Water quality reporting to EEA

17. September 2019 – WISE 4-6 Webinar
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European Environment Agency

1994-2019
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Technical instructions

- Thank you for participating in the Webinar.
- The Webinar will be recorded and made available after the Webinar.
- Presentations are available for download. They will also be uploaded to Eionet Forum after the Webinar.
- Use the chat for making comments or asking questions.
- Avoid detailed questions on your data, you should use the WISE SoE Helpdesk when you start reporting.

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Agenda

1) Introductions and technical instructions (10mins)

2) EEA uses of the water quality data (WISE-4 data) (15mins)

3) Overview of the 2018 WISE-4 datacall (15mins)

4) 2019 WISE-4 and WISE-6 datacall (30mins)

5) 2019 WISE-5 Spatial datacall (15mins)

6) Discussion (30mins)

Objectives of meeting:
- To present EEAs uses of water quality data;
- Improve the reporting with better spatial and temperal coverage;
- Solve problems with folders/files uploaded to CDR but blocked or correction requested;
- Help countries that have stopped reporting to start reporting again.

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2. EEA uses of water quality data (WISE-4 data)

It is the European Environment Agency's (EEA) task to provide objective, reliable and comparable information on the environment in order to allow the European Commission, Member Countries and the general public to judge the effectiveness of environmental policy and the needs for policy development. This comprises 'state of the environment' assessments using indicators to assess current status, pressures and impacts as well as trends in the mid and long-term.
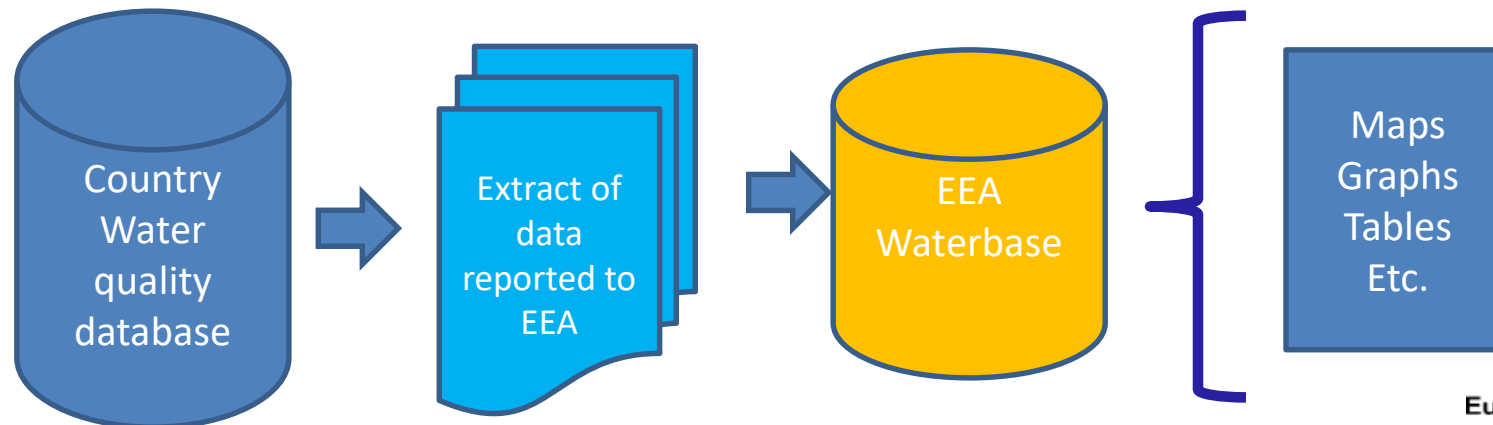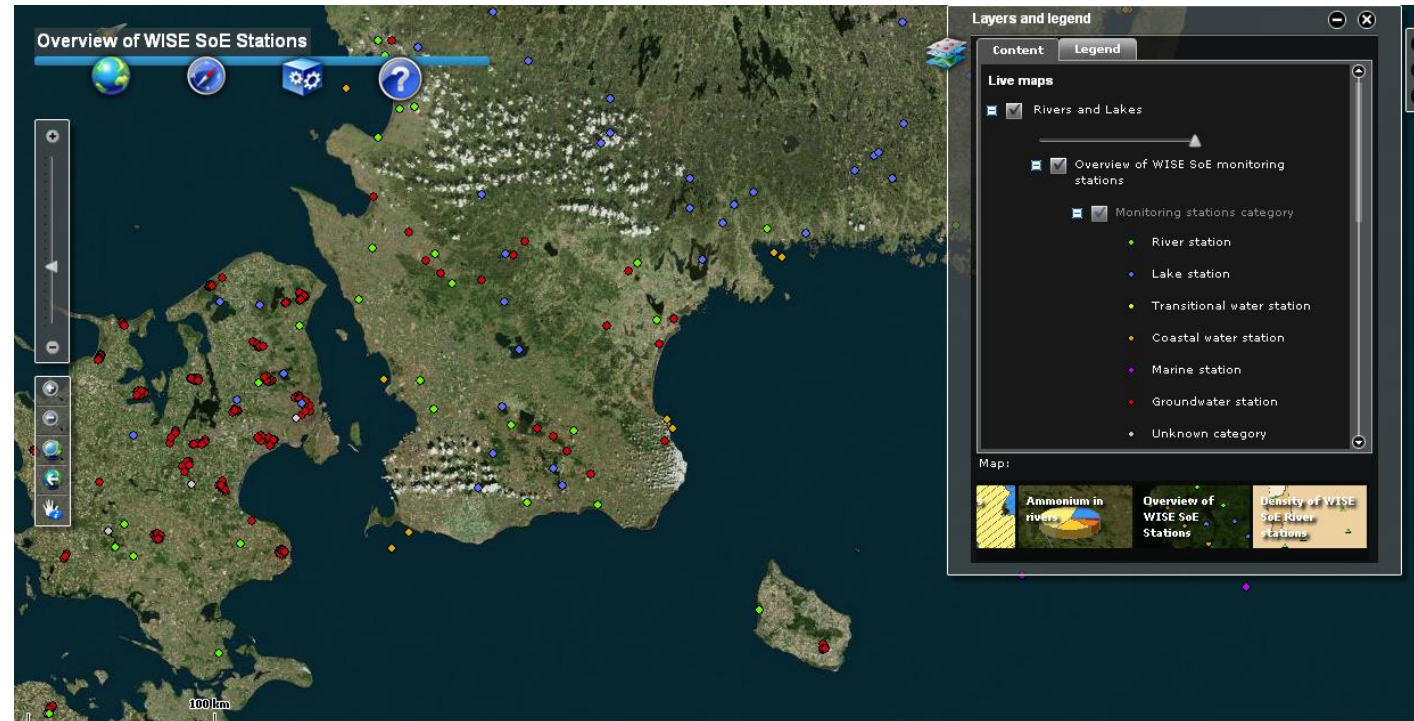
Status of Europe's waters

- **Overall freshwater quality** (overall status, ecological status, conservation status of freshwater habitats and species);

- **Water pollution and quality** (e.g. nutrients in groundwater, rivers and lakes; pollution sources and emissions);

- **Water and health** (Bathing water quality, drinking water quality, hazardous substances related to health)

- **Water resources focus on water scarcity and drought** (Water Exploitation Index, water abstraction by sectors, water resource accounts, water efficiency)

- **Floods and water related disasters**

- **Climate change impacts on water and water adaptation measures**

- **Hydromorphological /structural activities** (e.g. hydropower, navigation, number of barriers in rivers, straightened rivers).

Coverage 39 countries

Water quality based on national information

Country Water quality database → Extract of data reported to EEA → EEA Waterbase → Maps Graphs Tables Etc.

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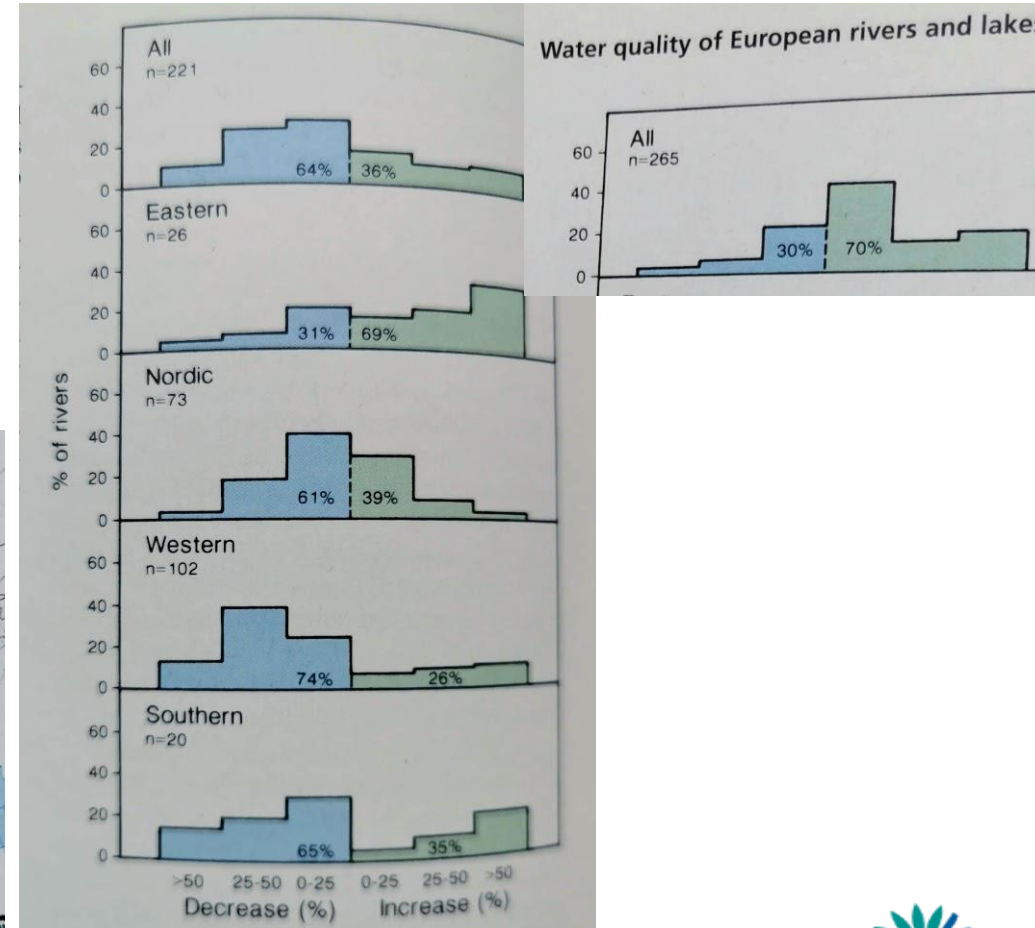# +25 years with EEA water data collection

1994

Phosphorus in rivers
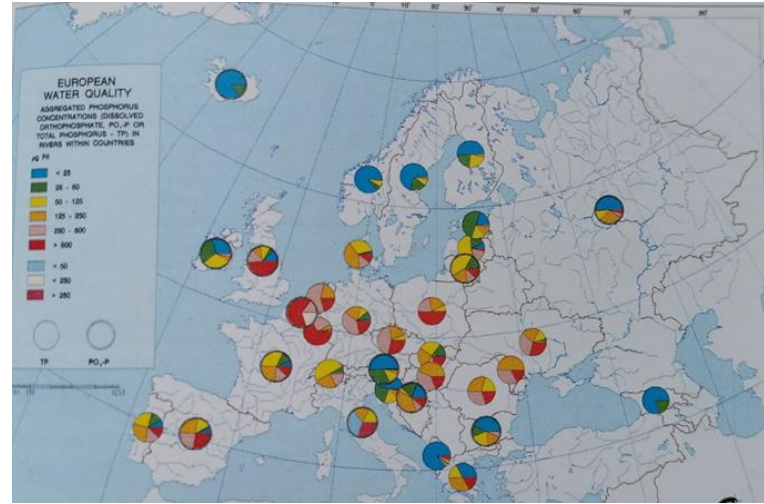
Nitrate in rivers

Decrease/Increase in river water quality
1977-82 to 1988-90

Phosphorus (221)

Nitrate (265)

Next generation WISE interactive maps (2007-2014)

WISE SoE dataflows

Groundwater (Ammonium; Nitrates; Nitrites)

Rivers, water quality (Ammonium; BOD; Nitrates; Orthophosphates)

Rivers, biology (Macroinvertebrates; Phytobenthos)

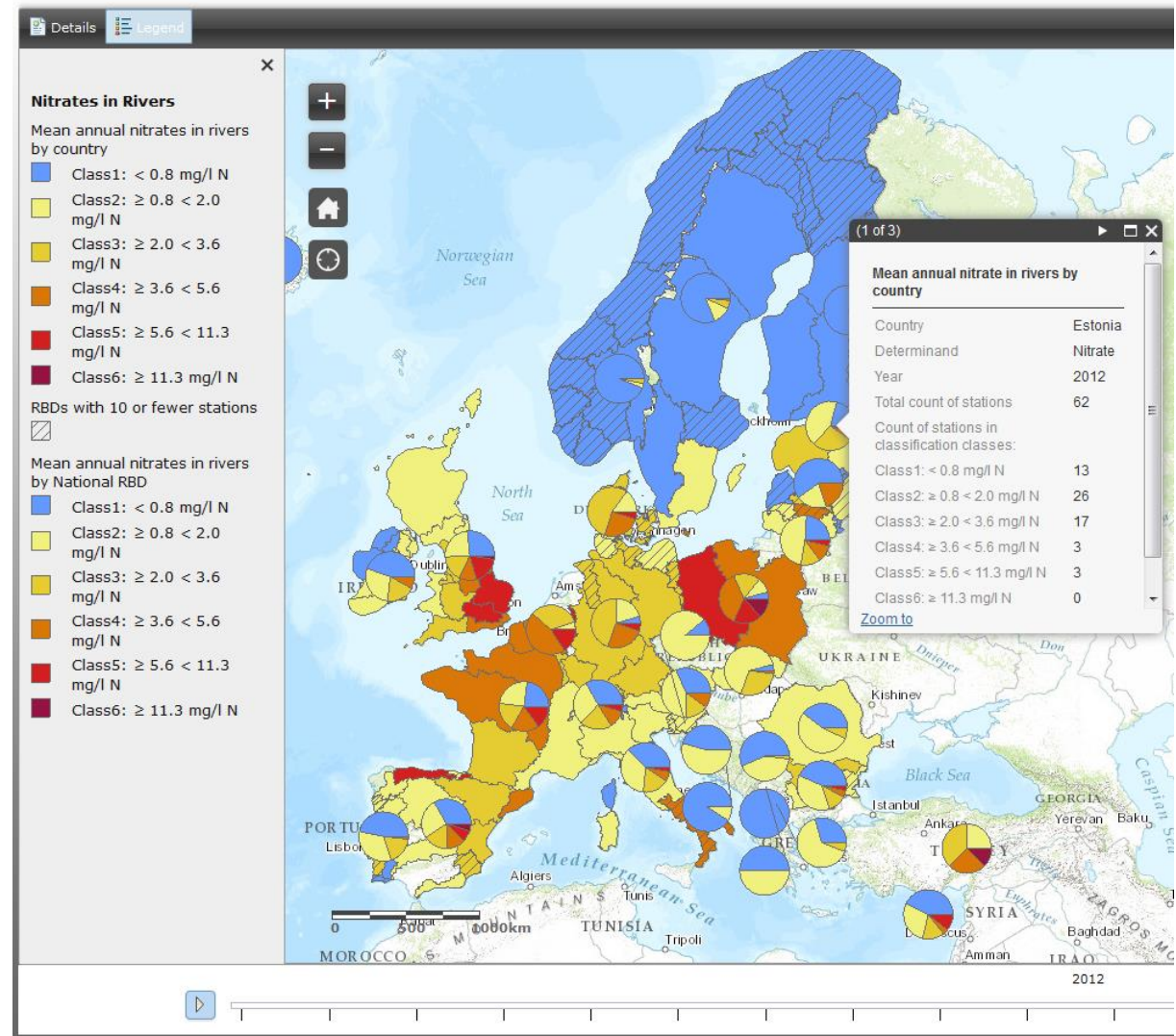**Lakes, water quality** (Total phosphorus)

Lakes, biology (Macrophytes; Phytoplankton)

Monitoring station (Water quality (density, stations); Water quantity stations)

EU water directives (Bathing water, Floods Directive; Water Framework Directive; Urban Waste Water Treatment Directive; Nitrate Directive

http://www.eea.europa.eu/themes/water/interactive/by-category
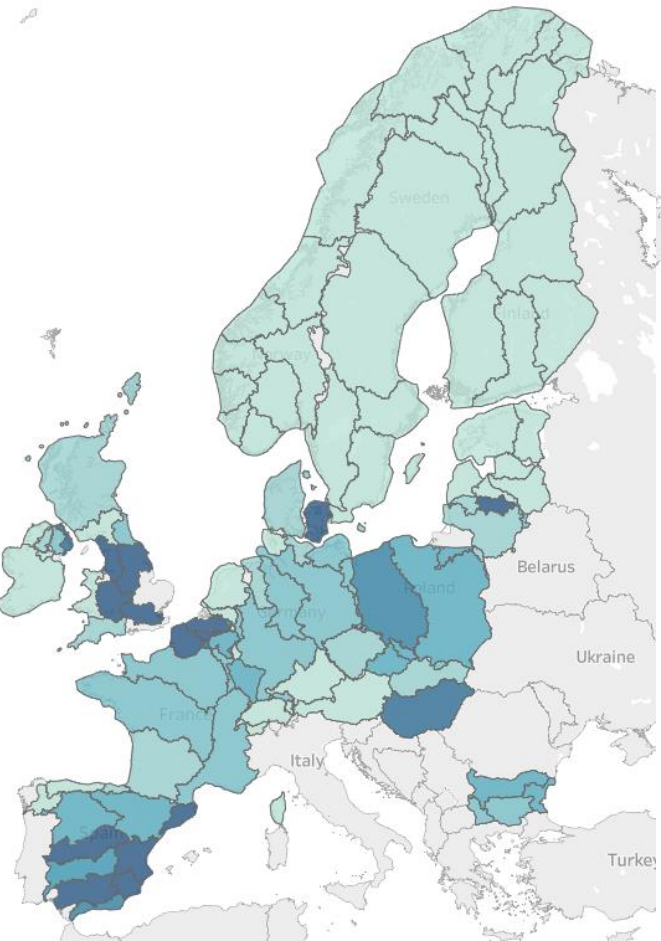

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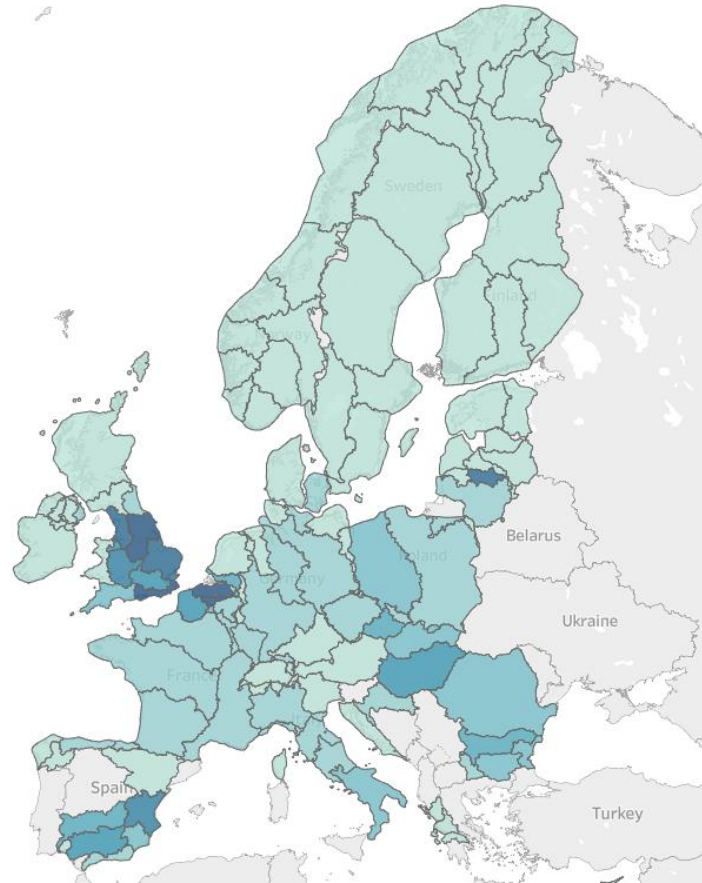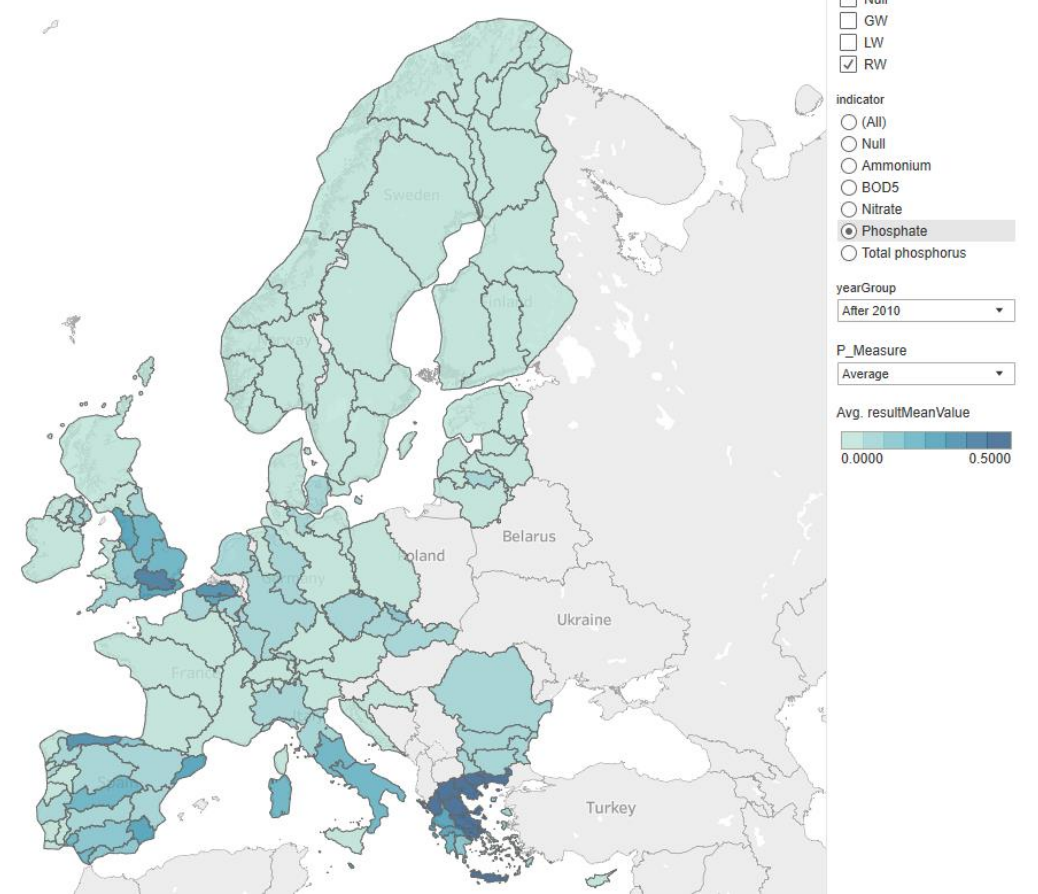
(Draft) Phosphate in rivers. – River Basin Districts in different classes.
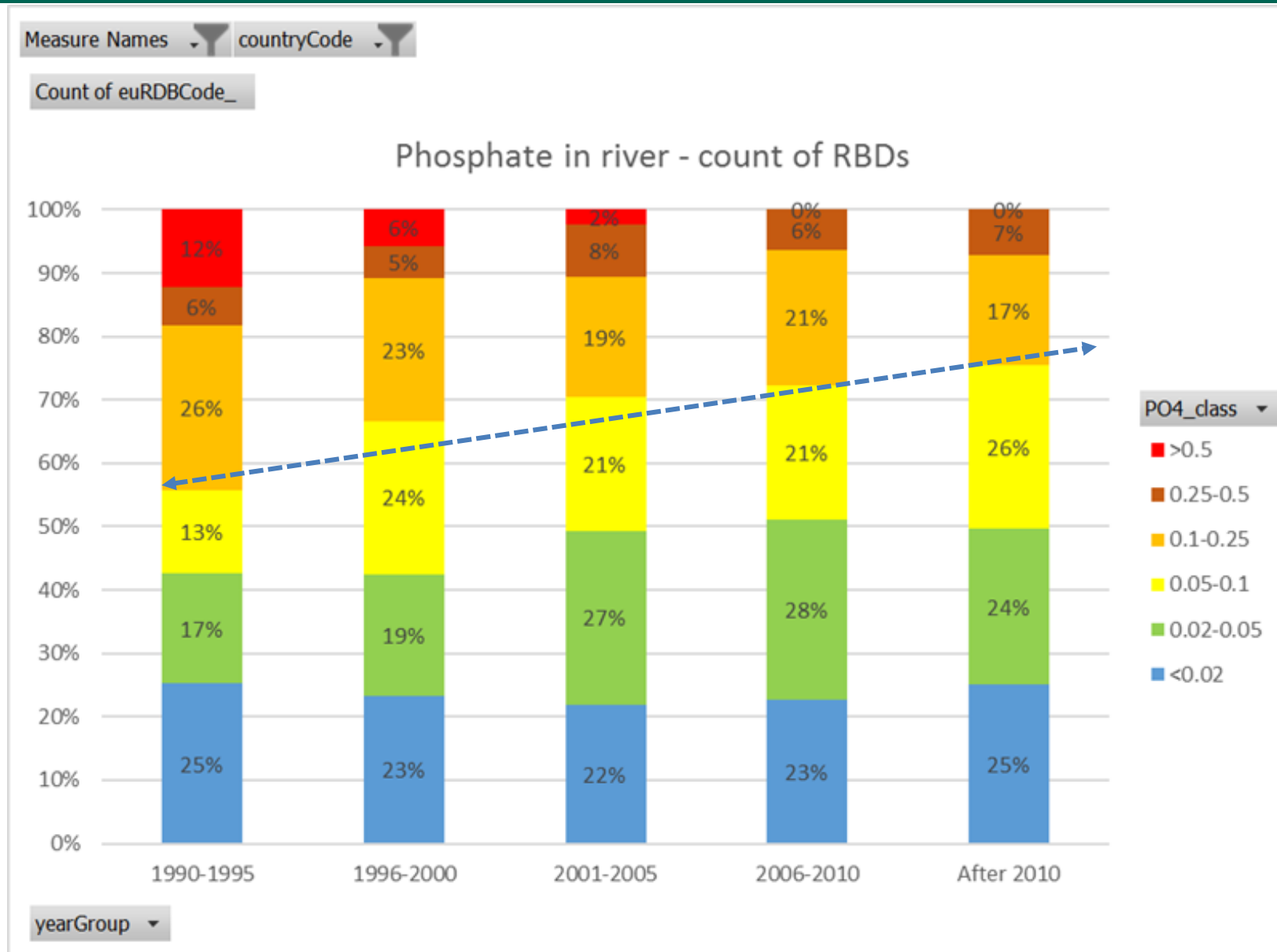
Water quality indicator – change in concentration over time

Nutrients in freshwater in Europe

Phosphate in European rivers

Europe

799

1163

France

171

245
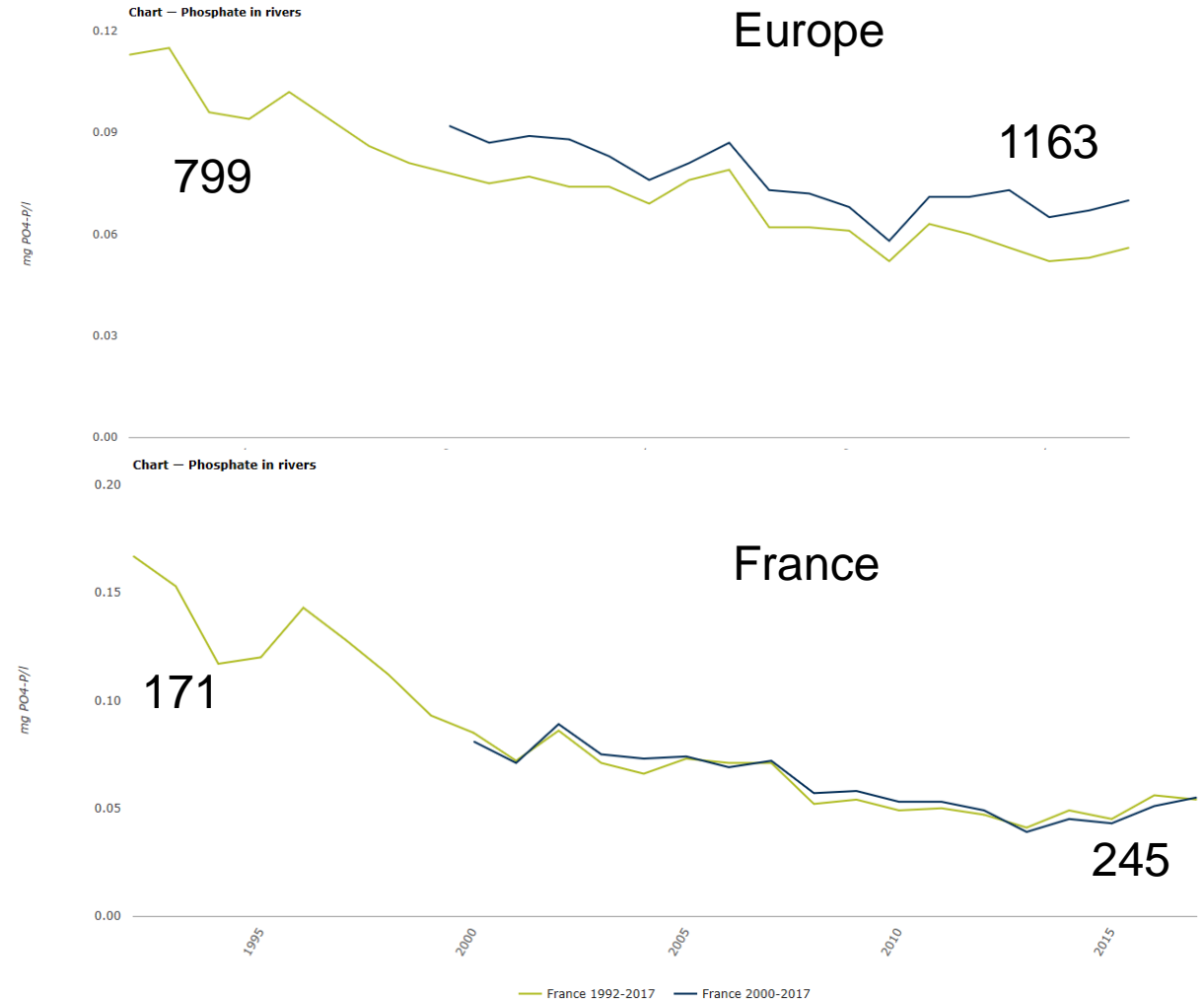
Nutrient trends in European water bodies 1992-2017

Consultation of indicators to start in the beginning of October
Nutrients in freshwater in Europe and Oxygen consuming substances in European rivers

Phosphate in rivers

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Gap filling – consistent time series

In time series 1992-2017 or 2000-2017 gaps in data are filled up to three years.
Either equal to first value at the start or equal to last value at the end; interpolation other gaps

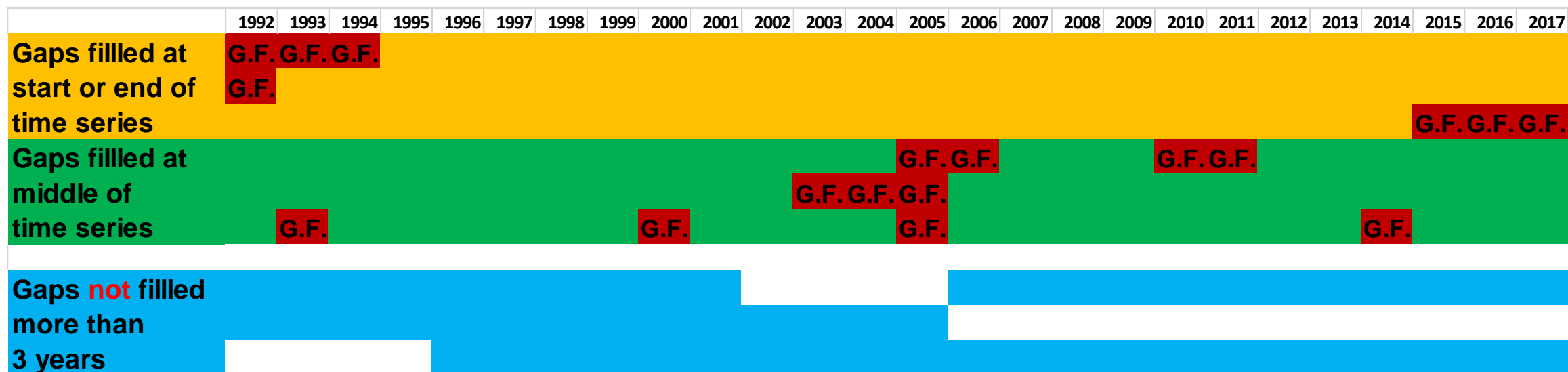|	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Gaps filled at start or end of time series	G.F.	G.F.	G.F.																					G.F.	G.F.	G.F.
Gaps filled at middle of time series		G.F.							G.F.			G.F.	G.F.	G.F.	G.F.			G.F.	G.F.				G.F.			

Gaps not filled more than 3 years

Loosing timeseries

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Future water quality indicators – consistent time series (after gap-filling all years 1992-2017)

[Link]
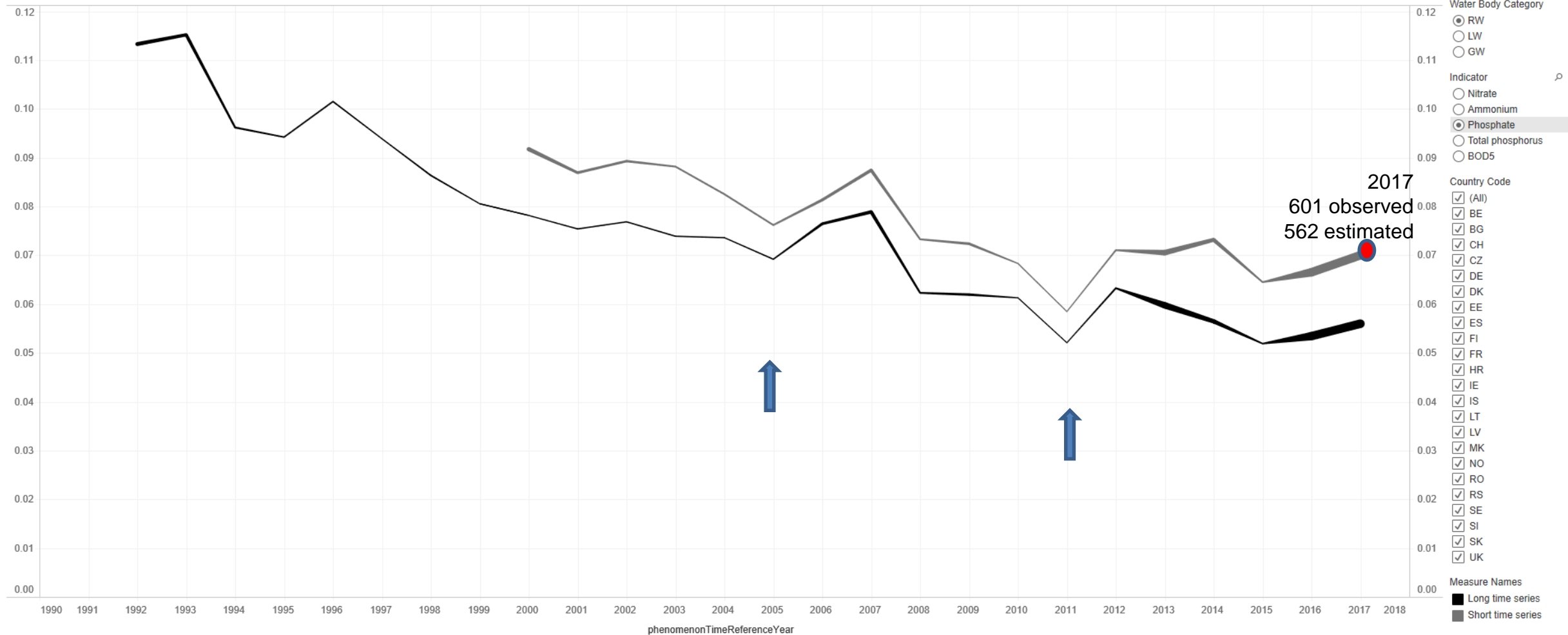
Phosphate in rivers – is it results from one country causing the European variation?

Reporting of phosphate in rivers

Phosphate in rivers - number of monitoring sites

Phosphate in rivers - number of countries reporting

799 sites with consistent time series 1992-2017
1163 sites with consistent time series 2000-2017

18 countries with consistent time series 1992-2017
23 countries with consistent time series 2000-2017

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3. Overview of the 2018 WISE-4 datacall

Overview of the 2018 WISE-4 datacall

- 2013-2018: Start WISE-4, break in reporting 2014-2015.

- Reporting: Water quality rivers, lakes, groundwater, and WFD Watchlist.

- WISE-5 & WFD Spatial

- Waterbase (version 11 – May 2019)

  - Disaggregated data: 34 million records (monitoring site, date, determinands)

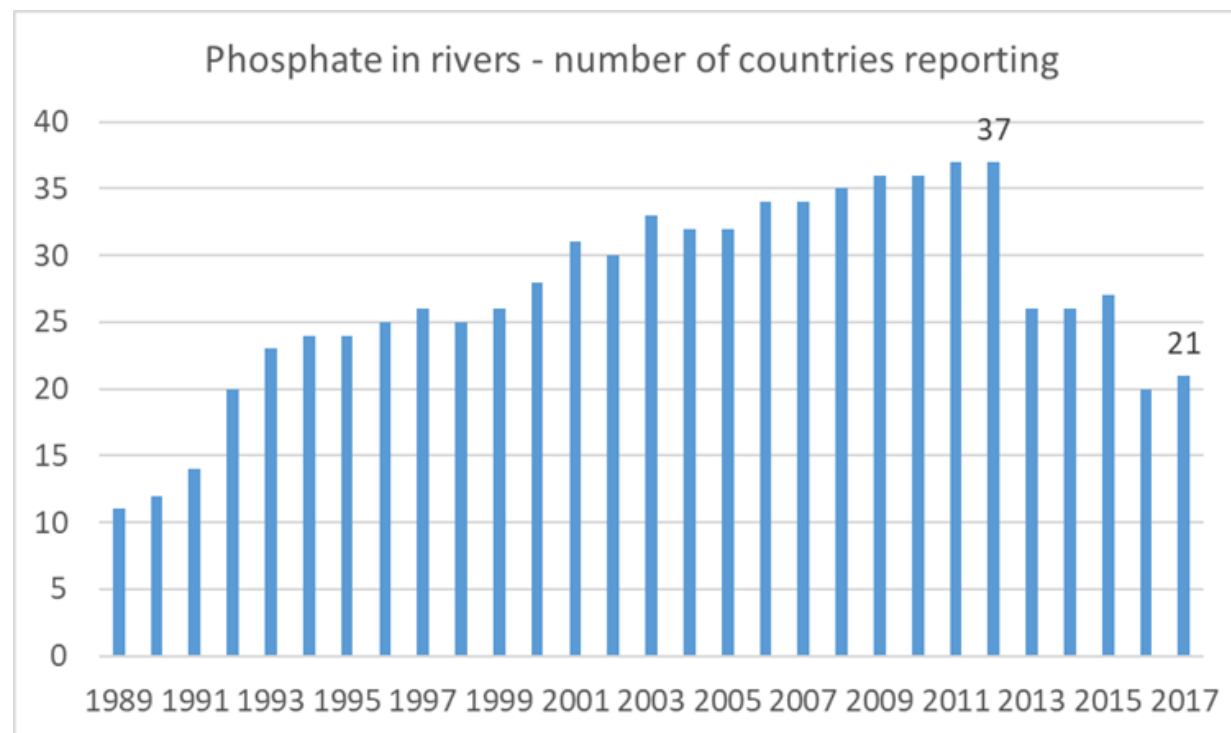 - Aggregated data: 2.3 million records (monitoring site, year, determinands)

- Countries have started 438 Folders; 317 completed; 74 pending correction requested; and 47 in draft (and not released).

- Cleanup: *Folders in draft or correction requested and have been replaced by a new folder with blockers or errors corrected*.

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Overview of the 2018 WISE-4 datacall - examples

	In waterbase			
	GW	**RW**	**LW**	**Missing**
Albania	2013-2014	2013-2014	2013-2014	GW&SW 2015-2017?
Denmark	2013-2017	2013-2017	2013-2014,201'	LW 2015-2016B
Iceland	2013-2017	2013-2017	2013-2017	
Ireland	2013-2015	2013-2015	2013-2015	
Norway		2013-2015	2013-2015	GW 2013-2017?; SW 2016-2017B

Explanations:
- GW&SW 2015-2017? No folder in CDR with 2015-2017 data
- LW 2015-2016B in CDR, but not released due to blockers
- SW 2016-2017B in CDR, but not released due to blockers
- Remark Iceland corrected compared to Webinar presentation

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Feedback on the 2018 WISE-4 datacall – reported 2013-2018 and gaps

In the period 2013-2017 (5 years) EEA countries (39) could have reported groundwater, river and lake data (3) = 568 years/category combinations (as some countries do not report lakes or groundwater)

Country+year+category (GW, RW or LW) - 2013-2017

All 39 countries: 341, 57, 158
All - five countries with no reporting: 341, 57, 83

Legend: ■ in Waterbase ■ Reported after deadline ■ Blocked/drafts ■ Not reported
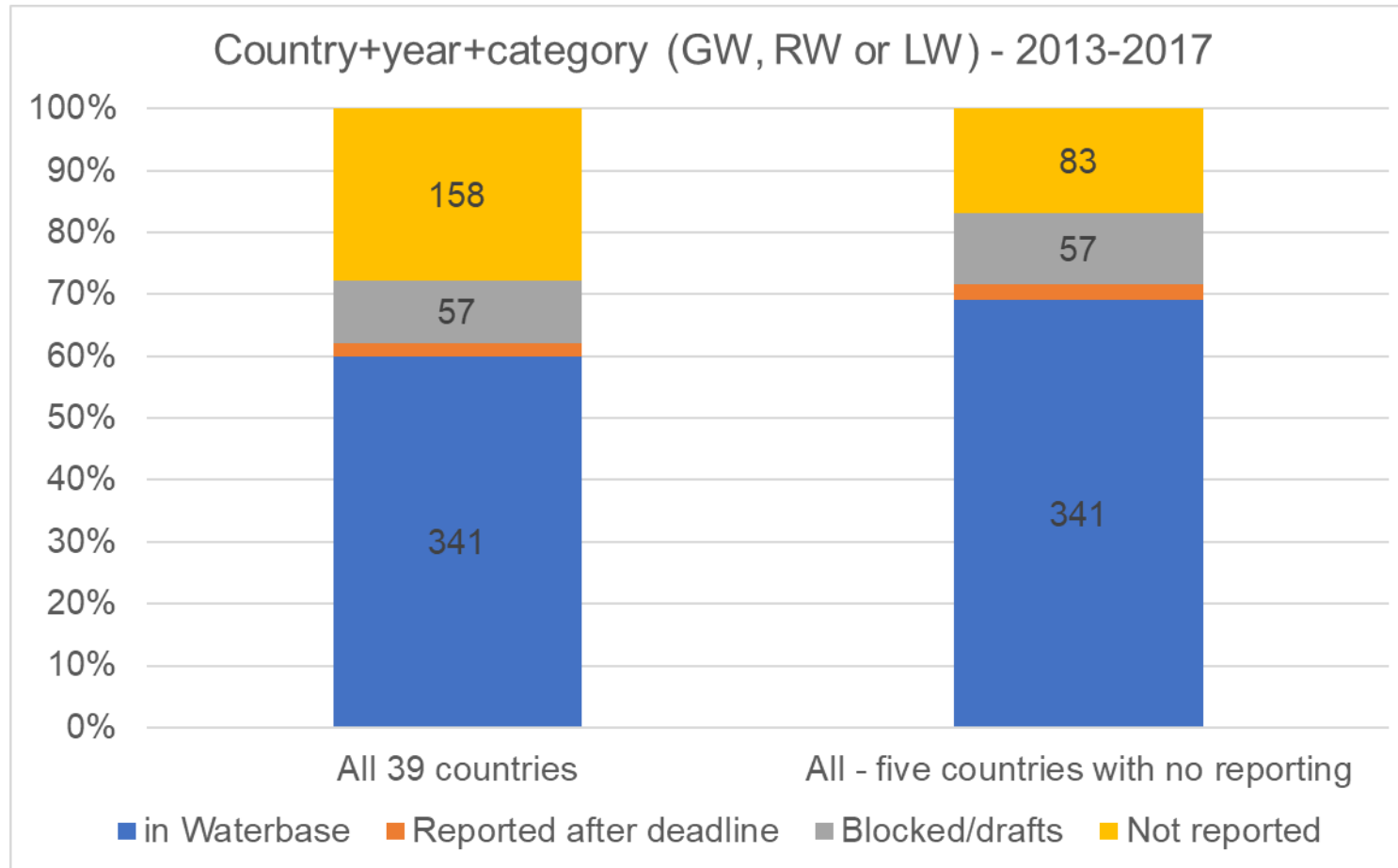
34 countries reported at least one year and category
 5 countries: (Bosnia and Herzegovina, Hungary*, Italy*, Liechtenstein, Luxembourg*) did not report. *Watchlist

Waterbase has been updated with 353 years/category (in Waterbase+after deadline);

57 years/category are in CDR but not harvested due to blockers/correction requested.

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Problems

- Many countries had hard time in reporting, but after correction of errors succeded in releasing the folders and data were harvested and included in Waterbase.

Main issues

- Very large files (in particular after conversion into XML); solution splitting the files in smaller files.
- Released but the QC failed – EEA had problems with the QC in the start of the reporting period.
- BLOCKERS (more details in next sessions):
  - Monitoring sites, determinands etc. not in vocabularies
  - Format errors,
- Some countries have not reported the last 5-7 years.

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Determinands - parameters

Countries reporting	Rivers	Lakes	Groundwater
More than 30	24 (5%)	17 (4%)	9 (2%)
21-30	74 (14%)	28 (6%)	17 (4%)
11-20	100 (19%)	73 (16%)	76 (17%)
6-10	86 (17%)	118 (26%)	82 (19%
Less than 6	229 (45%)	223 49%	253 (58%)
Total no of determinands	513	459	437

	Determinands reported for more than 30 countries
Rivers (24)	Total phosphorus; Phosphate Nitrate; Ammonium; Nitrite; Total nitrogen Dissolved oxygen; Oxygen saturation; BOD5; CODCr; Total organic carbon (TOC) pH; Water temperature; Electrical conductivity Lead; Nickel; Cadmium; Mercury; Copper; Chromium; Zinc; Arsenic; Atrazine; Chlorfenvinphos
Lakes (17)	Total phosphorus; Phosphate Nitrate; Ammonium; Nitrite; Total nitrogen Dissolved oxygen; Oxygen saturation pH; Water temperature; Electrical conductivity Chlorophyll a; Secchi depth Nickel; Lead; Copper; Zinc
Groundwater (9)	Nitrate; Ammonium; Nitrite Dissolved oxygen; Electrical conductivity Lead; Cadmium; Copper; Zinc

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Monitoring of reporting

Example of a countries folder and reporting under WISE 4

Overview   StatusOfDelivery   ListOfEnvelopes

Warning! This is a draft dashboard for internal use. It may be removed or changed without prior notice. Do not link to it in publications or web sites.

WISE: Data deliveries in "All" status

reportingObligation	coverageCo..	coverageName	title	statusInCDR	qcResult	
WISE-4 - Water Quality	DK	Denmark	WISE-4 - watch list 2017	Complete	hasWARNING	🟡
			Wise Soe Wise 4 Groundwater quality 2..	Complete	hasWARNING	🟡
			Wise Soe Wise 4 Groundwater quality 2..	Complete	hasWARNING	🟡
			WISE-4 - Watch list 2018	Complete	hasWARNING	🟡
			WISE-4 - Watch list 2018 - supplement	Complete	hasWARNING	🟡
			Lakes2016	Draft	hasBLOCKER	🔴
			DK_lakes_2017	Complete	hasWARNING	🟡
			WISE SoE - Water Quality (WISE 4) DK G..	Draft	hasBLOCKER	🔴
			EWN rivers nutrients 2016-17	Complete	hasWARNING	🟡
			WISE SoE - Water Quality (WISE 4) DK la..	CorrectionRequest..	isUNKNOWN	⚫
			EWN rivers nutrients 2013-2014	Complete	hasWARNING	🟡
			EWN rivers ecology 2013-2014	Complete	hasWARNING	🟡
			lakes2013-14	Complete	hasWARNING	🟡
			WISE SoE - Water Quality 2016	Complete	hasWARNING	🟡
			WISE SOE Water Quality Groundwater 2..	Complete	hasWARNING	🟡
			EWN rivers ecology 2015	Complete	hasWARNING	🟡
			EWN rivers nutrients 2015	Complete	hasWARNING	🟡
			Lakes2015	Complete	hasWARNING	🟡
			LakeData2015	CorrectionRequest..	hasBLOCKER	🔴
			EWN rivers ecology 2016-17	Complete	hasWARNING	🟡

Quality control results:

🔴 hasBLOCKER

🟡 hasWARNING

⚫ isUNKNOWN

title	statusInCDR	qcResult	
Lakes2016	Draft	hasBLOCKER	🔴
WISE SoE - Water Quality (WISE 4) DK G..	Draft	hasBLOCKER	🔴

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Link

Example of a blocked files and not being harvested and included in Waterbase

Lakes2016

Description	Lake data 2016
Obligations	WISE SoE - Water Quality (WISE-4)
Period	2016 - Not applicable
Coverage	Denmark
Status	Task(s) waiting to be assigned: **Draft**
	The last AutomaticQA run has flagged this envelo

→ **Note**

If you want to stay updated about events in this envelope S
dataflow(s).

Files in this envelope

1. WISE-Soe-WaterQuality_2016.xls — Excel
2. WISE-Soe-WaterQuality_2016_AggregatedData.xml — Conve Water

Remember to release the envelope when you have uploaded all t

Feedback for this envelope

[BLOCKER] AutomaticQA result for file WISE-Soe-WaterQu aggregated-data (Posted automatically on 22 Feb 2019)

- 1. Mandatory values test - OK
- 2. Record uniqueness test - OK
- 3. Data types test - OK
- 4. Valid codes test - WARNING
- 5. Monitoring site identifier format test - OK
- 6. Monitoring site identifier reference test - BLOCKER
- 7. Unit of measure test - OK
- 8. Reference year test - OK
- 9. Sampling period test - OK
- 10. Result values - limits test - OK
- 11. Result values - mathematical relation rules test - OK
- 12. LOQ test - ERROR
- 13. Sample depth test - OK

BLOCKER - some of the monitoringSiteIdentifier values are missing in the reference list.

Denmark – lake monitoring sites with total phosphorus or total nitrogen

Observed Property	Label	Agg_Diss	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CAS_7723-14-0	Total phosphorus	Aggregate	19	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	19	19	15	18	18	18	18			9
EEA_31615-01-7	Total nitrogen	Aggregate	19	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	19	19	15	18	18	18	18			9

2015: data also in a folder, with corection requested

Quality control – 2nd level quality control

Average - Nitrate (mg{N}/L) in RW
number of time series: 46 to 48

Measure Names
- Long time series
- Short time series

phenomenonTimeReferenceYear
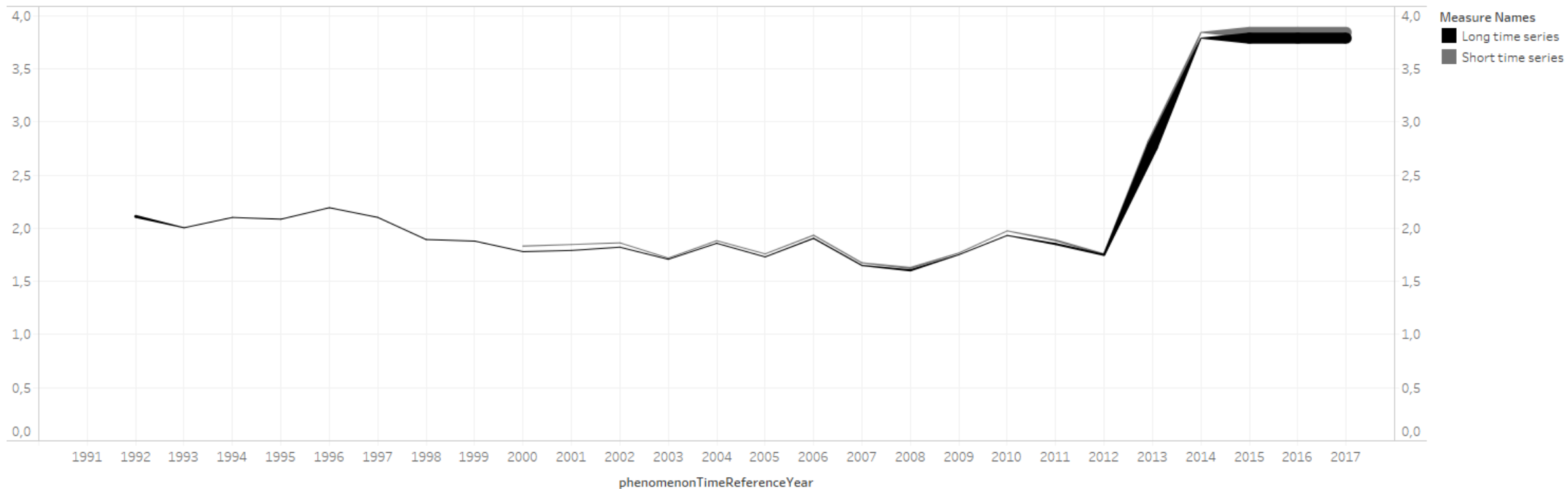
WISE-6 comparison with previous years reported data

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Quality control – 2nd level quality control

Average - Nitrate (mg{N}/L) in RW
number of time series: 5 to 7

phenomenonTimeReferenceYear

Measure Names
■ Long time series
■ Short time series

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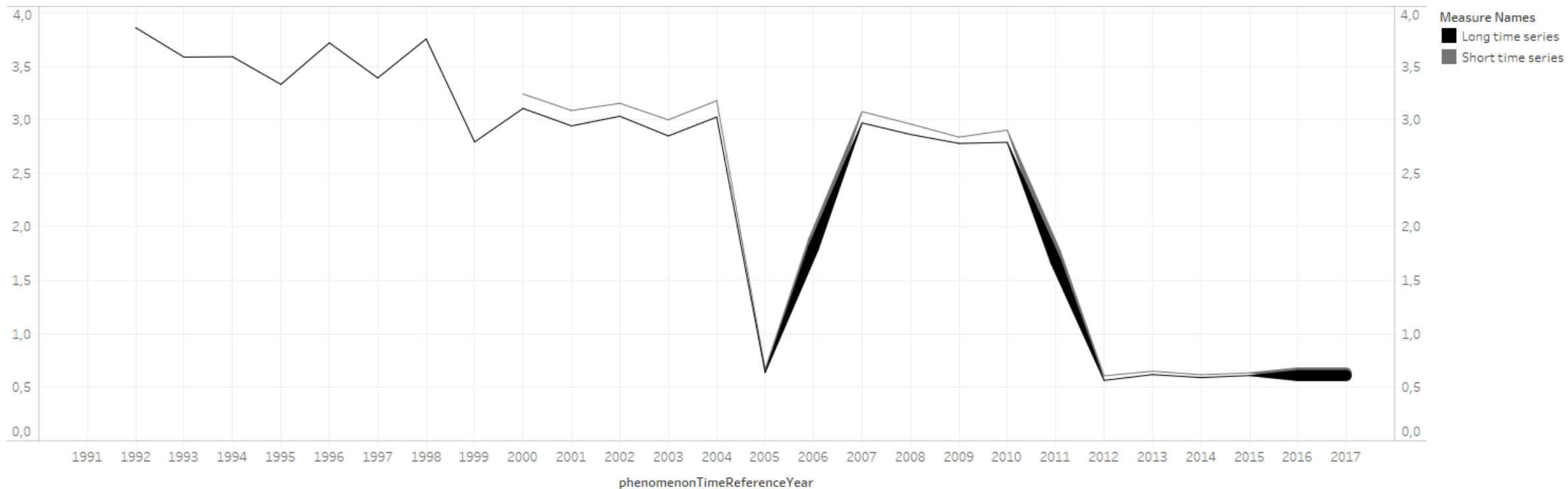
Overview of the 2018 WISE-4 datacall – reported 2013-2018 and gaps

In the period 2013-2017 (5 years) EEA countries (39) could have reported groundwater, river and lake data (3) = 568 (as some do not report lakes or groundwater)
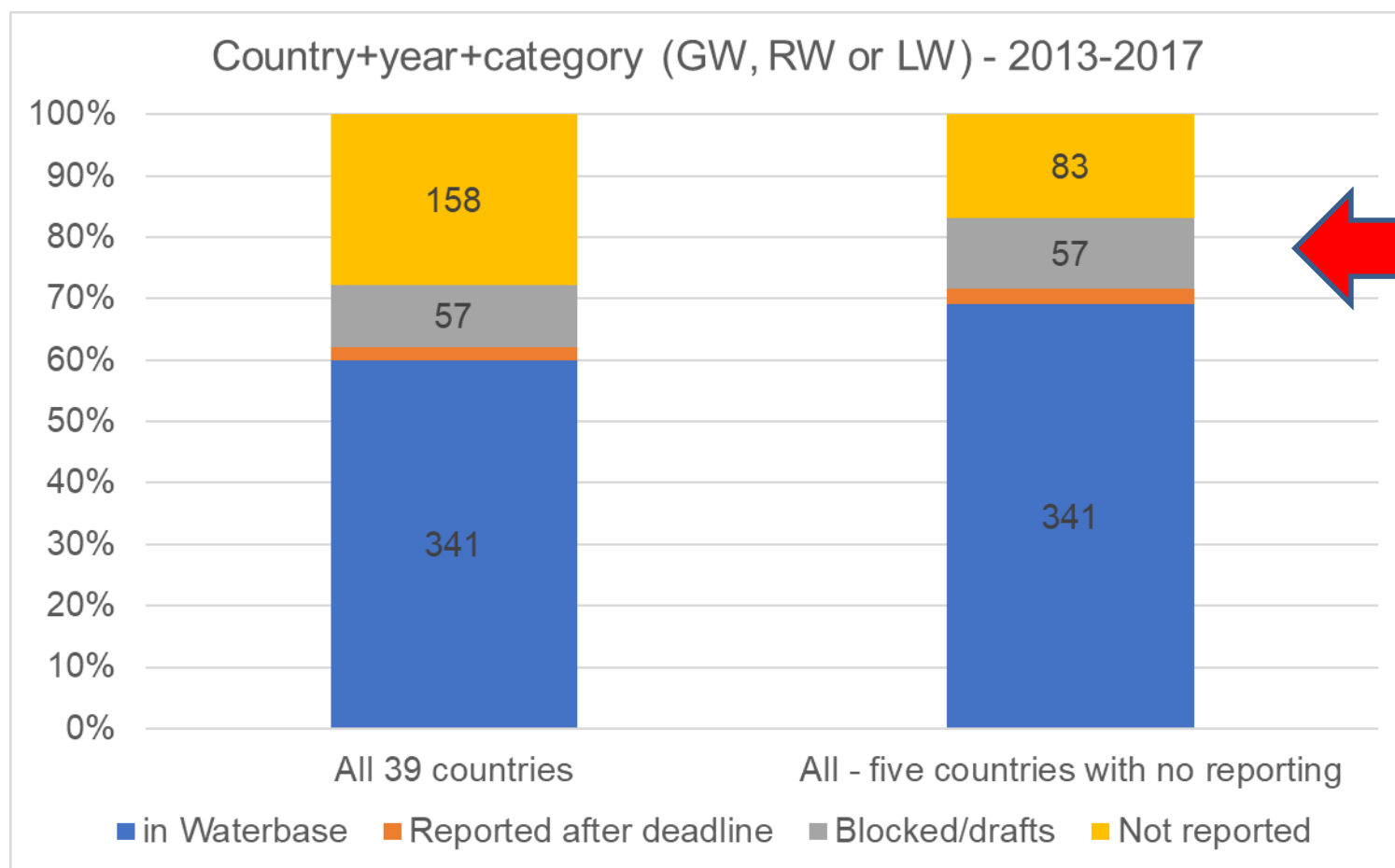
During the 2019 data call there will be focus on solving the problems with the 57 categories/years that are in CDR but either have Blockers or corrections requested,

EEA and helpdesk will be proactive and together with reporters try to solve the problems/issues.

Comments in the chat

4. 2019 WISE-4 and WISE-6 datacall

2019 data call

- This year EEA are launching WISE-6 for water quality, which will be replacing WISE-4 in future years. WISE-6 has a similar structure to WISE-4 but also
  - allows the reporting of concentrations in matrices such as biota and sediment, and
  - with improved performance and better options for feedback on reported data.
  - In the future comparison with previous years.
- Both WISE-4 and WISE-6 will be open this year, giving reporters the option of choosing which dataflow to report water quality data.
- We recommend reporters use WISE-6, but please report data only once, do not duplicate reporting across both.
- EEA's future developments on improvements in reporting and of Quality Controls (QC) and feedback information (dashboards) will be concentrated on WISE-6 water quality.

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2019 data call – WISE-4 & WISE-6

We will present the following:

- WISE-4 and WISE-6 differences
- Preparation of the data set
- WISE SoE helpdesk functions
- Quality controls (warnings, errors, blockers)
- How to solve problems if a file has blockers?
- Release of the folder.

Reading the WISE SoE Reportnet Guidance is a good cookbook for the reporting process - https://cdr.eionet.europa.eu/help/WISE_SoE/wise4/WISE_SoE_ReportnetGuidance_v1.8_2018-10-01.pdf

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2019 data call – two important webpages

https://cdr.eionet.europa.eu/help/WISE_SoE

https://cdr.eionet.europa.eu/help/WISE_SoE/wise4

WISE SoE

The following material is intended for national reporters of WISE SoE data.
It shows how to use Reportnet tools during the reporting process and how to improve the qua

Dataflow specific instructions

- WISE SoE - Emissions (WISE-1)
- WISE SoE - Biological data in rivers, lakes, transitional and coastal waters (WISE-2)
- WISE SoE - Water Quantity (WISE-3)
- WISE SoE - Water Quality (WISE-4)
- WISE - Spatial Data (WISE-5)
- WISE SoE - Water Quality (WISE-6)

WISE dataflows

- WISE SoE Data Flows
- Water Framework Directive
- Floods Directive
- Bathing Water Directive

WISE SoE - Water Quality (WISE-4)

The following material is intended for national reporters of WISE-4 data.
It describes how to use Reportnet during the reporting process and how to improve the quality of del

Dataflow specific instructions

- Reporting obligation
- Data dictionary
- WISE SoE - Water Quality (WISE-4) Reporters
- Reporting guidance for Watch list 2017
- Reportnet Guidance - Units of measure for dioxin-like substances
- Rules for automatic quality control (QC) - Upper and lower limits
- WISE SoE Quality control rules
- WISE SoE Reportnet guidance

WISE-6 (not fully updated)
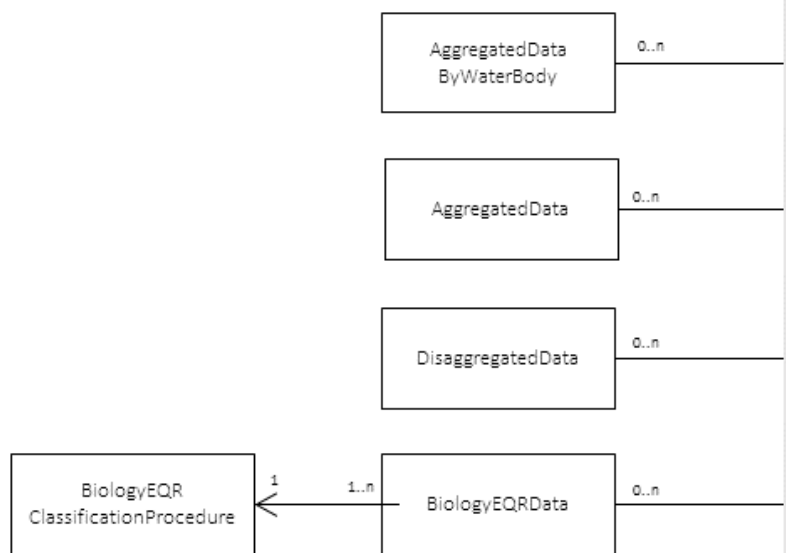https://cdr.eionet.europa.eu/help/WISE_SoE/wise6

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2019 data call - WISE-4 – data dictionary

2019 data call - WISE-6

WISE SoE Water Quality (WISE-~~4~~)

6

WISE Spatial Data (WISE-5)

WFD spatial data

Data dictionary not public yet
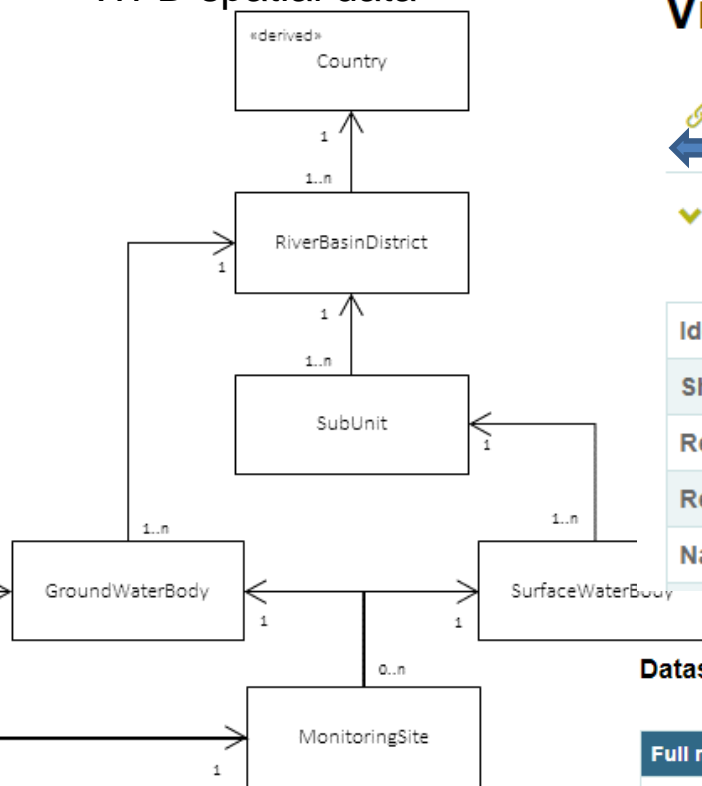
View dataset definition

🔗 Data model 🔗 Tables

⬇ Exports

Identifier	ⓘ	**WISE-SoE_WaterQuality**
Short name	ⓘ	WISE SoE - Water Quality
Registration status	ⓘ	Released 21 November 2017
Reference URL	ⓘ	http://dd.eionet.europa.eu/datasets/latest/WISE-
Name	ⓘ	WISE SoE - Water Quality (WISE-4)

Dataset tables

Full name	Short name
Sample data by monitoring site	DisaggregatedData
Annual statistics data by monitoring sit ...	AggregatedData
Annual statistics data by water body	AggregatedDataByWaterBody
Annual biolog... data by monitoring si ...	BiologyEQRData
Classification proc...re for ecological ...	BiologyEQRClassificationProcedu...

Sediment Biota ✚

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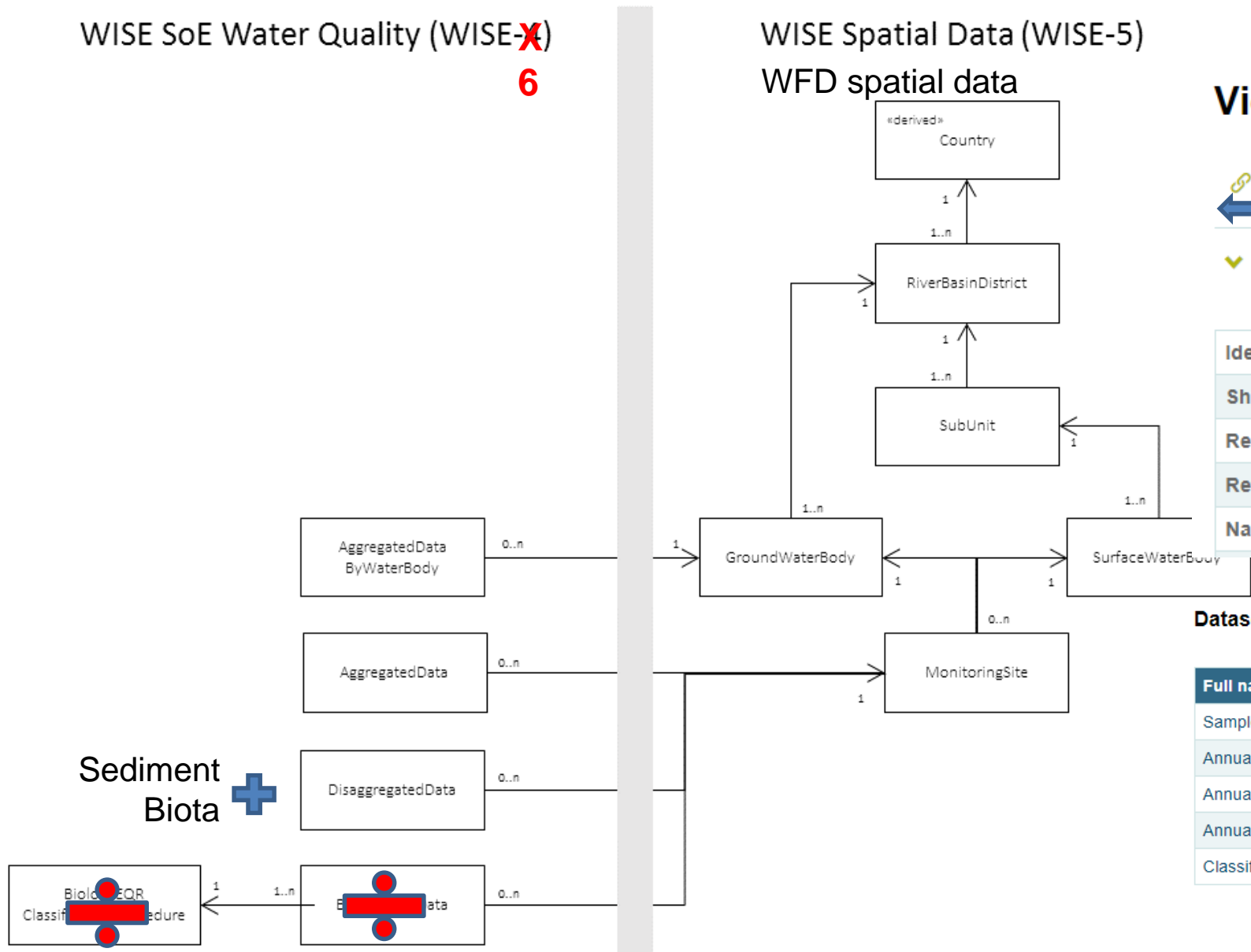
2019 data call – WISE-4 and WISE-6

- **Disaggregated data** (sampling dates); **aggregated data** (annual average); **aggregated by water body**
- **Where** (Monitoring site Identification, category (rivers, lakes, groundwater etc.))
- **When** (sampling date (disaggregated); year (aggregated); groundwater body (year, period))
- **What** (*determinands - parameters*; - observedPropertyDeterminandCode)
- **Result** (*observation*; resultObservedValue (disaggregated); mean, minimum, maximum, number of samples etc. (aggregated))
- **Parameter** (sampledepth; <u>sediment depth; species (biota)</u>)
- **How** (<u>procedureAnalysedMatrix;</u> procedureLOQValue)
- **Obs** (remarks)

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2019 data call – WISE-6 adding pollutants observed in sediment or biota

WISE-6 extra

- **procedureAnalysedMatrix;** Water (Total or dissolved), <u>sediment, biota</u>
- **Sediment/biota**
  - resultMoisture; resultFat; resultLipid and resultExtratableLipid
  - parameterSedimentDepthSampled and parameterSpecies
- observedPropertyDeterminand and UoM (Unit of Measure) codelists updated including information on determinands that can be monitored in sediments or biota; including the range minimum or maximum for limit tests.

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2019 data call – Preparation of the data set and steps

- Using the Data Dictionary http://dd.eionet.europa.eu/datasets/latest/WISE-SoE_WaterQuality

- Export the needed template(s) and codelists (if needed)

- Follow the instructions in the WISE SoE Reportnet Guidance the latest version can always be found here.

- Test your files in the https://cdrsandbox.eionet.europa.eu/
  - Username: datareporter
  - Password: datareporter

- Correct blockers, errors and check warnings – ask the WISE SoE Helpdesk for help

- Upload

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Quality control - 1st level quality control

- 1. Mandatory values test - OK
- 2. Record uniqueness test - OK
- 3. Data types test - OK
- 4. Valid codes test - OK
- 5. Monitoring site identifier format test - OK
- 6. Monitoring site identifier reference test - OK
- 7. Unit of measure test - BLOCKER
- 8. Sampling date test - OK
- 9. Observed value limits test - INFO
- 10. LOQ test - OK
- 11. Sample depth test - OK

	resultUom	Determinand codes (correct UoM)	Number of records
☐	mg{NH4}/l	CAS_14798-03-9 (mg{NH4}/L)	9
☐	mg{N}/l	EEA_31615-01-7 (mg{N}/L)	9
☐	mg{P}/l	CAS_7723-14-0 (mg{P}/L)	9
☐	mmol/l	EEA_3151-01-7 (mmol/L)	9

Document at WISE-SoE help WISE SoE Quality control rules

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2019 data call – Overview and description for the different QC rule categories

- **BLOCKER**. A critical error. <u>The envelope can not be released</u>. Normally, a blocker is an error in the format of the file, or in the structure or content of the data. Such a critical error makes it impossible for the delivery to be harvested and integrated into the European database. The envelope can only be released if every incorrect file is removed and replaced by corrected files

- **ERROR**. A non-critical error. The envelope can be released, but part of its content may be excluded from the European database (or be marked as having low reliability). Data Reporters are strongly advised to correct the non-critical errors. If the automated QC returned errors, a clarification or a resubmission may be requested by the Data Client, when the data is processed, and the final feedback is added to the envelope.

- **WARNING**. An issue that may be an error. Data Reporters are advised to check the correctness of the records or values that raised the warning. The envelope can be released. If the automated QC returned warnings, a clarification may be requested by the Data Client, when the data is processed and the final feedback is added to the envelope.

- **INFO**. Other issues related to the quality of the data. The envelope can be released. A clarification may be requested by the Data Client, when the data is processed and the final feedback is added to the envelope. Note that the observation status and the remarks fields can be used to provide include the clarifications in the delivery itself.

- **OK**. The automatic QC did not detect quality issues. The envelope can be released.

- In addition to the tests described in this document, a result values -**limits test** is implemented in WISE-4&6 (Water Quality). The test checks if the resultObservedValue is within the acceptable value range for each determinand.

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2019 data call – 1. Level qualiy controls

- Mandatory values test. **Tests the presence of the mandatory values,** e.g. monitoringSiteIdentifier, determinandCode, date/year etc.

- Record uniqueness test. **Tests the uniqueness of the records**. **No duplicate records can exist**.

- Data types test. **Tests that the format of reported values matches the Data Dictionary specifications**.

- Valid codes test. **Tests the validity of the values against the respective code lists**.

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2019 data call – 1. Level qualiy controls

Tests the uniqueness of the records. No duplicate records can exist. BLOCKER

Row	monitorin	monitorin	paramete	observedPropertyDetermi	procedureAnalyse	procedure	phenomenonTimeS	paramete	resultUom	resultObs	resultO
2	NL001	eionetMo	GW	CAS_14797-55-8	dissolved	water	5/11/2006	NA	mg{NO3}/	0.062	NA
12	NL001	eionetMo	GW	CAS_14797-55-8	dissolved	water	5/11/2006	NA	mg{NO3}/	0.062	NA
6	NL001	eionetMo	GW	CAS_14797-55-8	dissolved	water	4/26/2010	NA	mg{NO3}/	0.062	NA
13	NL001	eionetMo	GW	CAS_14797-55-8	dissolved	water	4/26/2010	NA	mg{NO3}/	0.062	NA
10	NL001	eionetMo	GW	CAS_14797-55-8	dissolved	water	3/31/2014	NA	mg{NO3}/	0.31	NA
14	NL001	eionetMo	GW	CAS_14797-55-8	dissolved	water	3/31/2014	NA	mg{NO3}/	0.31	NA

Tests that the format of reported values matches the Data Dictionary specifications. BLOCKER

Data Element	Description/Unit	Error	Correct
parameterSampleDepth	Depth at which sample was taken in meter below water surface.	0.3 m	0.3
parameterSampleDepth	Depth at which sample was taken in meter below water surface.	NA	0

parameterSampleDepth

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2019 data call – 1. Level qualiy controls

Tests the validity of the values against the respective code lists. BLOCKER/WARNING

Data Element	Description	Warning	Correct
procedureAnalyticalMethod	CEN/ISO code of the analytical method. See the CEN/ISO code list for suggested values. If the option 'Other analytical method' is used, please describe the method in the field Remarks.	ISO 17993:2003 Link	Other

Reported	Code list Code	Test
EN 12673:1998	EN 12673:1998	TRUE
EN 12918:1999	EN 12918:1999	TRUE
EN 13506:2001	EN 13506:2001	TRUE
EN ISO 10301:1997	EN ISO 10301:1997	TRUE
EN ISO 10695:2000	EN ISO 10695:2000	TRUE
EN ISO 11369:1997	EN ISO 10695:2000	FALSE
EN ISO 11423-1:1997	EN ISO 10695:2000	FALSE
EN ISO 15680:2003	EN ISO 15680:2003	TRUE
EN ISO 18857-1:2006	EN ISO 18857-1:2006	TRUE
EN ISO 5961:1995	EN ISO 5961:1995	TRUE
EN ISO 6468:1996	EN ISO 6468:1996	TRUE
ISO 15586:2003	EN ISO 9963-2:1995	FALSE
ISO 17993:2003	EN ISO 9963-2:1995	FALSE
ISO 18856:2004	EN ISO 9963-2:1995	FALSE

procedureAnalyticalMethod

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2019 data call – Monitoring sites

- Monitoring site identifier format test. Tests the validity of the monitoringSiteIdentifier value format: CountryCode e.g. DK and The identifier value cannot contain punctuation marks, white space or other special characters.

- Monitoring site identifier reference test. Tests the presence of the monitoringSiteIdentifier and its respective monitoringSiteIdentifierScheme in the WISE register. The list has been created from previously reported data on monitoring sites.

6. Monitoring site identifier reference test

Tested presence of the monitoringSiteIdentifier and its respective monitoringSiteIdntifierScheme in the official reference list.

BLOCKER - some of the monitoringSiteIdentifier values are missing in the reference list. Please assure that it is not due to an data reporting.

1 identifiers detected.

[Hide all records]

monitoringSiteIdentifier	monitoringSiteIdentifierScheme	number of records
UKSC335447	euMonitoringSiteCode	17

BLOCKER

Solution update spatial data, or split data set into two one with accepted monSites and one with missing monSites

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2019 data call – Monitoring sites

https://dd.eionet.europa.eu/vocabulary/wise/MonitoringSite

https://cdr.eionet.europa.eu/help/WISE_SoE/wise5

You are here: Eionet » Data Dictionary » Vocabulary

- Help and documentation
- Datasets
- Tables
- Data elements
- Schemas
- **Vocabularies**
- Services
- Namespaces

Vocabulary: *Monitoring sites*

← Back to set   ⌄ Exports

Folder	wise (WISE - Water Information System for Europe)
Identifier	MonitoringSite
Label	Monitoring sites
Base URI	http://dd.eionet.europa.eu/vocabulary/wise/MonitoringSite/
Registration status	Released 11 Sep 2019 11:02:23
Type	Common
License	https://creativecommons.org/publicdomain/zero/1.0/

WISE - Spatial Data (WISE-5)

This data flow includes the EIONET spatial reference datasets relevant for the Water Information System

It follows the same data models used in the Water Framework Directive - River Basin Management Plans

Data Providers not reporting under WFD (e.g. non-EU Member States) are expected to report under WIS

Data Providers reporting under WFD may also use WISE-5 to provide information on **EIONET spatial obj** reporting, although it is expected that this will be an exceptional situation. Please note that:

- It is only necessary to report once (not annually)
- Complete and consolidated national spatial datasets are expected
- WFD spatial objects are never reported under WISE-5
- WFD monitoring sites that are also EIONET monitoring sites are reported under WFD (it is not necessary to report them again under WISE-5)
- Prefilled shapefiles are avaliable in the WISE restricted distribution area.
- A dashboard is available with an overview of information required per country.

Starting with the 2016 Data Call, reporting permissions are managed by the National Focal Points.

Please contact your National Focal Point if you require reporting permissions over CDR.

+330 000 monitoring sites (WFD, Eionet, supercedeeded)
 +21 000 monitoring sites with water quality data

In 2013-2017 more than 600 000 records have been reported with unknown identifier and are therefore not in Waterbasse

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2019 data call – 1. level quality controls

- Unit of measure test. **Tests whether the correct result Uom value has been used for the reported determinand**. The test also detects determinands which are not expected to be reported in this table.
- Sampling date test. **Tests whether the phenomenonTimeSamplingDate value is within the expected range**.
- Observed value limits test. **Tests whether the resultObservedValue value is within the acceptable range for the reported determinand**. E.g. pH greater than 14.
- **LOQ test**. Tests the correctness of the values in the LOQ fields: The procedureLOQValue must be reported for hazardous substances and selected determinands for physicochemical conditions
  - If resultQualityObservedValueBelowLOQ = True then resultObservedValue=procedureLOQValue
- Sample depth test. **Tests the parameterSampleDepth value against the maximum sampling depth value reported for the respective monitoring site**.

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2019 data call – 1. Level qualiy controls

Tests whether the correct result Unit of Measure (Uom) value has been used for the reported determinand.

	resultUom	Determinand codes (correct UoM)	Number of records
☐	mg{NH4}/1	CAS_14798-03-9 (mg{NH4}/L)	9
☐	mg{N}/1	EEA_31615-01-7 (mg{N}/L)	9
☐	mg{P}/1	CAS_7723-14-0 (mg{P}/L)	9
☐	mmol/1	EEA_3151-01-7 (mmol/L)	9

mg{N}/L	CAS_14798-03-9 (mg{NH4}/L) , CAS_14797-55-8 (mg{NO3}/L) , CAS_14797-65-0 (mg{NO2}/L)	56

BLOCKER

mg{NH4}/l ≠ mg{NH4}/L

BLOCKER

mg{N}/L ≠ mg{NO3}/L

	resultUom	Determinand codes (correct UoM)	Number of records
☐	ug/L	CAS_111991-09-4 () , CAS_137641-05-5 () , CAS_142459-58-3 () , CAS_1746-81-2 () , CAS_18691-97-9 () , CAS_2642-71-9 ()	300

Observed property codelist (874 parameters)
(WISE-SoE & WFD monitored substances)

QCCombinationTableDeterminandUom
Only WISE-SoE determinands (509 parameters)

Tests whether the resultObservedValue value is within the acceptable range for the reported determinand.
E.g. pH greater than 14. – WARNING – or BLOCKER

Rules for automatic quality control (QC) - Upper and lower limits (Excel sheet)

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2019 data call – next steps

- [Announcement letter 17 July 2019](#)
- **The call for spatial data (WISE-5) is open from now until October 31st 2019.**
  - **Important to check that the monitoring sites you want to report data from are in the monitoringSite vocabulary http://dd.eionet.europa.eu/vocabulary/wise/MonitoringSite/view**
- **The call for the other WISE dataflows will run from Monday 14th October 2019 until Friday 17th January 2020.**
- **Download templates for data; - test the data set in https://cdrsandbox.eionet.europa.eu/**
- **If there are Blockers that prevent release of the folder**
  - **correct the issues;**
  - **contact the helpdesk for help; or**
  - **split the data set into two files (one data set without Blockers and a separate file with problematic records).**
- **Upload the files to CDR.**

- 1. Mandatory values test - OK
- 2. Record uniqueness test - BLOCKER
- 3. Data types test - BLOCKER
- 4. Valid codes test - WARNING
- 5. Monitoring site identifier format test - OK
- 6. Monitoring site identifier reference test - BLOCKER
- 7. Unit of measure test - OK
- 8. Sampling date test - OK
- 9. Observed value limits test - INFO
- 10. LOQ test - OK
- 11. Sample depth test - OK

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5. 2019 WISE-5 Spatial datacall

Discussion, comments and questions?

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Thanks to Member States, reporters, IT consultants andcolleagues at EEA
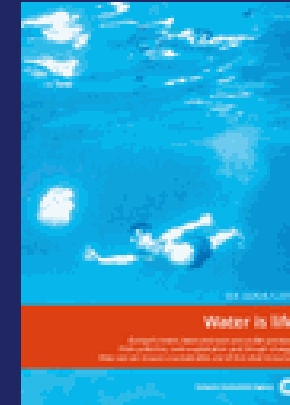
European Environment Agency

Questions

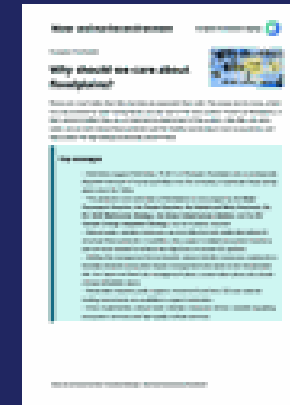European bathing water quality in 2017
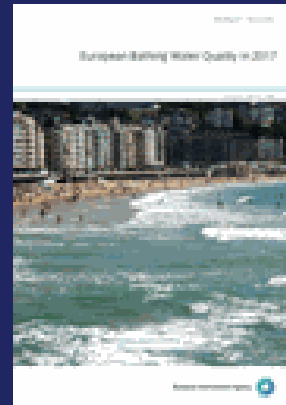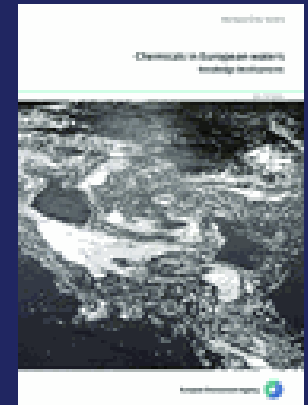
European waters -- Assessment of status and pressures 2018
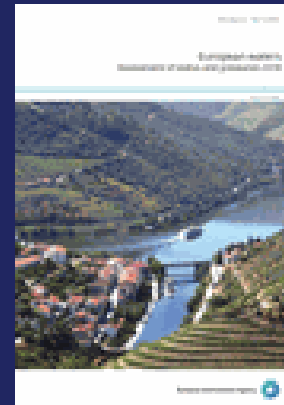
EEA SIGNALS 2018 Water is life

Why should we care about floodplains?

Chemicals in Europe's waters

https://water.europa.eu/
https://www.eea.europa.eu/
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