Consultation deadline	2022/09/12 00:00						
Date of export	2022/09/13 10:08						
Section	**Paragraph**	**Message**	**Date**	**Country**	**Action to take**	Notes	
1) Indicator text and figures	Summary Pesticides[1] were assessed against effect or quality thresholds between 2013 and 2020. One or more pesticides was detected above its effect threshold at 15-26% of all surface water monitoring sites each year. Exceedances were mainly caused by the insecticide imidacloprid in surface waters, and the herbicides MCPA, metolachlor and metazachlor. Exceedances of one or more pesticides were detected at between 4% and 10% of groundwater monitoring sites, mainly by atrazine and its metabolites. No trends can be derived at this time and between-year changes may not be significant. [1] Pesticides include both active substances from plant	AT Please start with a sentence telling the reader the aim of the indicator, what should it show. The current situation of pesticide pollution? In Europe? In the countries? The temporal development? In Europe? In the countries? Considering all pesticides ? or only a selection? With this methodology trends can also not be identified in the future years because of the missing consistency of the considered data. (see additional comments later on).	2022/09/08 1	AT	Acknowledge		
1) Indicator text and figures	Summary Pesticides[1] were assessed against effect or quality thresholds between 2013 and 2020. One or more pesticides was detected above its effect threshold at 15-26% of all surface water monitoring sites each year. Exceedances were mainly caused by the insecticide imidacloprid in surface waters, and the herbicides MCPA, metolachlor and metazachlor. Exceedances of one or more pesticides were detected at between 4% and 10% of groundwater monitoring sites, mainly by atrazine and its metabolites. No trends can be derived at this time and between-year changes may not be significant. [1] Pesticides include both active substances from plant protection products and biocides as well as their relevant	Please, tell the reader which pesticides and metabolites you use for the indicator and which you not use e.g., by linking to some lists. The reader, not working in details with pesticides will not be aware of that some metabolites are classified as non-relevant. If you take Denmark, we report in the yearly national groundwater monitoring program (https://www.geus.dk/vandressourcer/overvaagningsprogrammer/grundvandsovervaagning) that about 30% of the groundwater monitoring sites exceed thresholds, but your table in Figure 2 states that it is 4%. This huge difference is mainly caused by the non-relevant metabolites, which is part of the Danish monitoring program. As an example taken from the latest report the exceeding for monitoring sites analysed in 2020 were for CAS_6339-19-1, Chloridazon desphenyl 17% , CAS_3984-14-3, N,N-dimethylsulfamide 6%, CAS_2008-58-4, 2,6-dichlorobenzamide 6 %, and CAS_288-88-0, and 1H-1,2,4-Triazole 9%. In Denmark also the non-relevant metabolites are evaluated with quality standard of 0.1 µg/L.	2022/09/09 1	DK	Acknowledge	Explained in methodology paper	
1) Indicator text and figures	Figure 1. Percentage of reported monitoring sites with pesticides exceeding thresholds per year in a) surface waters and b) groundwater in Europe weighted by country	it would be useful to add some error bars on this chart	2022/09/05 1	FR	Acknowledge	Agree, aiming to apply error bars in next iteration	
1) Indicator text and figures	Figure 1. Percentage of reported monitoring sites with pesticides exceeding thresholds per year in a) surface waters and b) groundwater in Europe weighted by country	PT: In order to make the chart easier to read, it should be colour-coded.	2022/09/05 1	PT	Acknowledge		
1) Indicator text and figures	Figure 1. Percentage of reported monitoring sites with pesticides exceeding thresholds per year in a) surface waters and b) groundwater in Europe weighted by country area. a) b)	AT Both figures are misleading as they suggest that this is a presentation of a temporal development over the time period. But, there is an imbalance as regards the number of pesticides monitored , the monitoring frequency and there is no consistency in terms of monitoring sites over the whole time period per country. The comparison over time does not indicate, whether the total amount of pesticide exceedances increases or decreases. Please see further comments in Section 3.	2022/09/08 1	AT	Out of scope	there is a note on time series in the summary	
1) Indicator text and figures	Figure 1. Percentage of reported monitoring sites with pesticides exceeding thresholds per year in a) surface waters and b) groundwater in Europe weighted by country area. a) b)	Totally agree with Andreas : No information (even in methodology and final annex) about evolution of : Number of pesticides monitored per country Number of monitoring sites (often the sites with problems stops be monitored, especially in case of tap water) LoQ Changes in methodology of reporting since 2015 (majority aggregated data before and disaggregated since) could influence lot this evolution, as starting with reporting of new countries, add of new monitoring sites (1/3 more), double of annual records and of number of reported pesticides over the period, etc. all these variables impact the final proportions… Important point : the majority of observed values are under the LoQ. And this LoQ is decreasing over the period (improvement of analytical methods), so influencing in the same way annuals means and therefore also the reported monitoring sites with pesticides exceeding thresholds per year.	2022/09/09 1	FR	Acknowledge	Explained in methodology paper	

Section	Paragraph	Message	Date	Country	Action to take	Notes	
1) Indicator text and figures	Figure 1 shows that in 15% to 26% of all surface water monitoring sites, one or more pesticides were detected above effect threshold each year between 2013 and 2020. Exceedances of one or more pesticides were detected at between 4% and 10% of groundwater monitoring sites. Pesticides most often causing exceedance in surface waters are the insecticide imidacloprid, and the herbicides MCPA, metolachlor and metazachlor, all of which were approved for use in plant protection products during the monitoring period, though some are no longer approved. In groundwater, the herbicide atrazine and its metabolites cause most exceedances. Atrazine was not approved for use in plant protection products during the monitoring	"Figure 1 shows that in 15% to 26% of all surface water monitoring sites, one or more pesticides were detected above effect threshold each year between 2013 and 2020." To avoid some misunderstanding/confusion, that sentence could be modified as "Figure 1 shows that, each year between 2013 and 2020, one or more pesticides are detected above effect threshold in 15% to 26% of surface water monitoring sites."	2022/09/05 1	FR	Adress		
1) Indicator text and figures	Figure 1 shows that in 15% to 26% of all surface water monitoring sites, one or more pesticides were detected above effect threshold each year between 2013 and 2020. Exceedances of one or more pesticides were detected at between 4% and 10% of groundwater monitoring sites. Pesticides most often causing exceedance in surface waters are the insecticide imidacloprid, and the herbicides MCPA, metolachlor and metazachlor, all of which were approved for use in plant protection products during the monitoring period, though some are no longer approved. In groundwater, the herbicide atrazine and its metabolites cause most exceedances. Atrazine was not approved for use in plant protection products during the monitoring	It would be very beneficial to see the whole list of pesticides causing exceedences in surface waters and groundwater (if it is not an excessively long list)	2022/09/08 0	TR	Acknowledge		
1) Indicator text and figures	Figure 1 shows that in 15% to 26% of all surface water monitoring sites, one or more pesticides were detected above effect threshold each year between 2013 and 2020. Exceedances of one or more pesticides were detected at between 4% and 10% of groundwater monitoring sites. Pesticides most often causing exceedance in surface waters are the insecticide imidacloprid, and the herbicides MCPA, metolachlor and metazachlor, all of which were approved for use in plant protection products during the monitoring period, though some are no longer approved. In groundwater, the herbicide atrazine and its metabolites cause most exceedances. Atrazine was not approved for use in plant protection products during the monitoring	BE-FL. The indicator “Percentage of reported monitoring sites with pesticides exceeding thresholds per year” basically applies the one-out-all-out principle (OOAO) that is increasingly questioned and additional indicators have been proposed by the WFD-DIS working group on indicators. The indicator values are also highly influenced by the monitoring effort of each water body. Therefore, it is proposed not to use the number of water bodies as a critical element, but the number of events (observations, monitoring results). We would like to suggest to consider the Percentage of monitoring events with pesticides exceeding thresholds per year as an indicator value. In this way, values are independent of both the number of sites and parameters.	08/09/2022	BE	Acknowledge	it is based on monitoring sites, not on water body level	
1) Indicator text and figures	It is not yet possible to determine a trend in Figure 1. Losses from the application of pesticides may vary considerably between years, depending upon, for example, crop type and the weather, while the frequency of monitoring of pesticides in surface waters can be limited to one year out of three. Changes to the approval status of pesticides influence their use and presence in water, which can also lead to difficulties in interpreting trends over time. For these reasons, changes between years may not be significant. It is anticipated that a	"It is not yet possible to determine a trend in Figure 1...because...the frequency of monitoring of pesticides in surface waters can be limited to one year out of three" 1) How many countries present a frequency of monitoring only 1 year out of 3 ? 2) Why do not determine trend on a regular 3 years spaced regular time serie ?	2022/09/05 1	FR	Acknowledge	Trend will be further developed	
1) Indicator text and figures	It is not yet possible to determine a trend in Figure 1. Losses from the application of pesticides may vary considerably between years, depending upon, for example, crop type and the weather, while the frequency of monitoring of pesticides in surface waters can be limited to one year out of three. Changes to the approval status of pesticides influence their use and presence in water, which can also lead to difficulties in interpreting trends over time. For these reasons, changes between years may not be significant. It is anticipated that a	AT No, in case the data collection does not change in order to have more comparable database, a trend as regards the risk from chemical pesticides will not be evaluable. Not yet and not in future. I would find it very helpful to read few sentences about the recent results of the WFD reporting on pesticides (e.g. number of water bodies in poor status due to pesticides….) maybe comparing 2 RBMP cycles?	2022/09/08 1	AT	Acknowledge	Explained in ETC/ICM technical report, 2020; https://www.eionet.europa.eu/etcs/etc-icm/products/etc-icm-reports/etc-icm-report-1-2020-pesticides-in-european-rivers-lakes-and-groundwaters-data-assessment	
1) Indicator text and figures	Figure 2. Percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters, different sized rivers, lakes and groundwater in European countries	It could be useful to add a caption to explain how the number of sites or rates are computed : for France case, there is 109 +1080 + 316 + 140 = 1645 sites , but the table indicates a total of 1763	2022/09/05 1	FR	Acknowledge	Explained in methodology paper	
1) Indicator text and figures	Figure 2. Percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters, different sized rivers, lakes and groundwater in European countries	Malta has been omitted from this table, when monitoring for pesticides in this reporting period 2013 to 2020 has occurred and no pesticides were detected in groundwater.	2022/09/06 1	MT	Out of scope		
1) Indicator text and figures	Figure 2. Percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters, different sized rivers, lakes and groundwater in European countries	If available, additional information could be given for the type of groundwater monitoring sites i.e. monitoring well/spring	2022/09/08 0	TR	Acknowledge		
1) Indicator text and figures	Figure 2. Percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters, different sized rivers, lakes and groundwater in European countries	At least it needs to add the number of monitored pesticides.	2022/09/09 2	FR	Acknowledge		

Section	Paragraph	Message	Date	Country	Action to take	Notes	
1) Indicator text and figures	Figure 2. Percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters, different sized rivers, lakes and groundwater in European countries in time period 2013 – 2020	Switzerland: We are also not able to reconstruct the total number of reported monitoring sites for groundwater. The number do not correspond the data shown e.g. on the dashboard "Exceedances by Country by Year". Could you please provide more information on the methodology?	2022/09/09 2	CH	Acknowledge	Figure 2 shows the percentage of monitoring sites with pesticides exceeding thresholds throughout the period 2013-2020. There are 4 such monitoring sites, corresponding to 8 % of 51 total sites reported within the period. The dashboard Exceedances by Country by Year shows the same percentage, but by individual year. In the accompanying pivot table, there is a list of exceedances by site, by	
1) Indicator text and figures	Figure 2. Percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters, different sized rivers, lakes and groundwater in European countries in time period 2013 – 2021	The exceedance percent in the Finnish surface waters (50 %) seems to be higher than on average but we believe that this does not reflect the real situation but rather highlights the problems of the indicator caused by data availability and up-scaling methodology. Reasons for not believe the indicator result: a) Less than 8 % of Finnish area is agricultural land. The main crops (hay and other fodder crops) do not need chemical treatments. Thus it is unlikely that pesticides are higher problem in Finland than in countries where pesticide usage is more extensive. b1) Finland was as an example of low-risk area for pesticides (see e.g. Schäfer et al. 2007, https://doi.org/10.1016/j.scitotenv.2007.04.040). The empirical part of the study was carried out in 2005 in Finnish agricultural areas (and compared to similar studies in France and Germany). Both measured concentrations (passive samplers) and ecological SPEAR-index indicated low risk in general and especially if compared to the other studied countries. b2) Since 2005 the sold amounts of agricultural pesticides has decreased (herbicides, fungicides, growth regulators) or remain the same (insecticides). (Due to statistical reasons the total sold amounts of pesticides seems to be increased because urea use in forestry has increased (as a fungicide and a fertilizer)). b3) The national action plan to lower pesticide related risks has led to remarkable changes in the use conditions: e.g. an exam (related to pesticide environmental and health risks) is required before one can buy or is allowed to use any pesticide products labelled for professional use.) b1+b2+b3 => In 2005 the pesticide risks were low in Finland and the risk is more likely decreased than increased since that.	12/09/2022	FI	Acknowledge		
1) Indicator text and figures	Between 2013 and 2020, pesticides were reported from a total of 9,768 monitoring sites for surface waters and 13,863 sites for groundwater. The number of monitoring sites reporting data for surface waters varies by country from less than 10 sites (Hungary, Iceland, Luxembourg, Switzerland) to more than 1,000 sites (France, Italy, Spain). There is similar variation in groundwater monitoring sites: numbers range from 54 sites in Lithuania to more than 3,000 sites in	It may be relevant to add another weight to take into account the length of the list of monitored pesticides; the weighted mean by the area is not sufficent to avoid some bia in this data set (the number of monitored pesticides is not proportionnal to the country area) COUNTRIES | AREA (km2) | MONITORED PESTICIDESSwitzerland | 41 285 | < 10 Csezia | 78 871 | > 100Norway | 385 207 | < 10	2022/09/05 1	FR	Acknowledge	Will be consider in further development	
1) Indicator text and figures	Between 2013 and 2020, pesticides were reported from a total of 9,768 monitoring sites for surface waters and 13,863 sites for groundwater. The number of monitoring sites reporting data for surface waters varies by country from less than 10 sites (Hungary, Iceland, Luxembourg, Switzerland) to more than 1,000 sites (France, Italy, Spain). There is similar variation in groundwater monitoring sites: numbers range from 54 sites in Lithuania to more than 3,000 sites in	Some countries are reporting and monitoring only tap water monitoring points, what can't be compared with general survey. Tap water sites are selectioned for that issue, more protected, and therefore less polluted in each country. Thus the precision on the type of survey should by useful.	2022/09/09 1	FR	Acknowledge		
1) Indicator text and figures	The number of pesticides reported in surface waters ranges from fewer than 10 substances (Iceland, Luxembourg, Norway, Switzerland) to more than 100 substances (Czechia, France, Germany, Italy, Netherlands, Spain). For groundwater, the lowest number of pesticides was reported from Austria (6) and the highest number from France (215). Exceedance rates of more than 30% were reported in 16 out of 29 countries for surface waters and in one out of 22 countries for groundwater. High exceedance rates were	AT GW: the reporting was limited to selected, most relevant pesticides	2022/09/08 1	AT	Out of scope		

Section	Paragraph	Message	Date	Country	Action to take	Notes	
1) Indicator text and figures	The number of pesticides reported in surface waters ranges from fewer than 10 substances (Iceland, Luxembourg, Norway, Switzerland) to more than 100 substances (Czechia, France, Germany, Italy, Netherlands, Spain). For groundwater, the lowest number of pesticides was reported from Austria (6) and the highest number from France (215). Exceedance rates of more than 30% were reported in 16 out of 29 countries for surface waters and in one out of 22 countries for groundwater. High exceedance rates were mainly reported at monitoring sites in small and medium-sized rivers.	In the points below, I briefly summarize our expert comments regarding the comparability of the developed indicator on pesticides. 1) Our first observation is that while some countries reported only a few monitoring sites detecting pesticides (in the case of Hungary this number is 5), in the case of other countries this number can be hundreds or even thousands. This can be an obstacle to a professional comparison. 2) The next issue is the threshold: in the case of some pesticides, they are according to the well-known list 33/45, while in the case of others - as it is written - they are according to the RBSP. In the case of the latter, when comparing the results of RBMP2, approx. there were differences of two orders of magnitude between the data of the member states, we still remember it well. 3) We see the third problem in the extent of the exceedance: it does not matter to what extent the limit value is exceeded by the value measured at the given monitoring site. It might be useful to investigate further how many times the limit value is exceeded, and accordingly some categories could be established for it: e.g. creating double, triple, five-fold, ten-fold, or even larger exceedance intervals. It would probably require a much more complex indicator to be free from the distortion factors listed above and to be truly suitable for comparison. However, we find it most important that a common threshold value be used, e.g. the EU level average of the RBSP thresholds used in the RBMP. In addition, of course, "the number of exceedances in relation to all tested pesticides" is also an important factor.	2022/09/09 1	HU	Acknowledge		
1) Indicator text and figures	The number of pesticides reported in surface waters ranges from fewer than 10 substances (Iceland, Luxembourg, Norway, Switzerland) to more than 100 substances (Czechia, France, Germany, Italy, Netherlands, Spain). For groundwater, the lowest number of pesticides was reported from Austria (6) and the highest number from France (215). Exceedance rates of more than 30% were reported in 16 out of 29 countries for surface waters and in one out of 22 countries for groundwater. High exceedance rates were	There is clear correlation between the number of pesticides monitored and the exceedance rates. Countries should be compared only on the base of the same list of pesticides (gw). How it's possible to compare the countries where zero pesticides were monitored with others monitoring more than 200 substances??	2022/09/09 2	FR	Acknowledge	Will be consider in further development	
2) Supporting information	The indicator 'Pesticides in rivers, lakes and groundwater in Europe' shows: the percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters and groundwater in Europe weighted by country area; the percentage of reported monitoring sites with pesticides exceeding thresholds in surface waters, different sized rivers, lakes and groundwater in European countries, 2013-2020. A detailed description of the methodology used to develop the pesticides indicator is provided in the accompanying	PT: We would like to highlight that in the report "Pesticides in European rivers, lakes and groundwaters - Data assessment" the year of Corine used is not mentioned.	2022/09/05 1	PT	Acknowledge		
2) Supporting information	Justification for indicator selection Pesticides are a topic of considerable public and policy interest across the environment, agriculture and human health domains. An overview of pesticides in the aquatic environment across Europe, as well as a standardised methodology in the form of an indicator to assess pesticide contamination levels in aquatic ecosystems has been available since 2021. The indicator may not be comparable with nationally developed assessments of pesticides in water because the methodologies for calculating exceedances may differ	It would also be relevant to mention that the specific pesticides and metabolites accounted for also may differ from the national assessments	2022/09/09 1	DK	Acknowledge		
2) Supporting information	Methodology uncertainty	* BE-FL. There is little reason to produce an indicator value weighted by country area as the natural conditions, pressures and monitoring strategies are highly variable across countries. The monitoring effort by a country should ideally reflect the pressures on the water bodies in that country, and hence will be different for each country, in this case mainly because of differences in land use and crop cultures. This makes the integration into a single indicator value meaningless. Instead, additional indicators on the monitoring effort should be developed and considered along with the pesticide indicator, in particular when looking at trends. Referring to the EEA/Eionet water meeting of the past few years, it has been discussed that the water reports (and so the indicators) should not compare countries as such. In many cases, calculating percentages do allow some degree of comparison, but it shouldn't be aimed at integrating this in the indicator.	08/09/2022	BE	Acknowledge		

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2) Supporting information	Methodology uncertainty	*Due to the used one out all out -principle, countries reporting high number of substances have higher risk for exceedances. Even more important than the total number of reported substances is the relevance of the reported substances in sense of their usage and risks.	12/09/2022	FI	Acknowledge		
2) Supporting information	Methodology uncertainty	MCPA exceeded its limit value most often among herbicides (both in Europa and in Finland). This might be due to its very low limit value (0.01 µg/L). The limit value was said to be selected to be the lowest risk based AA-EQS value. According to EEA preliminary WISE summary (Workbook: WISE_SOW_SWMET_SWRBSP (europa.eu)), ten countries had AA-EQS for MCPA and the values varied from 0.01 µg/l to 100 µg/l while the most common values were within range of 0.1 and 1.6 µg/l. It seems that the used value 0.01 µg/l has been valid in only two (out of 14) river basin districts (RBD) in Greece. In other Greek districts the AA-EQS value of MCPA were either 0.1 µg/l (10 RBDs) or 100 µg/l (2 RBDs). So, the selected low value was not universal risk based value and not useful in the majority of the RBDs. Perhaps it was estimated to be used in coastal areas or there were some specific reasons to have that low value. Anyway, it does not seem to be a proper limit value for all European surface waters. If more countries were reported MCPA results, the exceedance rate (using this low limit value) could have been even higher than that in indicator now.	12/09/2022	FI	Address	Arguments checked. MCPA-EQS changed to 0,5 µg/l	
2) Supporting information	Methodology uncertainty	The indicator uses site specific average values and upscales them to wide areas by assuming similar results in non-monitored areas. In Finland, pesticide monitoring is focused on expected risk areas and the results of monitored sites cannot be upscaled to the whole country. (The agricultural land use is only 8 % of the Finnish area. And within agricultural areas the main crops are grasses and hay, where pesticide usage is low. Thus the result of more intensive agricultural areas is not valid in majority of the country). Moreover, the sampling frequency is in most sampling sites higher in growing season than in winter. This is because concentrations in winter seldom exceeds detection limits. This way the same sampling number has higher potential to detect harmful concentrations – but the site specific average concentrations may be higher than in all-year-round sampling. Pesticide concentration may vary several orders of magnitude during a year - and even during a shorter time period as Morton et al. (2020) have clearly demonstrated with MCPA (https://doi.org/10.1002/wat2.1402).	12/09/2022	FI	Acknowledge		
2) Supporting information	Data set uncertainty Monitoring data are not evenly spread across Europe, and there is considerable variation between countries in the number of monitoring sites reported and in the number of substances measured. The results are dominated by countries with the highest numbers of monitoring sites and substances reported, which is addressed using a weighting factor. However, a minimum number of monitoring sites and substances should be reported to achieve a representative overview of pesticide concentration in European waters	(Minor notice: Finland has monitored over 250 pesticides (by 2020 and even more since that) and reported at least most of them. However, according to the background information, the number of reported substances was only 99.)	2022/09/05 1(	PT	Acknowledge	In the published Waterbase - Water Quality, which is the basis for the indicator assessment, there are 96 substances reported by Finland since 2013 and identified as pesticides by the EEA and ETC ICM. The accompanying pivot table in Excel file lists the substances along with the number of monitoring sites by year.	
2) Supporting information	Data set uncertainty Monitoring data are not evenly spread across Europe, and there is considerable variation between countries in the number of monitoring sites reported and in the number of substances measured. The results are dominated by countries with the highest numbers of monitoring sites and substances reported, which is addressed using a weighting factor. However, a minimum number of monitoring sites and substances should be reported to achieve a representative overview of pesticide concentration in European waters	* BE-FL. It is agreed that there is a lack of criteria to be applied by countries to guarantee spatial and temporal consistent and comparable datasets. But there is no argument to state that monitoring data should be evenly distributed across Europe as pressures (in casu, crop cultures) vary within and between countries. Water bodies should be monitored according to the type of pressures, as required by the WFD.	08/09/2022	BE	Acknowledge		
2) Supporting information	Rationale uncertainty In surface waters, ecotoxicologically-based effect thresholds were determined to assess exceedance rates at monitoring sites. Those thresholds indicate potential pollution by pesticides affecting communities in aquatic ecosystems. Using the lowest ecotoxicologically-based effect threshold is the most conservative criterion. The EQS have not necessarily been defined in each country with the same criteria as used here, which makes comparisons with this indicator difficult. In groundwater, exceedances were assessed against the 0.1ug/L quality standard set out in the Groundwater Directive. No regulated quality standards for non-relevant metabolites are available and so they were excluded from the assessment	PT: It is considered important to clarify the text, namely that the EQS (or threshold) set by Member States are relate to specific pollutants. While the EQS in the Priority Substances Directive are mandatory for all Member States. The Groundwate Directive sets quality standards for pesticides in Annex I, for "Active substances in pesticides, including their relevant metabolites, degradation and reaction products". In this context we consider that the non-relevant metabolites should be assessed with this EQS while the Directive is not reviewed. The EQS referred in the 3rd paragraph are related to the specific pollutants. This paragraph concerns surface water, so should be placed above groundwater.	2022/09/05 1(	PT	Acknowledge	Clarification and more detiled explanation is given in methodology paper	

Section	Paragraph	Message	Date	Country	Action to take	Notes	
3) Question and general co	Question: Additional information on national or international EQS values If you have further sources of information for EQS values in surface waters, beyond those set out in Annex 4 (xls file), please provide the links.	In Estonia, EQS values in surface waters are point out here: https://www.riigiteataja.ee/akt/131122021003?leiaKehtiv (regulation of the Minister of Environment)	2022/09/01 1	EE	Address	Provided information checked: AA-EQS MCPA (94-74-6) changed to 0,5 µg/l (as in Estonia) Not changed: Glyphosate (1071-83-6), AMPA (1066-51-9): Estonian values (0,1µg/l) equal to drinking water standard; Ecological based EQS are higher. Metazachlor (67129-08-2, 0,08 µg/l), Tebuconazol (107534-96-3, 1 µg/l): Estonan values higher than lowest ecological based AA-EQS of other countries. Added to our pesticides list: Spiroxamin (118134-30-8, 0,06µg/l), Mancozeb (8018-01-7, 0,22 µg/l): Check in 2023 if data provided	
3) Question and general co	Question: Additional information on national or international EQS values If you have further sources of information for EQS values in surface waters, beyond those set out in Annex 4 (xls file), please provide the links.	In Sweden, EQS values in surface water can be found on page 29-30 and 77-81 in this document https://www.havochvatten.se/download/18.4705beb516f0bcf57ce1c145/1576576601249/HVMFS%202019-25-ev.pdf	2022/09/07 1	SE	Acknowledge	Provided information checked: No EQS changed: SE-EQS higher or equal for Bentazone, Diflufenikan, Dichlorprop-P, Chloridazone, Mecoprop, Mecoprop-P, Metsulfuronmethyl, Pirimicarb, Sulfusulfuron Noted: SE-EQS for Imidachloprid (0,005µg/l) lower than WL-1,2 LOQ (0,0083µg/l), which we use	
3) Question and general co	Question: Additional information on national or international EQS values If you have further sources of information for EQS values in surface waters, beyond those set out in Annex 4 (xls file), please provide the links.	Thanks for the report. We want to note that he data given for Cyprus are correct and the report reflects the situation we see as a competent national authority in CY for monitoring pesticides in SW and GW. Please also note that in the link: https://cdr.eionet.europa.eu/cy/eu/wfd2016/documents/colwepvog/envwepvtq/ at report: “Classification_suppl_CY_2015” (page 27) you can find EQS values for pesticides defined as specific pollutants for surface water in Cyprus.	2022/09/09 1	CY	Address	Provided information checked: EQS Azinphosethyl (2642-71-79) lowered from 0,01 to 0,005 µg/l Lower CY-EQS for MCPA not taken; It is drinking water standard CY-EQS equal for Bentazone, Mecoprop: CY added in "Countries lowest AA-EQS" CY-EQS higher for Dimethoat, Fenitrothion, Fenthion, Linuron, Parathion-methyl	
3) Question and general co	Question: Additional information on national or international EQS values If you have further sources of information for EQS values in surface waters, beyond those set out in Annex 4 (xls file), please provide the links.	Switzerland: The Swiss Ecotox Centre provides proposals for quality criteria for surface waters in Switzerland: https://www.ecotoxcentre.ch/expert-service/quality-criteria/quality-criteria-for-surface-waters/. Furthermore, the Annex 2 of the Swiss Waters Protections Ordinance defines numerical requirements for the concentrations of organic pesticides (https://www.fedlex.admin.ch/eli/cc/1998/2863_2863_2863/en). For the organic pesticides not explicitly mentioned in the ordinance, the general requirement of 0.1 µg/l applies.	2022/09/09 2	CH	Address	Annex 2 of the Swiss Waters Protections Ordinance checked The definitions somewhat differ from EU: CH sets standards for single values (=MAC-EQS) and for two-weeks-averages, which we use as AA-EQS. We have included this ordinance earlier, but made some changes now: MAC-EQS were lowered for: Diazinon (to 0,02 µg/l), MCPA (to 6,4 µg/l) and added for: Thiacloprid (0,01 µg/l), Thiamethoxam (1,4 µg/l). We did not change EQS for priority substances (PS), last drafts candidates (D-1) or watch-lists (WL), although some of the CH-EQS are lower. Added to our pesticides list: Azoxystrobin (131860-33-8; AA-EQS: 0,2; MAC-EQS: 0,55 µg/l): Check in 2023, if data provided	
3) Question and general co	Question: Additional information on national or international EQS values If you have further sources of information for EQS values in surface waters, beyond those set out in Annex 4 (xls file), please provide the links.	Finland has 6 agricultural pesticides in the RPSP list (the same since 2006). A project is going on to suggest revisions to RBSP substances and their EQS values. However, it is not yet known when the potential revisions will take place. The currently valid surface water AA-EQS for pesticides are listed below (the first number is for fresh water and the second for coastal areas). *Herbicides: -MCPA: the AA-EQS 1.6 µg/l (for rivers, lakes etc) and 0.16 µg/l (for coastal areas) -metamitron: 32 µg/l and 3.2 µg/l -tribenuron-methyl: 0.1 µg/l and 0.01 µg/l *Insecticide: -dimethoate 0.7 µg/l and 0.07 µg/l *fungicides -procloraz: 1 µg/l and 0.1 µg/l -metabolite of mancozeb (=ethylenetiourea): 200 µg/l and 20 µg/l	12/09/2022	FI	Address	Provided information checked: AA-EQS for Metamitron changed from 3,2 to 32 µg/l Added to our pesticides list: Tribenuron-methyl; prochloraz, ethylene tiourea	

Section	Paragraph	Message	Date	Country	Action to take	Notes	
3) Question and general co	General comments If you have further comments on e.g. methodology, data availability, further improvement of the indicator, please provide your recommendations, expectations and ideas.	PT: Regarding the document "**Indicator on pesticides in European waters.Technical paper**" we would like to comment the following: The Groundwate Directive sets quality standards for pesticides in Annex I, for "Active substances in pesticides, including their relevant metabolites, degradation and reaction products". In this context we consider that the non-relevant metabolites should be assessed with this EQS while the Directive is not reviewed (Chapter 2). It is considered that only disaggregated data should be used for assessment, despite the analysis period is shorter (Chapter 3.1.1). The Directive 2009/90/EC sets out the requirements for EQS and LoQs and is mandatory for all Member States. MS can use different analytical techniques as long as the compliance with the above-mentioned Directive is accomplished (Chapter 3.1.3). (Chapter 3.2.1 - Surface water): It is important to clarify that they are not two pesticides but two groups of pesticides including several active substances. It is considered that substances on the Watch List should not be included in this assessment. These are preliminary data which may or may not be incorporated in the Directive reviewed. The purpose of the detection limit is to make this preliminary data comparable at European level, but does´t mean threshold values or EQS. According to the WFD and taking into acount the PS Directive and RBSP, the exceedances are referred to the Pesticide EQS stablisheted. In this report Portugal has exceedances regarding the imidachloprid insecticide in the context of the watch list for two sampling sites. In this two exceedances the reference value is the maxium aceptable detection limit, not comparable to EQS values, so is not possible to consider exceedances in this case. Furthermore, one of the objectives of the watch list mechanism is to get good quality monitoring data for the future priority substances, not compliance with detection limit values.	2022/09/05 1	PT	Acknowledge	To increase number of reported pesticides in the assessment, other sources (eg Watch list) were used; same issue for other countries, too	
3) Question and general co	General comments If you have further comments on e.g. methodology, data availability, further improvement of the indicator, please provide your recommendations, expectations and ideas.	MT: According to the documents provided, the EEA is extracting data from the WISE-6 dataflow. The data reported on CDR (https://cdr.eionet.europa.eu/mt/eea/wise_soe/wise6/) is not being featured for MT.	2022/09/06 1	MT	Out of scope		
3) Question and general co	General comments If you have further comments on e.g. methodology, data availability, further improvement of the indicator, please provide your recommendations, expectations and ideas.	The background information for the indicators is a highly appreciated first step to obtain an overview on pesticides occurrence, specific pesticides in different countries and the respective EU-wide and national regulations/ environmental quality standards. As regards surface waters, the information provided in the Annexes gives a comprehensive and detailed overview, which was not available in that level of detail beforehand. The methodology paper mentions that Figure 1 (Percentage of reported monitoring sites with pesticides exceeding thresholds per year in a) surface waters and b) groundwater in Europe weighted by country area) was calculated by weighting the percentage of monitoring sites with pesticide exceedance by country area. It is furthermore argued that the country weighting reduces any imbalance as regards the numbers of monitoring sites and pesticides reported.We agree that the weighting reduces the imbalance as regards the number of monitoring sites per country and the number of exceedances, but it does not reduce the imbalance as regards the number of pesticides monitored. Figure 1 and 2 show the number of monitoring sites with exceedances. Under the assumption of a constant number of monitoring sites, few exceedances may be achieved in case only few pesticides with many exceedances are monitored or in case many pesticides with only few exceedances are monitored. Already at the level of countries, the information for one country is not consistent as regards the number and location of sampling sites as well as the number of substances investigated. Therefore, a timely comparison over several years is not possible for an assessment of trends, neither on country- nor on EU-level. The comparison over time does not indicate, whether the total amount of pesticides increases or decreases. This should be mentioned prominently on the website. At the moment it is mentioned that "…a trend will become apparent in the next few years." In case the data collection does not change in order to have more comparable database, a trend as regards the risk from chemical pesticides will not be evaluable. In the example of AT, we are facing a differing number of monitoring sites and a differing number of pesticides monitored. Therefore, the results cannot be compared over time. E.g. Austria:	2022/09/08 1	AT	Acknowledge	Added a table to the indicator (accessible by link) which shows the number of pesticides in surface waters and groundwaters monitored by each country	

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3) Question and general co	General comments If you have further comments on e.g. methodology, data availability, further improvement of the indicator, please provide your recommendations, expectations and ideas.	Thanks for this report. I'd like clarify a couple of things in relation to Ireland's data. Malathion data for surface water was incorrectly uploaded for 2019. We have been in contact regarding this and we understand it won't be used for this report and will correct the data in the next WISE upload. Also the method used for Malathion analysis was not sufficiently sensitive to meet the EQS set out in Annex 4 of 0.008ug/l therefore the % exceedances highlighted for 2013, 2016 and 2017 are correct. We would prefer if Malathion data was not used for this report as the data is fit for purpose if the EQS of 0.008ug/l is applied. Malathion is not used in Ireland and has not been for many years. The substances Thiamethoxam and Acetamiprid were analysed as part of our Watch list monitoring programme which consists of only three sites. We are not satisfied that this table fairly reflects the Irish situation in relation to these compounds. Should there be a minimum number of waterbodies monitored before including in these assessments ? MCPA is known to be an problem in Irish surface waters however, if the EQS of 0.1ug/l as per Annex 6 was applied our % exceedances would be appox 33%. In applying the lowest EQS set by a member state (0.01ug/l) to our data this % exceedance increases dramatically (61.7% in 2019). As there is currently no mandatory EQS for MCPA the manner in which the % exceedances are highlighed seems to exaggerate the issue.	2022/09/09 1	IE	Address	There are 12 lake water monitoring sites reporting Malathion for 2019. All values (resultObservedValue) are reported as 0.05 ug/L, which is the same value as the reported LOQ value (procedureLOQValue). However, no flag indicating that the observation is below the LOQ is reported (this should be resultQualityObservedValueBelowLOQ = 1). In turn, the values of 0.05 ug/L are treated as actually observed values, and being higher than the standard threshold of 0.008 ug/l, they are declared as exceedance. The reported data need to be updated by Ireland accordingly. AA-EQS for MCPA checked and changed to 0,5 µg/l.	
3) Question and general co	General comments If you have further comments on e.g. methodology, data availability, further improvement of the indicator, please provide your recommendations, expectations and ideas.	The data from all the countries used to assess the state of European waters seem to be too inconsistent to let the EEA to draw any reliable conclusions. According to the WAT009_...xlsx the number of countries reporting active substances varies largely - from one to a dozen or so (there are active substances reported by only 1 country) and in most cases it is a few countries. Moreover, the density of monitoring sites is very diverse. Therefore it is not possible to present these data as the EEA did in this indicator assessment: for example to put together at one graph the data from subsequent years or comparing the number of detections of pesticides in water between the countries or monitoring sites as it is misleading. Moreover the Ministry of Agriculture and Rural Development possess the data on the remains of pesticides / plant protection products that were not included in this monitoring. Therefore for developing such an indicator it seems also other sources of data (it refers to all the countries) should be used and the methodology needs to be reconsidered. Comments referring to groundwater Quite a big number of data is missing although reported via WISE SoE. The majority of determinants is below LOQ so the value of calculated substances is 0. Exceedances by Year - Map and Bar Chart 2013: we reported 90 monitoring sites, this tableau site shows 83; 2014: we reported 100 monitoring sites, this tableau site shows 72; 2015: ok; 2016: no data on the graph and map although we reported 151 sites; 2017: no data on the graph and map although we reported 106 sites; 2018, 2019, 2020: ok; Exceedances by Pesticide by Year - Map and Bar Chart the numbers for the indicators are in line with the 'Exceedances by Year - Map and Bar Chart' therefore the data for 2016 and 2017 are missing and for the years 2013 and 2014 there are the differences Exceedances by Pesticide by Year - Overview Table the table is missing the calculations for 2016 and 2017	2022/09/09 1	PL	Acknowledge	Poland mentions two issues: (1) a portion of groundwater monitoring sites missing for 2013 and 2014; and (2) completely missing groundwater dataset for 2016 and 2017. For issue #1, indeed there are some sites not used in the assessment, because of two possible issues: outliers in observed values or unknown spatial identifier (i.e. a spatial record missing in WFD spatial data reporting). If the latter is the issue, no data from specific monitoring site code are used for the assessment. In the accompanying pivot table, you can find the number of monitoring sites of Poland/groundwater/pesticides with a stated QC issue, by year. You are able to see that for example, 6 monitoring sites in 2013 are missing the spatial data, thus not used in the assessment. For issue #2, we have checked the input dataset ("Waterbase Water Quality" database) and see there are no pesticide data for groundwater monitoring sites reported by Poland for 2016 and 2017. We went further to check the delivered Excel sheets at the CDR, again with no data found. Please let us know if you think that the data are indeed available somewhere for harvesting.	
3) Question and general co	General comments If you have further comments on e.g. methodology, data availability, further improvement of the indicator, please provide your recommendations, expectations and ideas.	One of the advantages of this indicator version (which is available for commenting) is the possibility to check the background data in maps. Could it be possible to have this opportunity in the final version as well?	12/09/2022	FI	Acknowledge	Not this year, but will be considered in further development	
3) Question and general co	General comments If you have further comments on e.g. methodology, data availability, further improvement of the indicator, please provide your recommendations, expectations and ideas.	The limit values should be re-checked (e.g. check that selected AA-EQS value is for fresh water and choose e.g. 10th of 25th percentile of available AA-EQS values instead of the lowest value if no time to check all substances in detail and the variation between values is high.) *A text should be added to the uncertainty chapter which tells that the monitoring sites can represent very different conditions and that upscaling the site specific results to the whole country is not always valid. *In future indicator versions, a link between used, monitored and reported PPPs should be developed. If relevant data is not reported it should be shown in indicator somehow. This would make the use of one-out-all-out principle more acceptable.	12/09/2022	FI	Acknowledge		