

Caroline Whalley
21/06/18
Galway

European waters

Assessment of status and pressures 2018



Introduction to the EEA

- EEA aims to support sustainable development and to help achieve significant and measurable improvement in Europe's environment through the provision of timely, targeted, relevant and reliable information to policy makers and the public.
- Independent EU agency
- Analyse, assess and provide information
- Interface between science and policy
- Dependent upon strong networks to carry out our work.



Progress update

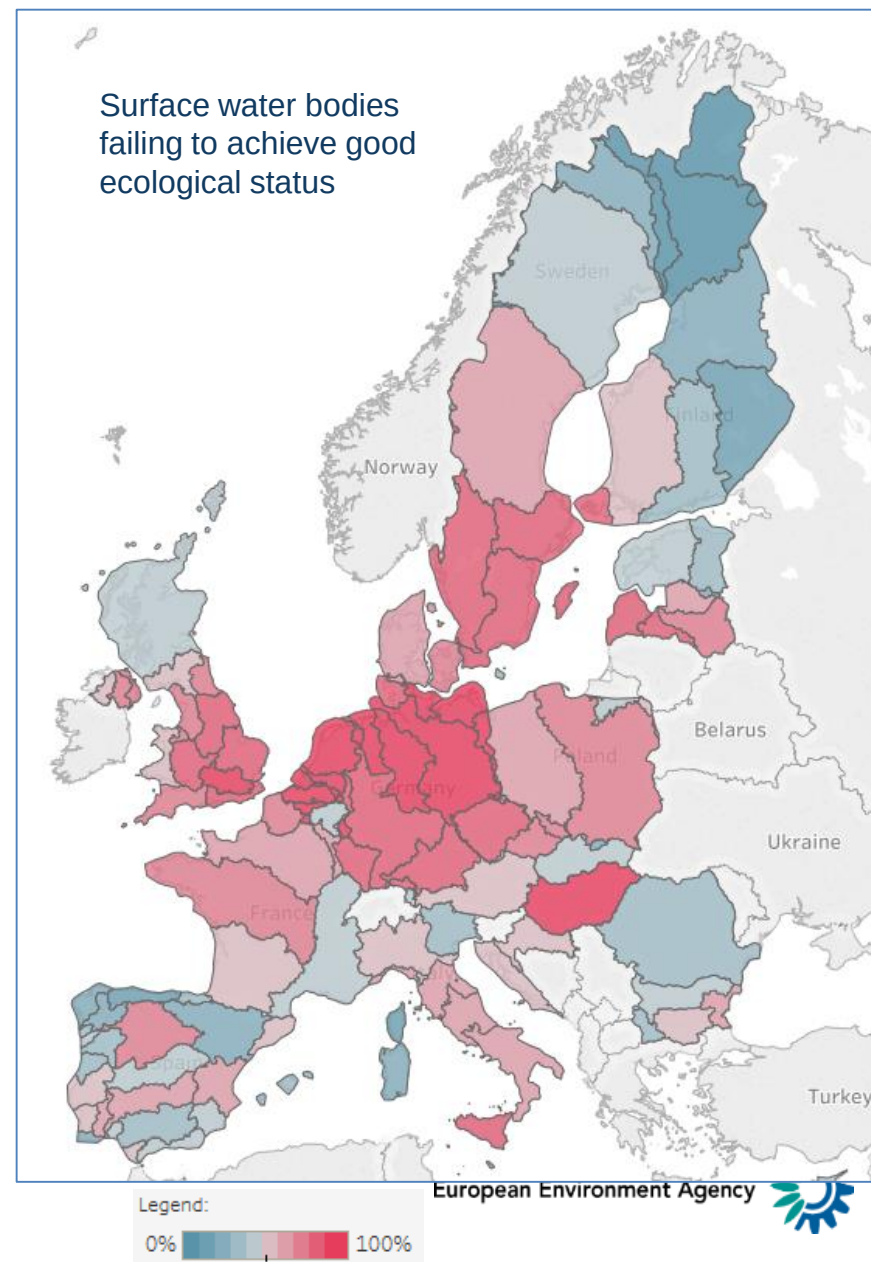
- EEA assessment to be published 3rd July
 - Considers data reported by 25* Member States (Greece, Ireland and Lithuania, plus Norway, to report)
- Commission's compliance report launch expected at Vienna water conference 20-21 Sept

*Overall percentages may change as more data come in

RBMP assessment contents

- Status of European waters
- Pressures causing less than good status
- Progress achieved in the 1st River Basin Management Plan cycle (2010-2015)

[link](#)



WFD reporting - baseline (25 Member States)



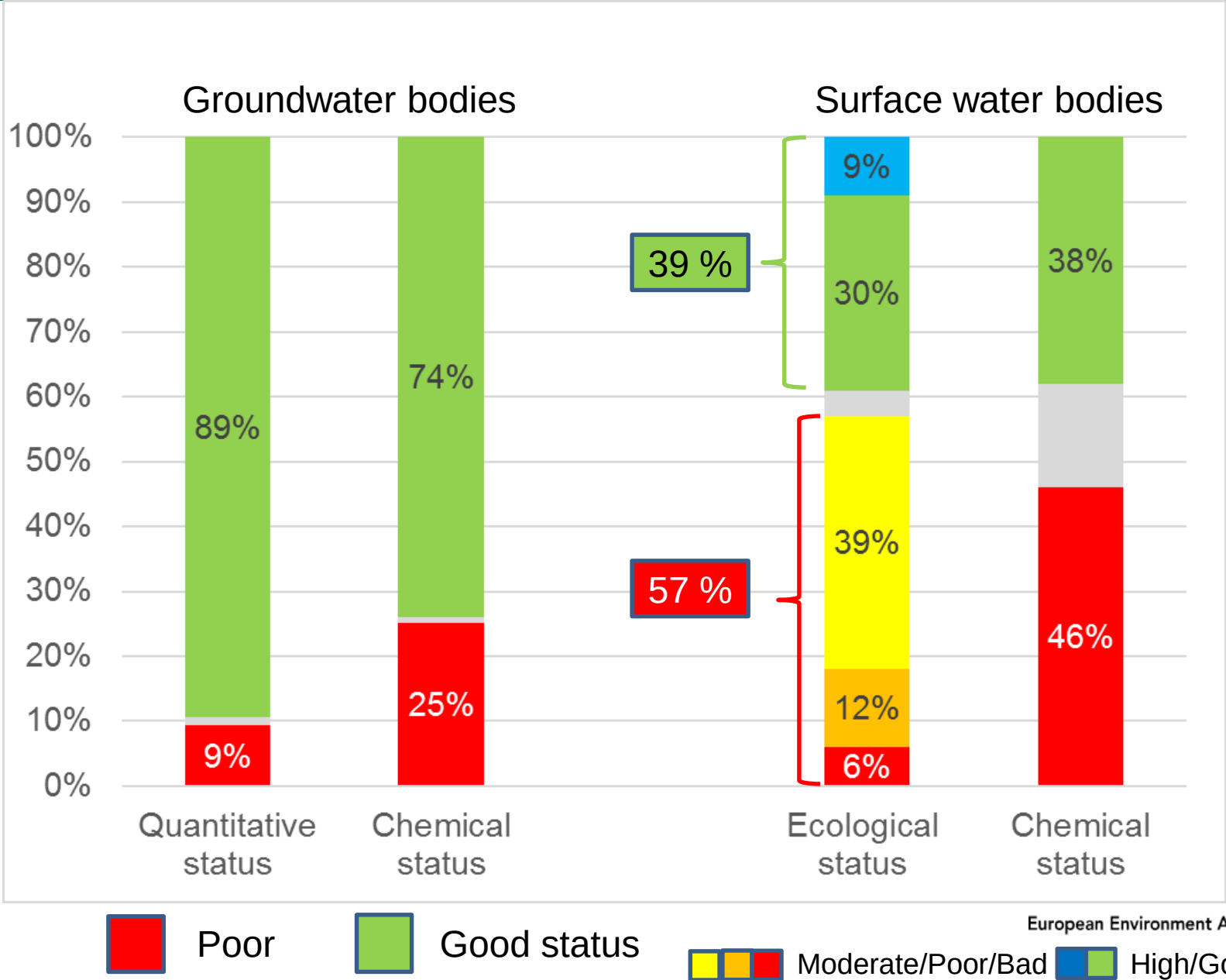
- **160 RBDs**
- **89 000 river water bodies** - 1.2 million km – average length 13 km
- **18 165 lake water bodies** – 2/3 from Sweden and Finland - average area 4.9 km²
- **782 transitional water bodies** - mean area 19 km²
- **2835 coastal water bodies** - mean area 102 km²
- **46 territorial waters**
- **13 400 groundwater bodies** - 4.3 million km²



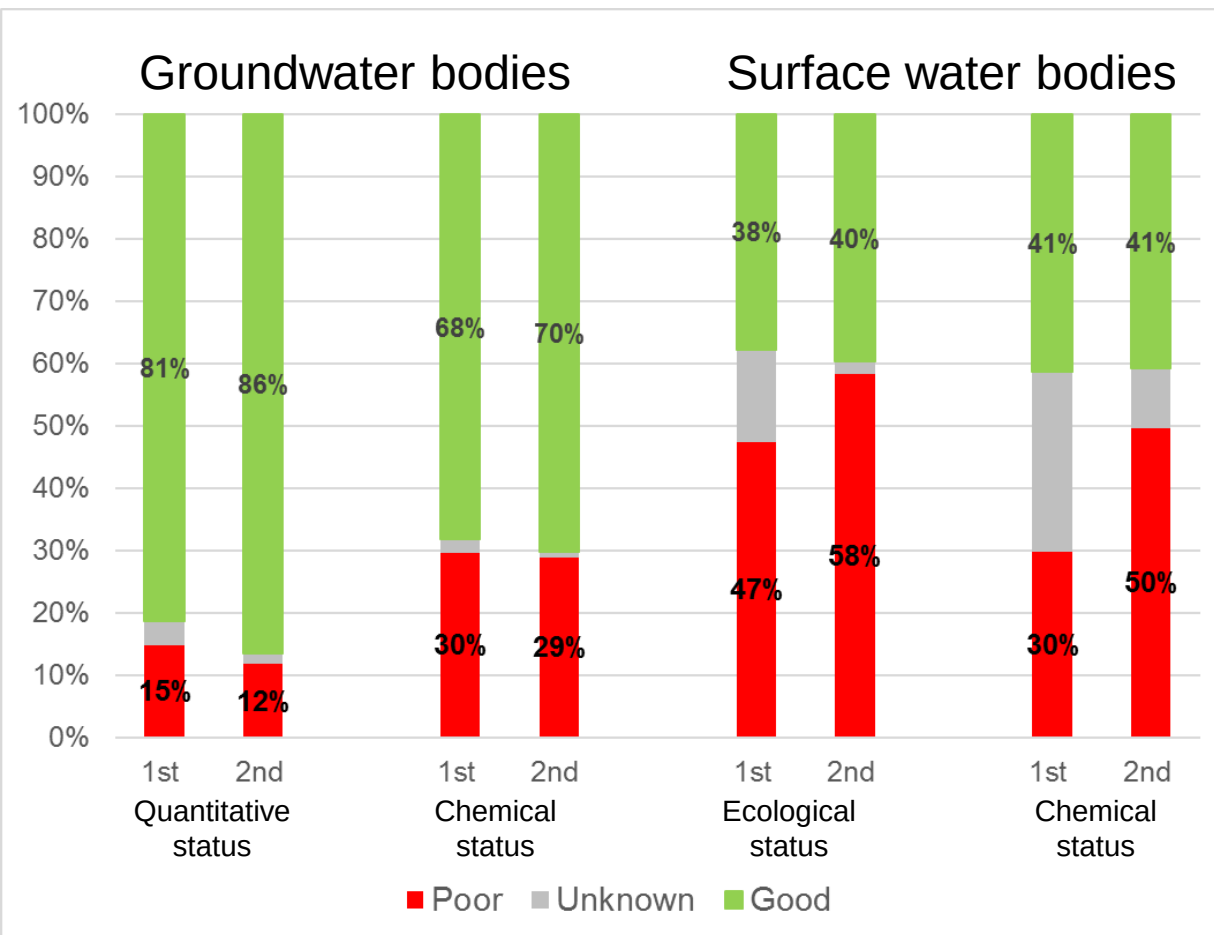
In summary...

- Improved understanding: status, pressures and measures.
- Groundwaters in best status: 74% area in good chemical status; 89% in good quantitative status.
- Surface waters: 40% in good ecological status; 38% in good chemical status.
- European waters remain under pressure from: water pollution, over-abstraction and physical change (hydromorphology).

Status of groundwater and surface waters



Change in status from 1st to 2nd RBMPs



Limited change in status - most water bodies have same status in both cycles.

Proportion of water bodies with unknown status has decreased.

Improvements visible at level of individual quality elements and pollutants.

Remark: % for status in 2nd RBMPs in previous are slightly different as only water bodies available in both periods are compared.



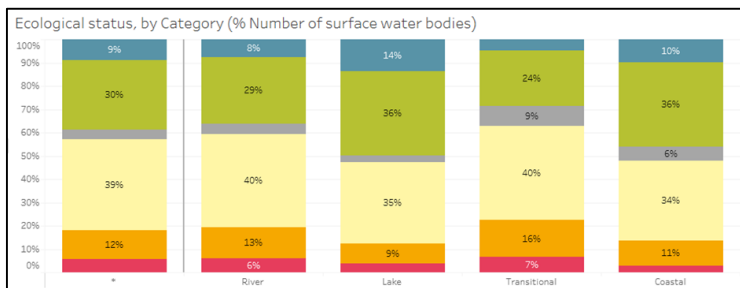
© Peter Kristensen

WISE-Freshwater WFD

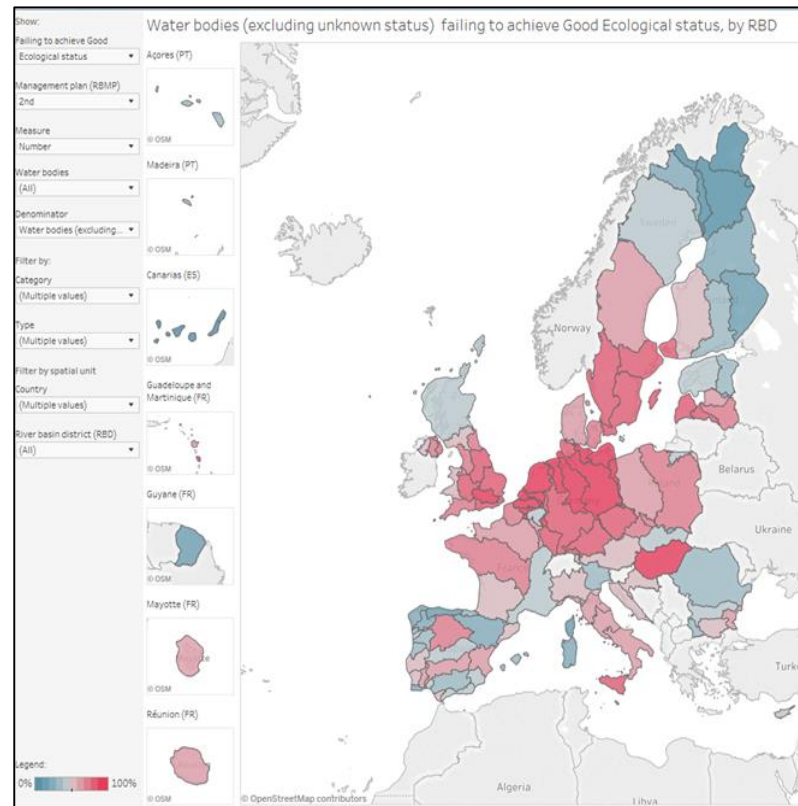
Tables

Show:	RBMP	Number		% Number (para)		Length		% Length (para)		Area	
		Good	Failing to achi.	Good	Failing to achi.	Good	Failing to achi.	Good	Failing to achi.	Good	Failing to achi.
Management plan (RBMP)	2nd	42 065	50 566	45,2%	54,8%	630 058	380 680	62,3%	37,7%	241 992	193 423
Water bodies											
Filter by:	NUTS2	Number		% Number (para)		Length		% Length (para)		Area	
		Good	Failing to achi.	Good	Failing to achi.	Good	Failing to achi.	Good	Failing to achi.	Good	Failing to achi.
Chemical status (Multiple values)	AT	8 127		100,0%		32 278		100,0%		522	
	BE	12	541	2,2%	97,8%	9 346		100,0%		14	1 501
	BG	322	25	92,8%	7,2%	22 358	1 940	92,0%	8,0%	512	254
	CY	173	7	96,1%	3,9%	1 550	61	96,3%	3,7%	870	
	CZ	768	345	68,8%	31,2%	11 759	6 343	65,0%	35,0%	203	60
	DE	9 808		100,0%		137 160		100,0%		26 179	
	DK	72	62	53,7%	46,3%	38	150	20,1%	79,9%	22 245	4 374
	EE	78	15	83,0%	17,0%	1 783	53	97,1%	2,9%	12 196	11 000
	ES	4 476	329	93,2%	6,8%	79 735	5 912	92,8%	7,2%	15 168	787
	FI	3 366	3 440	49,5%	50,5%	24 906	10 848	69,7%	30,3%	51 636	9 697
Filter by spatial unit:	FR	7 181	1 814	79,8%	20,2%	146 560	38 071	79,4%	20,6%	27 213	3 560
	HR	1 443	129	91,6%	8,4%	17 338	1 736	90,9%	9,1%	13 211	852
	HU	493	84	85,4%	14,6%	9 891	2 759	78,2%	21,8%	746	131
	IT	6 152	733	89,4%	10,6%	59 456	7 008	89,5%	10,5%	11 447	5 029
	LU		110		100,0%	1 214			100,0%		
	LV	50	22	69,4%	30,6%	1 656	453	78,5%	21,5%	156	2 398
	MT	10	9	52,6%	47,4%	9	9	100,0%		0	399
	NL	279	366	43,1%	56,9%	1 570	2 685	37,8%	62,2%	379	5 934
	PL	3 331	1 489	69,1%	30,9%	75 326	36 071	67,6%	32,4%	1 573	831
	PT										

Graphs



Interactive maps



Over 150 such “dashboards” are available

WISE-Freshwater WFD - Template for tables

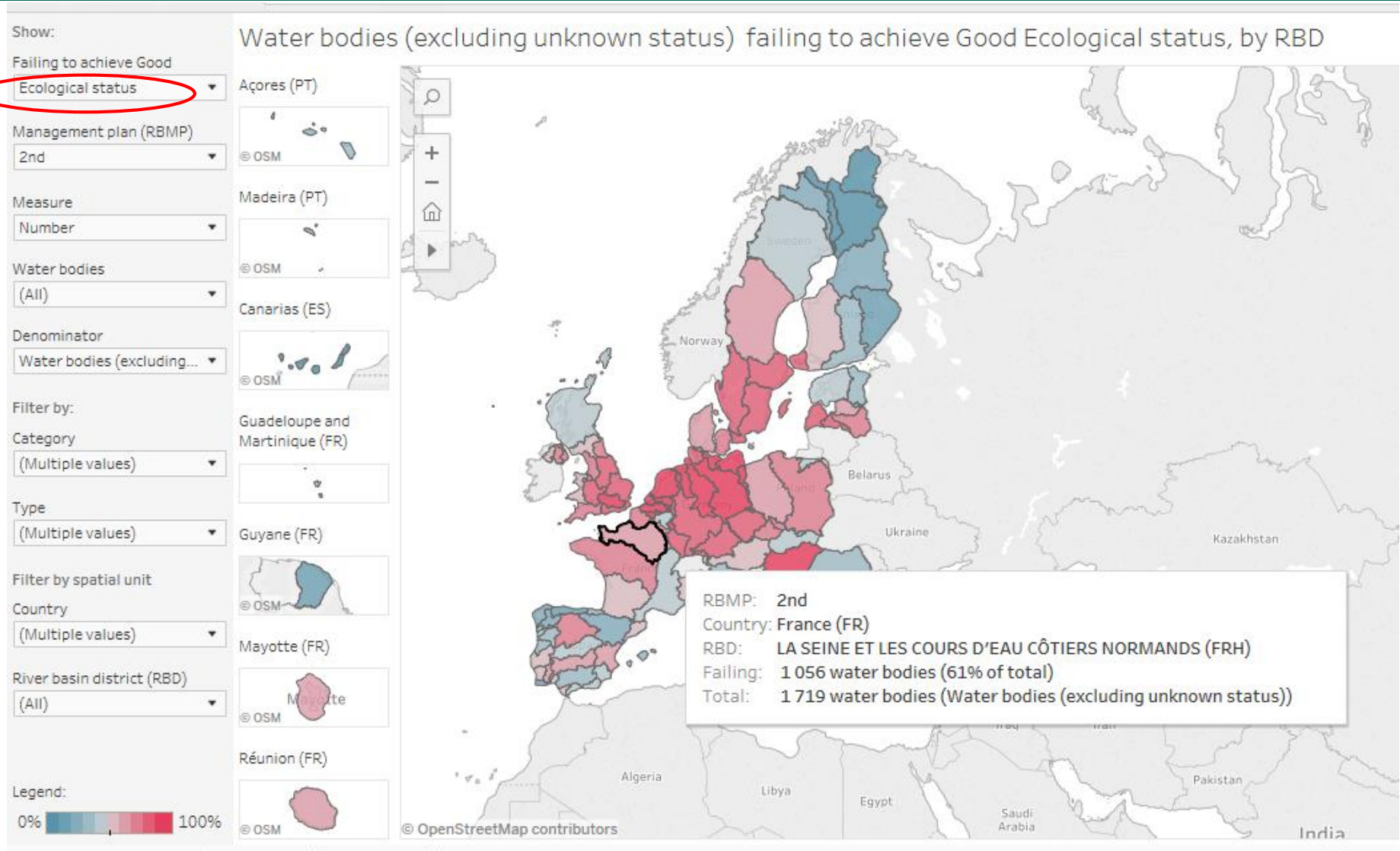
Surface water bodies: Number or Size, by Category												
Management plan (RBMP)	River		Lake		Transitional		Coastal		Territorial		Unpopulated	
2nd	total	% (col)	total	% (col)	total	% (col)	total	% (col)	total	% (col)	total	% (col)
2nd	89 097	100,0%	18 153	100,0%	782	100,0%	2 830	100,0%	45	100,0%	43	100,0%
Measure	River		Lake		Transitional		Coastal		Territorial		Unpopulated	
Number	total	% (col)	total	% (col)	total	% (col)	total	% (col)	total	% (col)	total	% (col)
Water bodies	NUTS02											
AT	8 065	9,1%	62	0,3%								
BE	527	0,6%	18	0,1%	6	0,8%	2	0,1%	1	2,2%		
BG	873	1,0%	37	0,2%	28	3,6%	17	0,6%				
CY	174	0,2%	8	0,0%			22	0,8%				
CZ	1 044	1,2%	77	0,4%								
DE	8 998	10,1%	730	4,0%	5	0,6%	75	2,7%				
DK	7 776	8,7%	856	4,7%					14	31,1%		
EE	645	0,7%	89	0,5%			119	4,2%	2	4,4%		
ES	4 390	4,9%	326	1,8%	186	23,8%	220	7,8%			40	93,0%
FI	1 913	2,1%	4 617	25,4%			276	9,8%				
FR	10 706	12,0%	435	2,4%	94	12,0%	179	6,3%				
HR	1 484	1,7%	37	0,2%	25	3,2%	26	0,9%				
HU	963	1,1%	115	0,6%								
IT	7 493	8,4%	347	1,9%	172	22,0%	561	19,8%	8	17,8%		
LU	110	0,1%										
LV	203	0,2%	259	1,4%	3	0,4%	5	0,2%				
MT	3	0,0%	2	0,0%	5	0,6%	9	0,3%				
NL	246	0,3%	451	2,5%	5	0,6%	9	0,3%				
PL	4 586	5,1%	1 044	5,8%	9	1,2%	10	0,4%				

Notes

- 1) River basin districts and sub-units as reported in the 2nd RBMPs.
- 2) For river water bodies, the size value is the length (km). For other water body categories, the size value is the area (km²).
- 3) 'Unchanged' water bodies are water bodies that have not been redelineated between the 1st and 2nd RBMP.



WISE-Freshwater WFD - [Surface water bodies RBD fail GES](#)



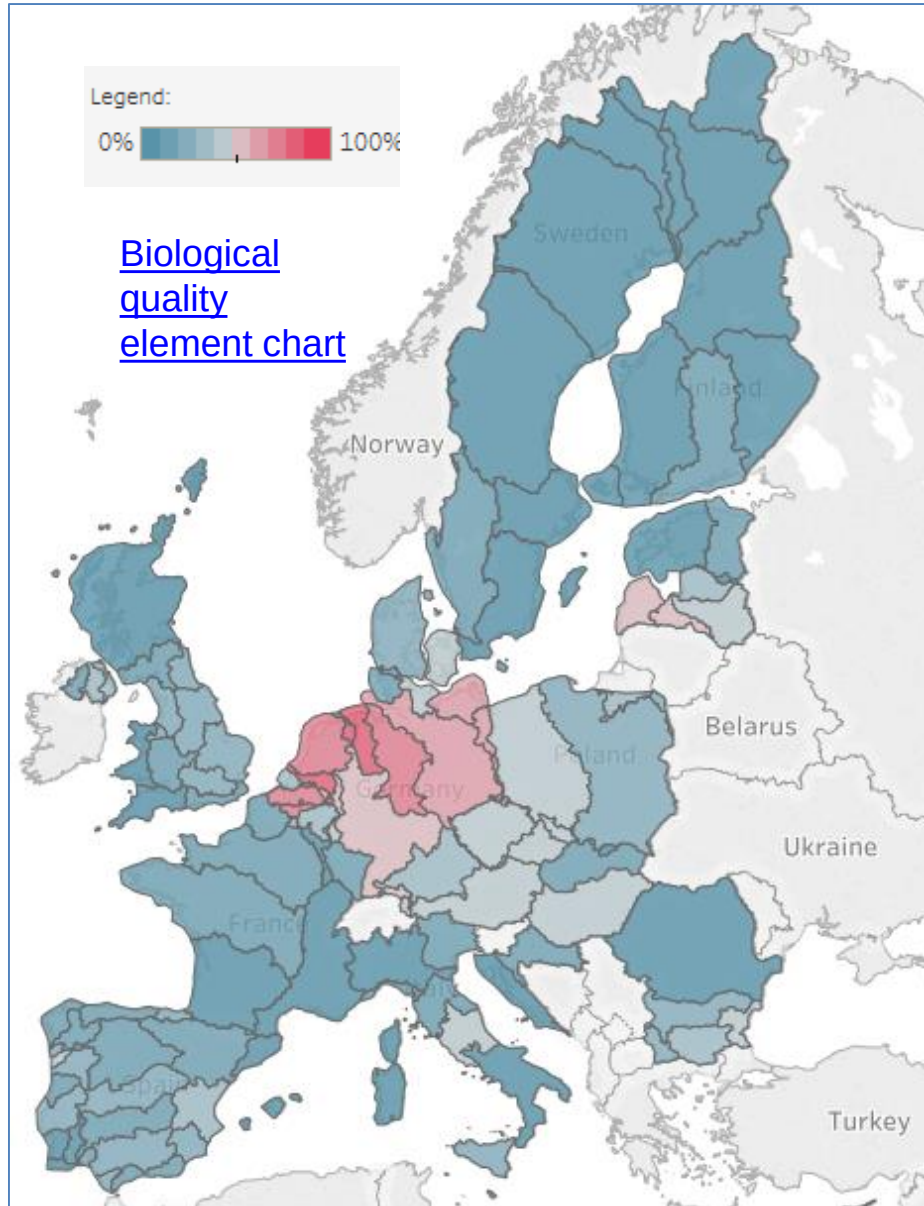
Note: Select ecological status

Biological quality element – benthic invertebrates

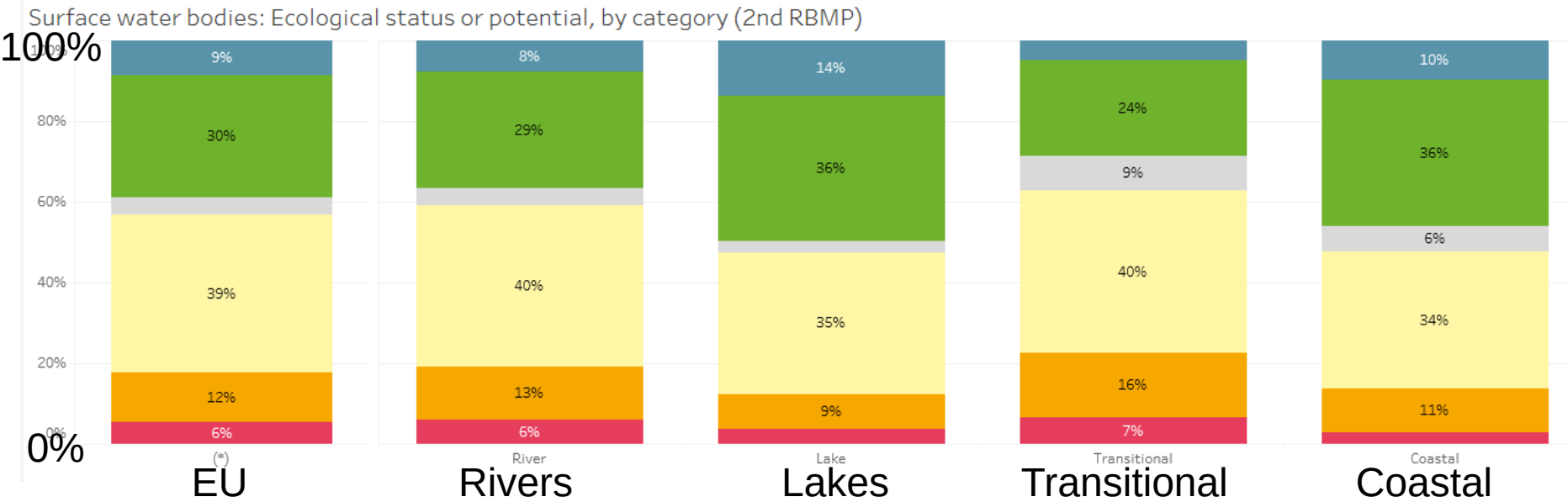


river.bio.auth.gr

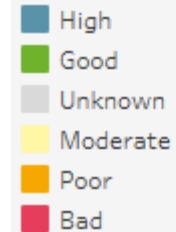
[Biological quality elements by country](#)



WISE-Freshwater WFD – Ecological status

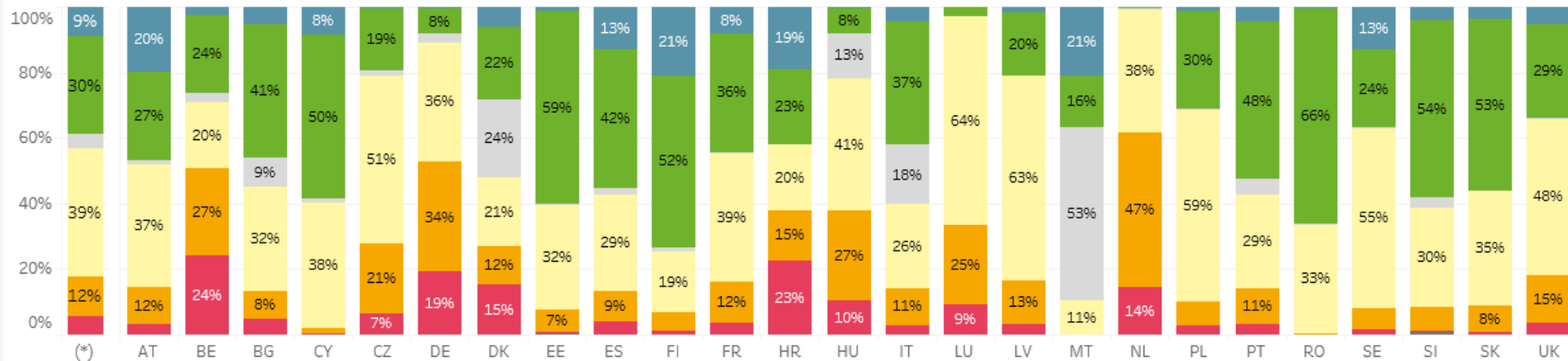


Ecological status or potential

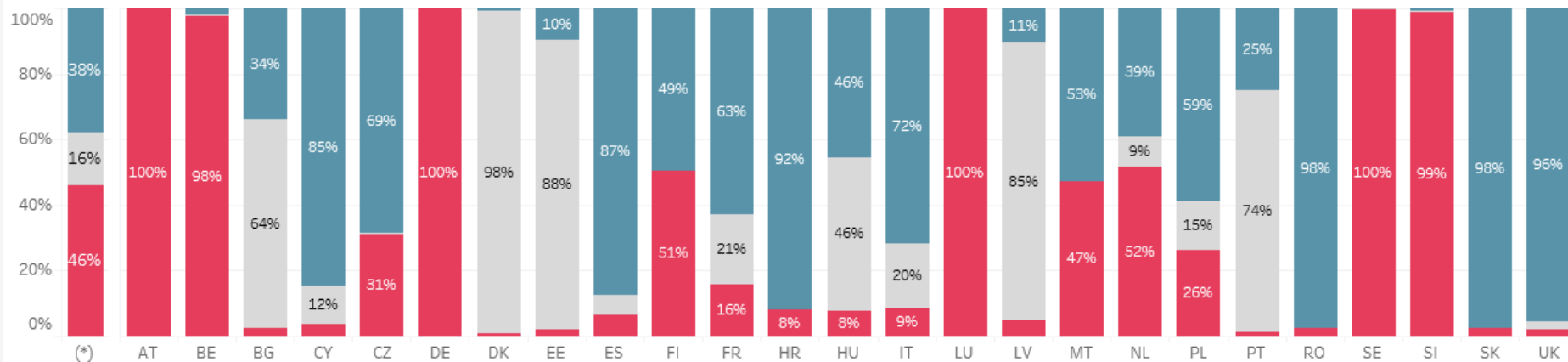


WISE-Freshwater WFD - [Surface water bodies: status_country](#)

Surface water bodies: Ecological status or potential, by country



Surface water bodies: Chemical status, by country

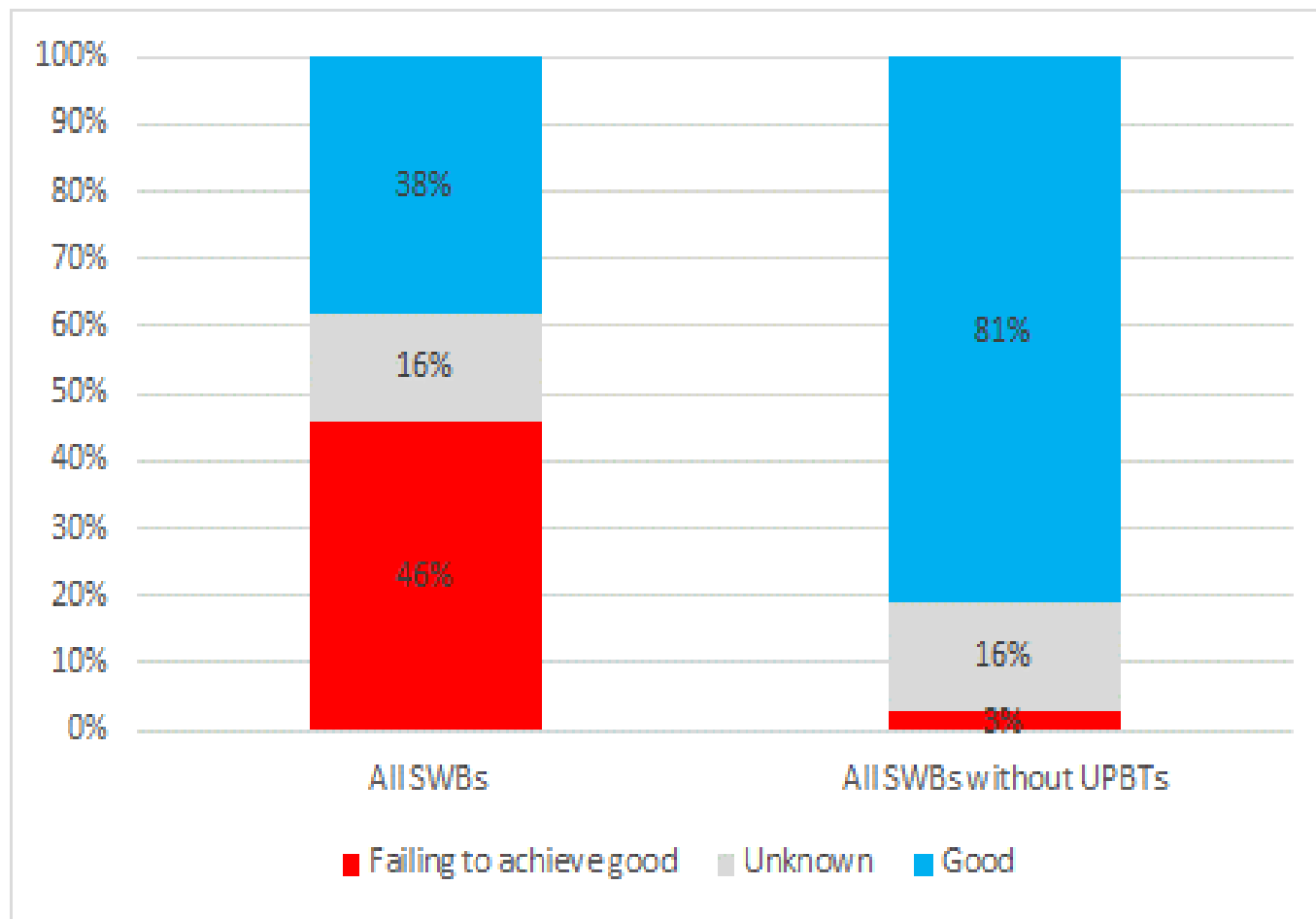


Revert Refresh Pause

Share Download Full Screen



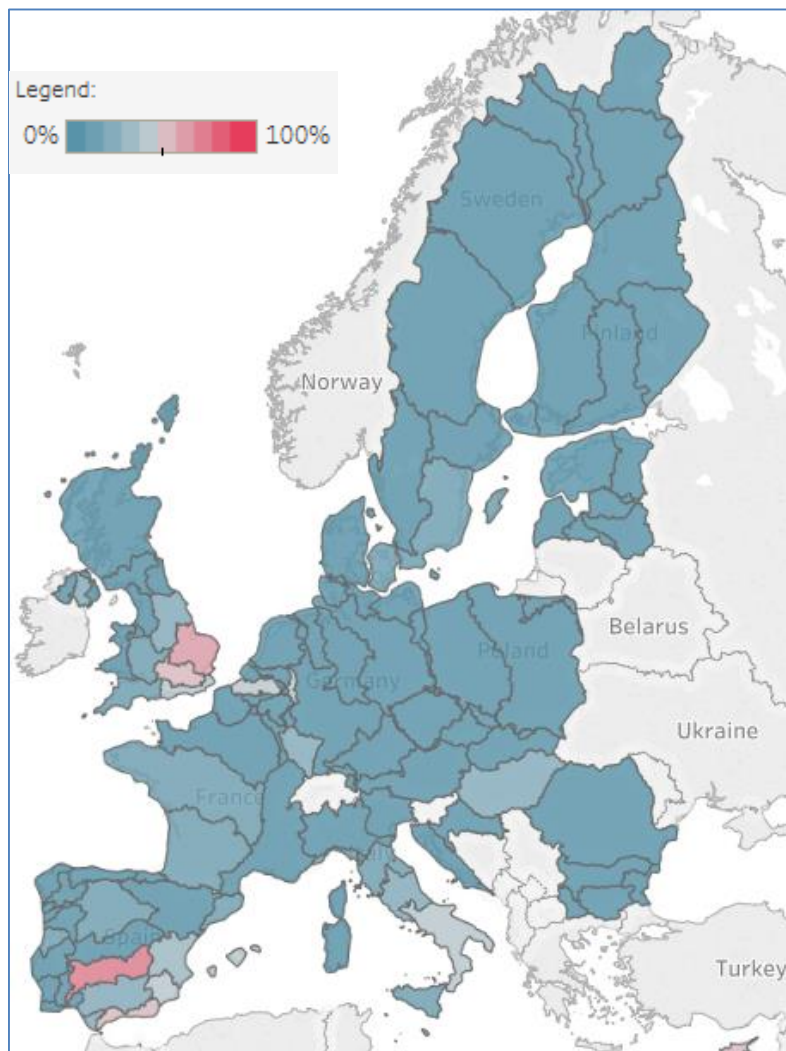
Surface water chemical status, with and without uPBTs*



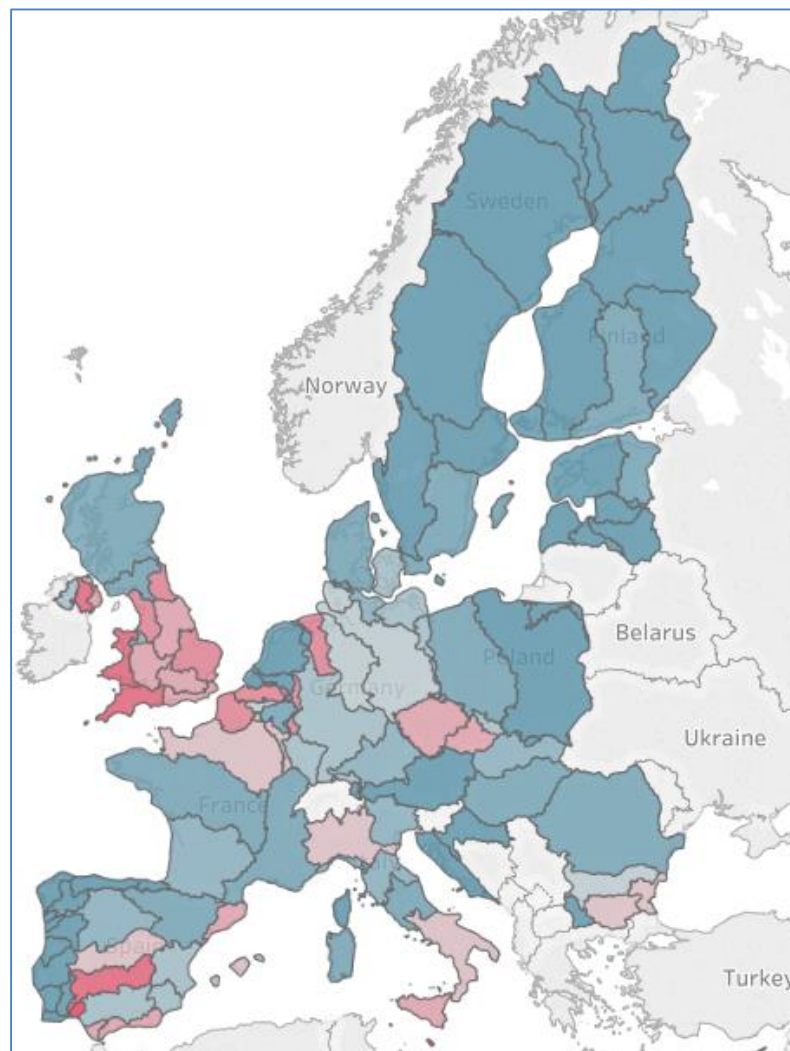
- Subset of “ubiquitous, persistent, bioaccumulative and toxic” priority substances [Chemical status with and without uPBT by country](#)

Groundwater status (% water body area)

Quantitative status



Chemical status



Pressures

© Annabel



© Peter Kristensen

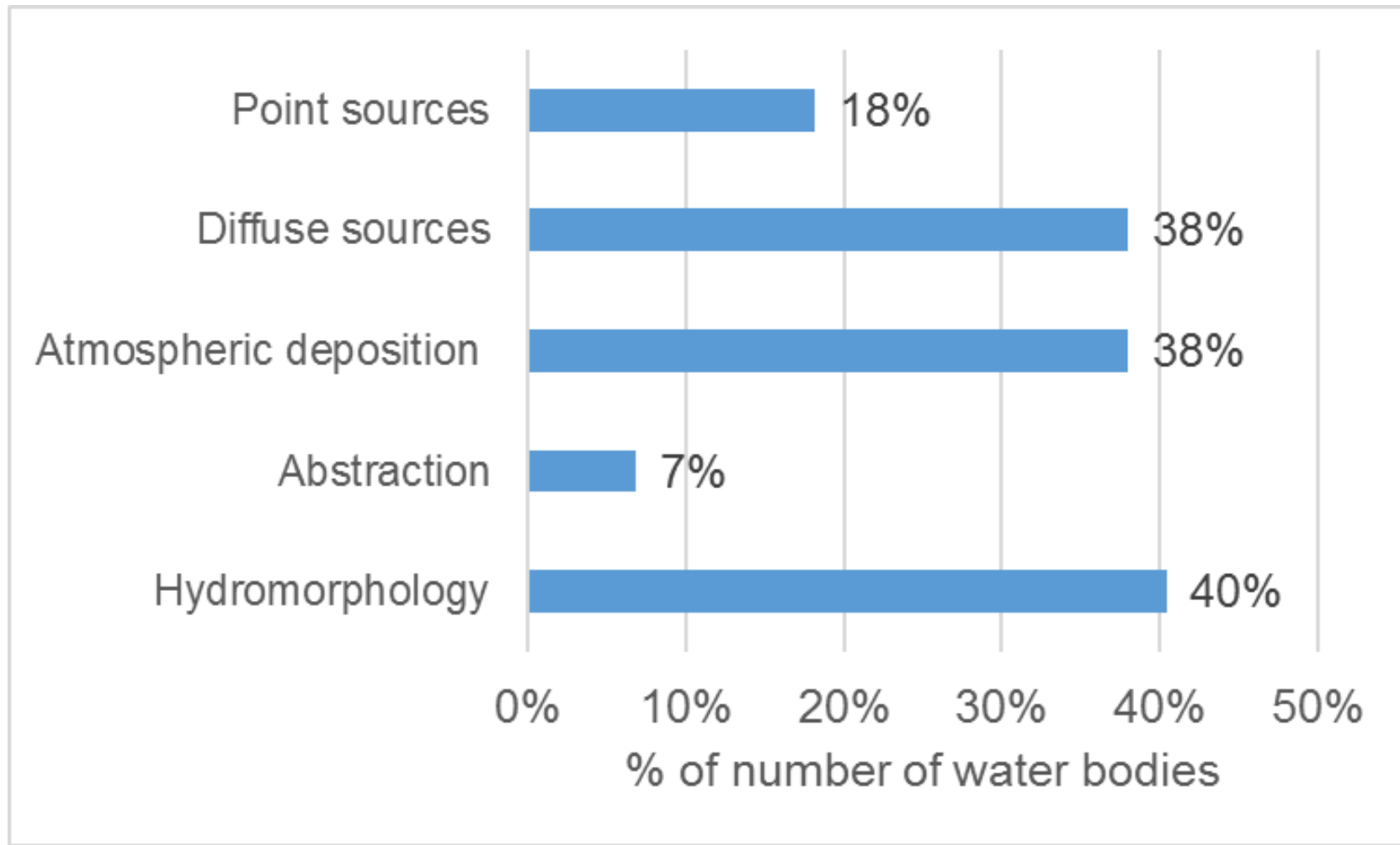
Lippeverband, © Dr. Baoquan Song



© Rossographr

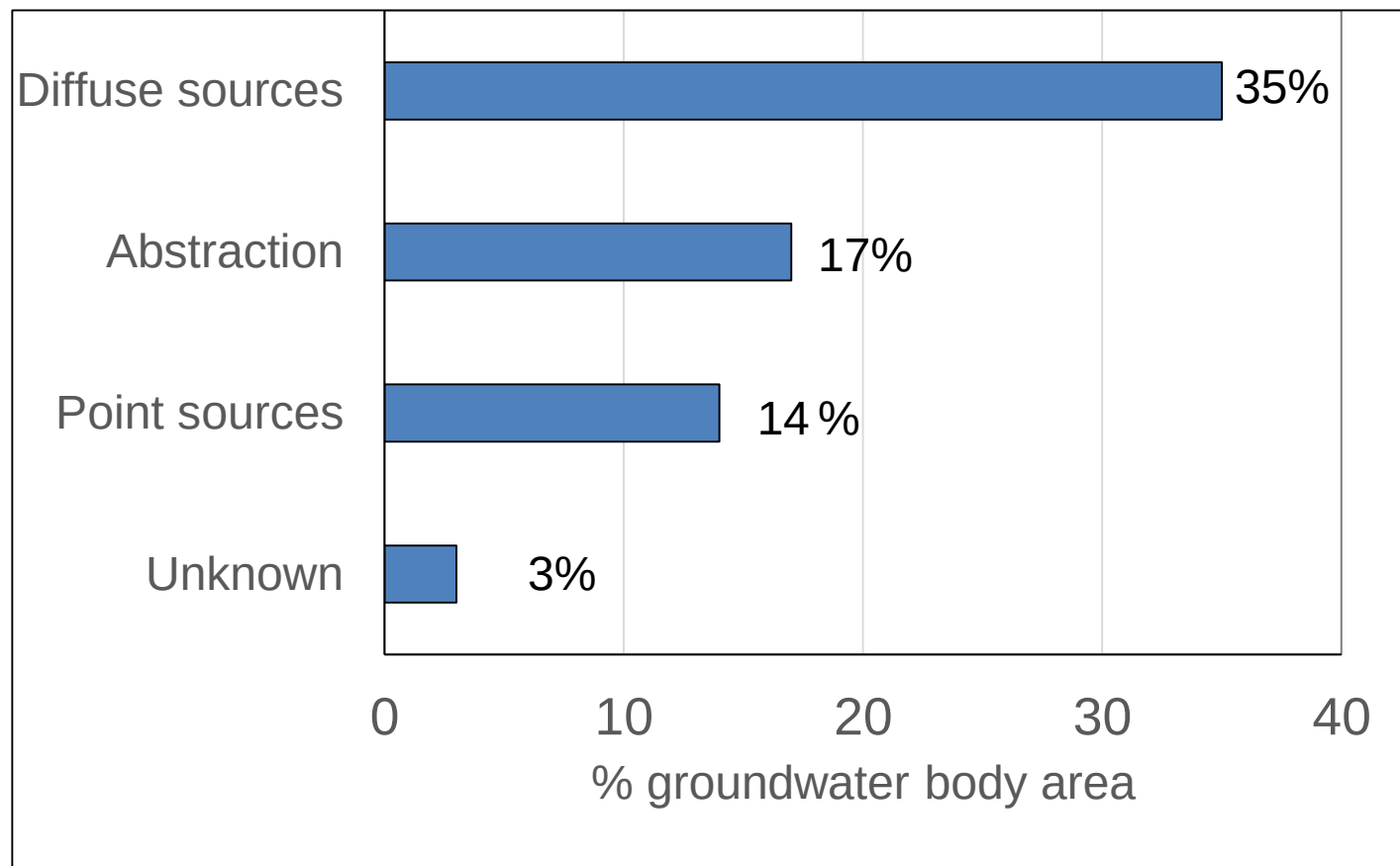


Surface waters main pressures



Source Results from WFD second River Basin Management Plans (2010-2015).
[SW pressures table](#)

Groundwater bodies - main pressures



[Groundwater pressures table](#)

Key findings for European waters -

- **Remain under pressure** from multiple sources: water pollution, over-abstraction and hydromorphological change.
- Challenges: **securing sustainable management** of water and dependent ecosystems; **ensuring availability** of sufficient high-quality water.
- Need to **improve implementation** of environmental policies for water protection and maximising synergies between them.
- **Economic sectors** e.g. agriculture, energy and transport need to adopt management practices which keep water ecosystems healthy and resilient.



Thanks for listening

Thanks also to Member States, Reporters, colleagues in DG Environment, ETC-ICM and at EEA, particularly Peter Kristensen and Fernanda Nery.

Questions?



Delineation of water bodies (number, length, area, natural, heavily modified and artificial)

Surface water bodies: Number and Size

- [Surface water bodies: Number and Size](#)
- [Surface water bodies: Number or Size, by Category](#)
- [Surface water bodies: Number or Size, by Category and Type](#) (natural, heavily modified and artificial)

Surface water bodies: Natural, heavily modified and artificial water bodies

- [Surface water bodies: Natural, heavily modified and artificial water bodies, by category](#)
- [Surface water bodies: Natural, heavily modified and artificial water bodies, by country](#)
- [Surface water bodies: Natural, heavily modified and artificial water bodies, by category and country](#)

Surface water bodies: Physical alterations and designated water uses

- [Surface water bodies: Physical alterations](#)
- [Surface water bodies: Designated water uses](#)

Surface water bodies: Delineation of the management units in the 2nd and 1st RBMP

- [Surface water bodies: delineation of the management units in the 1st and 2nd RBMP](#)

Surface water bodies: Delineation of water bodies in the 2nd and 1st River Basin Management Plans (RBMP)

- [Surface water bodies: Evolution type, by category](#)
- [Surface water bodies: Evolution type, by country](#)
- [Surface water bodies: Evolution type, by category and country](#)

Groundwater bodies

- [Groundwater bodies: Number and Size](#) (aquifer type, productivity)

Groundwater bodies: Delineation of water bodies in the 2nd and 1st RBMP

- [Groundwater bodies: Evolution type, by geological formation](#)
- [Groundwater bodies: Evolution type, by country](#)
- [Groundwater bodies: Evolution type, by geological formation and country](#)

Blue: Tables; Green: Graphs; Orange: Maps

Ecological status and potential

Surface water bodies: Status

- [Surface water bodies: Number and Size, by Ecological status or potential](#)
- [Surface water bodies: Number or Size, by Category and Ecological status or potential](#)

Surface water bodies: Ecological status or potential and chemical status

- [Surface water bodies: Ecological status or potential and chemical status, by category](#)
- [Surface water bodies: Ecological status or potential and chemical status, by country](#)
- [Surface water bodies: Ecological status or potential and chemical status, by category and country](#)

Surface water bodies: Status maps

- [Surface water bodies failing to achieve good status, by RBD](#)
- [Surface water bodies failing to achieve good status, by country](#)
- [Surface water bodies failing to achieve good status, by country and RBD](#)

Surface water bodies: Expected status

- [Surface water bodies: Good ecological status expected in 2015](#)
- [Surface water bodies: Good ecological status expected achievement date](#)

Surface water bodies: Status assessment confidence

- [Surface water bodies: Ecological status assessment confidence](#)

Surface water bodies: Ecological status or potential and chemical status assessment confidence

- [Surface water bodies: Ecological status or potential and chemical status assessment confidence, by category](#)
- [Surface water bodies: Ecological status or potential and chemical status assessment confidence, by country](#)
- [Surface water bodies: Ecological status or potential and chemical status assessment confidence, by category and country](#)

Surface water bodies: Ecological status or potential in the 2nd and 1st RBMP

- [Surface water bodies: Ecological status or potential, by category](#)
- [Surface water bodies: Ecological status or potential, by country](#)
- [Surface water bodies: Ecological status or potential, by category and country](#)

Ecological status: Intercalibration types, broad types and by sea regions



Ecological status and potential – quality elements

Surface water bodies: Quality element status

- [Surface water bodies: Quality element status](#)
- [Surface water bodies: Quality element group status](#)
- [Surface water bodies: Quality elements with less than good status or with moderate, poor or bad status - overview](#)

Surface water bodies: Quality element status

- [Surface water bodies: QE status, by category](#)
- [Surface water bodies: QE status, by quality element and category](#)
- [Surface water bodies: QE status, by quality element and country](#)
- [Surface water bodies: QE status, by quality element, category and country](#)

Surface water bodies: Quality element group status

- [Surface water bodies: QE group status, by category](#)
- [Surface water bodies: QE group status, by quality element and category](#)
- [Surface water bodies: QE group status, by quality element and country](#)
- [Surface water bodies: QE group status, by quality element, category and country](#)

Surface water bodies: Quality element status in the 2nd and 1st RBMP

- [Surface water bodies: QE status in the 2nd and 1st RBMP, by category](#)
- [Surface water bodies: QE status in the 2nd and 1st RBMP, by quality element and category](#)
- [Surface water bodies: QE status in the 2nd and 1st RBMP, by quality element and country](#)
- [Surface water bodies: QE status in the 2nd and 1st RBMP, by quality element, category and country](#)

Surface water bodies: Quality element group status in the 2nd and 1st RBMP

- [Surface water bodies: QE group status in the 2nd and 1st RBMP, by category](#)
- [Surface water bodies: QE group status in the 2nd and 1st RBMP, by quality element and category](#)
- [Surface water bodies: QE group status in the 2nd and 1st RBMP, by quality element and country](#)
- [Surface water bodies: QE group status in the 2nd and 1st RBMP, by quality element, category and country](#)



Ecological status and potential – quality elements II

Surface water bodies: Number of Quality Elements used in the assessment of the Ecological status or potential

- [Surface water bodies: Number of quality element used, by category](#)
- [Surface water bodies: Number of quality element used, by country](#)
- [Surface water bodies: Number of quality element used, by category and country](#)

Surface water bodies: Ecological status or potential calculated from Quality Elements

- [Surface water bodies: Ecological status or potential calculated from Quality Elements, by category](#)
- [Surface water bodies: Ecological status or potential calculated from Quality Elements, by country](#)
- [Surface water bodies: Ecological status or potential calculated from Quality Elements, by category and country](#)

Surface water bodies: River basin specific pollutants (RBSP)

- [Surface water bodies: River basin specific pollutants](#)
- [Surface water bodies: River basin specific pollutants](#) - overview
- [Surface water bodies: River basin specific pollutants](#) - other RBSP

Surface water bodies: River basin specific pollutants

- [Surface water bodies: River basin specific pollutants](#) - causing failure

Blue: Tables; Green: Graphs; Orange: Maps

Surface water bodies: chemical status I

Surface water bodies: Status

- [Surface water bodies: Number and Size, by Chemical status](#)
- [Surface water bodies: Number or Size, by Category and Chemical status](#)

Surface water bodies: Ecological status or potential and chemical status

- [Surface water bodies: Ecological status or potential and chemical status, by category](#)
- [Surface water bodies: Ecological status or potential and chemical status, by country](#)
- [Surface water bodies: Ecological status or potential and chemical status, by category and country](#)

Surface water bodies: Status maps

- [Surface water bodies failing to achieve good status, by RBD](#)
- [Surface water bodies failing to achieve good status, by country](#)
- [Surface water bodies failing to achieve good status, by country and RBD](#)

Surface water bodies: Chemical status with and without uPBT

- [Surface water bodies: Chemical status with and without uPBT, by category](#)
- [Surface water bodies: Chemical status with and without uPBT, by country](#)
- [Surface water bodies: Chemical status with and without uPBT, by country and category](#)

Surface water bodies: Chemical status in the 2nd and 1st RBMP

- [Surface water bodies: Chemical status, by category](#)
- [Surface water bodies: Chemical status, by country](#)
- [Surface water bodies: Chemical status, by category and country](#)

Blue: Tables; Green: Graphs; Orange: Maps



Surface water bodies: chemical status II

Surface water bodies: Expected status

- [Surface water bodies: Good chemical status expected in 2015](#)
- [Surface water bodies: Good chemical status expected achievement date](#)

Surface water bodies: Status assessment confidence

- [Surface water bodies: Chemical status assessment confidence](#)

Surface water bodies: Ecological status or potential and chemical status assessment confidence

- [Surface water bodies: Ecological status or potential and chemical status assessment confidence, by category](#)
- [Surface water bodies: Ecological status or potential and chemical status assessment confidence, by country](#)
- [Surface water bodies: Ecological status or potential and chemical status assessment confidence, by category and country](#)

Surface water bodies: Priority substances (PS)

- [Surface water bodies: Priority substances](#)
- [Surface water bodies: Priority substances](#) - overview

Surface water bodies: Priority substances in the 2nd River Basin Management Plans

- [Surface water bodies: Priority substances in the 2nd River Basin Management Plans](#) - causing failure
- [Surface water bodies: Priority substances in the 2nd River Basin Management Plans](#) - improving chemical status

Blue: Tables; Green: Graphs; Orange: Maps



Surface water bodies: Pressures and impacts

Surface water bodies: Pressures and impacts

- [Surface water bodies: Significant pressures](#)
- [Surface water bodies: Significant impacts](#)
- [Surface water bodies: Significant pressures reported as 'Other'](#)
- [Surface water bodies: Significant impacts reported as 'Other'](#)

Surface water bodies: Number of different pressures

- [Surface water bodies: Number of pressures, by category](#)
- [Surface water bodies: Number of pressures, by country](#)
- [Surface water bodies: Number of pressures, by category and country](#)
- [Surface water bodies: Number of pressure groups, by category](#)
- [Surface water bodies: Number of pressure groups, by country](#)
- [Surface water bodies: Number of pressure groups, by category and country](#)

Surface water bodies: Number of different impacts

- [Surface water bodies: Number of impacts, by category](#)
- [Surface water bodies: Number of impacts, by country](#)
- [Surface water bodies: Number of impacts, by category and country](#)

Missing

- **Graphs pressure groups**

Groundwater bodies: Pressures and impacts

- [Groundwater bodies: Significant pressures](#) - Chart
- [Groundwater bodies: Significant impacts](#) - Chart

- **Maps pressures and impacts**

- **Methodologies**

Blue: Tables; Green: Graphs; Orange: Maps

Groundwater bodies status: Quantitative Status I

Groundwater bodies: Status

- [Groundwater bodies: Number or Size, by Quantitative status](#)
- [Groundwater bodies: Number or Size, by Geological formation and Quantitative status](#)

Groundwater bodies: Quantitative status and chemical status

- [Groundwater bodies: Quantitative status and chemical status, by geological formation](#)
- [Groundwater bodies: Quantitative status and chemical status, by country](#)
- [Groundwater bodies: Quantitative status and chemical status, by geological formation and country](#)

Groundwater bodies: Status maps

- [Groundwater bodies failing to achieve good status, by RBD](#)
- [Groundwater bodies failing to achieve good status, by country](#)
- [Groundwater bodies failing to achieve good status, by country and RBD](#)

Groundwater bodies: Quantitative status in the 2nd and 1st RBMP

- [Groundwater bodies: Quantitative status, by geological formation](#)
- [Groundwater water bodies: Quantitative status, by country](#)
- [Groundwater water bodies: Quantitative status, by country and geological formation](#)

Blue: Tables; Green: Graphs; Orange: Maps



Groundwater bodies status: Quantitative Status II

Groundwater bodies: Status assessment confidence

- [Groundwater bodies: Quantitative status assessment confidence](#)

Groundwater bodies: Quantitative status and chemical status assessment confidence

- [Groundwater bodies: Quantitative status and chemical status assessment confidence, by geological formation](#)
- [Groundwater bodies: Quantitative status and chemical status assessment confidence, by country](#)
- [Groundwater bodies: Quantitative status and chemical status assessment confidence, by geological formation and country](#)

Groundwater bodies: Expected status

- [Groundwater bodies: Good quantitative status expected in 2015](#)
- [Groundwater bodies: Good quantitative status expected achievement date](#)

Groundwater bodies: Reasons for failure

- [Groundwater bodies: reasons for failure to achieve good quantitative status](#)
- [Groundwater bodies: reasons for failure to achieve good quantitative status](#) - overview

Missing

- Groundwater bodies at risk
- Methodologies
- ?

Blue: Tables; Green: Graphs; Orange: Maps

Groundwater bodies status: Chemical status I

Groundwater bodies: Status

- [Groundwater bodies: Number or Size, by Chemical status](#)
- [Groundwater bodies: Number or Size, by Geological formation and Chemical status](#)

Groundwater bodies: Quantitative status and chemical status

- [Groundwater bodies: Quantitative status and chemical status, by geological formation](#)
- [Groundwater bodies: Quantitative status and chemical status, by country](#)
- [Groundwater bodies: Quantitative status and chemical status, by geological formation and country](#)

Groundwater bodies: Status maps

- [Groundwater bodies failing to achieve good status, by RBD](#)
- [Groundwater bodies failing to achieve good status, by country](#)
- [Groundwater bodies failing to achieve good status, by country and RBD](#)

Groundwater bodies: Chemical status in the 2nd and 1st RBMP

- [Groundwater water bodies: Chemical status, by geological formation](#)
- [Groundwater water bodies: Chemical status, by country](#)
- [Groundwater water bodies: Chemical status, by country and geological formation](#)

Blue: Tables; Green: Graphs; Orange: Maps

Groundwater bodies status: Chemical status II

Groundwater bodies: Status assessment confidence

- [Groundwater bodies: Chemical status assessment confidence](#)

Groundwater bodies: Quantitative status and chemical status assessment confidence

- [Groundwater bodies: Quantitative status and chemical status assessment confidence, by geological formation](#)
- [Groundwater bodies: Quantitative status and chemical status assessment confidence, by country](#)
- [Groundwater bodies: Quantitative status and chemical status assessment confidence, by geological formation and country](#)

Groundwater bodies: Expected status

- [Groundwater bodies: Good chemical status expected in 2015](#)
- [Groundwater bodies: Good chemical status expected achievement date](#)

Groundwater bodies: Reasons for failure

- [Groundwater bodies: reasons for failure to achieve good chemical status](#)
- [Groundwater bodies: reasons for failure to achieve good chemical status](#) - overview

Groundwater bodies: Pollutants

- [Groundwater bodies: Pollutants](#)
- [Groundwater bodies: Pollutants](#) - Overview
- [Groundwater bodies: Pollutants](#) - Trend reversal
- [Groundwater bodies: Pollutants](#) - Upward trend
- [Groundwater bodies: Pollutants](#) - other pollutants

Blue: Tables; Green: Graphs; Orange: Maps

Groundwater bodies: Pressures and impacts

Groundwater bodies: Pressures and impacts

- [Groundwater bodies: Significant pressures](#) - Overview
- [Groundwater bodies: Significant impacts](#) - Overview
- [Groundwater bodies: Significant pressures](#)
- [Groundwater bodies: Significant impacts](#)
- [Groundwater bodies: Significant pressures reported as 'Other'](#)
- [Groundwater bodies: Significant impacts reported as 'Other'](#)

Groundwater bodies: Pressures and impacts

- [Groundwater bodies: Significant pressures](#) - Chart
- [Groundwater bodies: Significant impacts](#) - Chart

Missing

- **Groundwater bodies: Number of different pressures**
- **Maps pressures and impacts**
- **Methodologies**

Blue: Tables; Green: Graphs; Orange: Maps

