

Section	Paragraph	Message Id	Message	Date	Paragraph url	Action to take	Notes
Executive Summary	EU and inter	089839	POLAND All of the abbreviations should be explained in the document, particularly those which are not used commonly, such as names of pollutants - e.g. DEHP. "Historically, pollution by metals was caused by industry and mining, but significant sources now include our homes, buildings and untreated storm water discharges. Agriculture is the major user of pesticides, though we have limited data to show that as a source, while municipal and domestic uses can be significant in urban waste water. The herbicides isoproturon, metolachlor, MCPA and terbuthylazine are discussed, as is the insecticide lindane, already heavily regulated but a very persistent and volatile substance. Some biocides, like tributyltin were used to protect vessels from "fouling" by mussels and other water organisms." - Literature sources needed to give more in depth information and explain the context of the mentioned statements. The statement about agriculture needs rewording or withdrawal as it seems vague and looks like there was not enough research	2018/09/25 16:5	https://forum.eionet.e	address	List of abbreviations added
Executive Summary	EU and inter	774394	DE-BY,NW 'released from urban waste water treatment pants': According to MoRE model emissions of urban waste water treatment plants are about 2% of the total Hg-Emissions into german rivers - this amount is not seen as a "substantial amount". Hence, on page 5 the conclusion 'further effort to reduce ' this source should be reconsidered	2018/09/26 09:2	https://forum.eionet.e	address	edited text
Executive Summary	EU and inter	026954	DE-UBA II 2.2: 'Historically, pollution by metals was caused by industry and mining, but significant sources now include our homes, buildings and untreated storm water discharges.' Please add combustion processes. Is storm water discharge meant as source or as pathway? Because of emissions coming from combustion processes (causing atmospheric deposition) storm water discharges are an important pathway for metals. Furthermore, it doesn't seem to be a complete new source/pathway	2018/09/26 13:0	https://forum.eionet.e	address	edited text
Executive Summary	EU and inter	370578	DE-UBA IV 1.2: 'Agriculture is the major user of pesticides,' Is there a literature source available. if so please amend.	2018/09/26 13:5	https://forum.eionet.e	acknowledge	
Executive Summary	EU and inter	317026	EurEau UWWTP are not source of pollution but pathways from the urban areas. They are treating what they are designed for. Specific pollutions should be tackled at source to apply the polluter pays principle	2018/09/28 10:1	https://forum.eionet.e	acknowledge	this point is made elsewhere in the detail of report
Executive Summary	Chapter 4 cor	167602	POLAND "Improvements to our understanding of emissions could be achieved by: Streamlining emissions reporting, so that robust data collected for one obligation would satisfy European emissions reporting requirements". If this statement is to be treated as a recommendation to the European Commission or Member States, it needs to be clearly explained and communicated to the Member States and the system needs to be consulted amongst experts working in various working groups within the CIS WFD as well as under MSFD and EEA. It also needs to fulfil the INSPIRE Directive requirements. Our understanding is that all of the other reporting obligations will be eliminated and replaced by one obligation gathering the information from different directives if this recommendation is going to be implemented. If this is the case, the obligation in terms of the frequency of reporting and the sufficient amount of data needs to take into account the differences between directives and slightly different approach at Member State level. "(...) assuming monitoring and reporting are accurate". We kindly ask to withdraw this part of the text from the draft. EEA has the measures to check the accuracy of the data	2018/09/25 16:5	https://forum.eionet.e	acknowledge	this is a finding of report, not a formal recommendation

Executive Summary	Chapter 4 col	567623	DE-BY: Chapter 4 considers some strategies and practical approaches... Please replace 'practical' by 'scientific' The mentioned strategies and approaches are not yet tested in routine monitoring but only in scientific projects. There is a lack of specialists and accredited laboratories	2018/09/26 09:34	https://forum.eionet.europa.org/node/10444	acknowledge	
Executive Summary	Chapter 4 col	855591	DE-BY: Chapter 4 considers some strategies and practical approaches... Please replace 'practical' by 'scientific' The mentioned strategies and approaches are not yet tested in routine monitoring but only in scientific projects. There is a lack of specialists and accredited laboratories	2018/09/26 09:34	https://forum.eionet.europa.org/node/10444	acknowledge	duplicates row 10
Executive Summary	Chapter 4 col	068794	DE-BY: Chapter 4 considers some strategies and practical approaches... Please replace 'practical' by 'scientific' The mentioned strategies and approaches are not yet tested in routine monitoring but only in scientific projects. There is a lack of specialists and accredited laboratories	2018/09/26 09:34	https://forum.eionet.europa.org/node/10444	acknowledge	duplicates row 10
Executive Summary	Chapter 4 col	726166	DE-BY: pBDEs are mainly from diffuse sources, please add this aspect	2018/09/26 09:34	https://forum.eionet.europa.org/node/10444	acknowledge	from the reporting, we actually don't know where they are from, hence need to understand the environmental pathways
Executive Summary	Chapter 4 col	559045	DE-BY: pBDEs are mainly from diffuse sources. please add this aspect	2018/09/26 09:34	https://forum.eionet.europa.org/node/10444	acknowledge	duplicates row 13
Executive Summary	Chapter 4 col	136330	DE-NW: also see comment above, for mercury, please substitute ' from urban waste water treatment plants' with other hot spots of emission.	2018/09/26 09:34	https://forum.eionet.europa.org/node/10444	address	edited text
Executive Summary	Chapter 4 col	998533	DE-NW: 'Improvement in the monitoring and reporting of diffuse sources, to ensure that pressures are correctly understood and measures can be appropriately targeted.' We would appreciate a reference to the use of modelling	2018/09/26 09:34	https://forum.eionet.europa.org/node/10444	address	edited text
Executive Summary	Chapter 4 col	018918	DE-BY: 'Applying such techniques in the assessment of ecological status would be one way to improve protection from harmful chemicals under the WFD.' The ecological status is defined in relation to reference conditions based on species and abundances. Before changing this system in the WFD it should be proved that the recent assessment methods of the biological status are not able to tackle with chemical pressures	2018/09/26 09:40	https://forum.eionet.europa.org/node/10444	acknowledge	
Executive Summary	Chapter 4 col	683384	DE-UBA II 2.2: a) mercury is not a substance group throuout the text it could be 'mercury and its compounds' b) It sounds as if UWWTPs are most important pathways. As far as we know mercury emissions to atmosphere caused by combustion processes are very (most)important. UWWTPs are just one pathway for urban areas. In Germany storm water discharges and overflows from combined sewer systems are more important for mercury	2018/09/26 13:11	https://forum.eionet.europa.org/node/10444	acknowledge	edited text

Executive Summary	Chapter 4 col	054859	"Further effort to reduce emissions of mercury from urban waste water treatment plants, either upstream or before discharge, seems necessary." Why is only urban waste water plants mentioned here when the main sources specified on p 4 includes coal burning and chemical industry? "For some priority substances, low numbers of water bodies failing to achieve good chemical status suggest that, assuming monitoring and reporting are accurate, measures have been effective in preventing the entry of these chemicals into surface waters." Correct if the EQS is protective in line with the aims of the framework. Some EQSs have been adopted from older legislation. The EQS for DDT for example do probably not consider protection of top predators.	2018/09/28 21:44	https://forum.eionet.europa.org/node/10000	address	edited text
Executive Summary	EU and inter	559982	P4, 1st paragraph: Please consider referencing changing standards here as this is quite an important reason for the current status as analysed. Without this context, the statement may be misleading.	2018/10/05 10:54	https://forum.eionet.europa.org/node/10000	acknowledge	the 2nd RBMP didn't require many changes to standards, as those mostly take effect for 3rd cycle. That there were differences in interpretation was discussed in detail for mercury in EEA's 2018 European Waters - Assessment of status and
Executive Summary	Chapter 4 col	125923	P5, 3 bullets: The first action seems at the local scale whereas the other two – for PBDEs and PAHs - are more general. Could this be expanded on briefly, please? The last section hints at deselection of "redundant" PS. This is something COM started to explore then stopped. Could this be expanded on here, i.e. summarising further section 5? P5, second from last paragraph: One proposal might be that for those PS that are no longer an EU wide-scale risk issue, but that are not necessarily problems in <4 member states, could be recommended for RBSP in affected MS following deselection as PS.	2018/10/05 11:01	https://forum.eionet.europa.org/node/10000	acknowledge	the difference between mercury and the others is that our understanding of pathways is quite good for mercury, but the reporting for PAHs and BDEs shows much lower level

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1. Introduction	1.1.	A274405	POLAND This section does not reflect the text in the draft report. According to this section, this report should give a grounding in what is known and a view of how surface waters may be better protected in the future. A few sections of the draft document are focused on the unknown data and lacking of links between data reported. The aim of the report needs to be filled with definition of the group of recipients of this report and why it is important for them to be familiar with the outcome of this report.	2018/09/25	https://forum.eio	address	edited text
1. Introduction	1.1.	A627136	DE-SH, NW: 'However, some present risks to plants and animals living in water, or the animals eating them.' Please change to 'some chemicals present' and what about human health based on consumption of fishery products?	2018/09/26	https://forum.eio	acknowledge	
1. Introduction	1.1.	A349291	We propose to adjust the goals of this report, due to its content. The submitted report is more comprehensive than the presented aims.	2018/10/01	https://forum.eio	address	edited text
1. Introduction	1.3.	C110410	DENMARK In Denmark the discharge of mercury from UWWTPs was significantly reduced from 2004-2006 to 2011-2013. It is unknown whether the reduction was caused by increased or better treatment at the UWWTP or by a reduced content of mercury in products and consumer goods.	2018/09/28	https://forum.eio	acknowledge	
1. Introduction	1.3.	C583069	Since the first cycle of reporting of River Basin Management Plans (1st RBMPs) (EEA, 2012), Member States have made progress in tackling priority substances, significantly reducing the number of water bodies failing standards for substances such as several priority metals (cadmium, lead, and nickel) Comment Belgium (Wallonia): for lead and nickel, in the first reporting of RBMPs, EQS were set for soluble concentrations whereas now EQS are set for the bioavailable part of these concentrations calculated through simplified BLM (Biotic Ligand Models). This difference between the first and the second reporting of RBMPs could explain a part of the observed "improvement".	2018/10/01	https://forum.eio	acknowledge	The reporting was based on 2008 EQS, not the new bioavailable standards. The point about possible use of bioavailable standards was checked with WFD Working Group Chemicals: MS did not consider there was much influence of those on the improvement statistics.
1. Introduction	Box 1.1	Bo457976	Eurometaux "When pollution protection breaks down" Box 1.1 on a mining accident is not linked to the text. Its purpose here is not clear. We would suggest removing it.. In fact, none of the EU legal mechanisms (Watchlist, PS list or PHS list) have detected such a breakdown.	2018/09/28	https://forum.eio	acknowledge	

1. Introduction	Box 1.1Bo	235537	Eurometaux "Most cyanides in water originate from industry" "Serious pollution by cyanide occurred after an accident at a gold mine in Romania in 2000. Near Baia Mare a dam holding 300 000 m³ contaminated water with 100 t cyanide spilled into the Someş River, which flows into the Tisza (Ogul 2015). The spill contaminated the drinking water supplies of over 2.5 million Hungarians with catastrophic environmental consequences, killing over 1400 t fish." Whilst this is true, Romania joined the EU seven years later and all Member States have been subject to the EU Directive on waste from the extractive industries for over ten years since then.	2018/09/28	https://forum.eio	acknowledge	
1. Introduction	1.4.	E934177	DE-UBA IV2.2: It should mentioned that no EQS values available for pharmaceuticals although they are relevant for a good status in surface water. Pharmaceuticals are very often measured in surface water and often show high toxicity.	2018/09/26	https://forum.eio	acknowledge	
1. Introduction	1.4.	E012331	This was firstly done in 2013 when 12 substances where added to the former 33 priority substances (and substance groups). Comment Belgium (Wallonia): add "(EU, 2013b)" after this sentence (it is the reference for 2013/39/EU directive).	2018/10/01	https://forum.eio	address	edited
1. Introduction	Other EU	I190367	DE-NW: 'Other EU legislation on water protection concerning chemicals.' Should the Groundwater Directive also be mentioned?	2018/09/26	https://forum.eio	address	added Groundwater Directive to the list.
1. Introduction	Other EU	I027238	DE-BB: 'The Nitrates Directive (EEC, 1991b) regulated fertilizers and served to reduce nutrient inputs from agriculture, especially from intensive livestock forming.' Typo : should be farming.	2018/09/26	https://forum.eio	address	edited text
1. Introduction	Other EU	I202727	DE-BB: 'The Nitrates Directive (EEC, 1991b) regulated fertilizers and served to reduce nutrient inputs from agriculture, especially from intensive livestock forming.' Typo : should be farming.	2018/09/26	https://forum.eio	address	duplicates row 14
1. Introduction	Other EU	I802745	DE-BB: 'The Nitrates Directive (EEC, 1991b) regulated fertilizers and served to reduce nutrient inputs from agriculture, especially from intensive livestock forming.' Typo : should be farming.	2018/09/26	https://forum.eio	address	duplicates row 14

1. Introduction	Other EU	746749	DE-BB: 'The Nitrates Directive (EEC, 1991b) regulated fertilizers and served to reduce nutrient inputs from agriculture, especially from intensive livestock farming.' Typo : should be farming.	2018/09/26	(https://forum.eic)	address	duplicates row 14
1. Introduction	Other EU	700296	DE-SH: 'EEA member countries which are not members of the EU with environment and water law comparable to those with the EU include Iceland, Liechtenstein, Norway and Switzerland.' Sentence seems not complete; it is unclear what is the content of the sentence should be.	2018/09/26	(https://forum.eic)	address	edited text
1. Introduction	Other EU	314948	P10, other EU legislation: Minor point - "below safe levels" is non-sensical. Rephrase as "at safe levels" or "below thresholds linked to potential effects".	2018/10/05	(https://forum.eic)	address	edited text

Section	Paragra	Message	Message	Date	Paragraph url	Action to ta	Notes
2. "Known unknowns" –	2.2.	769955	POLAND It seems important to mention that the chemical status is also assessed in artificial and heavily modified water bodies therefore it would be beneficial to add to the figure on the bottom of page 12 a link between chemical status assessment and ecological potential assessment as well as to change the name of the section into "chemical status and ecological status/potential assessment". The above mentioned remark is valid for the following figures where there is also only ecological status mentioned.	2018/09/25 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.2.	970503	DE-NW: Figure: The arrow from RBSPs should not go to chemical status but instead to ecological status - even though in both cases a EQS is derived. Please consider reconstructing the scheme in a way that it better reflects this aspect.	2018/09/26 0	https://forum.eio	Address	Figure changed
2. "Known unknowns" –	Fig 2.2a	552361	DE-NW: 'Meanwhile, ecological status is shown in graph B.' It should be 2.2.c	2018/09/26 0	https://forum.eio	Address	corrected
2. "Known unknowns" –	Fig 2.2a	797194	DE-SH: Figures: The WFD distinguishes between natural and artificial water bodies; Not all water bodies have to reach the good status. Please make graphs which show the natural status and the good ecological potential.		https://forum.eio	Acknowledge	
2. "Known unknowns" –	Fig 2.2a	350078	DE-UBA IV 1.2: Figure 2.2a: Is it correct that there is almost no data available from Denmark?		https://forum.eio	Acknowledge	yes, DK did not report information on chemical substances
2. "Known unknowns" –	Fig 2.2a	133429	Omitting these from the calculation of chemical status increased overall good chemical status to 81% ((graph C). Meanwhile, ecological status is shown in graph B. Comment Belgium (Wallonia): replace by : Omitting these from the calculation of chemical status increased overall good chemical status to 81% ((graph B). Meanwhile, ecological status is shown in graph C.	2018/10/01 1	https://forum.eio	Address	corrected
2. "Known unknowns" –	2.3.	254845	DE-NW: Please consider comment regarding the scheme above.	2018/09/26 0	https://forum.eio	Address	corrected

2. "Known unknowns" –	Box 2.2	269326	POLAND Mixture toxicity - We would suggest using the same definition of Mixture toxicity as is given in the document "State of the Art Report on Mixture Toxicity" on its page 4 in the first paragraph, in second line (http://ec.europa.eu/environment/chemicals/effects/pdf/report_mixture_toxicity.pdf). Mode of action - We suggest using the definition aligned with term given in the ECHA's document "Mode of Action and Human Relevance Framework in the contents of ...", page 5, first paragraph, first line (https://echa.europa.eu/documents/10162/22816050/moaws_workshop_proceedings_en.pdf/a656803e-4d97-438f-87ff-fc984cfe4836) or with term given in the document "Toxicity and Assessment of Chemical Mixtures EC " page 49, second bullet point, second paragraph (http://ec.europa.eu/health/scientific_committees/environmental_risks/docs/scher_o_155.pdf).	2018/09/25	https://forum.eio	Address	edited text
2. "Known unknowns" –	Box 2.2	832702	DE-UBA IV 2.2: This is the definition of chronic toxicity from toxicology, in ecotoxicology there are also chronic tests that are carried out shortly, e.g. the algae test (3 d). Therefore, the definition should be changed: Chronic toxicity – adverse effects on growth, development, reproduction and energy balance.	2018/09/26	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.4.	596711	POLAND Text to be adapted to a new definition of mode of action, in case it is changed in line with our proposal	2018/09/25	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.4.	114343	DE-NW. 'The occurrence of chemical mixtures in freshwater systems is the result of different sources and different patterns in time, space and concentration (e.g. Baker & Kasprzyk-Hordern 2013, Beckers et al. 2018) and so does the respective risk for the ecosystems. The challenge is to figure out which of the many substances present are most important for the toxicity of a mixture.' Please amend ...if toxicity of the mixture was found.	2018/09/26	https://forum.eio	Address	edited text

2. "Known unknowns" –	2.4.	757613	DE-NW: '... the chemicals acted upon organisms – “modes-of-action”. 30 mode-of-action categories were identified for freshwater contaminants (figure 2.5), so that even with a potentially unlimited number of chemicals, there is a limited range of adverse biological effects. This approach could be used to simplify toxicity assessment.' Splitting up compounds in a limited number of MoAs is surely a step in the right direction for reasons of applicability. However there are still many blind spots and unknown MoAs. As scientific work about Adverse Outcom Pathways show, processes in organisms can interfere at many different molecular and physiological stages which will be probably underestimated by a too limited number of categories. The approach has to be aware of its open flanks.	2018/09/26 0	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.4.	654613	DE-UBA IV 1.3: We are of the opinion, that in this chapter it should be stressed that for successful evaluation of mixture toxicity the extend and quality of chemical monitoring is crucial. The present chemical monitoring (of pesticides) under WFD apparently is not adequate do characterise the chemical cocktail and assess mixture toxicity. The paper encourages assessment of mixtures. Where the data basis allows this we welcome such an evaluation. This approach can be combined with bioassays (see following chapter) or biological monitoring data resulting in a so called 'integrated monitoring'. A recent example from Switzerland is presented by Langer and Junghans (Aqua and Gas No 4, 2017 page 58).	2018/09/27 0	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.5.	007640	DE-NW: 'Practically, difficulties exist, though the robustness of techniques has improved for some modes of action in recent years' Difficulties should be named: test miniaturisation needed, no harmonized sample preparation, susceptibility to errors etc.	2018/09/26 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.5.	786453	DE-UBA: Figure 2.9 a seems blurry, please provide it in better resolution.	2018/09/27 1	https://forum.eio	Address	edited text

2. "Known unknowns" –	2.6.	644466	POLAND In the "COMMUNICATION FROM THE COMMISSION TO THE COUNCIL" on the effects on human health and on the environment arising from exposure to many different chemicals is reference to three different terms describing that problem: combination effects, mixture effects or cocktail effects. We would propose to use "combination effects" term instead of "mixture effect". That term stress more the problem which is described in the report and ensures that the term "mixture" will not be understood as the one defined in art 3.2 of REACH regulation.	2018/09/25 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.6.	297843	DE-NW: figure 2.10 - Please consider the comment above regarding figure 2.1	2018/09/26 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.6.	860556	For example, if all five PSII inhibitors from the priority substances list were detected, individual concentrations might be at good chemical status but the mixture could nevertheless cause adverse effects (Figure 2.6). Comment Belgium (Wallonia): the link between this sentence and Figure 2.6 is not clear.	2018/10/01 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.6.	716496	Compound-based mixture prediction: EQS for mixtures of similar acting compounds could be established and potentially considered in chemical status assessment. For example, an EQS for the sum of all six PSII-inhibitors could be defined as the sum of the single substance concentrations divided by the single substance EQS. If this sum exceeds "one", than the EQS of priority PSII-inhibitors is exceeded. Comment Belgium (Wallonia): this approach assumes that the effects are additive and not synergistic or antagonistic. This should be indicated and the fact that the second approach (Mixture effect detection using effect-based methods) should be preferred.	2018/10/01 1	https://forum.eio	Address	edited text

2. "Known unknowns" –	2.6.	069600	<p>The European Commission (Wernersson et al. 2015) gives a summary of available bioanalytical tools in the technical report on aquatic effect-based monitoring tools under the WFD. Their readiness for monitoring applications has been evaluated in several projects (e.g. Kienle et al. 2015).</p> <p>Comment Belgium (Wallonia): important works have been carried out since this one and should be mentioned and summarized:</p> <p>Dorota Napierska, Isabella Sanseverino, Robert Loos, Livia Gómez Cortés, Magdalena Niegowska and Teresa Lettieri, Modes of action of the current Priority Substances list under the Water Framework Directive and other substances of interest, EUR 29008 EN, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-77301-3, doi:10.2760/226911, JRC110117 reviews the current PS list and other substances of interest, considering their MoA(s). The review of data from the open sources clearly identified few groups of toxicological endpoints, with the majority driven by non-specific mechanisms (e.g. oxidative stress, activation of metabolizing / detoxifying pathways, histopathology, and others), and few groups with more specific biochemical / physiological pathways (photosynthesis inhibition, acetylcholinesterase inhibition, presence of PAHs metabolites, expression of metallothioneins). The majority of current PS and other substances of interest can be grouped, based on few common toxicological endpoints, and biomarkers are available for determining</p>	2018/10/01 1	https://forum.eio	Address	edited text
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2. "Known unknowns" –	2.6.	857131	<p>Two applications of effect-based methods can be foreseen: Comment Belgium (Wallonia): According to me (and others working in the field) at least two other applications of effect-based methods can be added:</p> <p>The use of the EBM offers also the advantage of overcoming analytical difficulties and reducing monitoring costs by screening. Indeed, it is possible to use EBMs both for prioritization and deprioritization of water bodies for further (operational or investigative) monitoring.</p> <p>To assess the efficiency of measures taken to reduce a pressure (e.g. wastewater discharge) on key organisms and or function of the ecosystem.</p>	2018/10/01 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.7.	008830	<p>DE-NW: ' Clearly, there are limitations as to what can be reasonably expected from such efforts, with both scientific and practical considerations, such as:' Standardization and further development of additional bioassays is required since reliable specific bioassays are still missing for several mode of actions.</p>	2018/09/26 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.7.	894252	<p>DE-NW: 'iii) Effect based Methods rely on concentrating the dissolved substances in a water sample through solid phase extraction methods. Such methods work well for some organic compounds (non-polar) but not for others (e.g. polar compounds including glyphosate and AMPA) (Reemtsma et al. 2016). Neither metals nor contaminants bound to particles will be detected by the effect-based methods discussed and would thus need separate analysis. This is a significant omission given the relatively widespread failure of metal EQSs (EEA, 2018a; Johnson et al. 2017).'</p> <p>Moreover, relevance of sample preparation and concentration steps and what the biotests detect has to be demonstrated. E.g. are the effects detected in a concentrated sample relevant for organisms in the environment or is it drawing a disorted picture of the real conditions in the water phase. Field studies under different conditions are highly needed.</p>	2018/09/26 1	https://forum.eio	Acknowledge	

2. "Known unknowns" –	2.7.	871415	DE-UBA IV 2.2: Please consider, chemicals below the limit of quantification will also not be detected. However, there are chemicals which show effects below the limit of quantification.	2018/09/26 1	https://forum.eio	Acknowledge	
2. "Known unknowns" –	2.7.	917690	Eurometaux "Neither metals nor contaminants bound to particles will be detected by the effect-based methods discussed and would thus need separate analysis. This is a significant omission given the relatively widespread failure of metal EQSs" Indeed, metals may not be detected by the effect-based methods. This is posed here as a problem, but it is not necessarily. We suggest the text also notes that: "Most metals are well-known, can be accurately measured, and have extensive ecotoxicity data available that allow for the derivation of a reliable EQS. Therefore, traditional substance-based monitoring for metals is well-established, and the need for effects-based methods is less pressing than for other substances which may be unknown, difficult to measure, and/or have highly uncertain EQS".	2018/09/28 1	https://forum.eio	Address	edited text
2. "Known unknowns" –	2.8.	786372	DE-NW: At this point also the actual status of the effect-based methods with existing difficulties and knowledge gaps should be mentioned. The approach is pointing in the right direction but several tasks have to be dealt with before it can be applied. Besides single test systems and MoA which are ready to use (estrogens) for which also field studies have been successfully performed, for most other MoA's and test systems work is still pending. Robustness, reliability and relevance have to be demonstrated in extensive field studies before they can be applied.	2018/09/26 1	https://forum.eio	Acknowledge	edited text

2. "Known unknowns" –	2.8.	730735	<p>DE-UBA II 2.5: The report shall provide an in-depth assessment on the key pollutants using mainly data of the WFD monitoring. In this respect we wonder why in chapter 2 (subchapters 2.3 – 2.8) a new approach is explained very much in detail. Short examples regarding chemical pollution and related effects should be illustrative and clear. General vague conclusions should be avoided (e.g. page 22: Results showed the presence of different chemicals at different levels of pollution with diverse modes of action.) From our point of view scientific considerations in chapter 2 could be shorten and supplemented by activities at EU level such as the watch list mechanism. The whole report would benefit from keeping short and concise</p> <p>[HK1]Kommentar zweimal eingefügt, general und bei 2.8</p>	2018/09/27 1	https://forum.eio	Acknowledge	
	2.1		<p>The term "Gross pollution" is a bit odd expression. Could it be just "pollution"?</p>	28/09/2018		Address	edited text
2. "Known unknowns" –	2.6.	597699	<p>Effect based monitoring/tools (sections 2.4, 2.5, 2.6) In our opinion EBM can be useful and recommended if some prerequisites are fulfilled, such as:</p> <p>it should cover (indicate the presence of absence) a large number of compounds to be measured EBM has to be sensitive enough to prove the absence or lower concentration than EQS of a group of compounds EBM has to be cost effective, e.g. considerably lower price than targeted chemical analysis.</p> <p>We think it makes no sense trying to replace 45 targeted chemical analyses with 30 EBM tests, while in case of any positive EBM indication the targeted analysis still has to be done to find out whether there is any exceedance of an EQS or not. Considering the mixture effect, we understand clearly the additive effect of the similar mechanisms, but we think in this case an EBM EQS should be introduced instead of concentrations of individual compounds. Furthermore there is a philosophical problem here: we created EQSs at far lower concentrations than any toxicology effect, and now we try to use toxicology-like methods to make an indication.</p>	2018/10/01 1	https://forum.eio	Acknowledge	

2. "Known unknowns" –	2.1.	756234	P12 and again on P15 "Separation of chemical and ecological status is artificial" – agree. Two points: Chemicals are really just another pressure EQSs for many chemicals are determined by risks to human health so are irrelevant to ecological status	2018/10/04 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	Fig 2.2a	504884	P13-14 The illustration that is missing is the human health status associated with surface waters	2018/10/04 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	Fig 2.2a	288905	P15 "Diagnostic approaches to unravel links between ecological effects and chemical contamination" This is an aim of the current NERC Programme on chemicals	2018/10/04 1	https://forum.eio	Acknowledge	
2. "Known unknowns" –	A pioneer	228829	P17 Reliance on large AFs introduces variability between EQSs and (probably) over-protection. Only substances with enough data for a small AF should be put forward as regulatory EQSs (suggest minimum AF of 50).	2018/10/05 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	A pioneer	251867	P17 Links between chemical status and ecological status. Work by Malaj et al 2014 suggests a link but this doesn't seem to be borne out in assessments of impact (i.e. ecological status). Does this highlight a difference between RISK and IMPACT? i.e. you can identify a risk but this isn't necessarily translated into impact on biological communities. This raises quite an important question - What should drive action? Evidence of risk or evidence of impact?	2018/10/05 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	It can be	814610	page 20 last sentence which states 'for chemicals in a mixture that have the same mode of action, an additive combination effect may be expected.' This is inferring a simplistic correlation. I don't think this is true - surely the toxicity of the chemicals should be the main factor. Hence Figure 2.6 is very simplistic and not really giving the whole picture.	2018/10/05 1	https://forum.eio	Address	The CA assumption is simplistic, but has been shown to provide good predictions in many studies and serves as a starting point to deal with mixtures. References added
2. "Known unknowns" –	2.5.	173366	P21 Use of BOD as an example of an effects based measure is flawed. It's true that BOD doesn't identify the cause, but we do know ways of reducing BOD, whereas we have no idea how to respond to a positive response in a non-specific bioassay.	2018/10/05 1	https://forum.eio	Acknowledge	

2. "Known unknowns" –	2.5.	792609	P21 "EBMs ... integrate the effects of mixtures of chemicals irrespective of whether the combined effects are" Agree. This is the main benefit of EBMs. The problem is finding a way of integrating EBM information alongside chemicals and biological monitoring. If it's a routine measure of effect, what do you do if monitoring shows measured concs<EQS but you get a positive response in the bioassay (or vice-versa)?	2018/10/05 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	2.5.	344627	Whole of section 2.5: There seems to be no reference to well-established effects monitoring like imposex in dog whelks (for TBT and possibly other tri- substituted alkyl tins) is made at all. Direct toxicity assessment is not mentioned either. The latter seems to have fallen out of favour in regulation except for cases where specific chemical analysis is not practical because of the lack of information it gives on causes.	2018/10/05 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	2.6.	147073	page 23 "compound –based mixture prediction : EQS are derived from PNECs - PNECs can have assessment/uncertainty factors associated with them so the argument for this will lead to LOD/LOQ concerns.	2018/10/05 1	https://forum.eio	Address	might be true, but low dose mixture effects (<EQS) have been demonstrated to be biologically relevant. Reference added
2. "Known unknowns" –	2.6.	431032	P24 Two applications are suggested. For the first (monitoring of chemical impacts on BQEs), why not simply use the BQE response as an indicator of stress – which might include some chemical effects? BQEs would integrate the effects of mixtures of chemicals (and other stressors) just as much as EBMs.	2018/10/05 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	2.6.	881715	P23, 1st Paragraph: Regarding five PSII inhibitors all meeting EQS but cumulatively potentially causing effects – this is not the only question, there is also uncertainty with respect to the individual chemical EQS themselves and the level of protection that the assessment factors provide, i.e. are they overly protective.	2018/10/05 1	https://forum.eio	Out of scope	
2. "Known unknowns" –	2.6.	035720	P23, compound-based mixture prediction: No mention in the section of dioxin, furan and PCB TEQs approach for carcinogenicity (and used as the basis for the WFD EQS). Perhaps discuss this somewhere within the section?	2018/10/05 1	https://forum.eio	Address	edited text

2. "Known unknowns" –	2.6.	038319	<p>P23, mixture effect detection using effect-based methods (EBM) and following sections: The example given (algal growth inhibition assay) is basically "DTA" – direct toxicity assessment (see comment above). Not only is this time consuming, there are many practical difficulties to regulators performing such assays – culturing organisms in the laboratory, lack of skills etc.</p> <p>We see use of EBMs as primarily being a way of benchmarking "traditional" EQS, as was done for steroidal oestrogens against the EE2 EQS (as the most potent oestrogen), and perhaps being used in investigative monitoring, but not being used in wide scale operation and surveillance monitoring.</p> <p>This would not be practical and we argue that especially the whole organism assays – i.e. those that do not explore a specific or narrow set of MoAs – would not be useful and would tell you very little about what class of chemical was responsible for observed effects. We would also oppose any additional vertebrate (i.e. fish) testing to that already conducted for chemical authorisation type regulation without a very good and ethical justification for its conduct.</p>	2018/10/05 1	https://forum.eio	Acknowledge
2. "Known unknowns" –	2.6.	343652	<p>P24, 1st bullet: This sounds like duplication of what could be observed in the environment, i.e. ecological status, with the right ecology assessment tools. At worst it is duplication.</p> <p>It would also miss those longer-term population impacts that field data would stand a chance of capturing (even if cell-based assays are included, which do not give you a definitive answer with respect to whole organism effects).</p>	2018/10/05 1	https://forum.eio	Acknowledge
2. "Known unknowns" –	2.7.	155808	P25-26 Applications of EBMs – this is the key area.	2018/10/05 1	https://forum.eio	Acknowledge

2. "Known unknowns" –	2.7.	376098	<p>Broad spectrum EBMs (i.e. ones that respond to a wide range of chemical moas) don't do much more than the BQEs do already so I can't see much point in using them. They might be more sensitive than BQEs but if you can't see a response in the BQEs why does it matter anyway (unless we want to act on the basis of risk rather than impact)?</p> <p>On the other hand, very narrow EBMs (ones that respond to only certain moas) may help in diagnosing what was responsible the biological effects seen (as demonstrated by BQEs). These could help address the mixture issue (i.e. they reduce the risk of false negatives) but we have to be clear about what would trigger the use of such EBMs. Would we use diagnostic EBMs at (a) all WBs (i.e. deploy them everywhere on all occasions) or (b) where there is a demonstrable impact as shown in BQEs? This seems a more sensible approach, i.e. where you know you've got a problem and you're trying to diagnose what is responsible.</p> <p>How do we respond to positive responses in a EBM? Should it be a trigger for (a) remediation (that seems awfully drastic), (b) reporting 'less than good' status (that also seems a bit drastic) or (c) more monitoring (that seems sensible, and the EBM would point you toward the chemicals most likely to be of concern). i.e. USE EBMs AS AN INVESTIGATIVE TOOL TO IDENTIFY REASONS FOR POOR STATUS AND TO GUIDE CHEMICAL MONITORING. DO NOT USE EBMS FOR CLASSIFICATION OR DRIVING</p>	2018/10/05	https://forum.eio	Out of scope
2. "Known unknowns" –	2.8.	091780	<p>P26 "Most EBMs do not provide conclusive evidence of the chemical(s) responsible" This needs further attention. If they don't lead you in the right direction then they serve no useful purpose. There's a lot of experience in the US of TIE ('Toxicity Identification Evaluations') methods for chemical diagnosis – how effective is that? Is it still used?</p> <p>page 26 - Summary - last sentence is key – it is which components of the mixture are the main contributors to the harmful effects.</p>	2018/10/05	https://forum.eio	Acknowledge

Section	Paragra	Messa	Message	Date	Paragraph url	Action to take	Notes
3. Known risks	3.1.	708564	DE-UAB IV 1.2: 'under REACH or pesticides legislation' it should be pesticides legislations This should be plural, because there is the plant protection product legislation and the biocidal product legislation.	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	3.1.	070936	EurEau We cannot consider the improvement of treatment as a viable solution. The source of the pollutant has to be identified and treated upstream to protect the WWTP. Toxic substances should not reach WWTP as it may endanger the capacity of treatment for basic pollutants. It also influence the quality of sludge and jeopardize circular economy.	2018/09/28 1	https://forum.eion	acknowledge	
3. Known risks	3.1.	197877	EurEau WWTP should never be seen as a source of pollutants if it comply with the UWWTD. They have been built to be compliant, responsibility should not be put on them for other kind of pollution.	2018/09/28 1	https://forum.eion	acknowledge	
3. Known risks	3.2.	833780	DE-SH: Please add information on metabolites an degradation products	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	3.2.	638134	DE-SH: Box 3.11 'The WFD data reported' The first key message is, that the member states have reported in an unhumanized way (Fig. 2.2.b); so results and percentages are not comparable. More harmonization in electronic reporting needed.	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	3.2.	480577	DE-SH: 'In the case of mercury, there is now much regulation to prevent losses, but historic and natural sources (volcanoes) lead to widespread pollution in central and northern Europe, though continued coal burning represents a current source.' It should be 'western, central and' In Germany also continued coal burning, Germany is western Europe.	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	3.2.	654782	DE-UBA IV 1.2: table 3.1 mainly from agriculture: Isoproturon is also used as Biocide. It can enter the environment through e.g. WWTP effluent and storm water discharge.	2018/09/26 1	https://forum.eion	address	edited text

3. Known risks	3.2.	500968	<p>DE-UBA IV 1.2: Table 3.1c</p> <p>For information: Copper is one of the main biocidal active substances being used in antifouling paints. Based on estimations by Daehne et al (2016), the use of copper based antifouling paints on leisure boats represent 19% of the total copper emission into German surface waters in 2017 (Feibicke et al. (2017): Sind kupferhaltige Antifouling Anstriche ein Problem für unsere Gewässer?)</p> <p>Also Zinc is a common ingredient in antifouling paints. However, it is not regarded as biocidal active substance under BPR, although</p>	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.2.	865326	<p>Eurometaux</p> <p>General comment to the “reported number of exceedances” (e.g. table 3.1. and 5.2.) and related text.</p> <p>A main element of the report is the mentioning of the number of exceedances for the PS and RBSP. For the numbers related to the metals, it is emphasised that the numbers of exceedance have to be considered premature, and possibly misleading, for the following reasons:</p> <p>The toxicity of metals depends on their bioavailability. EU guidance is being developed for integrating this important factor in EQS implementation of metals. The current exceedances do generally not yet incorporate bioavailability, and as such do not reflect the true possible impact of the metals. It has been demonstrated that incorporation of bioavailability significantly reduces the number of exceedance.</p> <p>The report mentions “European wide relevance” for the metals. In this context it has to be noted that metals are naturally occurring and will, as a result, always be present in natural waters, where some of them exert even essential functions to organisms. The concept of “widespread concern” thus needs to be handled with caution in the case of the metals. Locally elevated levels of metals in water are often the result of local geological conditions. such geological formations are widespread over Europe.</p> <p>The use of absolute number of exceedances is potentially misleading: e.g. metals are measured most frequently by most countries. The number of exceedances as such is function of the number of measurements; therefore, it is proposed to express results rather as exceedance ratios, i.e. “number of exceedances/number of measurements”.</p>	2018/09/28 1	https://forum.eion	acknowledge	

3. Known risks	3.2.	729050	<p>Eurometaux Box 3.11 "38% of the surface water bodies within the EU were in good chemical status, while 46% were not in good status and for 16%, the status was reported as 'unknown'"</p> <p>"5 % of surface water bodies did not achieve good ecological status owing to RBSPs, with 40 % reported as being in good or high ecological status, although 55%, the status of RBSPs was unknown"</p> <p>"About 1651 RBSPs were reported as causing failure to achieve good ecological status in at least one water body. Those most frequently reported as causing failure were the metals zinc, with 1503 waterbodies failing to achieve good ecological status, and copper (845)."</p> <p>The numbers of water bodies that fail should be put into perspective. Please, also include the total number of water bodies that was assessed, and/or the percentage of exceedances.</p>	2018/09/28 1	https://forum.eion	address	edited text
3. Known risks	3.2.	387244	<p>Eurometaux Table 3.1: List of pollutants most frequently exceeding EQS in surface water bodies in EU25 (out of 111 105 water bodies) Thank you for noting the total of 111 105 water bodies in the caption – this is very important for the reader to be able to put the numbers into perspective. We suggest repeating that number in Tables 3.1a, b, c, et... and adding a column with the percentages of waterbodies with exceedances.</p> <p>Also, it would be best to express the ratio of exceedances/number of measurements by substance (see comment above).</p> <p>We suggest replacing the header "Contamination from metals – mining and use" with "Metals and cyanide" (ref. comment to section 3.6 below).</p> <p>"Contamination from metals - mining and use (section 3.6d)" "Cyanide (total + free)"</p> <p>Cyanide is not a metal. This reporting of cyanide is not coming from mining. It has been reported as coming from urban waste water treatment plants.</p>	2018/09/28 1	https://forum.eion	address	edited text

3. Known risks	3.2.	179735	<p>Page 29 Box 3.1 / 3rd al</p> <p>It seems that for substances such as metals (cadmium, lead, and nickel) and several pesticides, some effective measures have been implemented, with Member States reporting improved status for these substances in some water bodies.</p> <p>Comment Belgium (Wallonia) : same remarks as above: for lead and nickel, in the first reporting of RBMPs, EQS were set for soluble concentrations whereas now EQS are set for the bioavailable part of these concentrations calculated through simplified BLM (Biotic Ligand Models). This difference between the first and the second reporting of RBMPs could explain a part</p>	2018/10/01 1	https://forum.eion	acknowledge	
3. Known risks	3.3.	868744	<p>DE-SH: 'WFD emissions inventory' which paragraph in the WFD calls for a WFD emission inventory? Please specify.</p>	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.3.	701996	<p>UBA- II 2.2: Typo it should be E-PRTR (with hyphenation)</p>	2018/09/26 1	https://forum.eion	address	corrected
3. Known risks	3.3.	750592	<p>UBA II 2.2:</p> <p>a) Please add a reference to the figure 3.1: 'There are different approaches to recording emissions (Figure 3.1).'</p> <p>b) Releases to water reported in E-PRTR should be taken into account in each of the three approaches. Therefore, in my opinion E-PRTR is not an example for source oriented approach only (see also EC, 2012).</p> <p>Is there source oriented use information on emissions to air from E-PRTR?</p> <p>c) 'erosion or storm water overflows' : direct point sources are also included (UWWTPs and industrial releases to water) From our point of view, the three approaches are not well described - poorly explaining the main differences. Furthermore, there are not only methodical differences but differences in meaningfulness of results.</p> <p>d) 'estimate of the diffuse inputs': To our knowledge direct point sources are also included if information are available</p>	2018/09/26 1	https://forum.eion	<p>a) Address b) Address c) acknowledge d) address</p>	edited text
3. Known risks	3.3.	053907	<p>DE UBA II 2.2: 'E-PRTR are data from large sources': To our knowledge large facilities (the capacity threshold in Annex I of E-PRTR Regulation) need to report only if pollutant threshold value is exceeded (see Annex II of PRTR Regulation)</p>	2018/09/26 1	https://forum.eion	Address	edited text

3. Known risks	3.3.	050332	a) Did all Member States report under WISE SoE? Maybe this could also be a reason that data don't fit (see Figures 3.1 b) Important! : The German inventory was prepared respective the recommendations of EU Technical Guidance No 28 (EC, 2012). That means, we only reported emissions on riverbasin level for substances which had been identified as relevant for the riverbasin. That means - if a substance is not relevant for all German riverbasins E-PRTR reporting and WFD reporting might not be comparable.	2018/09/26 1	https://forum.eion	Address	edited text
3. Known risks	3.3.	383252	EurEau Again WWTP are not a source of pollution. It is a point in the system where the measurement can be done. The sources are the households or others connected to the sewer network.	2018/09/28 1	https://forum.eion	Address	edited text
3. Known risks	3.3.	871560	EurEau On figure 3.1: It is difficult to understand why UWWTP and IWWTP are included in the Reverine load approach. They should be included in the pathway. There are transformations happening in the plants but as in other media and the load P8 or P10 need to be considered only. EC 2012 is not listed in the reference and cannot allow to better understand the reasoning behind the figure.	2018/09/28 1	https://forum.eion	Address	reference added
3. Known risks	3.3.	425582	Eurometaux Figure 3.1 Relationship between the different surface water compartments and pathways (P1-P13) (EC, 2012) Thank you for providing a nuanced overview of the complex pattern of various sources of chemicals, and importantly for including "natural background" as a possible source. Given this complex pattern is especially valid for metals, this reinforces the need for amending the Section 3.6 header (see below). Direct Discharges from Mining Please replace "mining" with abandoned historic mining	2018/09/28 1	https://forum.eion	acknowledge	
3. Known risks	3.3.	483011	1st paragraph: Although there are available 3 different data sources (E-PRTR, WFD, WISE-SoE), each of them was introduced with different aims, there are guideline how to report data (with different selection criteria..., there is also used a criterion not to report data twice) – therefore the correct data interpretation requires good knowledge about „background“ of data available in different „dataflows“.	2018/10/01 1	https://forum.eion	Acknowledge	

3. Known risks	3.4.	879267	POLAND The note under the figure 3.2-3.7 needs more in depth explanations if it is to be placed here in the final version of the report. The comment is similar for the figures placed on page 47. "Despite it being a well-characterised, historic pollutant, there was widespread variation in the degree to which mercury did not meet the EQS – from 1-100% surface water bodies." The sentence is incomprehensible. The range of waterbodies between 1 and 100% failing to meet EQS is very wide and not informative. It should be explained why it is impossible (if it is the case) to give exact percentage.	2018/09/25 1	https://forum.eion	Address	edited text
3. Known risks	3.4.	098698	DE-UBA II 2.2: Last sentence (mercury emissions): We would recommend to refer to urban areas because waste water treatment plants are only one pathway in urban areas and as I pointed out before in Germany storm water discharges and overflows from combined sewer systems are more important than UWWTPs.	2018/09/26 1	https://forum.eion	Address	edited text
3. Known risks	3.4.	038773	DENMARK In Denmark the discharge of mercury from UWWTPs was significantly reduced from 2004-2006 to 2011-2013. It is unknown whether the reduction was caused by increased or better treatment at the UWWTP or by a reduced content of mercury in products and consumer goods.	2018/09/28 0	https://forum.eion	Acknowledge	
3. Known risks	3.4.	992995	DENMARK Where tertiary treatment of waste water is applied at most WWTPs, improved treatment is not necessarily the best effort. Reduction of mercury emissions from other sources could be more effective.	2018/09/28 0	https://forum.eion	Acknowledge	
3. Known risks	3.4.	367917	EurEau Alternatives to dental amalgam are more and more used but it cannot be set as an example of phased out components.	2018/09/28 1	https://forum.eion	Address	edited text
3. Known risks	3.4.	502497	Eurometaux 3.4.1 Mercury and its compounds "small-scale gold mining", "thermometers, dental amalgam, hat making" Small scale mining: not in metropolitan Europe. Thermometers, dental amalgam, hat making: not outside metropolitan Europe.	2018/09/28 1	https://forum.eion	Address	edited text
3. Known risks	3.4.	823285	Comment Belgium (Wallonia): Reference to "map 2.1": replace with "map 3.1"	2018/10/01 1	https://forum.eion	Address	corrected

3. Known risks	3.4.2.	274932	POLAND The calculation of the range of MS and water bodies failing to achieve good chemicals status needs further explanation. The comment is the same for the sections explaining other priority substances.	2018/09/25 1	https://forum.eion	acknowledge	
3. Known risks	3.4.2.	704707	DE-UBA II 2.2: 'The main sources to air are now from industry and domestic use.' We would appreciate if transportation would also be named.	2018/09/26 1	https://forum.eion	Address	edited text
3. Known risks	3.5.	067489	DE-UBA IV 1.2: DEHP is not a biocidal active substance. In which kind of biocidal products should DEHP be included and with which objective?	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	3.5.	483689	DENMARK Danish monitoring results show that DEHP are discharged from all types of point sources (UWWTP, industry, combined sewer outlets, storm water overflows and scattered settlements). The monitoring results do not suffice to draw conclusions on a possible development in discharges (http://dce2.au.dk/pub/SR142.pdf).	2018/09/28 0	https://forum.eion	address	edited text
3. Known risks	3.5.	749799	EurEau The first paragraph of section 3.5 is crucial in addressing the role of WWTP in pollution emissions. It is important to make sure that the role of pathways is understood through out the text, which is not the case at the moment. Not all problem will be solved by increasing the level of treatment of WWTP. Sustainability of treatment will require investment in upstream control at source measures.	2018/09/28 1	https://forum.eion	address	edited text
3. Known risks	3.5.2.	166350	DE-UBA IV 1.2: 'such as in wetting agents or detergents, and can be found in paints, pesticides, ' What ist meant by pesticide? Plant protection products or biocidal products or both? Some uses of nonylphenol and nonylphenol ethoxylates are now restricted under Annex XVII REACH, e.g. co-formulants in pesticides and biocides (https://echa.europa.eu/documents/10162/b91a8a69-f38e-4a35-ab7d-e475e5926988)	2018/09/26 1	https://forum.eion	address	edited text

3. Known risks	3.5.2.	964254	DENMARK Danish monitoring results show that nonylphenols are discharged from all types of point sources. In addition, the content of nonylphenols in sludge from UWWTPs indicates that a large amount of nonylphenols is removed from waste water during treatment at the UWWTPs. The monitoring results do not suffice to draw conclusions on a possible development in discharges (http://dce2.au.dk/pub/SR142.pdf).	2018/09/28 0	https://forum.eion	address	edited text
3. Known risks	3.5.3.	222324	POLAND 1st paragraph below BOX 3.2. The reference to section 1.3 in not correct here and should be change to section 1.4. In the meantime reference to section 1.3 should be made after words "the EQS Directive" in the same sentence. Additionally, from 2017 there is listed also decaBDE in the Stockholm Convention.	2018/09/25 1	https://forum.eion	address	edited text
3. Known risks	3.5.3.	588717	DE-UBA: Please provide Figure B3.2 left in better resolution.	2018/09/27 1	https://forum.eion	address	figure improved
3. Known risks	3.6 Col	348204	DE-UBA II 2.2: Box 3.3: Map title: Actually, this map shows the whole Weser catchment not only the Harz as indicated in the title of the map.	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.6 Col	485230	DE-UBA II 2.2: 'UWWTPs are the largest known source for cadmium and nickel, while for lead it is industry.' In Germany diffuse sources (pathway) are much more important.	2018/09/26 1	https://forum.eion	Acknowledge	
3. Known risks	3.6 Col	492797	DE-UBA II 2.2: 'However, despite high levels of reporting of metals emissions, the overall trend is not clear, with high variability from year to year.' Could the variability be due to hydrology?	2018/09/26 1	https://forum.eion	Acknowledge	

3. Known risks	3.6	Co	575499	DE-UBA II 2.2: ' Between 2007 and 2014, arsenic and copper emissions reported under the E-PRTR for industry excluding UWWTPs showed no clear trend, while there was a decrease in zinc emissions (Roovaart et al, 2017). For UWWTPs reporting under E-PRTR, there was a slight increase in copper and zinc emissions, with a large increase in reported arsenic emissions from one country.' Because of pollutant theresholds we find this statement difficult. There might be facilities where emissions vary around the threshold value (that means in one year reporting is necessary while in the next year it is not). Therefore, it is not known for sure if emissions de- or increased. We only know if reported emissions de- or increased.	2018/09/26 1	https://forum.eion	Acknowledge	
3. Known risks	3.6	Co	066304	Eurometaux We suggest replacing the header “Contamination from metals – mining and use” with “Metals and cyanide”. The current header is misleading: it gives the impression that mining continues to be an important source of metal emissions, whereas metals mining in Europe is quite limited nowadays and most of the metal emissions from mines are, in fact, legacy contaminations from the past (as illustrated by the Box 3.3). While historical mining sites may still be significant sources of metals to local waters, several metals may have other dominant sources than “mining and use”: for example, natural occurrence (local metalliferous geology), smelting and refining, transport, fossil fuels, agriculture, ... As correctly indicated by Figure 3.1 , emission sources are a very complex picture, and this should not be over-simplified in the section headers.	2018/09/28 1	https://forum.eion	address	edited text
3. Known risks	3.6	Co	250882	Eurometaux "their extraction and processing have led to polluted districts" Have led: suggested “have historically led”	2018/09/28 1	https://forum.eion	acknowledge	

3. Known risks	3.6	Co	582904	<p>Eurometaux</p> <p>Map 3.2, Metal pollution from mining areas in the Harz catchment. Even prior to mining, naturally elevated concentrations of metals would have been associated with the deposits subsequently discovered in the mountains - and subject to natural weathering and erosion processes over centuries before mining began. It is important to clarify with the German authorities and geological survey to what extent they have been able to distinguish between natural erosion and deposition of metal-bearing minerals from the natural rock and erosion and deposition from mine workings and waste deposits.</p>	2018/09/28 1	https://forum.eion	acknowledge	
3. Known risks	3.6	Co	334475	<p>Eurometaux</p> <p>Table 3.1c</p> <p>The report correctly mentions on p46 the importance of bioavailability for Ni and Pb; but it should also be mentioned that a bioavailability correction can also be applied to Cu and Zn. We suggest including this as footnote 'c' under table 3.1c.</p> <p>In fact, the importance for a bioavailability correction was highlighted in the JRC 2016 report (Monitoring based exercise: Second review of the Priority Substances list under the Water Framework Directive), using Zn as a case study. Results showed that incorporating bioavailability significantly lowered the STE risk score for Zn.</p> <p>The report also correctly mentions that metals are natural substances, and that they reach the aquatic environment in many ways. However, geology is not mentioned. Geology is very different when compared to leaching from mines. Metals can enter the water by simply being in the geological substrate over which a river runs. Again, this factor has been shown to be a significant cause of metal EQS exceedances.</p> <p>We suggest also mentioning here that metals are by far the most</p>	2018/09/28 1	https://forum.eion	acknowledge	
3. Known risks	3.6	Co	506238	<p>Eurometaux</p> <p>Sources and uses</p> <p>"Metals reach the aquatic environment in many ways, reflecting their multiple uses."</p> <p>"metals do not degrade"</p> <p>It should also be acknowledged that metals reach the aquatic environment naturally - even without their being used.</p> <p>Metals occur in combination with other elements in naturally occurring minerals - which do weather and degrade; the sentence "metals do not degrade" is therefore misleading.</p>	2018/09/28 1	https://forum.eion	acknowledge	

3. Known risks	3.6	Col	855342	Eurometaux "The EQS for cadmium and lead are set to protect invertebrates, while that for nickel is set to protect algae and molluscs." The report states that the Cd and Pb EQS is set to protect invertebrates, and that the Ni EQSs is set to protect molluscs and algae. This is not the case at all. All EQSs are set to protect aquatic ecosystems, not specific members of those ecosystems. In particular, the Ni EQS is based on a database comprising 31 species that includes algae, vascular plants, invertebrates, fish, and amphibians. The statement may be trying to say that molluscs and algae are the most sensitive organisms to Ni, but this is not the case, either. The top ten most sensitive species include molluscs, crustaceans, and vascular plants.	2018/09/28 1	https://forum.eion	address	edited text
3. Known risks	3.6	Col	293145	Despite widespread use, failures to achieve good chemical status for cadmium, lead and nickel range from 413-991 (table 2.1) in surface water bodies. Member States are making progress with these metals - 969 water bodies improved from poor to good chemical status from the first RBMPs, though 2288 water bodies were still failing (EEA, 2018a). Comment Belgium (Wallonia) : same remarks as above: for lead and nickel, in the first reporting of RBMPs, EQS were set for soluble concentrations whereas now EQS are set for the bioavailable part of these concentrations calculated through simplified BLM (Biotic Ligand Models). This difference between the first and the second reporting of RBMPs could explain a part of the observed "improvement".	2018/10/01 1	https://forum.eion	address	edited text
3. Known risks	3.7.		853439	DE-NW: 'Reporting of status is inaccurate, owing to monitoring not reflecting situation during peak periods of pesticide use.' From our point of view the third answer is the correct answer for most substances...	2018/09/26 1	https://forum.eion	address	see row 53
3. Known risks	3.7.		121688	DE-SH: ' 'But, from the reporting, we cannot be sure which of these apply.' The monitoring is limited, however from detailed studies we know that all water bodies are effected by pesticides. The spear index shows for Schleswig-Holstein, that nearly all water bodes are affected. Maybe thiscould be an additional box to the text; the graph can be provided	2018/09/26 1	https://forum.eion	address	text box added

3. Known risks	3.7.	761631	<p>DE-UBA IV 1.2: First paragraph a) Why is the section addressing the pesticides restricted to the contamination from agriculture? We do not know anything about the impact of pesticides used as biocides. Unfortunately, there is only limited information on consumption and sales data of biocides. b) To explain the definition of biocidal active substance and biocidal products after BPR (EU) 528/2012: Biocidal active substances are substances or a micro-organisms that have an action on or against harmful organisms. A biocidal product is any substance or mixture, in the form in which it is supplied to the user, consisting of, containing or generating one or more active substances, with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action. It is as well any substance or mixture, generated from substances or mixtures which do not themselves fall under the first indent, to be used with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a</p>	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.7.	723421	<p>DE-UBA IV 1.2: Table 3.1d: As mentioned above: Isoproturon is also used as biocide.</p>	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.7.	393504	<p>DE-UBA: 'In the priority substances list, HCH represents a group of several, similar molecules. Lindane – gamma-HCH - is the most well-known substance in the group.' Please consider changing 'similar' to 'isomeric' and 'substance' to 'active substance'. 'Hexachlorocyclohexane is relatively long-lived in the environment' Please use the commonly accepted adjective 'persistent' instead of 'long-lived'.</p>	2018/09/27 1	https://forum.eion	address	edited text
3. Known risks	3.7.	879353	<p>DE-UBA: 'In the priority substances list, HCH represents a group of several, similar molecules. Lindane – gamma-HCH - is the most well-known substance in the group.' Please consider changing 'similar' to 'isomeric' and 'substance' to 'active substance'. 'Hexachlorocyclohexane is relatively long-lived in the environment' Please use the commonly accepted adjective 'persistent' instead of 'long-lived'.</p>	2018/09/27 1	https://forum.eionet.europa.eu/nr		duplicates row 56

3. Known risks	3.7.	234915	DE-UBA: 'In the priority substances list, HCH represents a group of several, similar molecules. Lindane – gamma-HCH - is the most well-known substance in the group.' Please consider changing 'similar' to 'isomeric' and 'substance' to 'active substance'. 'Hexachlorocyclohexane is relatively long-lived in the environment' Please use the commonly accepted adjective 'persistent' instead of 'long-lived'.	2018/09/27 1	https://forum.eionet.europa.eu/nr	duplicates row 56
3. Known risks	3.7.	097462	DE-UBA: 'In the priority substances list, HCH represents a group of several, similar molecules. Lindane – gamma-HCH - is the most well-known substance in the group.' Please consider changing 'similar' to 'isomeric' and 'substance' to 'active substance'. 'Hexachlorocyclohexane is relatively long-lived in the environment' Please use the commonly accepted adjective 'persistent' instead of 'long-lived'.	2018/09/27 1	https://forum.eionet.europa.eu/nr	duplicates row 56
3. Known risks	3.7.	940006	DE-UBA: 'In the priority substances list, HCH represents a group of several, similar molecules. Lindane – gamma-HCH - is the most well-known substance in the group.' Please consider changing 'similar' to 'isomeric' and 'substance' to 'active substance'. 'Hexachlorocyclohexane is relatively long-lived in the environment' Please use the commonly accepted adjective 'persistent' instead of 'long-lived'.	2018/09/27 1	https://forum.eionet.europa.eu/nr	duplicates row 56
3. Known risks	3.7.	382245	DE-UBA: 'Parathion and marathion are regulated as RBSP by several Member States and exceeded EQS in only a few water bodies.' Typo it should be malathion	2018/09/27 1	https://forum.eionet.europa.eu/nr	Address edited text

3. Known risks	Box 4.4:	285475 DE-UBA IV 1.2: legend of box 4.4: a) Why are some substances beginning with an uppercase and others not? b) Isoproturon is still under review in the biocides legislation. This means that this substance can be used as material preservative in biocidal products at least until a final decision about the approval is made. c) Diuron is still under review in the biocides legislation. This means that this substance can also be used as material preservative in biocidal products at least until a final decision about the approval is made. d) Imidacloprid is approved under the biocides legislation until 07/2023. This means that this substance can also be used as insecticide in biocidal products at least until 07/2023. e) Cypermethrin is also approved under the biocides legislation. f) 'Possibly because...! Monitoring frequency: Please consider PPP are mainly used in spring, summer and autumn. Biocides can be emitted to surface waters also in winter. Therefore, a monitoring of about 12 months is regarded as necessary.	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	Box 4.4:	579418 DE-UBA IV 1.2: conclusions box 4.4 What does this list mean? The first possible conclusion contradicts the second possible conclusion is that not all pesticides are covered within the actual monitoring program. In this list they are both indicated as possible conclusions with the same right to be drawn. In our opinion, the concerns about pesticides are underestimated and that should be made clear.	2018/09/26 1	https://forum.eion	address	edited text

3. Known risks	Box 4.4:	670674	<p>DE-UBA IV1.3:</p> <p>a) With a view to the conclusions in Box 4.4, some practical problems existing especially for some insecticides could be substantiated here. For example meeting the very low limits of quantification and the importance of measuring non persistent but very potent substances within their period of use.</p> <p>b) Please give also information about the registration/use of the substances as biocides.</p> <p>c) in the legend it is not clear what the numbers in the paranthesis [e.g. RBSP (2)] means, possibly the footnotes are ment? Please then indicate as footnote properly.</p> <p>d) 'WFD monitoring takes place in larger waterbodies, rather than small streams'</p> <p>Please add : ..., for example adjacent to agricultural areas.</p> <p>e) Footnote 7 should be augmented: "Unspecifierd active substances or metabolite, where the concentration of any individual exceeds 0.1 ug/l or the sum of total measured exceeds 0.5 ug/l." to also be valid for ground water treshold exceedance. Perhaps in addition an explanation could be given in the text.</p>	2018/09/27 0	https://forum.eion	address	edited text
3. Known risks	Box 4.4:	498060	<p>DE-UBA:</p> <p>in the text it is referred to the box as: 'way that water and pesticides legislation affects reporting at the European level (Box 3.4).'</p> <p>Please verify whether the box should be labelled 3.4 instead of 4.4.</p>	2018/09/27 1	https://forum.eion	address	edited text
3. Known risks	Box 4.4:	543813	<p>DE-UBA:</p> <p>'Why do we see this? Possibly because'</p> <p>We would welcome, if 'this' could be further specified here.(Meant is the relatively low failure rate due to pesticides)</p>	2018/09/27 1	https://forum.eion	address	edited text

3. Known risks	Box 4.4:	434837	The first assessment of monitoring data for the watch list can contribute to the info seen in the 2nd RBMPs and also to the questions raised. https://ec.europa.eu/jrc/en/publication/review-1st-watch-list-under-water-framework-directive-and-recommendations-2nd-watch-list Imidacloprid as an example: According to box 4.4 only 2 MS report failure of status due to imidacloprid. However, a majority of MS report monitoring data exceeding the PNEC for the watch list. Thus, the RBMPs do probably not reflect actual risks. This could be due to varying interpretations regarding what "significant quantities" mean, lack of info regarding pressures, different EQSs used (last assessments under PPP and BD published 2014 and 2015, it is thus likely that new data just recently became available), but also that the substance is on the watch list and that MS due to that do not consider the substance as a RBSP awaiting potential status as PS.	2018/09/28 2	https://forum.eion	acknowledge	
3. Known risks	6.7.2.	869801	DE-UBA IV 1.2: As mentioned several times: Isoproturon is still under review in the biocides legislation. This means that this substance can be used as material preservative in biocidal products at least until a final decision about the approval is made.	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	6.7.2.	198536	DE-UBA IV 1.2: Section Emissions 'It is unclear how these arise.' In the ReFoPlan-Project (FKZ : 3717 63 4040) on Biocides in WWTPs we also detected Isoproturon in 78.8% of all effluent samples (n=146).	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	MCPA, r	960056	DE-UBA IV 1.3 '2-4 D (2,4-Dichlorophenoxyacetic acid) is a selective herbicide, which effects broad leaved weeds. In water, aquatic plants are the most sensitive organism.' Please check for plausibility. The RAC for the herbicide is based on its effects on alga.	2018/09/27 0	https://forum.eion	address	edited text
3. Known risks	MCPA, r	739280	DE-UBA IV 1.3: 'Substitution of heavily- restricted pesticides, by others which face less scrutiny in the water legislation, means we miss information on many other substances.' We would appreciate if this could be extended to 'many other comparably harmful substances'.	2018/09/27 1	https://forum.eion	address	edited text

3. Known risks	3.8.	207514	<p>"Other than removing TBT-contaminated sediments and finding safe ways to dispose of hazardous material, there is little that can be done to remediate water bodies failing for this substance..."</p> <p>Leakage from contaminated soil on shipyards and marinas can also be a source. Remediation of soil can thus also be a measure. Further, practice when removing old paint from hulls, ie collection of paint particles and collection/treatment of water used when cleaning/removing paints from hulls, can be important to reduce pressure.</p>	2018/09/28 2	https://forum.eion	address	edited text
3. Known risks	Box 3.6	579846	<p>DE-UBA: The link under Boc 3.6 (map) does not work properly</p>	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	Box 3.6	823330	<p>DE-UBA IV 1.2: 'Nevertheless, there are still exceedances of the EQS, which may relate to both historic contamination and to uses other than for antifouling.'</p> <p>Recent publication showed that tin, a proxy for the occurrence of organotin compounds, can still be found in considerable concentrations on boat hulls around the baltic sea. Measurements have been conducted at 3 sites in DK, FI, and DE where tin has been detected on 42, 24, and 23% of the (leisure) boats. Most likely, the tin originates from old antifouling paint which have be overpainted during the last years. Eklund (2008) concluded, that (Tributyl)tin is still being released to the environment from pleasure boats due boats cleaning activities. Therefore, regulation or management of old antifouling layers is an important task concerning the contamination of waterbodies with organotin compounds.</p>	2018/09/26 1	https://forum.eion	address	edited text

3. Known risks	Box 3.6	792471	DE-UBA IV 1.2: 'Non-toxic ways to prevent biofouling would have many applications. Finding them would deliver both increased sustainability and market advantage.' This subparagraph is out-of-date. In substitution of organotin compounds, several biocidal active substances have been developed and established. The majority is based on copper or copper compounds. However, also copper gives reasons for concern regarding its impact on environmental quality and status. See also the previous comments on the share of copper based antifouling paints on the total copper emission in Germany. For leisure boats, probably being the most important emitted of antifouling agents in inland waters, several non-chemical or non-biocidal alternatives have been established within the last decade. Despite, due to the low fouling pressure in freshwater, a waiver of biocidal antifouling paints seem realistic here.	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	Box 3.6	015270	DE-UBA: In the box it is referred to map 2.2 which should be map 3.3 instead.	2018/09/27 1	https://forum.eion	address	corrected
3. Known risks	3.9.	482976	POLAND The source of the data needs to be added to the description of the table. Specific actions - This section needs a very thorough explanation of reasons behind these suggestions. The purpose of putting the suggestions should be mentioned as well.	2018/09/25 1	https://forum.eion	Address	reference added
3. Known risks	3.9.	036147	DE-NW: 'Specific actions proposed to improve protection of waters.' Please revise according to the comments above in the text	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	3.9.	650858	DE-NW/SH: 'Further effort to reduce emissions of mercury from urban waste water treatment plants, either upstream or before discharge, seems necessary.' Please delete! See comments above. Please give better examples in text and choose more specific.	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.9.	933079	DE-NW: 'Improvement in the monitoring and reporting of diffuse sources, to ensure that pressures are correctly understood and measures can be appropriately targeted.' Please, consider use of modelling....	2018/09/26 1	https://forum.eion	address	edited text

3. Known risks	3.9.	790363	DE-SH,BB: 'measures and timelines to reduce risks for human health and the environment by the end of 2012.' Please, add more information on the effectiveness of these measures. In the following (before the list) it should be: 'These include: -....., -.....'	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.9.	057625	DE-UBA: Table 3.2 Isotproturon should also be written with a capital letter.	2018/09/26 1	https://forum.eion	acknowledge	
3. Known risks	3.9.	493877	DE-UBA IV 1.2: 'One of the challenges with chemical status is that once a persistent substance is in the aquatic environment, it may be there for a long time after emissions have ceased. This may lead to continued failure to meet good chemical status, and a potential mis-match with the pressures.' For information: That's why we are interested in monitoring pesticides and reporting not only values above EQN. The regulators should have the opportunity to find an appropriate mitigation measure before EQN is exceeded.	2018/09/26 1	https://forum.eion	address	edited text
3. Known risks	3.9.	725728	DE-UBA: The legend for Table 3.2 is missing. In the legend it should be (for red colouring) 'less than 7 MS reporting'. 'Please substitute then with than.	2018/09/27 1	https://forum.eion	address	edited text
3. Known risks	3.9.	914848	DENMARK Where tertiary treatment of waste water is applied at most WWTPs, improved treatment is not necessarily the best effort. Reduction of mercury emissions from other sources could be more effective.	2018/09/28 0	https://forum.eion	address	edited text
3. Known risks	3.9.	069647	With the exception of mercury, pBDEs and some of the PAHs, Member States are making significant progress in tackling concentrations of individual priority substances in surface water bodies (EEA, 2018a). This should be seen as a success for European water and chemicals policies stretching back several decades. Comment Belgium (Wallonia): a lot of data and trends on emissions and monitoring (especially in biota) are still missing for already drawing up this very optimistic assessment. It should be more nuanced.	2018/10/01 1	https://forum.eion	address	edited text

3. Known risks	3.9.	614223	Page 59 : Specific actions proposed to improve protection of waters Comment Belgium (Wallonia): No link is made here with chapter 2 and the effect based monitoring ! Effect based monitoring is also very useful for emissions (eg whole effluent assessment), for a better understanding of the link between pressures and impacts in the DPSIR approach and to assess the efficiency of program of measures carried out on these pressures.	2018/10/01 1	https://forum.eion	address	edited text
	3.1		Long-term environmental monitoring undertaken for WFD ... source control.	28/09/2018		out of scope	
	3.3		A general scheme setting out principal sources and pathways [...] has been developed under the WFD for the Inventory of emissions, discharges and losses of priority substances, shown in Figure 3.1 (EC, 2012). Term is unclear and not informative.	28/09/2018		acknowledge	
	3.4.1		<ul style="list-style-type: none"> • new subchapter's name "Sources, uses and EU restrictions. proposal: add some relevant EU level restriction information for Hg (at least REACH restrictions). • proposal: to add some information about the historical contamination of soil, water (& sediments?) and consequent cycling in environment which maintain high Hg levels in aquatic environment 	28/09/2018		acknowledge	
	3.4.2		<ul style="list-style-type: none"> • new subchapter's name "Sources, uses and EU restrictions. proposal: add some relevant EU level restriction information for PAH (at least concerning air emission reductions took place since 1980s). • p. 39: fluoranthene (not floranthene) 	28/09/2018		address	edited text
	3.5.1		<ul style="list-style-type: none"> • new subchapter's name "Sources, uses and EU restrictions. Proposal: add some relevant EU level restriction information for DEHP (at least REACH restrictions). 	28/09/2018		acknowledge	
	3.5.2		<ul style="list-style-type: none"> • new subchapter's name "Sources, uses and EU restrictions. Proposal: add some relevant EU level restriction information for NP (at least REACH restrictions). 	28/09/2018		address	edited text
	3.5.3		<ul style="list-style-type: none"> • new subchapter's name "Sources, uses and EU restrictions. Proposal: add some relevant EU level restriction information for PBDEs (at least REACH restrictions, but perhaps also waste limits in EU waste legislation and Stockholm POP convention). • proposal: to add some information about the historical contamination of soil, water & sediments and consequent cycling in environment which maintain high PBDE levels in aquatic environment 	28/09/2018		acknowledge	

	3.7		<p>This chapter concerns plant protection chemicals and biocides. The non-agricultural use of these compounds could be added to the chapter.</p> <p>In Finland, the biocidal use is the main (or in practice the only one) source of following WFD priority herbicides: diuron, isoproturon, terbutryn. Diuron and isoproturon have never been used as crop protection products in Finland. Terbutryn has been used as herbicide for over ten years ago but as a biocide since that. These herbicides are found in some rivers due to their biocidal usage. E.g. in the River Vantaanjoki the origin of diuron was solved out to be a small operator connected to local waste water treatment plant. The operator had used paints including diuron as a preservation chemical. (Similarly, although not assured by measurements, the occurrence of e.g. fungicide propiconazole in rivers is more likely to originate from biocidal use rather than from agricultural.)</p> <p>It is likely that the biocidal usage –and loads are similar in other countries as well. However, if there are both agricultural and biocidal use, it is difficult to study the source of the observed concentrations in rivers.</p>	28/09/2018		address	edited text
	3.8		<ul style="list-style-type: none"> • new subchapter's name "Sources, uses and EU restrictions. proposal: add some relevant EU level restriction information for TBT and other organotins such as DBT and MBT, TPhT, DPhT, MPhT (at least REACH restrictions). 	28/09/2018		acknowledge	
3. Known risks	3.2.	288159	<p>In general we would like to stress that exceedances have to be evaluated compared to the monitoring activities of Member States. One cause of few reported failures can be the lack of monitoring data. In table 3.1 it is suggested to indicate the total number of water bodies or the total number of member states where the substances were monitored. This would give a more complete picture of the monitoring activities related to hazardous substances.</p>	2018/10/01 1	https://forum.eion	acknowledge	
3. Known risks	3.9.	274481	<p>Limited information on point source discharges is also due to differences in emission regulations of Member States. The minimum monitoring requirements related to hazardous substances were determined and coherent for surface waters but this is not the case for point sources. We agree on the suggested specific actions based on the previous data analyses of the report.</p>	2018/10/01 1	https://forum.eion	Acknowledge	

3. Known risks	3.4.	660874	P35, 1st sentence: "...atmospheric deposition was the major source of contamination of Europe's surface waters". This statement is contradicted at the end of the following mercury section. This may need rephrasing, please.	2018/10/05 1	https://forum.eion	address	edited text
3. Known risks	3.9.	795790	P59, Summary action points: All of the general action points are sensible based on the interpretation of the data in the chapter and can be supported.	2018/10/05 1	https://forum.eion	Acknowledge	

Section	Paragraph	Message	Message	Date	Paragraph url	Action to take	Notes
4.Strategies to re	Box 4.1 Chemical i	610726	DE-UBA IV 1.1: A further example for a box could be: The International Sustainable Chemistry Collaborative Centre ISC3 acts with an even broader approach: initiated by the German Environment Ministry (BMU) and Environment Agency (UBA), launched in 2017, the ISC3 promotes and develops sustainable chemistry solutions worldwide. Located in the UN City Bonn, with hubs for innovation, for research and education, and regional hubs in other UN regions, the Centre is a globally acting institution, multi-stakeholder platform and think tank. It manages a knowledge platform and a network of experts, offers training and support for implementation especially for developing countries, carries out innovation scouting activities to discover new technologies, processes and business models. The ISC3 is a partner for industry and politics as well as for the civil society and research, and it connects stakeholders to jointly develop new solutions e.g. for climate protection, energy generation, mobility and food supply.	2018/09/26	https://forum.eic	acknowledge	thanks for the example but we lack the space,
4.Strategies to re	4.2 EU strateg	763309	DE-UBA IV 2.2: Last paragraph: Please emphasise the need for a european strategy in the last paragraph, by e.g. 'While the EU level approach is being developed and urgently needed,...'	2018/09/26	https://forum.eic	acknowledge	
4.Strategies to re	4.2 EU strateg	605511	DE-UBA IV 2.2: " EU medical products regulation (EC, 2004) requires environmental risk assessment for veterinary medicines, but that is not currently required for human medicines.' This statement is not correct. Could it be that the environmental risk assessment (which ist required for both veterinary and human) was confused with the Risk-Benefits-Analysis? Please change to:"EU medical products regulation (EC,2004) requires environmental risk assessment for human and veterinary medicines. However, environmental risks are only taken into account within the risk-benefit-analyses for veterinary medicines."	2018/09/26	https://forum.eic	address	edited text
4.Strategies to re	4.2 EU strateg	732250	DE-UBA: Figure 4.2: - figure legend is in German - figure title it should be proposed instead of possible	2018/09/26	https://forum.eic	address	Using "proposed" implies proposed at EU level in this report, so not appropriate here.

4.Strategies to re	4.2	EU strateg	730698	EurEau "This in part reflects the tensions in priorities between the benefits of health care and risks to drinking water resources and ecosystems" Risks are not only for drinking water resources but for water resources in general. The effects of pharmaceutical through drinking water are a research topic and should not be claimed as such in the report. We ask that the word "drinking" is removed, not to focus the attention only on drinking water.	2018/09/28	https://forum.eic	address	edited text
4.Strategies to re	4.3.	National	061504	DE-UBA IV 1.3: We would welcome an example (perhaps a box) of how actions within the national action plans contribute help to gain knowledge about the risk from pesticides and derive measures to reduce them. The German representative monitoring for the pollution of small water bodies in the agricultural landscape (pilot study, KGM) would be such an example.	2018/09/27	https://forum.eic	acknowledge	
4.Strategies to re	4.3.	National	071609	DE-NW: Please add the German "Spurenstoff-Dialog" (Micropollutant-Dialogue)	2018/09/26	https://forum.eic	acknowledge	
4.Strategies to re	4.3.	National	359400	DE-UBA II 2.2: We strongly suggest to add the German Trace Substance Strategy: The German Trace Substance Strategy is being developed on the basis of a multi-stakeholder dialogue, with stakeholders from industry, environmental NGOs, associations of municipal companies, drinking water suppliers, operators of wastewater treatment plants, federal government departments, public authorities and Federal States representatives. The strategy's purpose is to prevent and reduce inputs of trace substances from biocides, human and veterinary pharmaceuticals, plant protectants, industrial chemicals, detergents and personal care products to the aquatic environment. Guided by the precautionary principle and the polluter-pays-principle, both of which are enshrined in EU and in German law, the stakeholders have developed recommendations for measures at the source, on the user side and at the end of pipe ¹ . These recommendations are now further concretised in a follow-on phase. ¹ German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (June 2017): Policy Paper - Recommendations from the multi-stakeholder dialogue on the trace substance strategy of the German federal government: To policy makers on options to reduce trace substance inputs to the aquatic environment. http://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Binnengewaesser/spurenstoffstrategie_policy_paper_en_bf.pdf	2018/09/26	https://forum.eic	address	added example
4.Strategies to re	4.3.	National	972824	DE-UBA II 2.2: We suggest to delete the reference to Grinten, 2016 in the paragraph about the Dutch Pharmaceutical Chain Approach.	2018/09/26	https://forum.eic	acknowledge	
	4.1			• Box 4.2 poses good information but its layout should be improved.	#####		acknowledge	
	4.5			• However, for the medium term, practical approaches to preventing pollution by existing hazardous products and substances continue to be required.	#####		acknowledge	

4.Strategies to reduce chemical pollution of water	4.3. National action programs for combating risks from micro-pollutants	960000	P63, 3rd bullet: The CIP programme was also run in Scotland, and CIP2 is on-going in England, Wales and Scotland with plans afoot for a third CIP from 2020 to 2025.	2018/10/05 11:15	https://forum.eic	address	edited text
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Section	Paragraph	Message	Message	Date	Paragraph	Action to take	Notes
5.Improving pro	5.1.	Ir665632	DE-BW: 'The second is that chemical status under the WFD reflects scientific understanding that is at least 20 years old.' Although there are some scientific approaches of new chemical and effect-based methods the old-fashioned methods are a very useful and appropriate tool of emission control. In contrast experiences in using new methods and approaches in emission control are very rare. This sentence suggests however that the recent methods used in european legislation are not adequate and scientifically not reliable. The achieved efforts in reduction of chemical pollution show the opposite.	2018/09/2	https://fr	acknowledge	The report supports the use of priority substances for uses such as emission control.
5.Improving pro	5.1.	Ir916307	EurEau: The one-out-all-out principle should be kept as the status of water bodies should be evaluated as a whole and look for a good status for all water bodies. However, communication should be improved, especially because it becomes difficult to justify investments for no progress. It is not only a question of communication of course but communication helps to maintain the pressure. Who wants to invest in something that is never improving. New issues can come and need to be taken into account, mobilise investment and be solved (so we can reach good status). The trend of the status need also to be taken into account to see that water authorities are not working for nothing. We are in favour of an instrument like "distance to compliance" that would allow to see the global picture and follow trend in time. EurEau issues a position paper on this specific point, you can consult it here: http://www.eureau.org/resources/position-papers/2931-eureau-position-on-the-wfd-post-2027-scenario-final/file .	2018/09/2	https://fr	acknowledge	
5.Improving pro	5.2.	D455001	Correct if the EQS is protective in line with the aims of the framework. For some PS EQSs are based on rather old data evaluations. For example, for Chloroalkanes the EQS is based on data from a RAR published 1999. For human health, EFSA is working on an assessment at the moment.	2018/09/2	https://fr	acknowledge	

5.Improving pro	It is also p	590271	<p>Eurometaux</p> <p>"It is also possible to review River Basin Specific Pollutants to identify those which might have European wide relevance (table 5.2). RBSPs most often exceeding their EQSs are shown, with the range in EQS values used (derived from Member States RBMP reporting)."</p> <p>This passage seems to suggest that zinc, copper, and other RBSP with large number of exceedances should become PS. This assessment looks simplistic. In fact, in 2014-2016 the Commission, the Joint Research Centre and the Sub-Group Review have looked holistically at thousands of chemicals with the aim to review the list of priority substances (JRC, 2016. Monitoring based exercise: Second review of the Priority Substances list under the Water Framework Directive). Robust and objective criteria were used to assess the Spatial distribution, Temporal frequency, and Extent of the exceedances (STE criteria) – i.e. much more refined criteria than simply the “number of exceedances” as presented on page 67. This work allowed to screen substances which are of Community-wide concern using harmonized criteria. The outcome of this robust exercise was clearly different than the list in Table 5.2. Therefore, we suggest removing from the text the possibility “to review RBSPs to identify those which may have European wide relevance (table 5.2). Concretely:</p> <p>The text should reference the above report by the JRC. The sentence “It is also possible to review River Basin Specific Pollutants to identify those which might have European wide relevance (table 5.2)” should be removed, since the data shown in Table 5.2 are a poor indicator of EU-wide relevance (the STE criteria in the JRC report do a better job). The need for and ongoing joint efforts to improve the assessment of</p>	2018/09/2	https://f	address	<p>Edited text to reflect the STE criteria and JRC report.</p> <p>Not deleting text on RBSP as this is legitimate question from the cross-sectional analysis - in the case of Zn and Cu, over half of MS have self identified those substances as being discharged in significant quantities.</p>
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5.Improving pro	It is also p	489365	<p>Eurometaux</p> <p>"Table 5.2 Selected River Basin Specific Pollutants with largest numbers of countries reporting failures; Comparison of minimum and maximum national standards for annual average EQS."</p> <p>Table 5.2 and corresponding text p. 67-68:</p> <p>The range of EQS values are difficult to interpret correctly with the limited available information. The number "0" is clearly a numerical rounding. For copper and zinc, the range of EQS reflects differences in bioavailability (e.g. due to water bodies with different physico-chemical characteristics in terms of pH, hardness, and dissolved organic carbon) rather than differences in EQS between Member States. We suggest adding this information, otherwise the ranges shown in Table 5.2 have little relevance and risk being interpreted wrongly.</p>	2018/09/2	https://f	address	Edited text to include bioavailability. Table updated
5.Improving pro	It is also p	743081	<p>Minimum AA-EQs for Zn, Cu, As and Cr given in table (0 µg/l) cannot be correct.</p>	2018/09/2	https://f	address	table updated
5.Improving pro	5.2.2. E	292985	<p>DE-UBA II 2.2:</p> <p>'Unfortunately, emissions data on priority substances as reported for the WFD, E-PRTR and WISE-SoE are only partially informative.'</p> <p>As described before, according to EU Technical Guidance there is no need to report emissions for all river basin districts (only if substances are relevant further information (emissions from point and diffuse sources/pathways) is needed). If substances are identified as not relevant - only river loads need to be calculated.</p>	2018/09/2	https://f	acknowledge	
5.Improving pro	5.2.2. E	934110	<p>DE-UBA II 2.2:</p> <p>'Unfortunately, emissions data on priority substances as reported for the WFD, E-PRTR and WISE-SoE are only partially informative.'</p> <p>As described before, according to EU Technical Guidance there is no need to report emissions for all river basin districts (only if substances are relevant further information (emissions from point and diffuse sources/pathways) is needed). If substances are identified as not relevant - only river loads need to be calculated.</p>	2018/09/2	https://f	acknowledge	duplicates row 10

5.Improving pro	5.2.2.	E	195788	DE-UBA II 2.2: 'For a number of pollutants, only a few Member States report loads (TBT, Brominated diphenylethers, Isoproturon, hexachlorocyclohexane). Therefore, no useful overview exists for these pollutants at EU level.' a) typo it should be small letter isoproturon b) Are river loads meant? For the German inventory we decided regarding river loads - if more than 50% of monitoring values (at a certain monitoring station) are below detection limit no river loads are calculated (because of uncertainty).	2018/09/2	https://f	address	typos corrected. The loads are at the European level
5.Improving pro	5.2.2.	E	594034	DE-UBA: in the section 'Ways forward' it should also be (with hyphenation) E-PRTR	2018/09/2	https://f	address	
5.Improving pro	5.2.2.	E	573537	"Streamlining reporting, so that robust data collected for one obligation would satisfy the European emissions reporting requirement, could offer a way to address this issue" Agree with this proposal, there is a lack of data on emissions to water, however streamlining is not always easy to accomplish with different goals in legislations and different approaches for environmental protection which might need different substances to measure aso, an open mind how to do it could be useful. "Improvement in the monitoring and reporting of diffuse sources is needed, to ensure that pressures are correctly understood and measures can be appropriately targeted." Agree with this, diffuse emissions to water represent an important source for pressures and the issue should be adressed.	2018/09/2	https://f	acknowledge	
5.Improving pro	5.3.	C	586822	DE-BY: 'becoming more common.' This is only true for scientific purposes and single projects. In regular monitoring these approaches are not common. There is a lack of experience, scientists and accredited laboratories.	2018/09/2	https://f	acknowledge	
5.Improving pro	5.3.	C	311981	DE-BB: We want to stress the importance of deriving EQS without binding guidelines, for ecotoxically harzadours compounds to be able to manage know emission pathways into water bodies. We would like to see an european database collecting an uptdating present results and supplying them to derive such EQS. Furthermore we are of the opinion that a reference to the database ETOX, which supplies ecotoxicological aquatic and terrestric effect data as well as national and internations quality standards and limits. ETOX provides the data which is needed for regional, practical case-by-case management, where EQS alone may not help to derive the best measures.	2018/09/2	https://f	acknowledge	

5.Improving pro	5.3.	C898850	<p>DE-BY: 'The flexible approach of the WFD would allow Member States to use effects-based methods in a complementary way, alongside routine monitoring in water management. [...] One option could be for effects-based methods to be used as part of ecological status assessment.'</p> <ul style="list-style-type: none"> · "way": please add: in investigativ monitoring · "routine": please replace "routine" by "surveillance and operational" · "One option could be for effects-based methods to be used as part of ecological status assessment.": ...see comment above. Ecological status definition and assessment ist well defined in WFD and intercalibrated on EU level. New methods of effect based monitoring could be an interlink between chemical and ecological status assessment e.g. in the frame of investigative monitoring but there ist no reason and no need to change ecological status assessment. 	2018/09/2	https://f	address	edited text
5.Improving pro	5.3.	C327215	<p>Page 65 to 72 : Improving protection against chemical risks in water Comment Belgium (Wallonia): EBM have been promoted in chapter 2 notably for a better understanding of mixtures effects, the limits of a single substance approach with a limited number of substances analyzed have been underlined. The necessity of complementary approach (EBM) should be more developed in this part of the document (there is only a small paragraph in 5.3 page 69 last §).</p>	2018/10/6	https://f	acknowledge	
5.Improving pro	5.4.	C875716	<p>DE-BY: 'We rely on urban waste water treatment to reduce' This is only one element of the strategie on micropollutions. Firstly micropollution should be minimized by replacing hazardous substances, secondly by minimizing the use. Waste water treatment is only the third option and moreover it is not valid for diffuse sources. Relying on end-of-pipe techniques seems to be not a sustainable approach.</p>	2018/09/2	https://f	address	edited text
5.Improving pro	5.4.	C897752	<p>DE-UBA IV 2.2: While human and veterinary medicines are mentioned as emerging contaminants in chapter 4, unfortunately this paper does not draw conclusions or requests for the management of those chemicals. We highly appreciate a sentence emphasising the intensive discussion and the need to list and reduce medical emerging pollutants in this section.</p>	2018/09/2	https://f	acknowledge	

5.Improving pro	5.4.	C991437	DE-UBA IV 2.2: 'We rely on urban waste water treatment to reduce concentrations of many pollutants in water, but they may not meet sufficiently low concentration of micro-pollutants such as pharmaceuticals, ingredients of household...' please change meet to achieve	2018/09/2	https://f	address	edited text
5.Improving pro	5.4.	C857141	DE-UBA II 2.1: 'Such techniques cost about 10 to 15 EURO cents per m ³ in big treatment plants, but they are not yet applied on a regular basis (UBA, 2018).' In Germany, it is estimated that it costs 6 to 16 Euro per person annually to upgrade large municipal treatment plants. In Addition UBA, 2015 should also be cited here.	2018/09/2	https://f	address	text edited 0.1-0.15 euros
5.Improving pro	5.4.	C171534	DE-UBA IV 1.3: 'Events such as heavy rainfall can overload drainage systems and cause surges in the pollutant load into surface waters.' Please add: 'can result in surface run-off, overload drainage systems' ...	2018/09/2	https://f	address	0.1-0.15 Euro
5.Improving pro	5.4.	C889723	DENMARK Danish monitoring results support the conclusion that treatment at UWWTPs may not be sufficient to tackle low concentrations of micro-pollutants such as pharmaceuticals and household chemicals (http://dce2.au.dk/pub/SR142.pdf).	2018/09/2	https://f	acknowledge	
5.Improving pro	Table 5.3	-891560	POLAND Table 5.3. - Mercury is not a POP substance and is not regulated as such by international treaty or EU provisions related to POP substances. It can be described as: "behaving similarly to POP substance" - Tributyltin-cation - this substance is not POP but PBT. Comment similar to the comment on mercury.Note: 4Regarding to mercury, the Minamata Convention and the new EU regulation should be referred.In relation to tributyltin compounds, the description of the substance as PBT is given in one of sections of the report. That substance was not analyzed against POP criteria in accordance with the Stockholm Convention.We suggest changing the explanation of the annotation 4 as follows: international restrictions as persistent, toxic and bioaccumulating.	2018/09/2	https://f	address	Footnotes corrected

5.Improving pro	Table 5.3	520107	DE-BY: 'Moving beyond the well-established pollutants represented by priority substances, we need to implement methods which effectively assess the risk presented by mixtures in the aquatic environment. ' This point is to be discussed: in which legal framework should risk assessment of mixtures be implemented? It may rather be a task for licencing than for chemical status assessment in WFD.	2018/09/2	https://f	out of scope	
5.Improving pro	Table 5.3	247514	DE-BY: 'Moving beyond the well-established pollutants represented by priority substances, we need to implement methods which effectively assess the risk presented by mixtures in the aquatic environment. ' This point is to be discussed: in which legal framework should risk assessment of mixtures be implemented? It may rather be a task for licencing than for chemical status assessment in WFD.	2018/09/2	https://f	out of scope	duplicates row 26
5.Improving pro	Table 5.3	749765	DE-UBA II 2.2 Table 5.3 a) measures/ atmospheric depotsition (last column): Please add: 'improve treatment of storm water before discharging' and 'reduce road transportation' b) measures / industry and mining: Please add 'reduce emissions to atmosphere'	2018/09/2	https://f	address	edited text to reflect importance of atmospheric emissions
5.Improving pro	Table 5.3	216659	DE-UBA II 2.2 Table 5.3 a) measures/ atmospheric depotsition (last column): Please add: 'improve treatment of storm water before discharging' and 'reduce road transportation' b) measures / industry and mining: Please add 'reduce emissions to atmosphere'	2018/09/2	https://f	address	duplicates row 28
5.Improving pro	Table 5.3	402736	Eurometaux Contamination mainly from industry and mining (section 2.6): we suggest instead "mining legacy" or "or abandoned historic mining sites", not "mining".	2018/09/2	https://f	acknowledge	analysis of data, including EPRTR, shows significance of mineral and metals processing and production industry

5.Improving pro	Table 5.3	743867	<p>Page 71 : last § Moving beyond the well-established pollutants represented by priority substances, we need to implement methods which effectively assess the risk presented by mixtures in the aquatic environment. Longer term sustainability can be provided by the development of alternative.</p> <p>Comment Belgium (Wallonia) : Insert Moving beyond the well-established pollutants represented by priority substances, we need to implement methods which effectively assess the risk presented by mixtures in the aquatic environment (i.e. Effect Based Monithoring methods). Longer term sustainability can be provided by the development of alternative.</p>	2018/10/0	https://f	acknowledge	
	5.2.1		<ul style="list-style-type: none"> • Table 5.1: Is the number of surface water bodies where EQS situation has been evaluated (e.g. via measurements) really 111 105 for all substances indicated in table 5.1? This number sounds very high... • The following sentence (under) with idea to delist “not anymore relevant substances from Annex X” is not good because the focusing of monitoring to currently relevant substances is self-evident and this has been done e.g. by Finland. Thus, it is not needed to delist the WFD substances which are not anymore or seldom found in aquatic environment. It is better to keep them in Annex X but just not to use (too much) resources for their monitoring. • With such low numbers of water bodies failing to achieve good status for these substances, they may be candidates for delisting as priority substances, freeing up resources for monitoring of substances now presenting more of a risk to the quality of European waters. 	#####		acknowledge	<p>The RBMP assessment was made on the number of waterbodies reported by MS at that time.</p> <p>Under the WFD, MS should monitor all the PS in at least their surveillance waterbodies. So MS do use resources to monitor those substances which they know to not be present.</p>

5.2.2		<ul style="list-style-type: none"> • Table 5.2: Is it really so that some MS have set up EQS of zero to Zn, Cu, As & Cr? Or is it an error? • p. 68: Looking forward, it would seem that improving consistency (or harmonising) RBSP EQS values would improve comparability between river basin districts. It would not address differing numbers of substances for which standards are set, and, given the variation across Europe of substances meeting the RBSP definition, it seems difficult to overcome that issue. <ul style="list-style-type: none"> o Comment: harmonizing of EQS for organic RBSPs is very much recommended. But we should be cautious in harmonizing EQS for metals posing geographically very different background concentrations. • p. 68: The WFD dataset is difficult to interpret, with apparent errors, inconsistencies and missing river basin districts. <ul style="list-style-type: none"> o Comment: Northern Finland is very sparsely populated wilderness. Thus, the emissions do not exist, except deposition. This may explain why Finland has not reported emissions (other than deposition) for Water districts 5 and especially 6 and 7. 	#####		acknowledge	<p>Table updated.</p> <p>There are different reasons for patchy reporting - the issue for interpretation is that we do not know whether there are specific reasons or it simply hasn't been done.</p>
5.3		<ul style="list-style-type: none"> • Application of the precautionary principle means that assessment [...] should include consideration of chemical mixtures, which can act along similar pathways in the organism. 	#####		address	edited text
5.4		<ul style="list-style-type: none"> • Additionally, some chemicals are now widely regulated and environmental concerns reflected in risk and hazard assessments (chapter 1.3). • Concerning especially regulated substances over recent decades, reductions in emissions from industry have led to significant sources now being from domestic use (Gardner et al, 2014). • Such techniques cost about 10 to 15 EURO cents per m³ in big treatment plants, but they are not yet applied on a regular basis (UBA, 2018). The price is not clear; euros or cents? • Sometimes this involved totally banning the use of a substance; less drastic measures may be to restrict uses where losses to water might occur, either through more careful use of the substance (such as in good practice for pesticide application) or banning its use in certain applications [...] → Proposal to shorten the text without losing any information. • Longer term sustainability can be achieved [...] by the development of alternative approaches such as application of less hazardous chemicals or methods which deliver the desired function currently provided by harmful chemicals. 	#####		address	edited text

5.Improving pro	5.2.	E 982529	The situation of the listed compounds is the same in Hungary as in almost everywhere in the EU. These substances were not found in surface waters or if it was sporadically found, the concentration was well below the EQSs. For ground water the situation is different, mainly for solvents and pesticides.	2018/10/0	https://f	acknowledge	
5.Improving pro	5.2.2.	E 658571	The conclusions are agreed, both emission measurements and the deeper understanding and much better estimation of diffuse contaminations is needed. There are no more additions and comments to the remaining part of chapter 5, the conclusions and recommendations are accepted.	2018/10/0	https://f	acknowledge	

Section	Paragraph	Message	Message	Paragraph url	Action to take	Notes
6. References	Reference	088291	EurEau EC, 2012 is refered in the text (figure 3.1) but does not seem to appear in the list of references.	https://forum.eio	address	added reference

Section	Paragraph	Message ID	Message	Date	Paragraph url	Action to take	Notes
7. Annex A: Deriv	The emission data for	922180	DE-UBA II 2.2: 'E-PRTR uses capacity thresholds (i.e. >100.000 p.e. for UWWTP and pollutant thresholds that vary per pollutant.' It could maybe be useful to add a list of pollutant threshold values-	2018/09/26	https://forum.eior	Acknowledge	
7. Annex A: Deriv	Emissions data tables	347702	DE-UBA II 2.2. It should be (table title) not existing emission but reported emission - actually existing emission must be higher (especially for PRTR data because of the pollutant thresholds) Please change also the tables below	2018/09/26	https://forum.eior	Address	edited text
7. Annex A: Deriv	Table A2a-c : Existing	233618	DE-UBA II 2.2: Table A2: see Annex II PRTR Regulation - indeno(123cd)-pyrene and benzo(a)pyrene are not included as single substances but PAH	2018/09/26	https://forum.eior	Address	edited text

Section	Paragraph	Message	Message	Date	Paragraph url	Action to take	Notes
8. General	This section	579731	Switzerland has no comments to the report	10/10/2018	https://forum.eionet.europa.eu/threads/2018-10-10-10-10-2018	acknowledge	
8. General	This section	116031	DE-SH: The title raises expectations with respect to management and protection of inland waters; however the content of this draft mainly contributes to the field of monitoring. Please consider a title which better reflects the scope of the paper.	10/10/2018	https://forum.eionet.europa.eu/threads/2018-10-10-10-10-2018	address	edited title
8. General	This section	810360	POLAND Thank you for the report - it is a very interesting cross-sectional analysis. As the title says "improving protection", it suggests such evidence confirming improvement is emphasized. As it is not, perhaps a title could be modified. We suggest to complete the draft with the section clarifying the suggested outcome of this report in terms of water policy, chemical policy, impact on WFD Common Implementation Strategy and other directives. It is also important to clarify how the results and conclusions drafted in the report are going to impact water policy and chemicals policy at the EU level if this document is going to be used by policy makers.	10/10/2018	https://forum.eionet.europa.eu/threads/2018-10-10-10-10-2018	address	Edited text
8. General	This section	444047	DE-UBA IV 1.2: General remark: the meaning of the word pesticides is sometimes not clear. Sometimes pesticides is used for plant protection products (PPP) and sometimes pesticides cover even PPP as well biocidal products (which would be correct). Please, be clear in the wording!	10/10/2018	https://forum.eionet.europa.eu/threads/2018-10-10-10-10-2018	address	Edited text

8. General	This section	854038	<p>DE-UBA II 2.5:</p> <p>We welcome a report which summarizes achievements and further needs regarding the protection of waters against chemicals. It is also worth highlighting existing challenges and any constructive criticism on the existing WFD requirements or their implementation. Although we understand that reporting data gaps or poor data quality exist we wonder whether such a publication is the right way to address this issue. Are we not able to improve the situation? What are the causes? Are all actors aware of the problems? It really questioned the WFD and their implementation.</p> <p>The ongoing Commission's assessment of the 2nd RBMPs already showed some issues that need improvement. Problems of incomparable or deviating RBMPs or status assessments, existing difficulties may also be related to legal requirements or measures occurring on a global scale. It might also related to the Common implementation strategy and data sharing systems or reporting requirements. Deficits may also related to limited resources and capacities. The revision of the WFD 2019 is a sensitive topic. For a successful water protection we need to analyze the benefits and limitations in order to identify causes and possible solutions – and should present the results in a diplomatic way. We all know that environmental protection often involves different, conflicting interests between actors. We should understand the underlying causes before we address the problems to the public.</p> <p>There are already mechanisms or approaches established to improve the situation regarding pollutants. The watch list mechanism is a very useful tool to generate targeted high-quality monitoring data for emerging pollutants and supports the prioritization of substances. It is worth to be mentioned as well as the prioritization activities at EU level to revise the list of priority substances or EQS values. Within the CIS WG Chemicals or international river basin commissions is an ongoing exchange to improve the practical implementation and further harmonization.</p> <p>It is very good to facilitate the exchange between science and policy. We need a periodic systematic process to improve the likelihood that scientific findings are taken up into policies. Before we promote any research findings (e.g. on effect tests) we should evaluate them systematically. In this respect, the scientific recommendations in the report needs still to discussed with competent authorities performing the chemical monitoring. We need to develop</p>	10/10/2018		acknowledge	
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8. General	This section	303541	<p>DENMARK</p> <p>We welcome this report that gives grounding for what is known about key pollutants and how surface waters might be better protected in the future. A report dealing with similar issues is about to be prepared by the INTERREG Baltic Sea Region. This report analyses the interfaces, linkages and gaps between key EU legislation concerning the use and releases of hazardous substances. A number of issues from this report might be relevant here as well.</p> <p>In the report 'Improving protection against chemical risks to European inland waters' there is an overview of how chemical status of surface waters under the WFD is performed, also there is a schematic overview of the chemical status for the different member states. However, there is no mentioning and discussion of the issues of EQS's established for the water matrices and the fact that monitoring is performed in other matrices due to substance specific properties. We find that this issue should be mentioned in the report as a number of priority substances most likely will bioaccumulate and sorb to sediment and therefore it would make sense to establish EQS's for these matrices in addition to the ones for the water phase. Different member states handle this issue in different ways and this is also reflected by the large percentage of unknown chemical status in surface water bodies. Furthermore there is no mentioning in the report about accumulation in sediment and biota of harmful substances and how this is dealt with in relation to the WFD.</p> <p>Another issue that could be included in the report is leaching of chemicals from polluted soil from former industrial areas and deposits. This pathway might be a significant point source of hazardous substances that should not be neglected.</p>	10/10/2018	https://forum.eion	acknowledge	<p>Agree there are aspects we didn't go into in this report. The focus was to use reported information and see how far that helps us explain the environmental status. So this meant we didn't examine the matrix issue, which is very difficult to unravel from the reported information, for example.</p>
8. General	This section	851157	<p>EurEau welcomes this report. However we would like to see the description of urban waste water treatment plants as pathways for pollutants more than point source pollution. As referred in the notes several times, and rightly mentioned in section 3.5 of the report: "treatment plants are recipients of contaminants from upstream uses and discharges, providing a known pathway into the aquatic environment, rather than they themselves being the user of hazardous substances". The report should reflect this statement, which is not the case for the moment. The level of treatment is governed by the UWWTD. As soon as WWTPs are compliant with the requirements, they should not be considered as polluters because they accomplish the level of treatment they are designed for. It is not sustainable to always increase the level of treatment because there are new substances in the waste water. Upstream measures and control at source should be favoured.</p>	10/10/2018	https://forum.eion	address	<p>edited text to further remind that UWWTPs receive inputs from upstream</p>

8. General	This section	877895	<p>Eurometaux</p> <p>Thank you for considering our comments and acknowledging our concerns. We believe there is still room for improvement with respect to how metals are evaluated at the EU continental scale. In fact, without bioavailability normalization, conclusions about exceedances for metals are not possible. To that end, given that the exceedance rate of metals is very low (e.g. 0.5% for Ni), it may not be possible to statistically confirm decreases or increases in the exceedance rate. There is no measure of the variability in terms of exceedance, and without this knowledge, setting a target is difficult. This is particularly true for naturally occurring metals, where setting a target of zero exceedances is not warranted.</p> <p>We believe the report should acknowledge that metals are measured most frequently by most countries. The number of exceedances as such is therefore function of the number of measurements; the use of absolute number of exceedances is potentially misleading. Also, in general, treatment of “mining” throughout is simplistic; e.g.</p> <p>Use of mercury in small-scale gold-mining is limited to artisanal miners in French overseas territories: not EU industry</p> <p>In many places, “mining” should be replaced by “legacy of historic mining”</p> <p>It is not recognized that there are also completely natural pathways by which metals reach surface water bodies. For example, natural weathering of rocks in the Harz mountains leading to deposition of metals in the sediments of the Weser river system is likely to have occurred for centuries before mining even started. Doubtless, there is significant pollution (accelerated release) from legacy mine-galleries and waste piles, but this will be in addition to natural loads. C.f., new Technical Guidance for implementing bioavailability-based Environmental Quality Standards (EQS) for metals, under finalisation.</p>	10/10/2018	https://forum.eion	address	High level of reporting of metals is reported in 3.6. natural high concentrations noted extensively in 3.6. deleted reference to artisanal gold mining.
8. General	This section	015763	<p>We appreciate submitted, very comprehensive document which contains evaluations based on the second cycle of RBMP reporting and also overview of new methods and assessment carried out under WFD.</p> <p>We fully agree with all constructive comments in all chapters from Germany, Poland, Denmark and we encourage to incorporate them into the submitted material.</p>	10/10/2018	https://forum.eion	acknowledge	
8. General	This section	897057	<p>For any question regarding previous Belgian (Wallonia) comments inserted in the different comments boxes (Chapters 1 to 5), please contact the Walloon water expert Elisabeth Chouters (elisabeth.chouters@spw.wallonie.be) + NFP team in cc (nfp@irceline.be)</p>	10/10/2018	https://forum.eion	acknowledge	

8. General	This section	427632	<p>Coördinated comments from the Netherlands</p> <p>Subject: EEA Assessment on 'Improving protection against chemical risks to European inland waters'. (version 1.5), date 2018/09/05.</p> <p>Dear colleagues, dear Caroline,</p> <p>Further to your request to consider and review this draft and provide comments, please find below our contribution. As stated, the report builds on the EEA's recent report "European waters - Assessment of status and pressures", and considers the messages that you can draw from the reporting. Apart from minor issues, like the definition of chemical status, which is not limited to Priority Substances, but also encompass 'certain other pollutants' (page 7, 9); the missing headers in Table 3.1 d, e and the reference to Fig 2.1D instead of 2.2D –which will all be corrected in the completion of the report -, the messages drawn from the reporting is clear. In general the message is supported. The availability of proper monitoring data is key to a perform a proper analysis.</p> <p>The reference to the work of Malaj et.al on p. 16 also shows that the expected risk increases with the availability of more chemical monitoring data. The more one monitors, the bigger the chance of not meeting the objectives. One cannot assess what one does not know. This also means that if one fulfils the monitoring obligations under the WFD in a "lean and mean-way", risks might be "overlooked". Especially as regards the River Basin Specific Pollutants (RBSP) it is clear that there is a different approach between the MS, both with respect to the number of RBSP and the EQS. Instead of the adoption of EU-wide EQS's for RBSP – making them Priority Substances – one could propose to use the xth –percentile (x= 5 or 10) of the range of EQS's used by MS as a maximum EQS or the introduction of a peer-review of national standards could also narrow the range of EQS's used. As said, the drawbacks of the current approach and conclusions drawn on the basis of the analysis are supported in general, as are the suggestions for improvement (establish the link between chemical and ecological status; combined effects/mixture toxicity/use of bio-assays; improve emission inventories and pay attention to diffuse sources, how can one show progress/keep support from politicians and stakeholders). As regards showing progress, it is important - also from the side of the EEA - to present the figures and charts in reports and presentations that show this progress, i.e. those based on individual substances and biological quality elements (BQE) instead of the figures and charts based on the contra productive one-out-all-out approach. Feeding this into the</p>	10/10/2018	https://forum.eionet.europa.eu/threads/eea-assessment-on-improving-protection-against-chemical-risks-to-european-inland-waters	acknowledge	
General			<p>In general, the report is well structured and well written. Additional value can be seen in the focus on effect-based methods in monitoring and assessment. The report includes excellent conclusions such as</p> <p>Streamlining emissions reporting, so that robust data collected for one obligation would satisfy European emissions reporting requirements;</p> <p>Improvement in the monitoring and reporting of diffuse sources, to ensure that pressures are correctly understood and measures can be appropriately targeted.</p> <p>We would like to bring up two issues, partially interconnected.</p>	10/10/2018		acknowledge	

General		<p>1. Legacy pollutants have legacy in soils - therefore emission estimates do not tell the whole story</p> <p>As the EEA status report 2018 on European waters points out, most problematic substances appear to be those which are persistent, bioaccumulative and mostly long-range transported. On top of the list of substances causing failure to meet good chemical status are Hg, PBDEs and PAHs. All of them are already banned or heavily restricted in EU. They also have substantial air-borne fraction of the total aquatic load. The report acknowledges clearly the problems in emission estimates, but seems to forget the cumulative effect of that long-lasting, historical load (accumulated in soils). This is especially true for mercury*, shorter time for PBDE and probably to a lesser extent PAHs (which are not so persistent).</p>	10/10/2018		acknowledge	
General		<p>*page 37: <i>For 2015, a conservative total (missing word load?) of mercury to European surface waters is estimated at being 2 t from industry, 4 t from urban waste water treatment plants (UWWTPs), and 2.5 t direct deposition from the atmosphere.</i></p> <p>page 37 also: <i>Modelled atmospheric deposition of approximately 44 t deposition on the whole EU area (land and surface water) modelled by EMEP (EMEP, 2017) (Box 3.1). A significant part of this 44 t will end up in the surface water via the pathways erosion and run off from paved surfaces.</i></p> <p>page 38: <i>Atmospheric deposition is an important source of mercury to European surface waters, but it is not the only one and not the largest.</i></p> <p><i>... large gap between these numbers, and I guess neither takes the history in soils into account? I think it is the largest source to waters. Anyway, this leads to my second point – history in sediments.</i></p>	10/10/2018		acknowledge	
General		<p>2. <u>We have political pressure to show and scientific pressure to confirm the general development of legacy pollutants in aquatic systems – and the only way is to use undisturbed sediment cores</u></p> <p>The report underlines in several points, that we have too little information of the sources, and we cannot connect the emissions to present status. Yes, we will not have good picture of what's going on in if we only concentrate on getting better emission data. The shortcut to see even rough biogeochemical trend of the ubiquitous PBTs (POPs + Hg, TBT, PAH?) is in sediments, because:</p>	10/10/2018		out of scope	unfortunately, undisturbed sediment cores are not necessarily possible all across the EU. We don't have the data to be able to do the proposed analysis.
General			10/10/2018		acknowledge	
General		<p>The report underlines in several points, that we have too little information of the sources, and we cannot connect the emissions to present status. Yes, we will not have good picture of what's going on in if we only concentrate on getting better emission data. The shortcut to see even rough biogeochemical trend of the ubiquitous PBTs (POPs + Hg, TBT, PAH?) is in sediments, because:</p>	10/10/2018		acknowledge	

General		<p>a. we know that uPBTs have been restricted for more than 20 yr (> time we have had WFD)</p> <p>b. we know they have delays in the environment (e.g. soils)</p> <ul style="list-style-type: none"> · also other obstacles, e.g. Hg methylation/demethylation, briefly in the report · tot Hg load does not necessarily correlate with fish Hg, even locally (!) <p>c. we do not yet have long enough biota (fish, molluscs) records</p> <p>d. WFD/Prio Subst/EQS Dire (2008; 2013) says we should report trends (in biota later, but sediment cores now)</p> <ul style="list-style-type: none"> · even the less demanding statistics would need ca. 10 observations, with 7-8 in same direction <p>European Commission 2010. Common implementation strategy for the Water Framework Directive (2000/60/ EC). Guidance Document No. 25. Guidance on chemical monitoring of sediment and biota under the Water Framework Directive, Technical Report 2010.3991. ISBN 978-92-79-16224-4.</p>	10/10/2018		acknowledge	
General		<p>Lastly, not directly related to the report:</p> <p>There are also other reasons to focus a little more on sediment trends, of course along with biota. That is, problematic EQS -values in biota for those particular substances: Hg and PBDE may have “unreachable” EQS, thus leading to problems in risk communication. The third substance group, PAHs in biota (BaP) is “borrowed” from EFSA, targeted more on smoked food... at least we cannot find BaP in freshwater mussels, but other PAHs are detectable.</p>	10/10/2018		out of scope	

Section	Paragraph	Message Id	Message	Date	Paragraph url	Action to take	Notes
refers to chapter in consultation document	section reference	ref for system	Comment from reviewer	date comment submitted	link to comment	1 of 3 comments here. Address, Acknowledge or Out of scope.	