



EEA 2012 State of Water assessment

3rd RBMP Steering Group meeting 16/11/2011

Summary

EEA 2012 State of water assessment

1

Setting the scene and planning

2

Selected results on ecological/status , pressures and impact

3

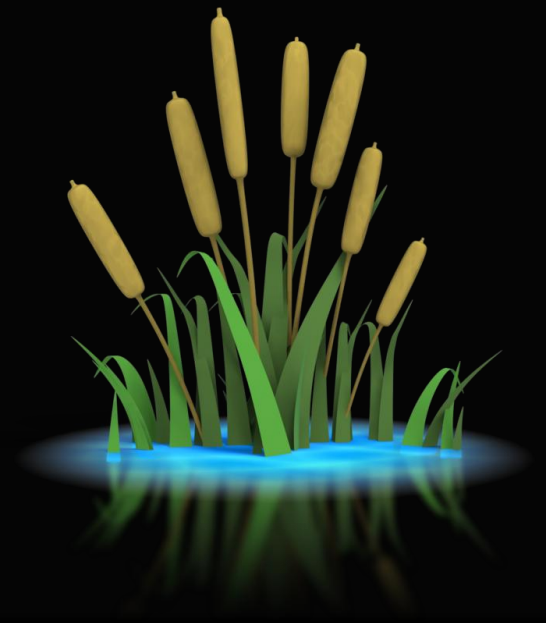
Selected methodology issues

4

Coordination issues and other



SETTING THE SCENE AND PLANNING





EEA 2012 State of Water assessment

- 100 pages synthesis/integrated report
- Five thematic assessments (20-60 pages)
- Overview of **status and pressures** affecting Europe's water
- Some more detailed sector and activities chapters

WFD Article 18: ... a review of the status of surface water and groundwater in the Community under-taken in coordination with the European Environment Agency;



EEA 2012 State of Water assessment - synthesis

Thematic assessments

Freshwater ecological status and related pressures;

Coastal and transitional waters

Hydromorphology status and pressures;

Water resources and resource efficiency; water economics;

Water and vulnerability (water scarcity and droughts, floods;)

Other EEA reports

Coastal report

Urban report

Climate impact

2011 Chemicals report

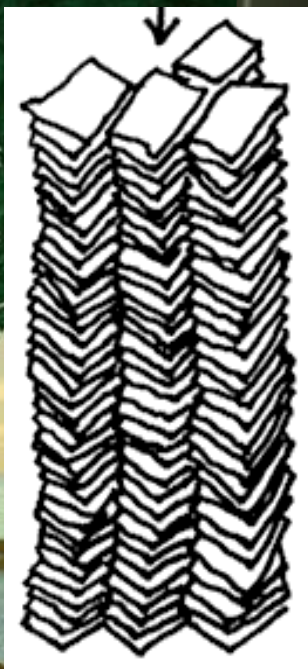
2011 & 2012 Bathing water reports

Update of water indicators

Update of WISE maps

European ecosystem assessment

170 RBMPs



Other information



Analysis



Baseline (Status of waters and pressures affecting them)

Further assessments – e.g. water resource efficiency, water accounts, ecosystem goods and services

DG Environment

Blueprint to Safeguard European Waters



WFD implementation



Water scarcity & drought



Climate change & water

EEA State of European Water



Synthesis/integrated Water assessment



Thematic (focused) assessments

Good work from our Topic Centre



The draft thematic assessments
have started growing





Status and pressure assessments based on RBMPs

Status

Overall status (e.g. European overviews (pie-charts, maps))

Regional or type specific overviews (e.g. ecological status of deep lakes compared to shallow lakes)

Water bodies with poor-bad status – where are the hot-spots

Case-studies

Pressures and impact

Overview of pressures and impacts

Assessments of main pressures

- Point sources
- Diffuse sources
- Contamination
- Hydromorphology – morphology, flow, & continuity



Tentative planning of thematic assessments

22/11 zero-drafts of ecological status/potential and hydromorphology assessment.

29/11 EEA advisory group discussion of zero assessments

Dec. Possibility to provide comments DG ENV & adv. Group

Dec.-Jan. 2012 Finalise first draft of thematic assessments

Feb.-March Internal and external consultation (Eionet; DG ENV; WG-D? And other Stakeholders)

Feb.-May: Editing to condensed 30-50 p. and finalise thematic assessments (final drafts HYMO 15/4; Ecological status 15/6)

May: Launch (HYMO) Green Week; 3rd European Water Conference

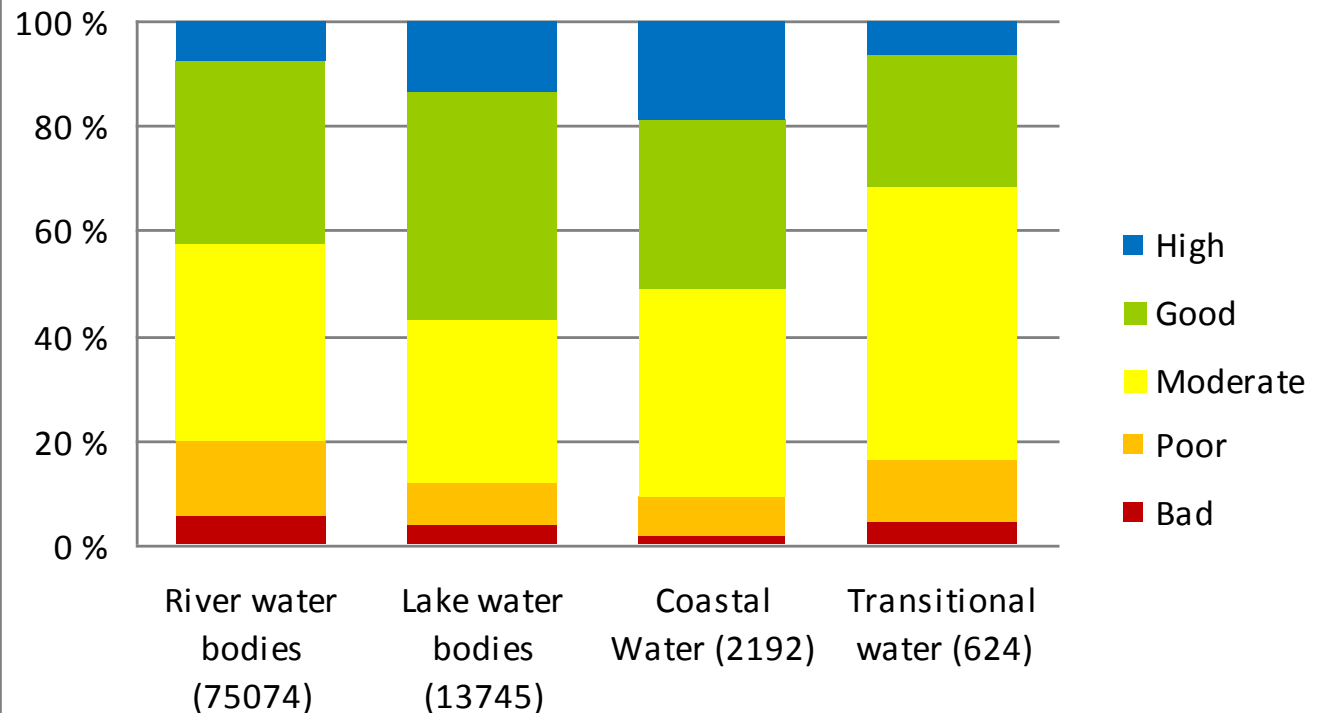
August: Launch (Ecological Status) Stockholm Water Week

RESULTS ON STATUS, PRESSURES AND IMPACTS

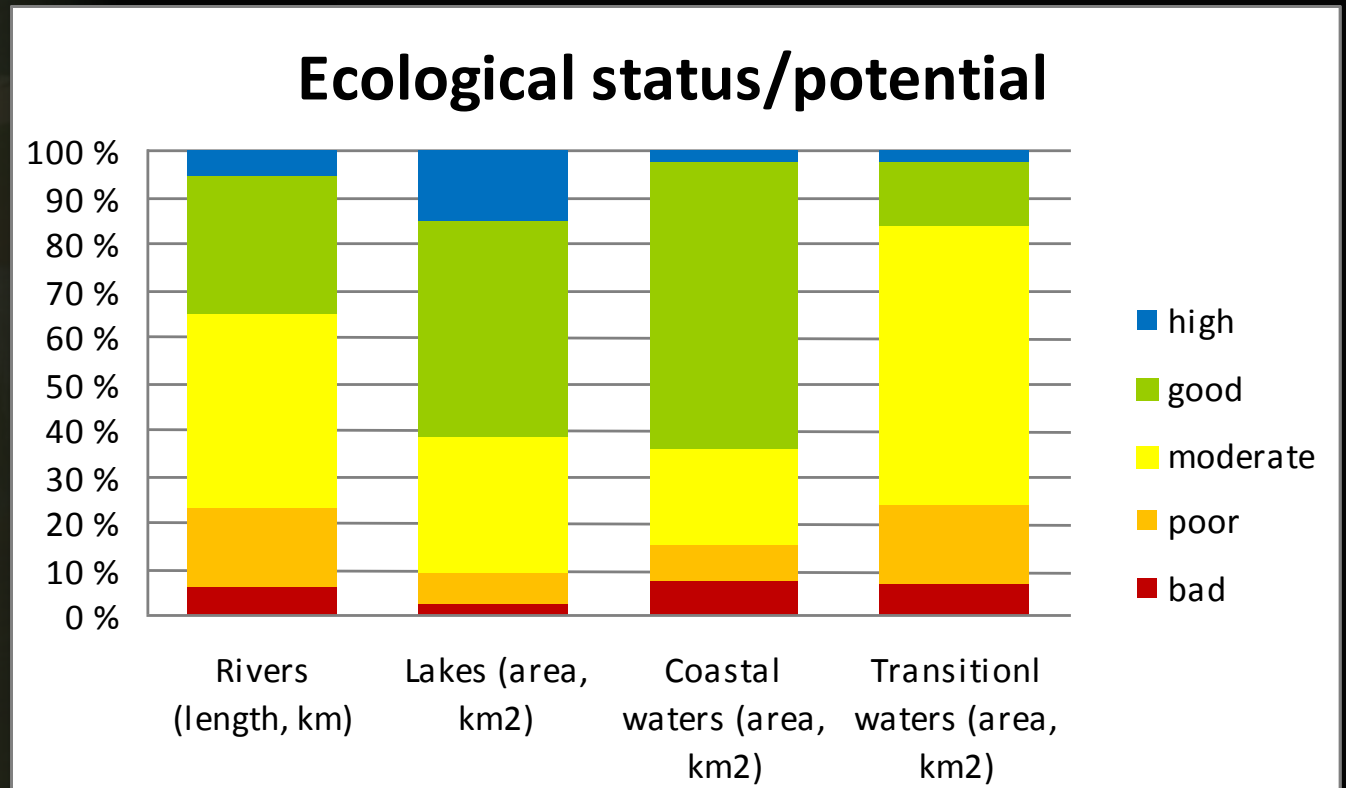


Ecological status/potential - I

Ecological status/potential by count

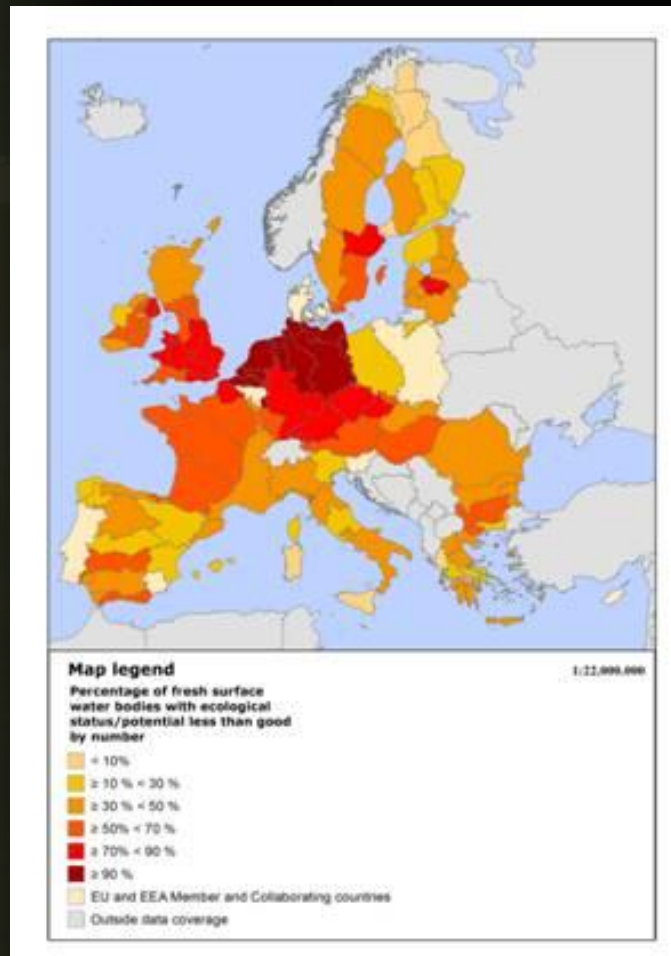


Ecological status/potential - II

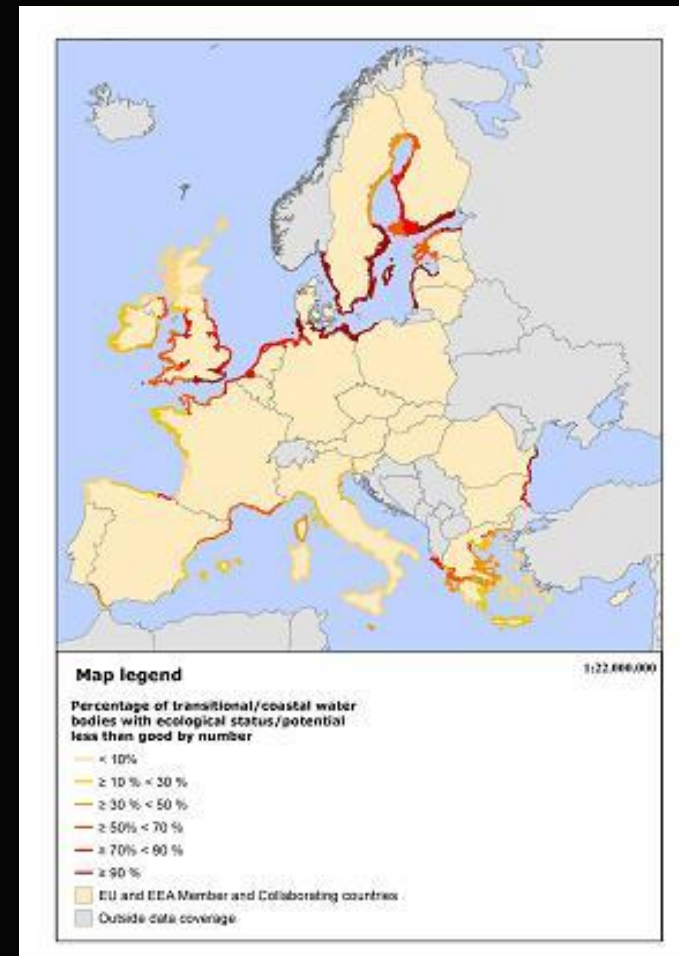


Percentage of water bodies in less than good ecological status/potential

Rivers and lakes

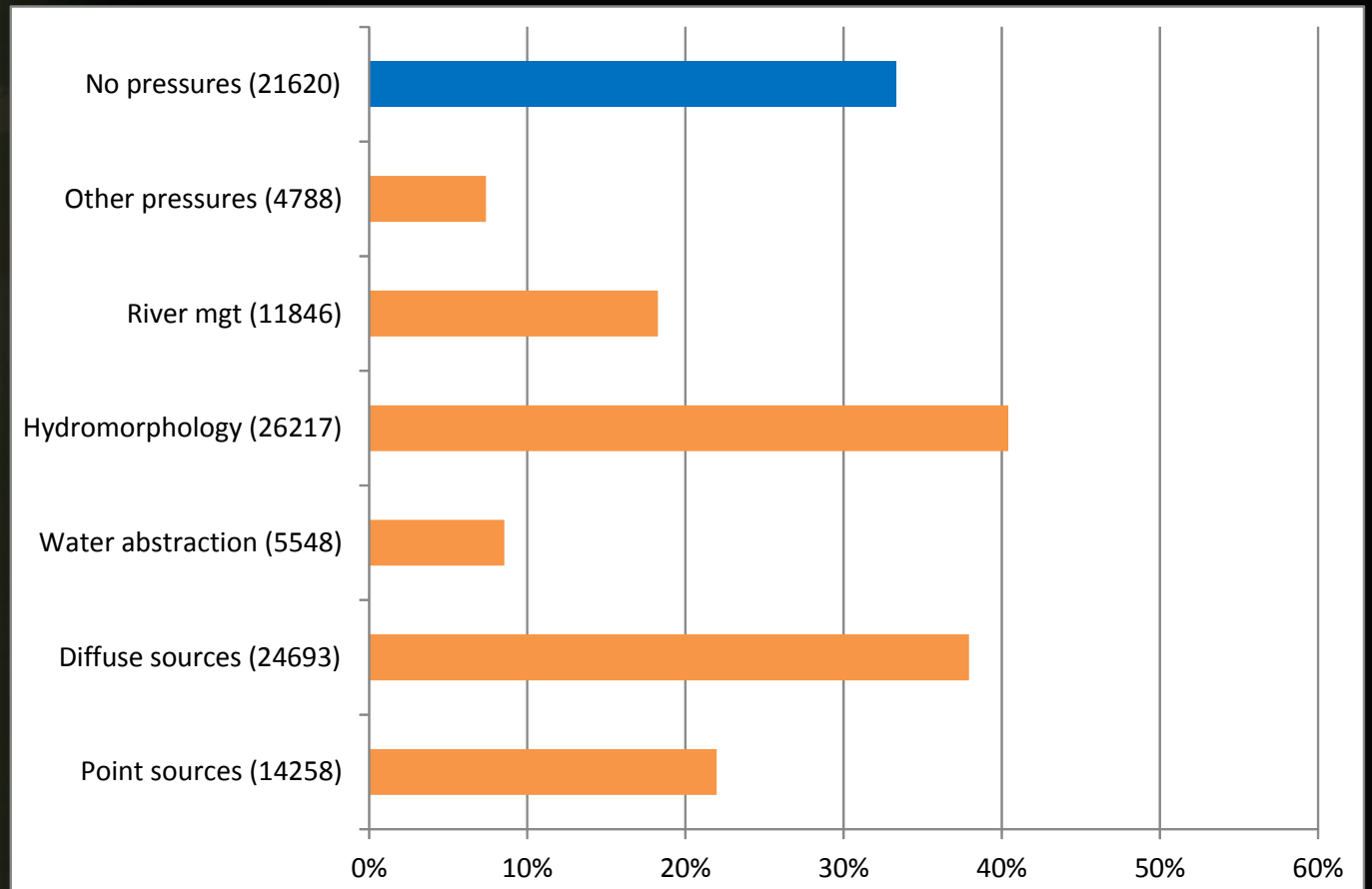


Transitional and coastal waters



Significant pressures

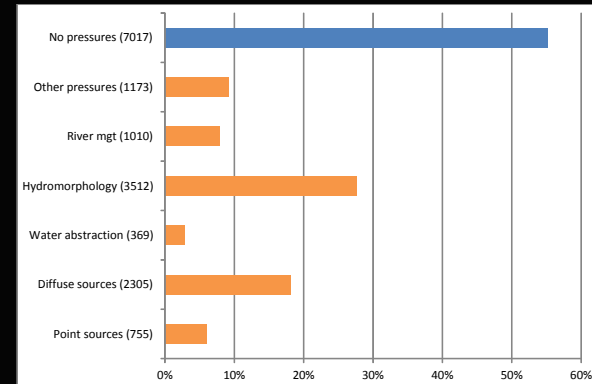
% of river WBs being affected by specific pressures



Significant pressures

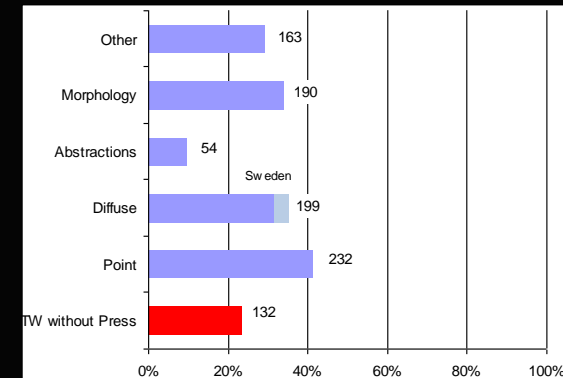
Lakes

> 50 % without pressures
HYMO & diffuse pollution



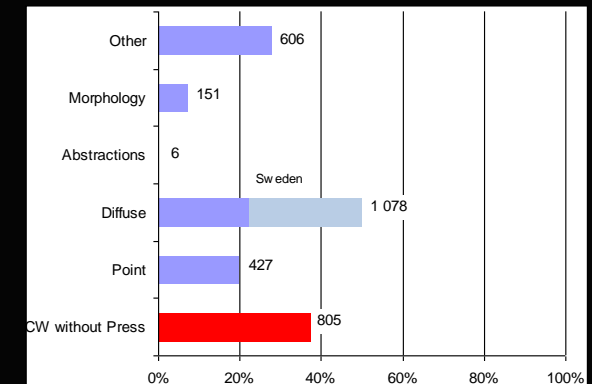
Transitional waters

Around 20 % without pressures
High pollution and hydromorphology pressures

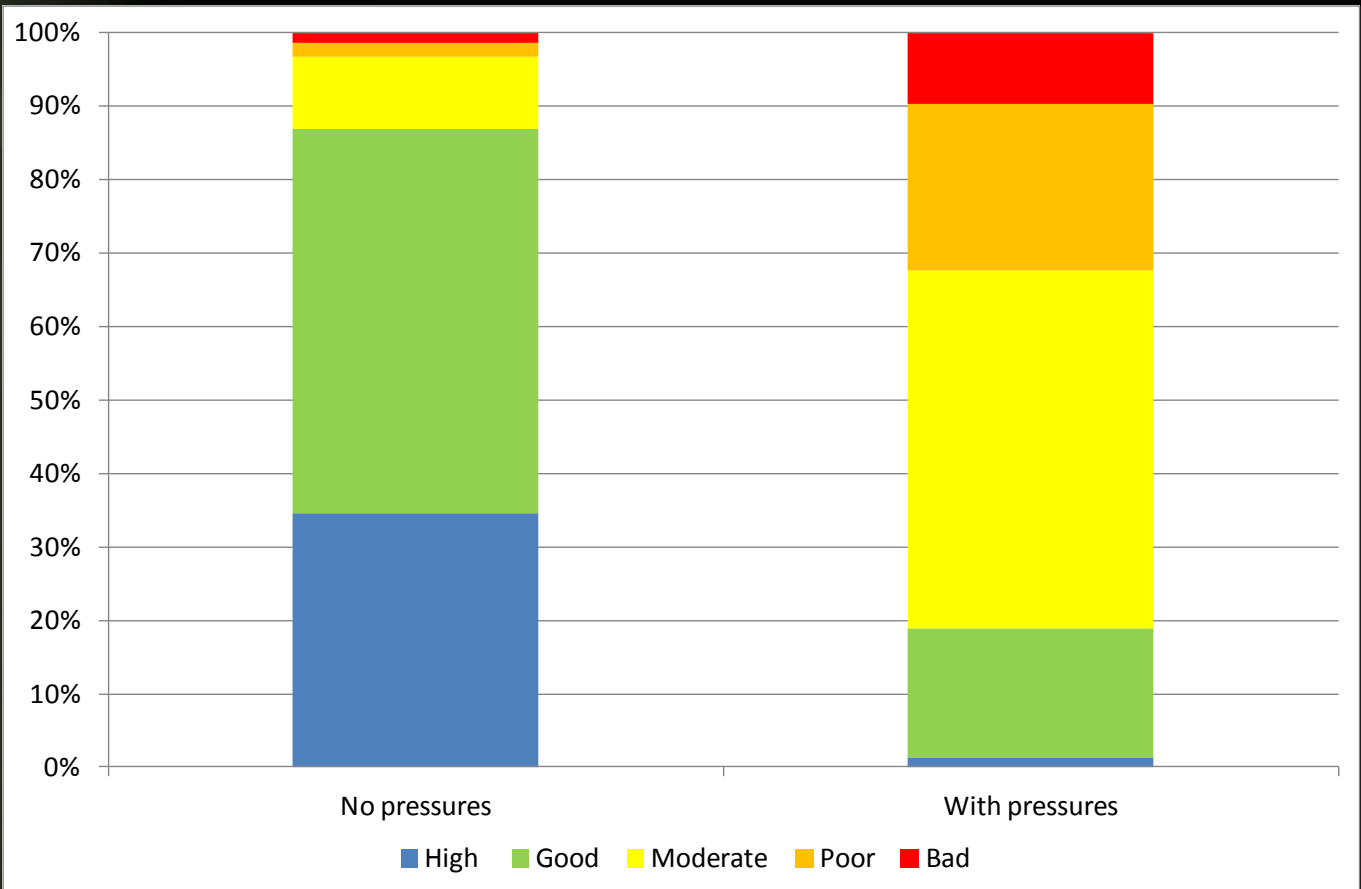


Coastal water

< 40 % without pressures
Diffuse & point sources + Others pressures

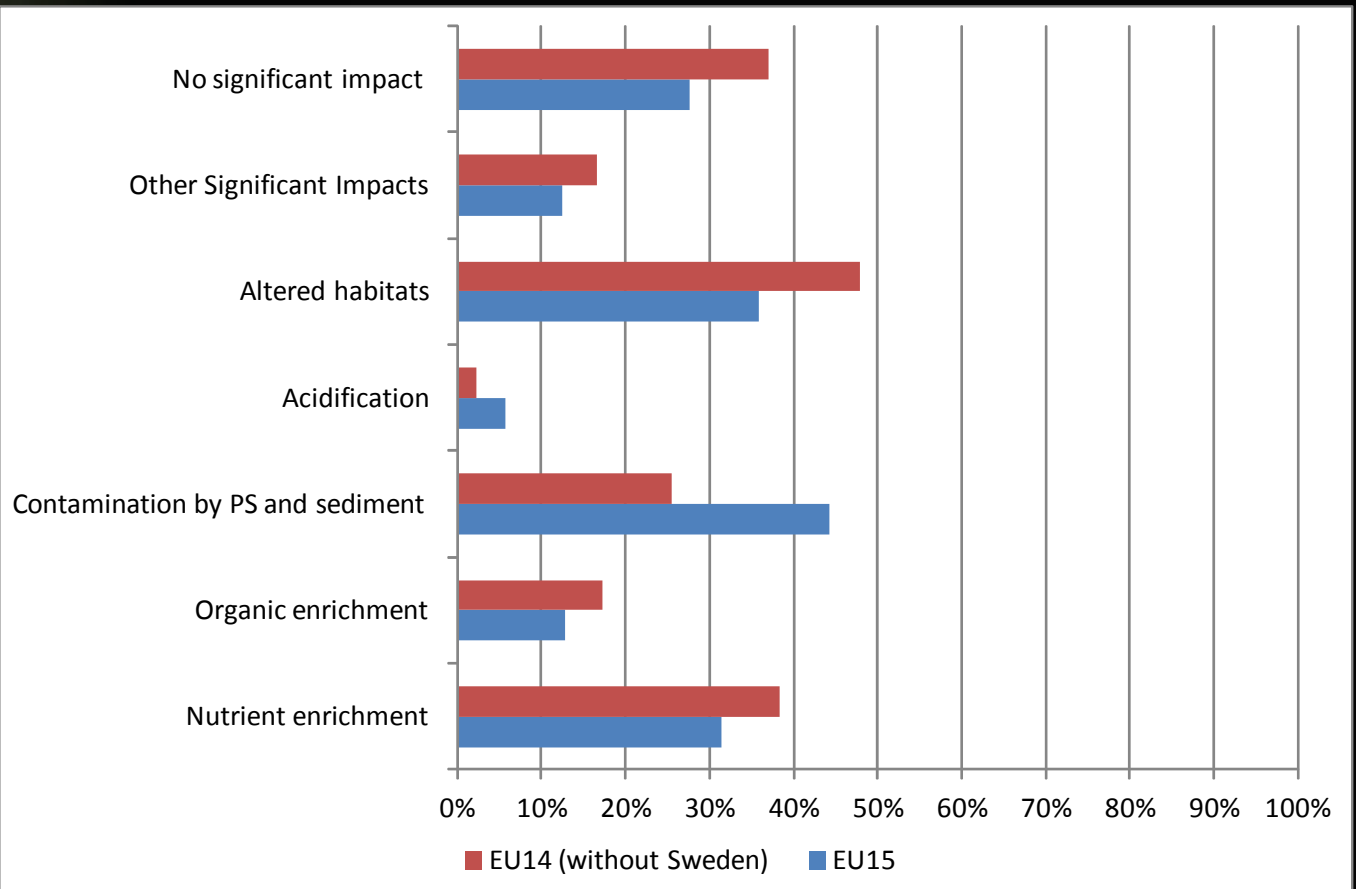


Ecological status of lake WBs without and with significant pressures

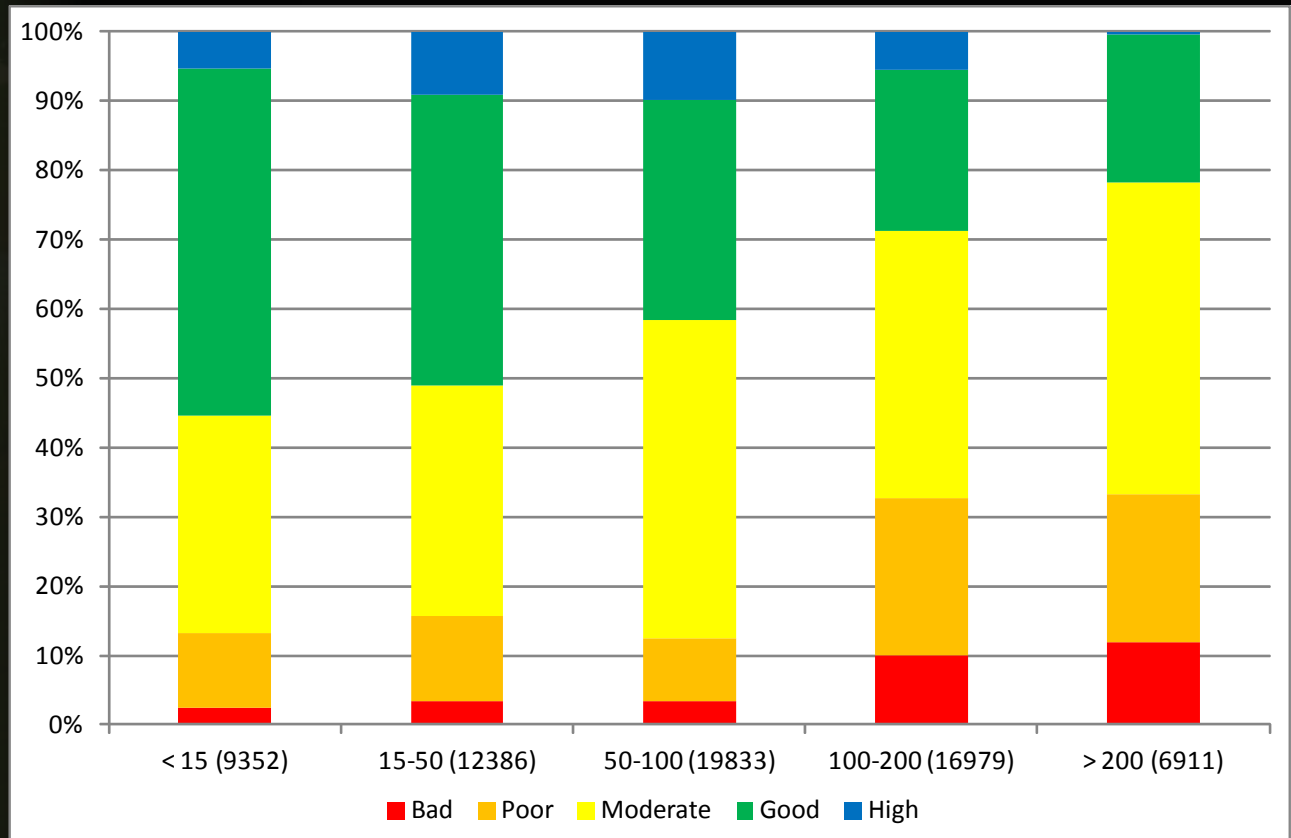


Impacts

% of river WBs being subject to specific impacts

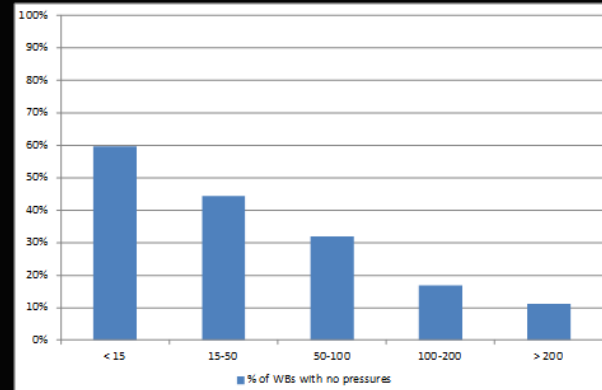


River Ecological status/potential by population density of RBDs

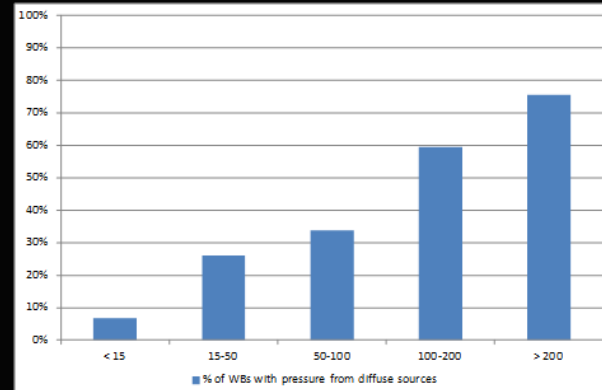


Percentage of river WBs having no or diffuse pollution or hydromorphology pressures

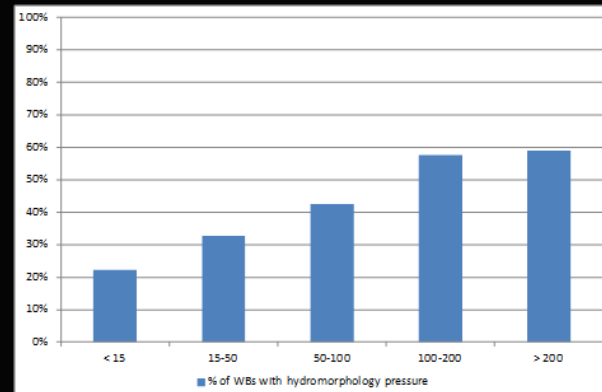
No pressures



Diffuse pollution pressures



Hydromorphology pressures

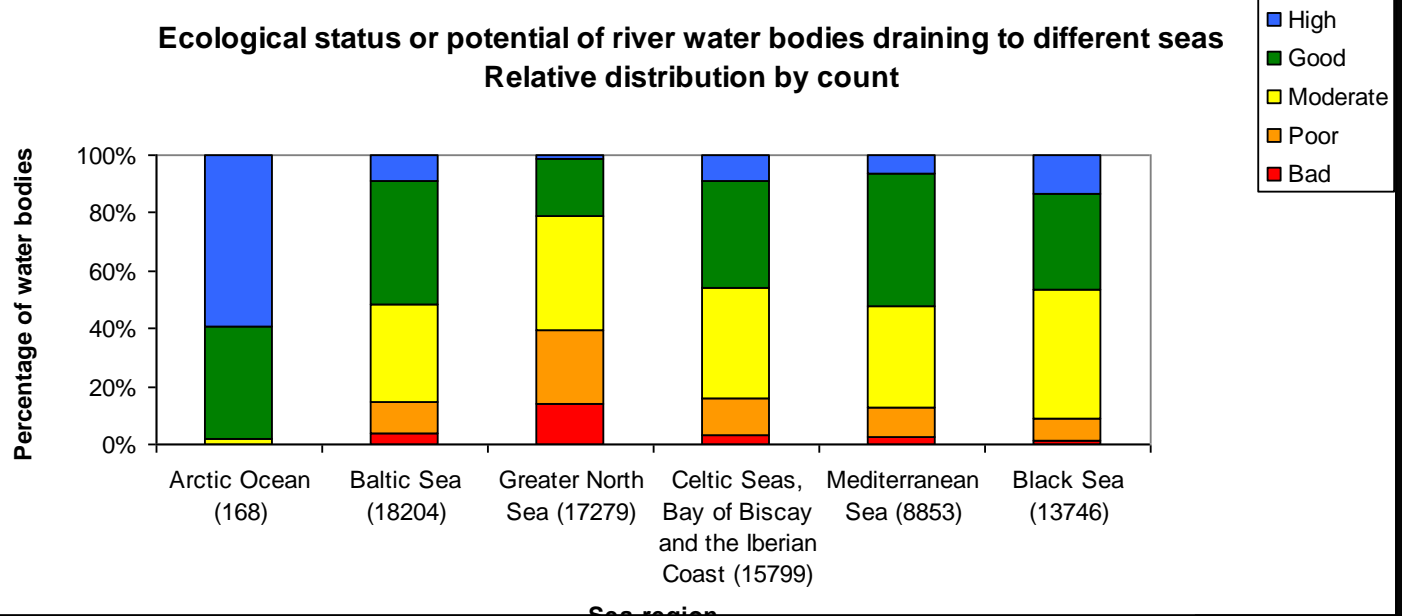


Population density in RBDs

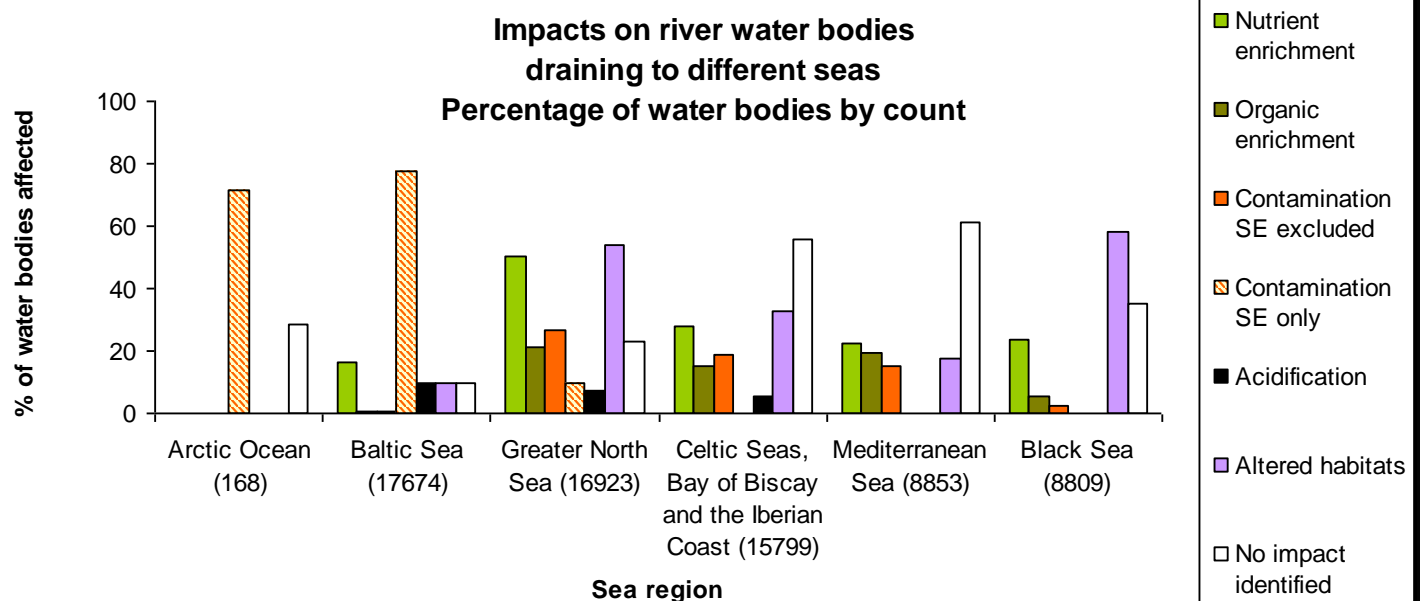
< 15 15-50 50-100 100-200 > 200

Ecological status and impacts

Ecological status or potential of river water bodies draining to different seas
Relative distribution by count

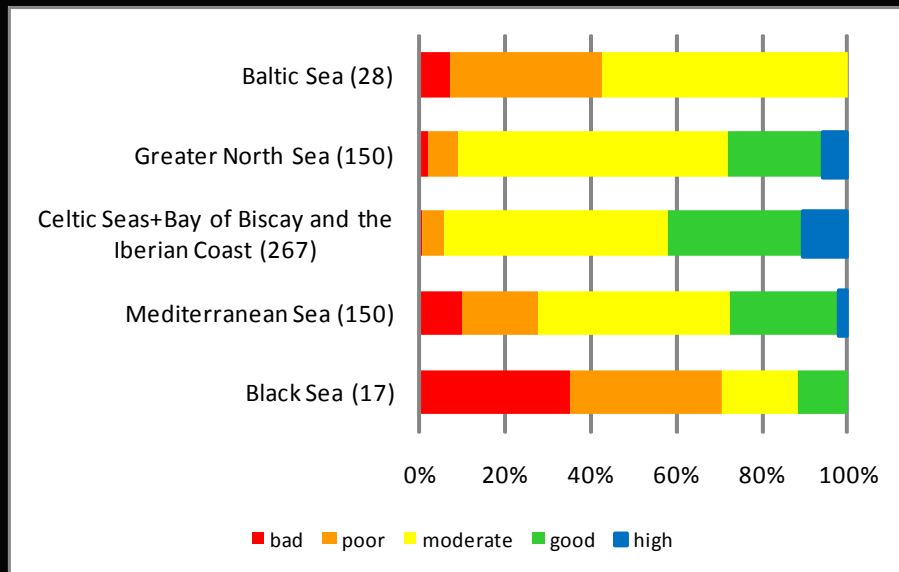


Impacts on river water bodies draining to different seas
Percentage of water bodies by count

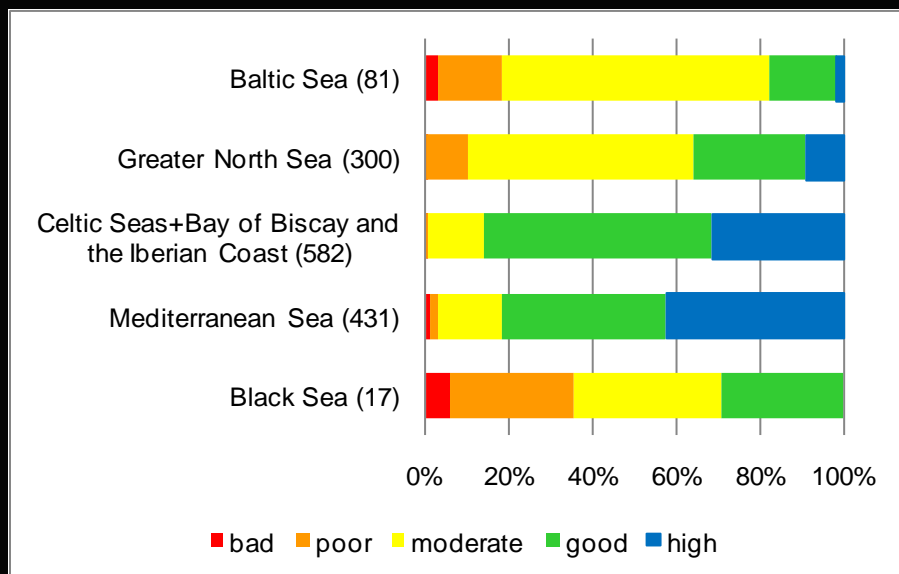


Transitional and coastal waters

Transitional waters

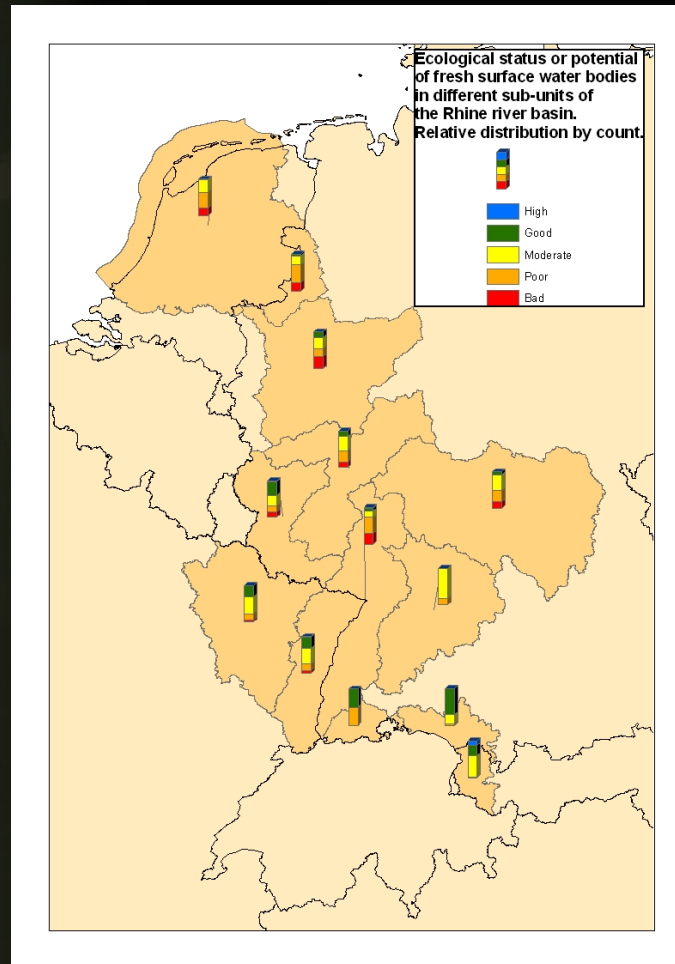


Coastal waters

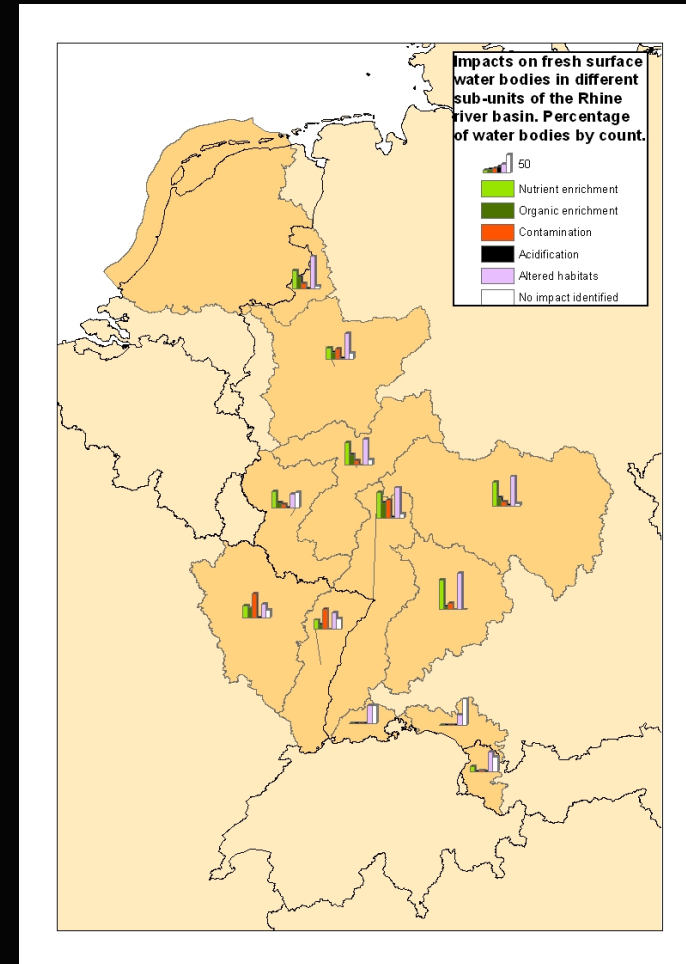


Rhine international RBD

Ecological status, rWBs

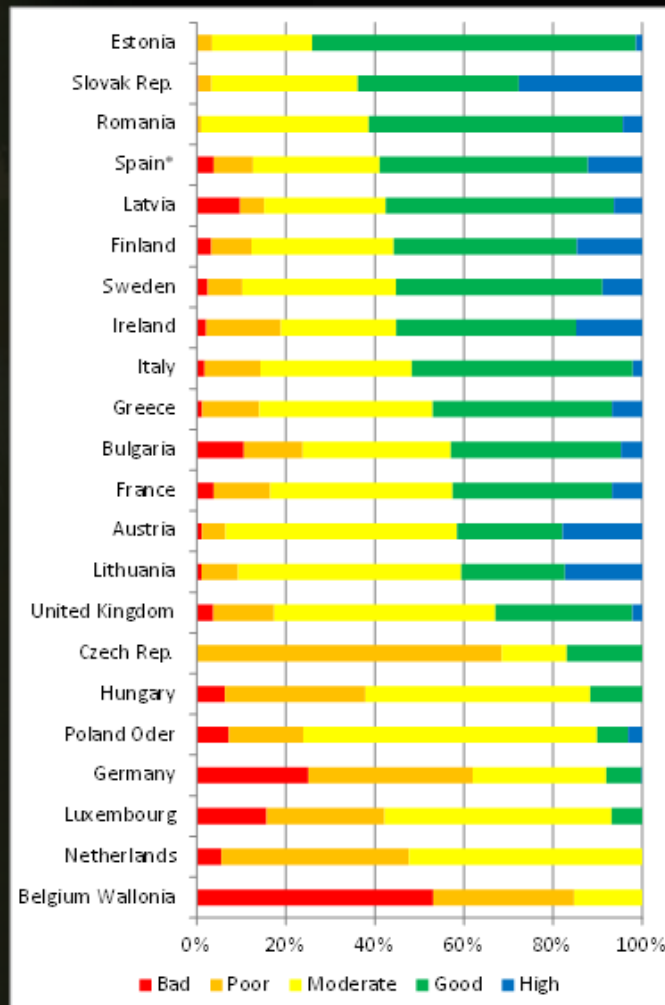


Impacts, river WBs

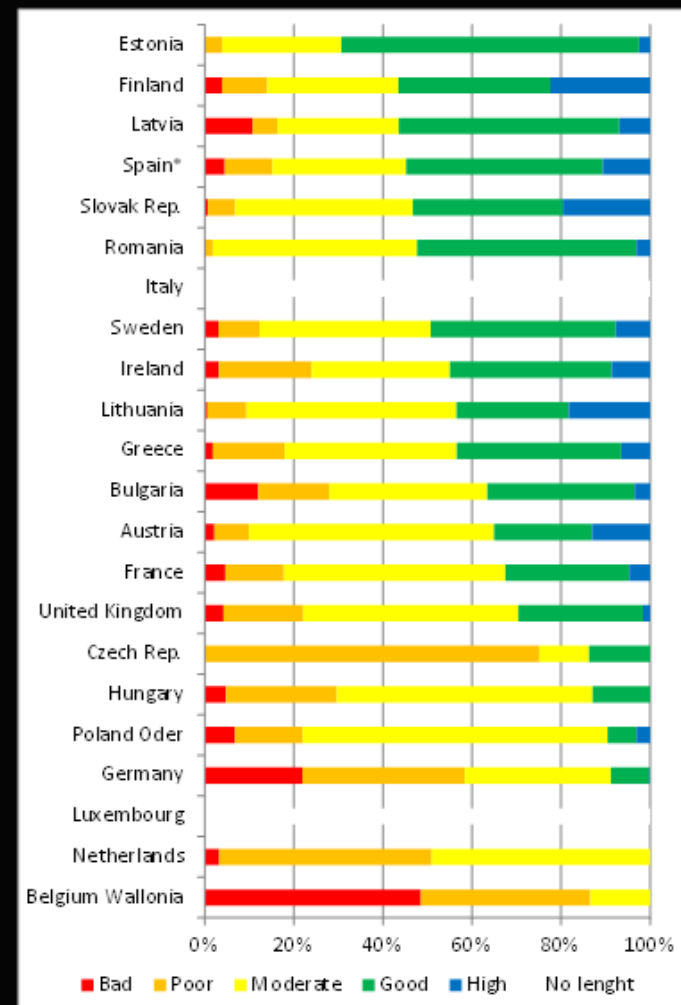


River ecological status/potential

By count of WBs

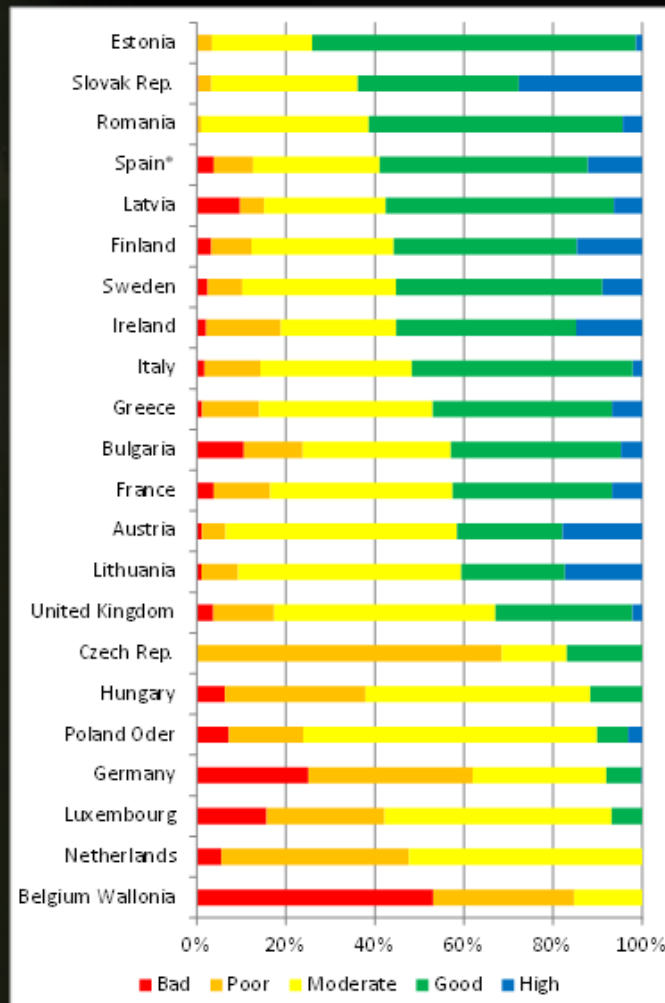


By river length

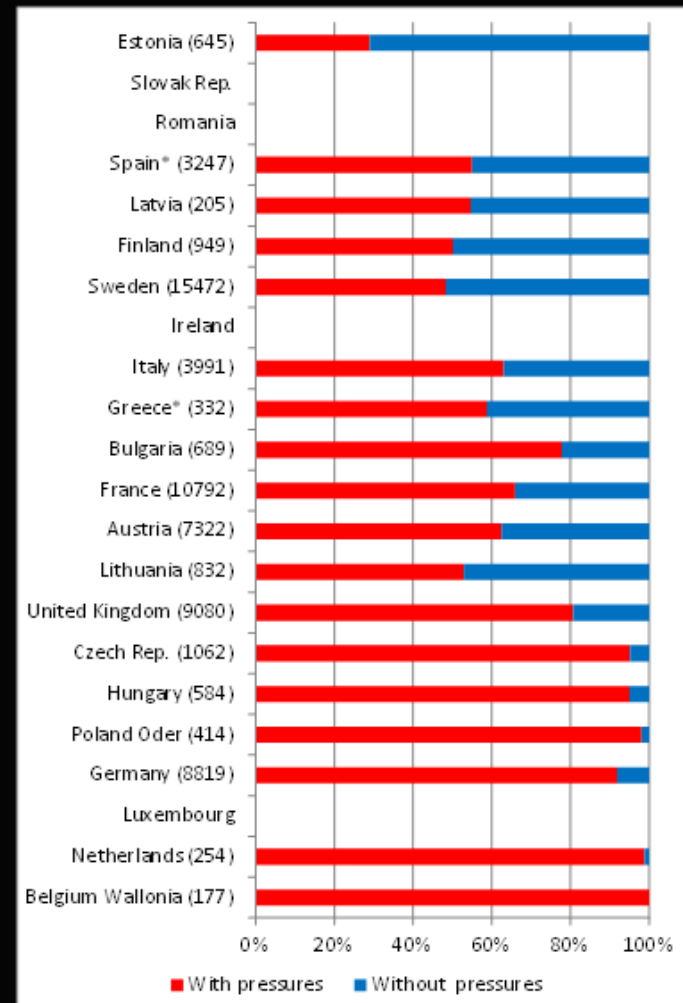


River ecological status & pressures

Ecological status,
by count of WBs

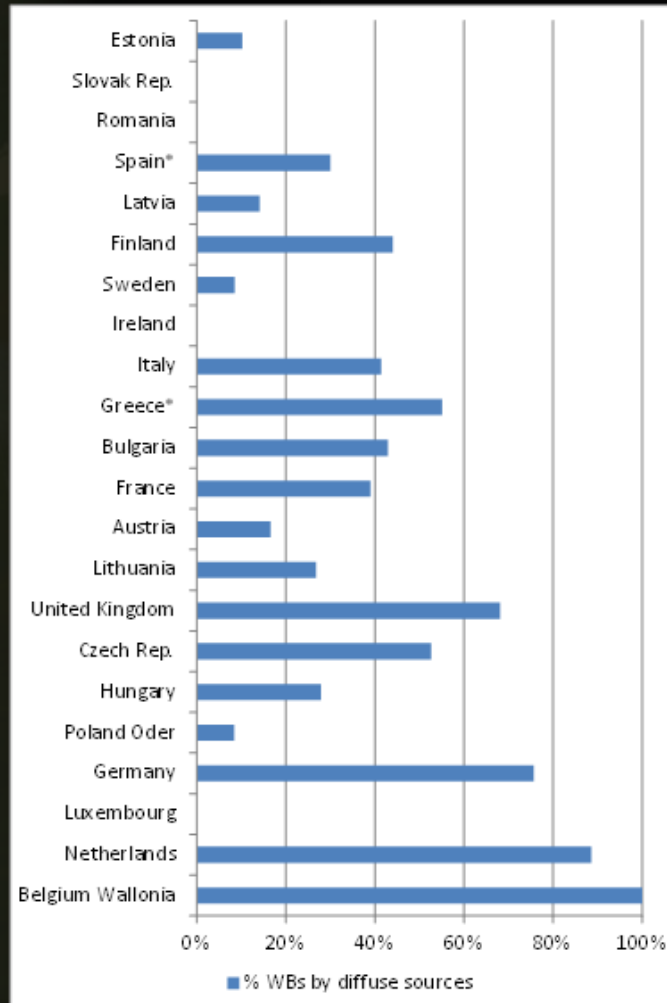


Proportion of river WBs
with and without pressures

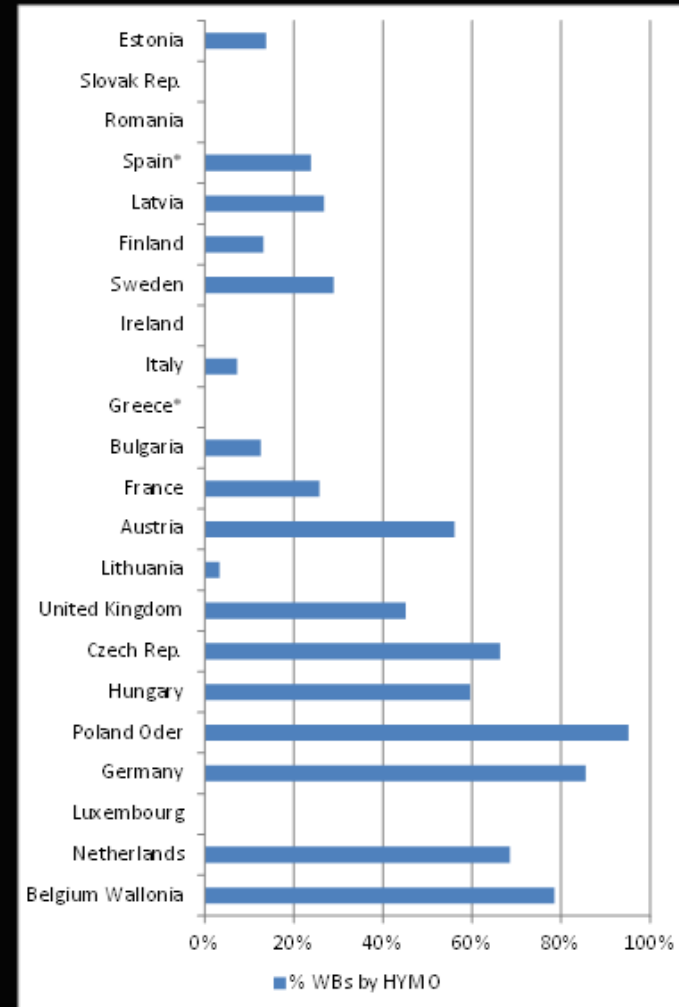


Main pressures

Diffuse pollution pressure



Hydromorphology pressures





SELECTED METHODOLOGY ISSUES

Overview of data reporting

Country	RBMP adopted	All RBDs reported	All water categories (RI,LA; TR, CO)	Ecological status (yellow high % unknown)	Significant Pressures	Impacts
Austria					Aggr.	
Belgium	Flanders				Aggr.	
Bulgaria					disaggr.	
Czech Rep.				no H&B	disaggr.	
Estonia					disaggr.	
Finland		Åland	Transitional		disaggr.	
France					mixed	
Germany					Aggr.	
Greece*					mixed	
Hungary					mixed	
Ireland					error	
Italy		ITH&ITG			mixed	
Latvia					disaggr.	
Lithuania					disaggr.	
Luxembourg			LA			
Malta			RI+LA			
Netherlands					Aggr.	
Poland		Vistula			disaggr.	
Romania						
Slovak Rep.			LA			
Spain*		Segura			mixed	
Sweden					disaggr.	
United Kingdom					Aggr.	
Cyprus						
Denmark						
Portugal						
Norway						



Data issues

What do we do with MS (GR&ES) that have reported data but not yet have adopted their RBMPs?

For some MS (e.g. PL (Vistula) & ES (Segura)) large RBDs are missing also some smaller RBDs missing

Six MS have a large proportion of WBs with unknown ecological status

Four MS have not reported significant pressure (IE, LU, RO & SK) data

How do we handle aggregated/disaggregated pressures? – the HYMO pressure information is a mess

Seven MS have not reported impact (IE, LT, LU, NL, PL, RO & SK) data



No differentiation between ecological status and potential

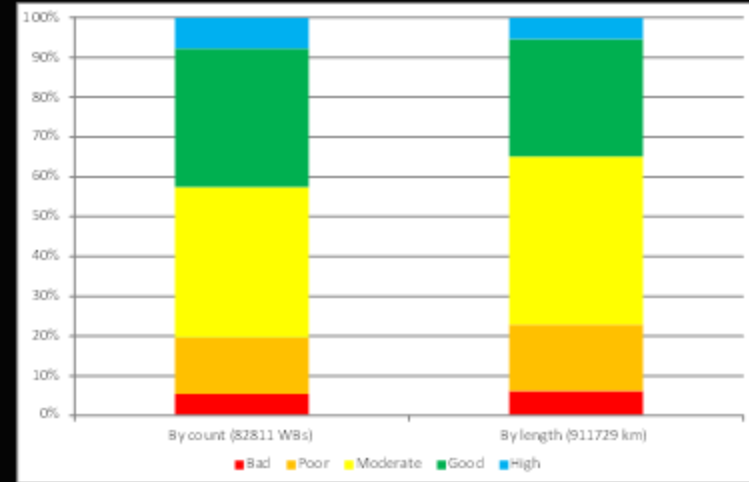
In the analysis, no distinction has been made between ecological status and potential.

The criteria for classification of natural (status) and artificial or heavily modified water bodies (potential) vary, but the ecological conditions they reflect are assumed to be comparable.

This assumption may not be correct for all Member States but the implications are thought to be minimal.

If the approach is not used no European overview and country comparison can be provided.

Aggregation of ecological status/potential to European overviews



Classification of fresh surface water bodies
 Countrywise relative distribution by count

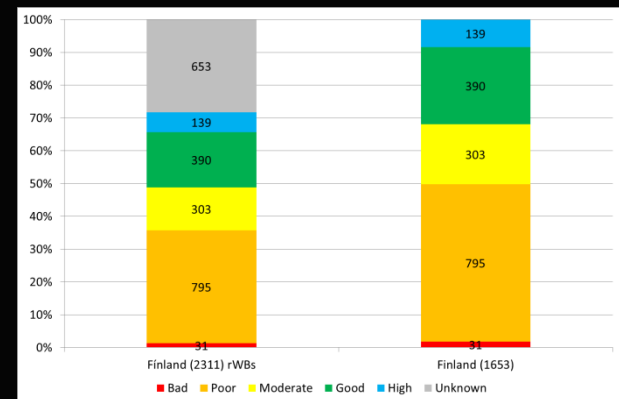
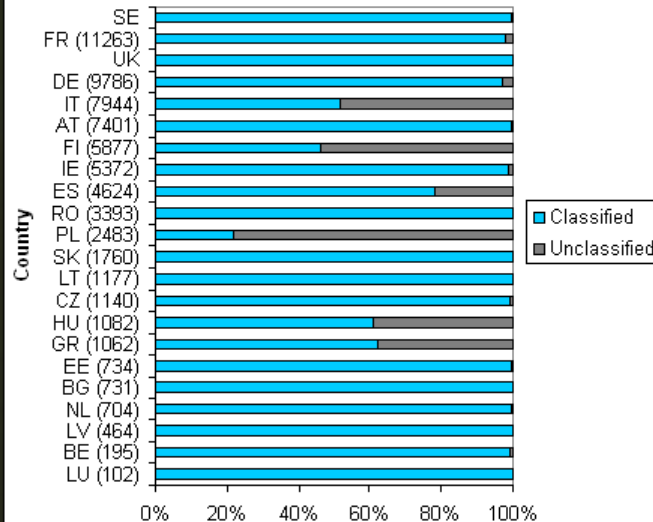
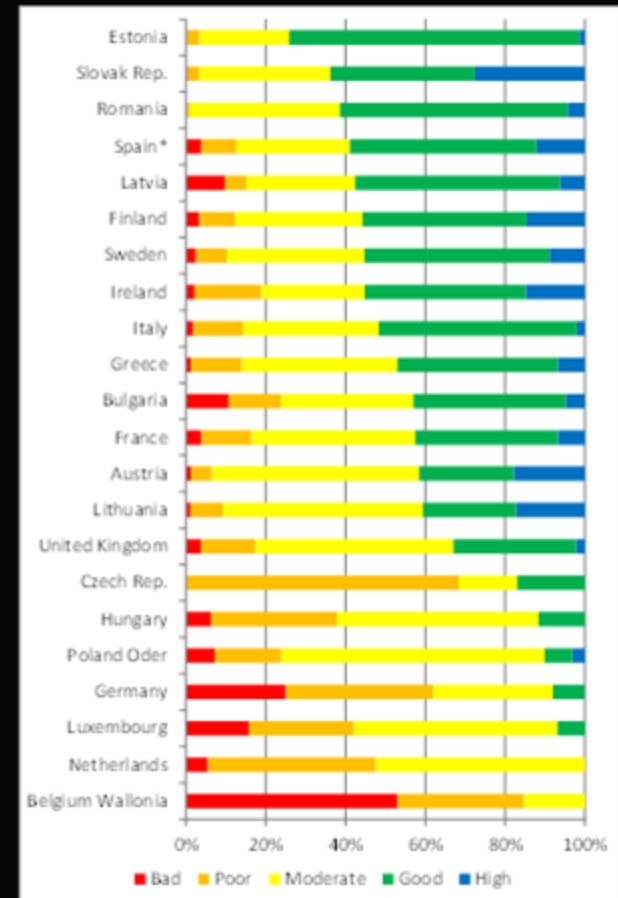
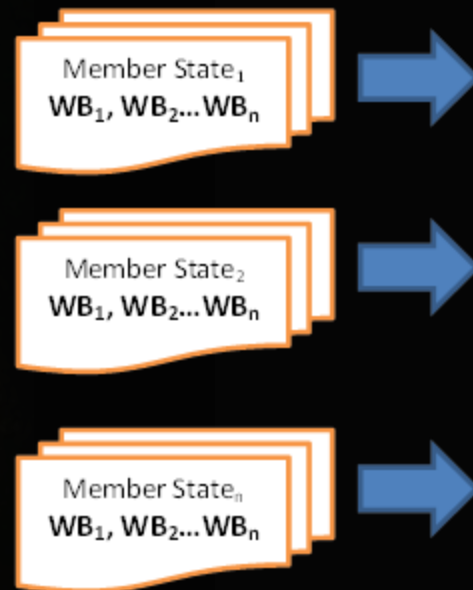


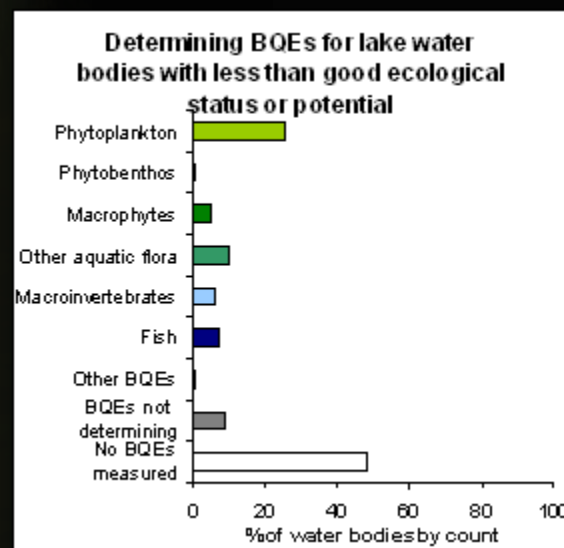
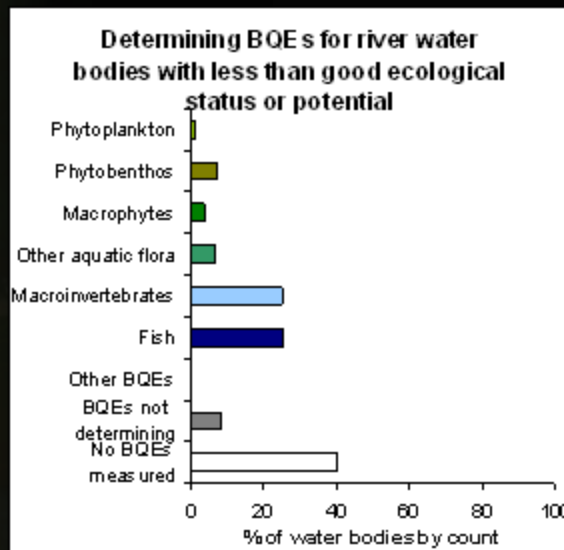
Figure Aggregation of ecological status/-potential and country comparison.



Ranked by percentage not achieving good ecological status

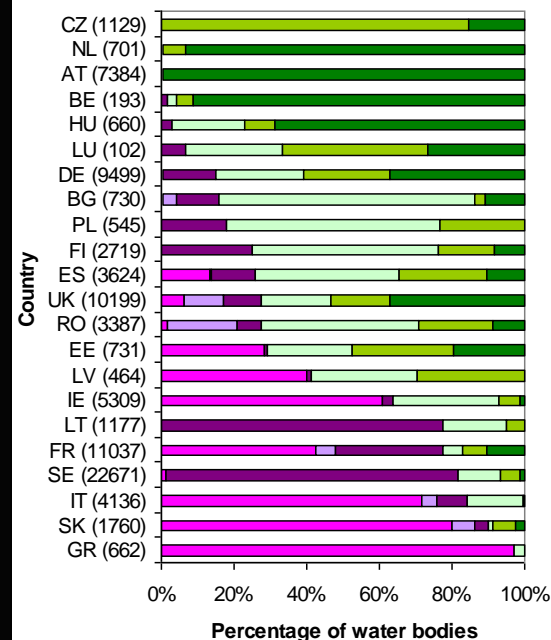
Many WBs have been classified without Biological Quality Elements

quality elements used for classification of water bodies as percentage of total number of water bodies in less than good status



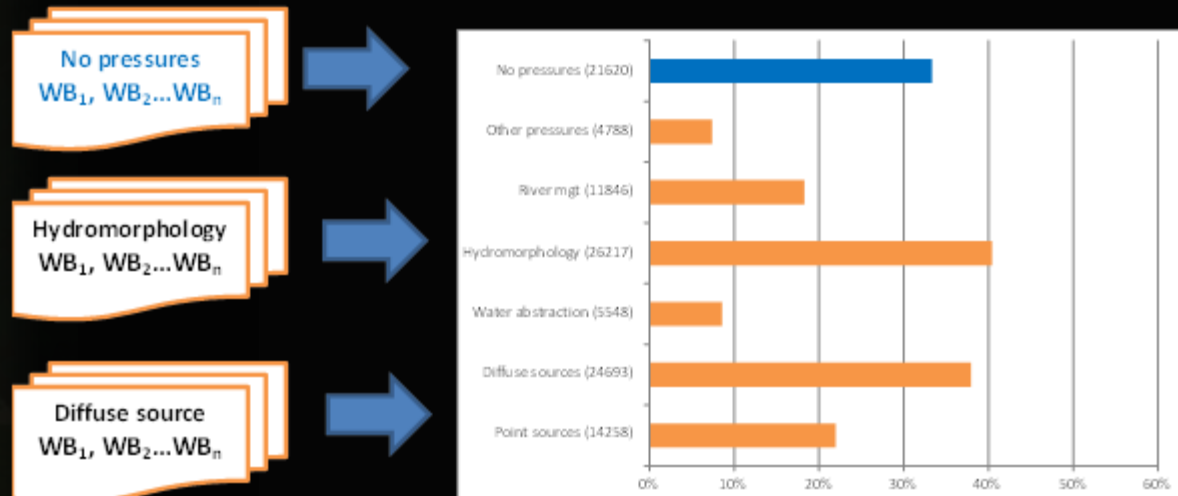
Classification of ecological status

Basis for classification of ecological status or potential for freshwater
Countrywise relative distribution by count

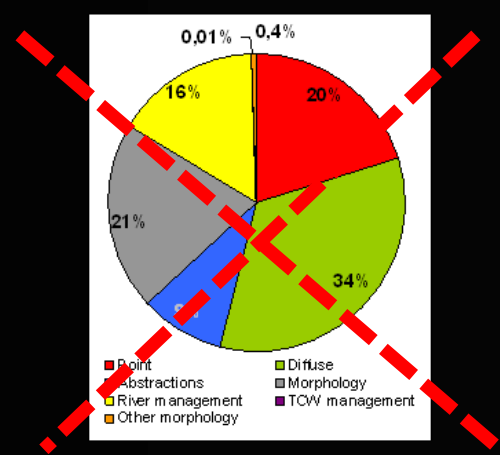


- No QEs
- Hydromorphology only QE
- No BQEs, but at least 1 QE out of General physicochemical, Non-priority pollutants and Other national pollutants
- 1 BQE (and possibly other non-biological QEs in addition)
- 2 BQEs (and possibly other non-biological QEs in addition)
- >2 BQEs (and possibly other non-biological QEs in addition)

Aggregation of pressures (and impact) information

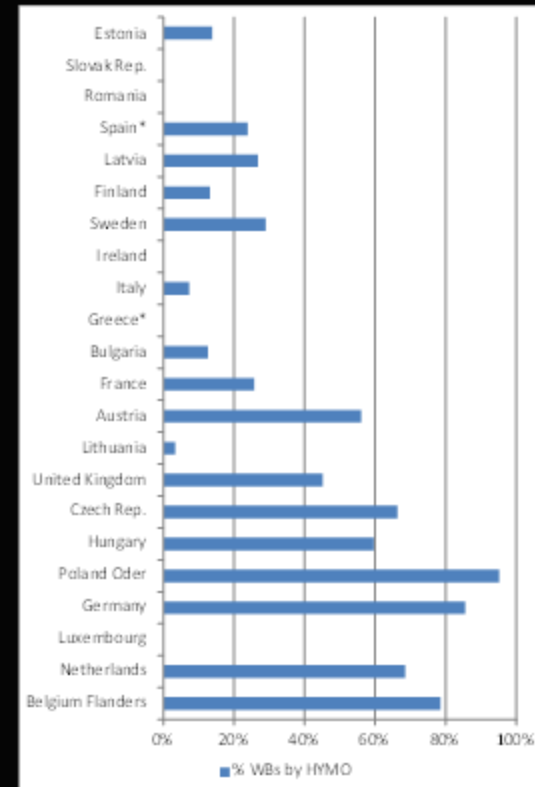
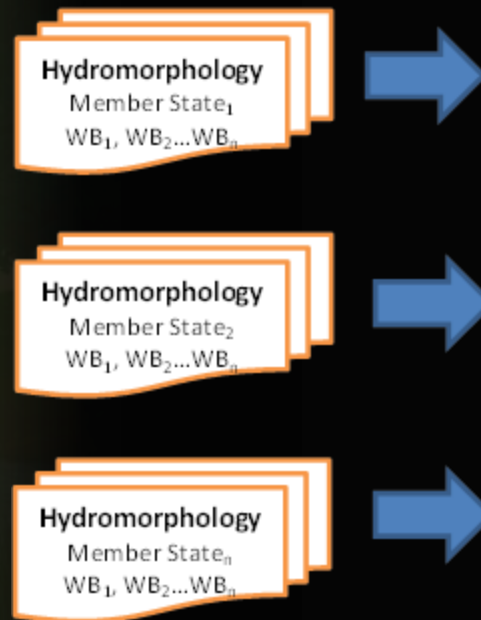


Number (or length/area) of water bodies without pressures or with specific pressures divided by total number (or length/area) of WBs – *Only included WBs with ecological*



Aggregation of pressures (and impact) in pie-charts and stacked bars is not correct - Implications for WISE maps

Member State information on pressures (and impacts)



% of WBs being affected by the specific pressure
MS ranked by the order of at least good ecological status

How do we handle aggregated/disaggregated pressure data?

Country	Aggregated	Detailed
AT	1 PS,2 DS,3 WatAbs,4 FlowMorph;	7 Other Morph 54 (Barriers)
BE	2 DS,3 WatAbs,4 FlowMorph; 8 Other pressures	1 PS;
BG	No	1 PS; 2 DS; 3 WAtAbs; 4 FlowMorph; 5 River Mgt; 7 Other Morph & 8 Other pressures
CZ	No	1 PS; 2 DS; 4 FlowMorph; 5 River Mgt; & 8 Other pressures
DE	1 PS,2 DS,3 WatAbs,4 FlowMorph; 8 Other pressures	
EE	EE1: 2 DS,3 WatAbs EE2 &EE3 no	1 PS; 2 DS; 3 WAtAbs; 4 FlowMorph ; 8 Other pressures
	1 Point sources	1.1 Point - UWWT_General 1.1.1 Point - UWWT_2000 1.1.2 Point - UWWT_10000 1.1.3 Point - UWWT_15000 1.1.4 Point - UWWT_150000 1.1.5 Point - UWWT_150000PLUS 1.2 Point - Storm Overflows 1.3 Point - IPPC plants (EPTRTR) 1.4 Point - Non IPPC 1.5 Point - Other
	2 Diffuse sources	2.1 Diffuse - Urban run off 2.2 Diffuse - Agricultural 2.3 Diffuse - Transport and infrastructure 2.4 Diffuse - Abandoned industrial sites 2.5 Diffuse - Releases from facilities not connected to sewerage network 2.6 Diffuse - Other
	3 Water Abstractions	Total and abstractions by sectors
	4 Water flow regulations and morphological alterations	See next slide

Example of aggregated/diaggregated pressures

Austria and Germany only reported aggregated pressures – e.g. River WBs being affected by point sources

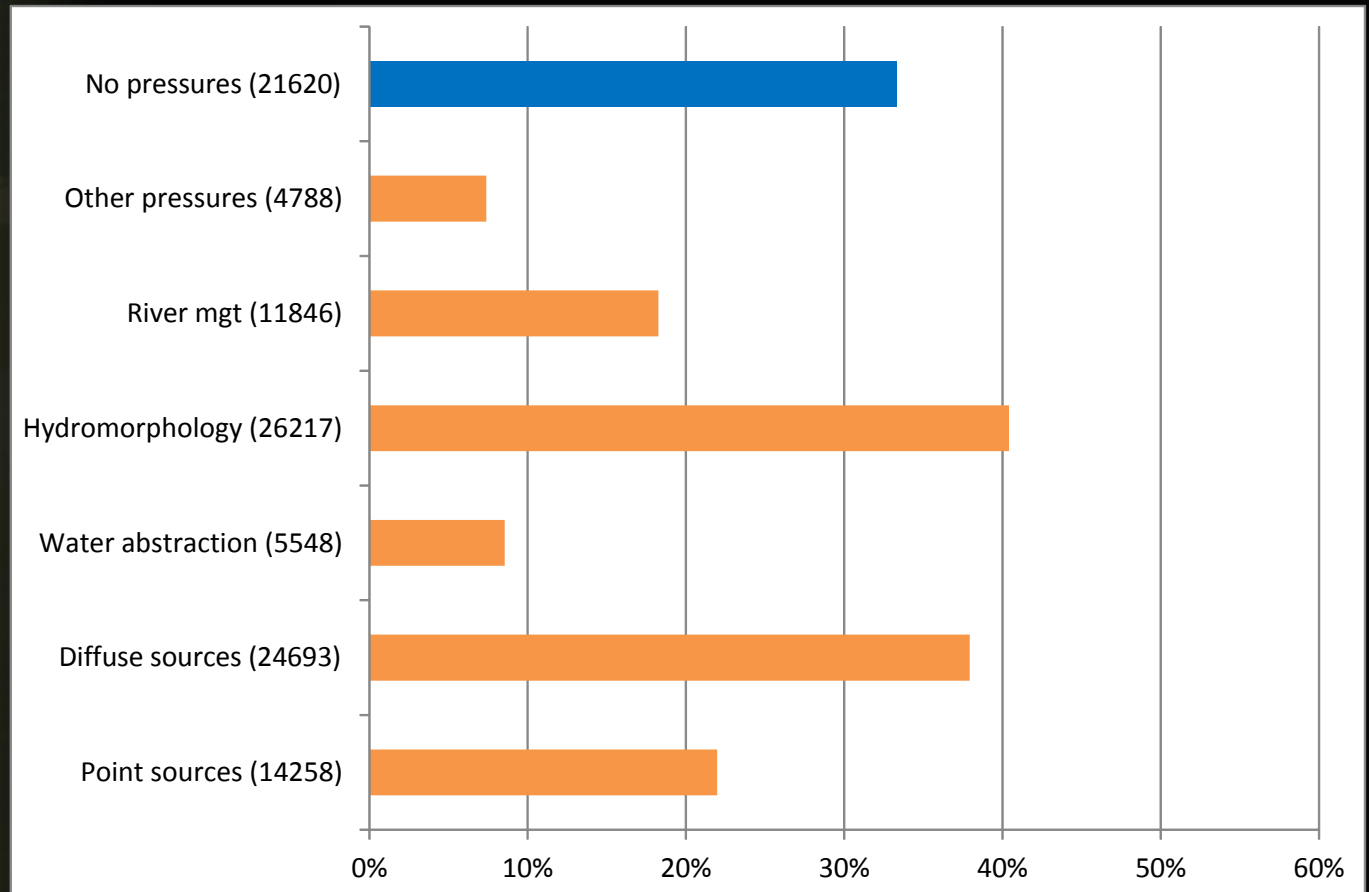
Belgium Flanders, Bulgaria and the Czech Republic reported disaggregated pressures (e.g. River WBs being affected by UWWT, IPPC plants etc.)

In the analysis the Be Fl.; BG; and CZ have been aggregated to WBs affected by points sources (no double counting).

1 Point sources	1.1 Point - UWWT_General --- BE(62): BG(3); CZ (86)
AT (68) -0.9 %	1.1.1 Point - UWWT_2000 --- BG (65); CZ (116)
DE (2436) – 27.6 %	1.1.2 Point - UWWT_10000 --- BG (85); CZ (81)
	1.1.3 Point - UWWT_15000 --- BG (18); CZ (13)
<i>Aggregated – disagg.</i>	1.1.4 Point - UWWT_150000 --- BG (35); CZ (55)
BE Fl. (82) – 46.3 %	1.1.5 Point - UWWT_150000PLUS--- BG (6); CZ (6)
BG (243) – 35.3 %	1.2 Point - Storm Overflows --- CZ (1)
CZ (485) - 45.7	1.3 Point - IPPC plants (EPRTR) --- BE(17); BG(45); CZ (136)
	1.4 Point - Non IPPC --- BE(30): BG(106); CZ (153)
	1.5 Point – Other --- --- BE(8): BG(67); CZ (153)

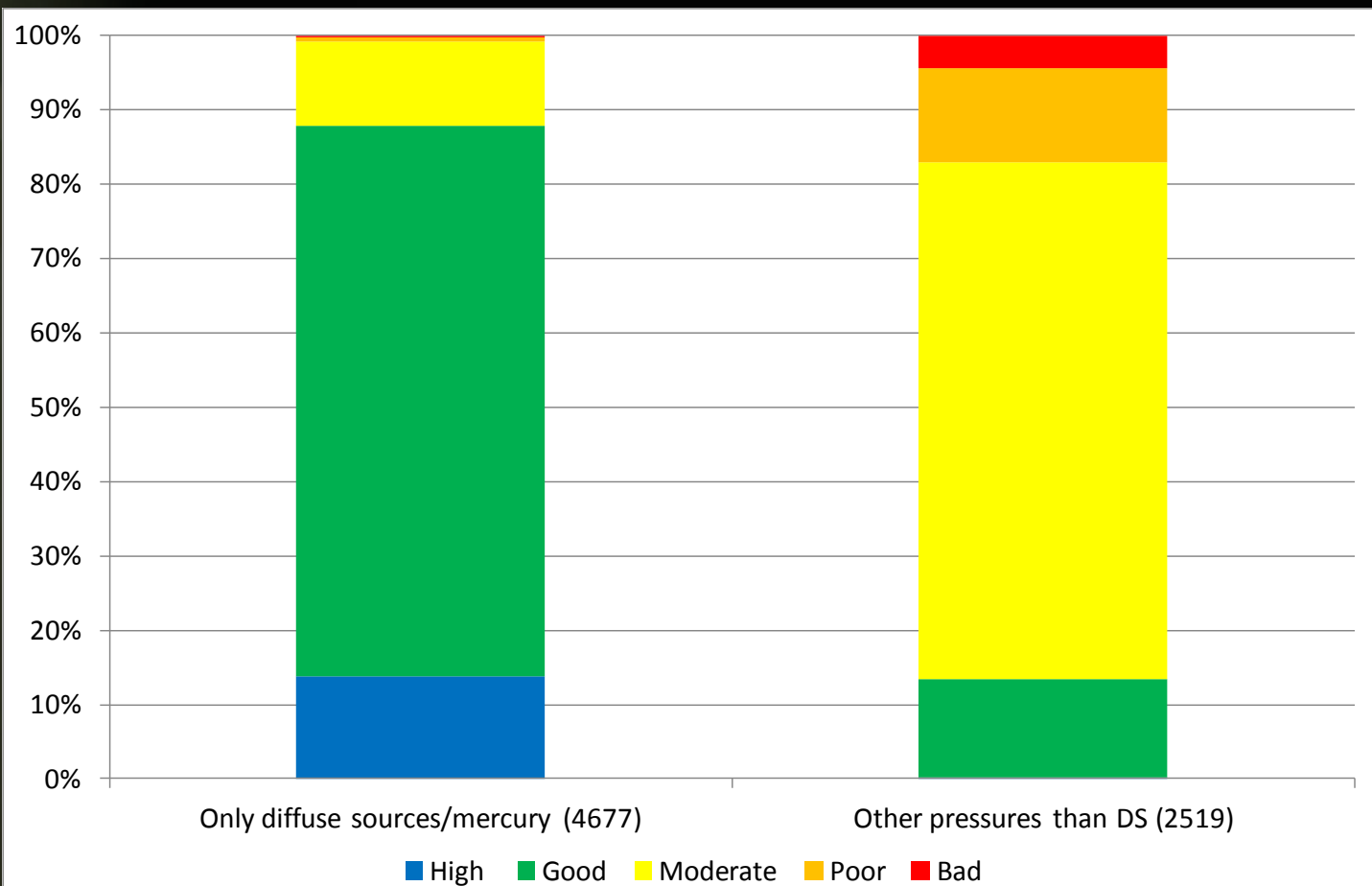
Significant pressures

% of river WBs being affected by specific pressures



Sweden only diffuse pollution WBs other than mercury pollution

Swedish lakes – ecological status of WBs with diffuse sources (**mainly mercury**) being the only pressure or status for WBs with other pressures than diffuse sources



HYMO pressure information is a mess

Aggregated	Detailed
3 Water Abstractions AT, BE, DE, EE, NL, UK	BG, EE, HU 3.1 Abstraction - Agriculture 3.2 Abstraction - Public Water Supply 3.3 Abstraction - Manufacturing 3.4 Abstraction - Electricity cooling 3.5 Abstraction - Fish farms 3.6 Abstraction - Hydro-energy not cooling 3.7 Abstraction - Quarries 3.8 Abstraction - Navigation 3.9 Abstraction - Water transfer 3.10 Abstraction - Other
4 Water flow regulations and morphological alterations AT, BE, DE, NL, SE, UK	BG, CZ, EE, HU 4.1 FlowMorph - Groundwater recharge 4.2 FlowMorph - Hydroelectric dam 4.3 FlowMorph - Water supply reservoir 4.4 FlowMorph - Flood defence dams 4.5 FlowMorph - Water Flow Regulation 4.6 FlowMorph - Diversions 4.7 FlowMorph - Locks 4.8 FlowMorph - Weirs
5 River management NL, SE, UK	BG, CZ, EE, HU 5.1 RiverManagement - Physical alteration of channel 5.2 RiverManagement - Engineering activities 5.3 RiverManagement - Agricultural enhancement 5.4 RiverManagement - Fisheries enhancement 5.5 RiverManagement - Land infrastructure 5.6 RiverManagement - dredging
7 Other morphology	7.1 OtherMorph - Barriers, AT, BG 7.2 OtherMorph - Land sealing
8 Other pressures BE, DE NL, UK	BG, CZ, EE, HU 8.1 OtherPressures - Litter/fly tipping 8.4 OtherPressures - Recreation 8.9 OtherPressures - Land drainage 8.10 OtherPressures- Other



Looking on results in detail

Several quality issues (results look suspicious, for example

- no high or bad classified Czech rivers (only three classes);
- no WBs affected by Urban Waste Water Treatment in Sweden;
- no Swedish WBs with altered habitats being an impact

Aggregation results affected by MS included (e.g. two thirds of the lake WBs and lake area in Sweden and Finland

Difficult to use detailed pressure information

Limited reporting of aggregated pressure information (loads of pollutants or water abstractions within RBD and sub-units)

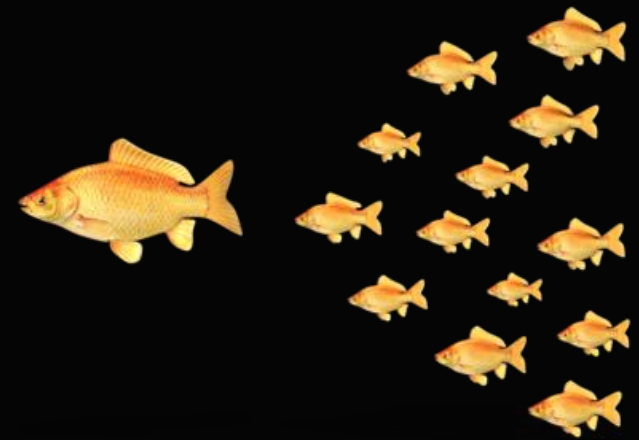


State and pressure **not fully covered**

- Chemical status (SWB and GW)
- Groundwater
- Quantitative status
- Aggregated pressures (pollutant loads; water abstractions; barriers)
- Examples and cases from the RBMPs



COORDINATION ISSUES AND OTHER ASPECTS



Questions? Comments?

Thank you for your attention!

