slovenia)	47 (47)	41	87.2	5	10.6	1	2.1	0	0.0	0	0.0
SK (Slovakia)	32 (32)	18	56.3	9	28.1	1	3.1	1	3.1	3	9.4
UK (United Kingdom)	644 (634)	407	63.2	169	26.2	45	7.0	21	3.3	2	0.3
EU	**21 831 (21 509)**	**18 584**	**85.1**	**1 749**	**8.0**	**500**	**2.3**	**289**	**1.3**	**709**	**3.2**
AL (Albania)	108 (102)	67	62.0	20	18.5	5	4.6	10	9.3	6	5.6
CH (Switzerland)	192 (190)	144	75.0	10	5.2	2	1.0	2	1.0	34	17.7
Europe	**22 131 (21 801)**	**18 795**	**84.9**	**1 779**	**8.0**	**507**	**2.3**	**301**	**1.4**	**749**	**3.4**

Note: (*) See Annex 4 and Annex 5.

Source: EEA.

Annex 2 Coastal bathing water quality results in 2018

Country	Total number of bathing waters	Excellent quality		Good quality		Sufficient quality		Poor quality		Not classified (*)	
	2018 (2017)	Number	%	Number	%	Number	%	Number	%	Number	%
BE (Belgium)	42 (42)	41	97.6	1	2.4	0	0.0	0	0.0	0	0.0
BG (Bulgaria)	91 (91)	49	53.8	33	36.3	7	7.7	1	1.1	1	1.1
CY (Cyprus)	113 (113)	112	99.1	0	0.0	0	0.0	0	0.0	1	0.9
DE (Germany)	366 (366)	313	85.5	30	8.2	16	4.4	2	0.5	5	1.4
DK (Denmark)	910 (915)	790	86.8	83	9.1	19	2.1	13	1.4	5	0.5
EE (Estonia)	27 (27)	15	55.6	6	22.2	5	18.5	1	3.7	0	0.0
ES (Spain)	1 965 (1 960)	1 812	92.2	100	5.1	29	1.5	9	0.5	15	0.8
FI (Finland)	76 (77)	50	65.8	12	15.8	6	7.9	0	0.0	8	10.5
FR (France)	2 041 (2 065)	1 632	80.0	306	15.0	62	3.0	28	1.4	13	0.6
GR (Greece)	1 595 (1 595)	1 549	97.1	17	1.1	0	0.0	0	0.0	29	1.8
HR (Croatia)	981 (949)	938	95.6	8	0.8	1	0.1	1	0.1	33	3.4
IE (Ireland)	136 (133)	95	69.9	22	16.2	12	8.8	4	2.9	3	2.2
IT (Italy)	4 871 (4 864)	4 382	90.0	251	5.2	102	2.1	79	1.6	57	1.2
LT (Lithuania)	16 (16)	14	87.5	2	12.5	0	0.0	0	0.0	0	0.0
LV (Latvia)	33 (33)	32	97.0	1	3.0	0	0.0	0	0.0	0	0.0
MT (Malta)	87 (87)	86	98.9	1	1.1	0	0.0	0	0.0	0	0.0
NL (Netherlands)	91 (93)	67	73.6	19	20.9	2	2.2	0	0.0	3	3.3
PL (Poland)	146 (97)	45	30.8	15	10.3	17	11.6	0	0.0	69	47.3
PT (Portugal)	480 (480)	453	94.4	16	3.3	5	1.0	0	0.0	6	1.3
RO (Romania)	49 (49)	28	57.1	19	38.8	2	4.1	0	0.0	0	0.0
SE (Sweden)	244 (244)	151	61.9	61	25.0	13	5.3	2	0.8	17	7.0
SI (Slovenia)	21 (21)	21	100.0	0	0.0	0	0.0	0	0.0	0	0.0
UK (United Kingdom)	628 (618)	397	63.2	165	26.3	43	6.8	21	3.3	2	0.3
EU	**15 009 (14 935)**	**13 072**	**87.1**	**1 168**	**7.8**	**341**	**2.3**	**161**	**1.1**	**267**	**1.8**
AL (Albania)	102 (102)	67	65.7	20	19.6	5	4.9	10	9.8	0	0.0
Europe	**15 111 (15 037)**	**13 139**	**86.9**	**1 188**	**7.9**	**346**	**2.3**	**171**	**1.1**	**267**	**1.8**

Note: (*) See Annex 4 and Annex 5.

Source: EEA.

Annex 3 Inland bathing water quality results in 2018

Country	Total number of bathing waters	Excellent quality		Good quality		Sufficient quality		Poor quality		Not classified (*)	
	2018 (2017)	Number	%	Number	%	Number	%	Number	%	Number	%
AT (Austria)	263 (263)	256	97.3	5	1.9	0	0.0	1	0.4	1	0.4
BE (Belgium)	73 (71)	60	82.2	9	12.3	2	2.7	1	1.4	1	1.4
BG (Bulgaria)	4 (4)	1	25.0	3	75.0	0	0.0	0	0.0	0	0.0
CZ (Czechia)	153 (154)	125	81.7	14	9.2	2	1.3	2	1.3	10	6.5
DE (Germany)	1 923 (1 921)	1 810	94.1	63	3.3	11	0.6	4	0.2	35	1.8
DK (Denmark)	116 (114)	107	92.2	4	3.4	1	0.9	1	0.9	3	2.6
EE (Estonia)	27 (27)	21	77.8	4	14.8	2	7.4	0	0.0	0	0.0
ES (Spain)	263 (259)	127	48.3	68	25.9	13	4.9	41	15.6	14	5.3
FI (Finland)	225 (222)	205	91.1	8	3.6	1	0.4	1	0.4	10	4.4
FR (France)	1 310 (1 314)	1 008	76.9	155	11.8	54	4.1	26	2.0	67	5.1
GR (Greece)	3 (3)	1	33.3	1	33.3	0	0.0	0	0.0	1	33.3
HR (Croatia)	27 (27)	14	51.9	12	44.4	1	3.7	0	0.0	0	0.0
HU (Hungary)	253 (257)	183	72.3	30	11.9	12	4.7	8	3.2	20	7.9
IE (Ireland)	9 (9)	8	88.9	0	0.0	0	0.0	1	11.1	0	0.0
IT (Italy)	668 (667)	605	90.6	28	4.2	14	2.1	10	1.5	11	1.6
LT (Lithuania)	101 (98)	85	84.2	9	8.9	2	2.0	1	1.0	4	4.0
LU (Luxembourg)	15 (12)	11	73.3	0	0	0	0.0	0	0.0	4	26.7
LV (Latvia)	23 (23)	20	87.0	1	4.3	1	4.3	0	0.0	1	4.3
NL (Netherlands)	634 (626)	460	72.6	107	16.9	34	5.4	25	3.9	8	1.3
PL (Poland)	337 (108)	90	26.7	11	3.3	1	0.3	3	0.9	232	68.8
PT (Portugal)	128 (123)	101	78.9	13	10.2	4	3.1	2	1.6	8	6.3
RO (Romania)	1 (1)	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
SE (Sweden)	192 (197)	166	86.5	17	8.9	0	0.0	0	0.0	9	4.7
SI (Slovenia)	26 (26)	20	76.9	5	19.2	1	3.8	0	0.0	0	0.0
SK (Slovakia)	32 (32)	18	56.3	9	28.1	1	3.1	1	3.1	3	9.4
UK (United Kingdom)	16 (16)	10	62.5	4	25.0	2	12.5	0	0.0	0	0.0
EU	**6 822 (6 574)**	**5 512**	**80.8**	**581**	**8.5**	**159**	**2.3**	**128**	**1.9**	**442**	**6.5**
Al (Albania)	6 (0)	0	0.0	0	0.0	0	0.0	0.0	0.0	6	100.0
CH (Switzerland)	192 (190)	144	75.0	10	5.2	2	1.0	0.5	0.3	34	17.7
Europe	**7 020 (6764)**	**5 656**	**80.6**	**591**	**8.4**	**161**	**2.3**	**130**	**1.9**	**482**	**6.9**

Note: (*) See Annex 4 and Annex 5.

Source: EEA.

Annex 4 Management status in 2018

Country	Total number of bathing waters	Continuously monitored		Newly identified between 2015 and 2018		Quality changes		Monitoring gap	
	2018	Number	%	Number	%	Number	%	Number	%
AT (Austria)	263	262	99.6	1	0.4	0	0.0	0	0.0
BE (Belgium)	115	113	98.3	2	1.7	0	0.0	0	0.0
BG (Bulgaria)	95	94	98.9	1	1.1	0	0.0	0	0.0
CY (Cyprus)	113	112	99.1	0	0.0	0	0.0	1	0.9
CZ (Czechia)	153	139	90.8	4	2.6	0	0.0	10	6.5
DE (Germany)	2 289	2 242	97.9	23	1.0	9	0.4	15	0.7
DK (Denmark)	1 026	998	97.3	27	2.6	1	0.1	0	0
EE (Estonia)	54	54	100.0	0	0.0	0	0.0	0	0.0
ES (Spain)	2 228	2 119	95.1	92	4.1	8	0.4	9	0.4
FI (Finland)	301	294	97.7	3	1.0	2	0.7	2	0.7
FR (France)	3 351	3 231	96.4	66	2.0	5	0.1	49	1.5
GR (Greece)	1 598	1 539	96.3	58	3.6	0	0.0	1	0.1
HR (Croatia)	1 008	930	92.3	44	4.4	0	0.0	34	3.4
HU (Hungary)	253	235	92.9	16	6.3	0	0.0	2	0.8
IE (Ireland)	145	136	93.8	8	5.5	1	0.7	0	0.0
IT (Italy)	5 539	5 442	98.2	56	1.0	11	0.2	30	0.5
LT (Lithuania)	117	110	94.0	6	5.1	0	0.0	1	0.9
LU (Luxembourg)	15	11	73.3	4	26.7	0	0.0	0	0.0
LV (Latvia)	56	55	98.2	1	1.8	0	0.0	0	0.0
MT (Malta)	87	87	100.0	0	0.0	0	0.0	0	0.0
NL (Netherlands)	725	682	94.1	30	4.1	11	1.5	2	0.3
PL (Poland)	483	223	46.2	229	47.4	0	0.0	31	6.4
PT (Portugal)	608	564	92.8	44	7.2	0	0.0	0	0.0
RO (Romania)	50	50	100.0	0	0.0	0	0.0	0	0.0
SE (Sweden)	436	428	98.2	6	1.4	1	0.2	1	0.2
SI (Slovenia)	47	47	100.0	0	0.0	0	0.0	0	0.0
SK (Slovakia)	32	26	81.3	0	0.0	0	0.0	6	18.8
UK (United Kingdom)	644	622	96.6	17	2.6	1	0.2	4	0.6
EU	**21 831**	**20 845**	**95.5**	**738**	**3.4**	**50**	**0.2**	**198**	**0.9**
AL (Albania)	108	75	69.4	30	27.8	3	2.8	0	0.0
CH (Switzerland)	192	174	90.6	7	3.6	0	0.0	11	5.7
Europe	**22 131**	**21 094**	**95.3**	**775**	**3.5**	**53**	**0.2**	**209**	**0.9**

Annex 5 Monitoring calendar status in 2018

Country	Total number of bathing waters	Monitoring calendar implemented		Monitoring calendar not implemented	
	2018	Number	%	Number	%
AT (Austria)	263	263	100.0	0	0.0
BE (Belgium)	115	115	100.0	0	0.0
BG (Bulgaria)	95	92	96.8	3	3.2
CY (Cyprus)	113	112	99.1	1	0.9
CZ (Czechia)	153	112	73.2	41	26.8
DE (Germany)	2 289	2 272	99.3	17	0.7
DK (Denmark)	1 026	1 001	97.6	25	2.4
EE (Estonia)	54	52	96.3	2	3.7
ES (Spain)	2 228	2 199	98.7	29	1.3
FI (Finland)	301	300	99.7	1	0.3
FR (France)	3 351	3 309	98.7	42	1.3
GR (Greece)	1 598	1 592	99.6	6	0.4
HR (Croatia)	1 008	958	95.0	50	5.0
HU (Hungary)	253	251	99.2	2	0.8
IE (Ireland)	145	145	100.0	0	0.0
IT (Italy)	5 539	5 399	97.5	140	2.5
LT (Lithuania)	117	115	98.3	2	1.7
LU (Luxembourg)	15	15	100.0	0	0.0
LV (Latvia)	56	56	100.0	0	0.0
MT (Malta)	87	87	100.0	0	0.0
NL (Netherlands)	725	721	99.4	4	0.6
PL (Poland)	483	481	99.6	2	0.4
PT (Portugal)	608	607	99.8	1	0.2
RO (Romania)	50	50	100.0	0	0.0
SE (Sweden)	436	412	94.5	24	5.5
SI (Slovenia)	47	47	100.0	0	0.0
SK (Slovakia)	32	30	93.8	2	6.3
UK (United Kingdom)	644	642	99.7	2	0.3
EU	**21 831**	**21 435**	**98.2**	**396**	**1.8**
AL (Albania)	108	108	100.0	0	0.0
CH (Switzerland)	192	106	55.2	86	44.8
Europe	**22 131**	**21 649**	**97.8**	**482**	**2.2**

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