

The right data ?

- for what?

**The indicator assessments linked to the DPSIR-
framework and the development of impact and
response indicators for EEA mandate and reports**

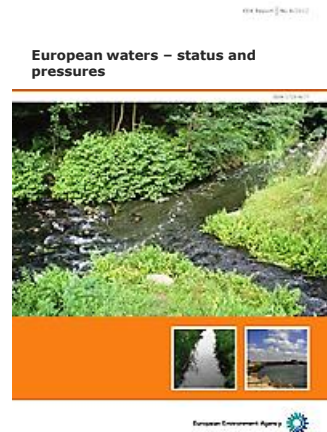
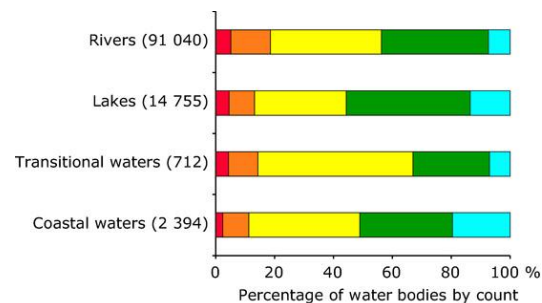
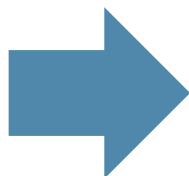
Beate Werner



- Use of data and indicators in EEA products – SOER 2015
- The SOE reporting – a success - and water directives (WFD+)
- EEA information and indicators in the policy cycle – using the DPSIR - Assessing interrelations and policy relevant information
- Aggregation of information national to EU



EEA State of Water assessments

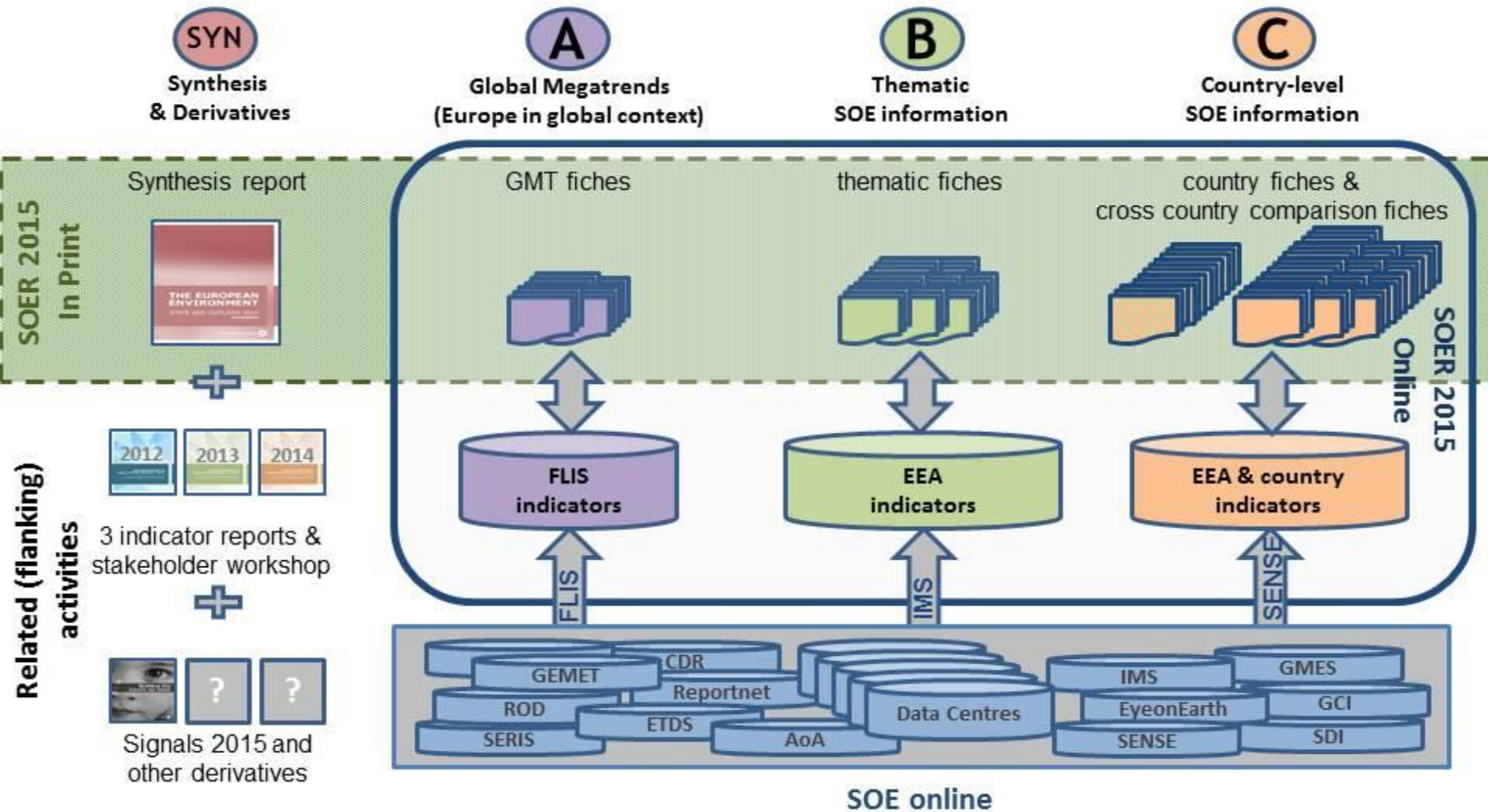


SOER [...] publish a report on the state of, trends in and prospects for the environment every five years



SOER 2015

A suite of product(s): short briefs + up-to-date indicators

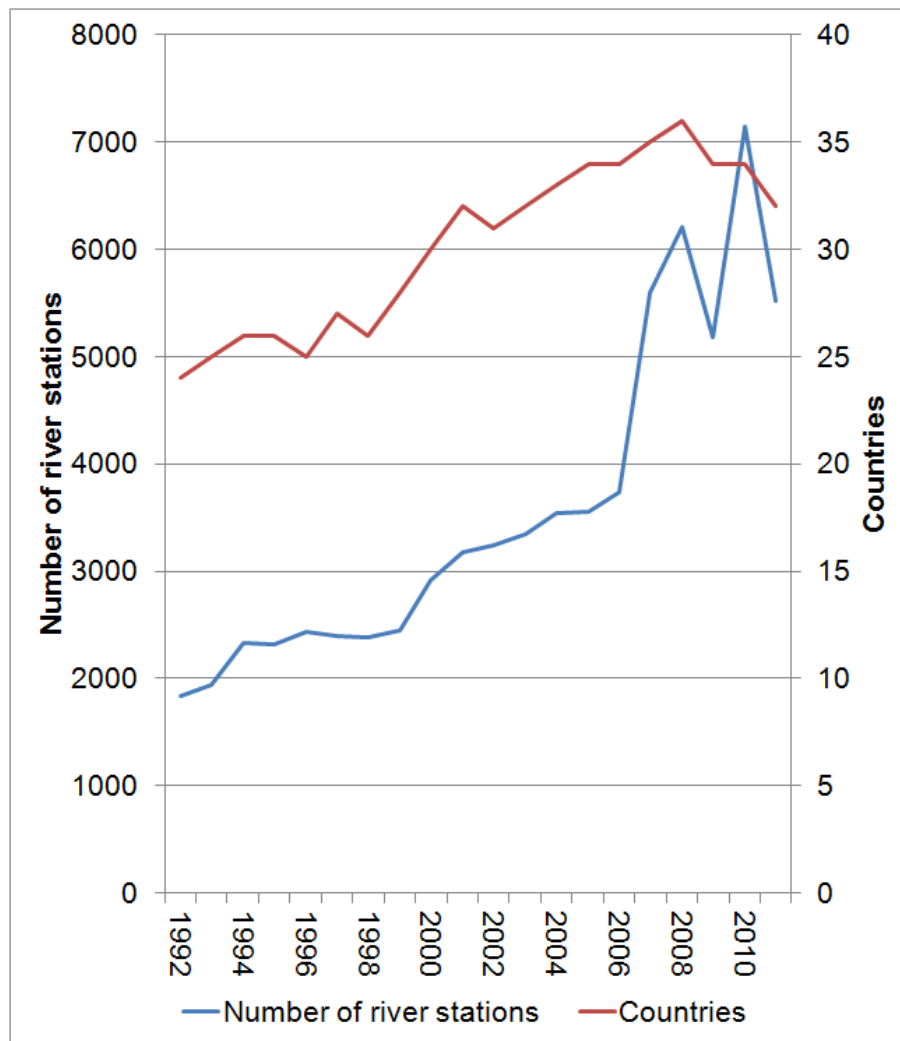


WISE-SoE dataflow - a success

- Over the last 20 years countries have reported
- More than **11 000 river stations** (38 countries) – only Malta has not reported rivers
- More than **3200 lake stations** (36 countries)
- More than **1500 groundwater bodies**
- For rivers there are around 1000-1500 time series covering the last 20 years 1992 to 2011.



Number of river stations and countries reporting per year



CountryCc	Total_R_St	2007	2008	2009	2010	2011
AL	54	52	52	22	22	20
AT	290	65	60	66	66	
BA	66	18	19	20	16	31
BE	98	57	59	60	61	90
BG	115	107	98	92	95	96
CH	24	15	11	6	10	
CY	31	23	18	24	29	25
CZ	73	69	69			
DE	267		253	255	255	257
DK	42	42	41	41	41	40
EE	122	60	60	60	64	58
ES	2965	652	1244	1317	1605	905
FI	230	138	137	130	128	125
FR	1873	1380	1522	1441	1567	1567
GB	1235	400	392	465	1185	1140
GR	133	115	107			
HR	52	45	45	45	45	44
HU	150	96				
IE	209	156	159	179	172	172
IS	3	1	2	3	3	3
IT	2075	1336	1024	195	1134	
LI	18	15	15	15	12	15
LT	118	53	53	53	54	59
LU	4	4	4	3	4	3
LV	119	49	40	32	5	5
ME	36					36
MK	20	20	20	20	20	19
NL	31	16	15	14	14	14
NO	46	46	46	46	46	44
PL	344	129	118	113	34	282
PT	64	56	56	51	42	43
RO	132	118	118	117	120	118
RS	77	76	76	76	76	76
SE	127	119	119	117	120	118
SI	33	19	20	15	15	21
SK	124	51	85	43	32	37
TR	5	5	5	5	5	5
XK	48		45	47	47	47

River stations

Most countries report every year

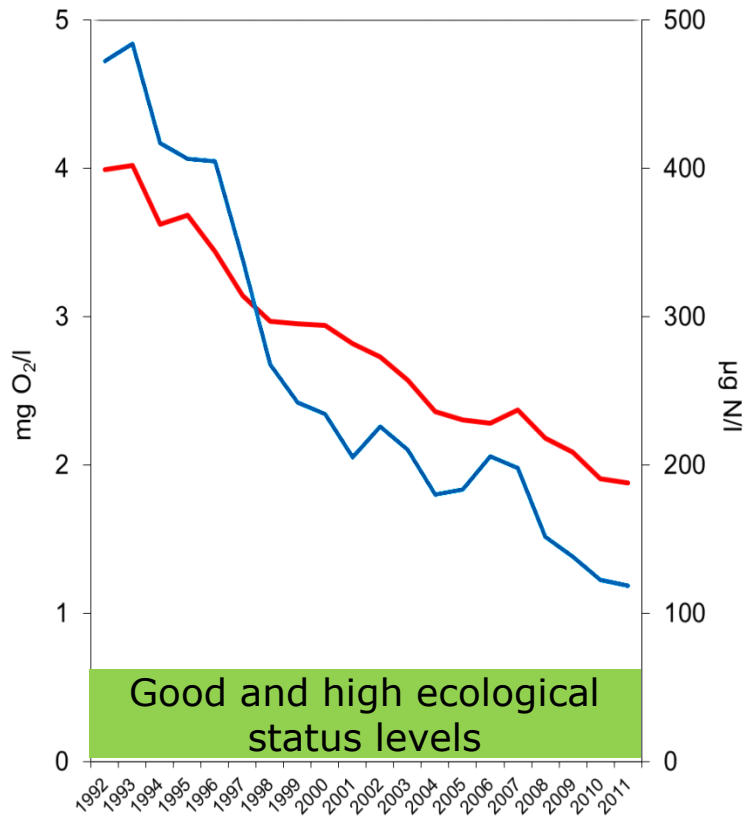
Hungary, Greece and Czech Republic have not reported river data since 2007/2008

Austria, Switzerland and Italy had late/no 2012 reporting

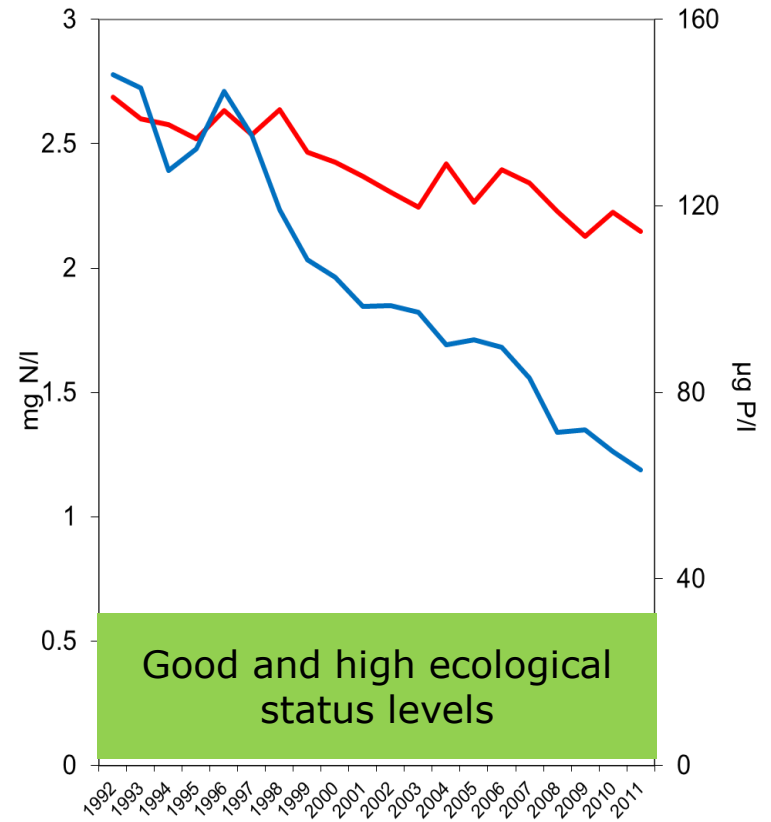


SOE data on river quality (1992-2011)

— BOD
— Total ammonium

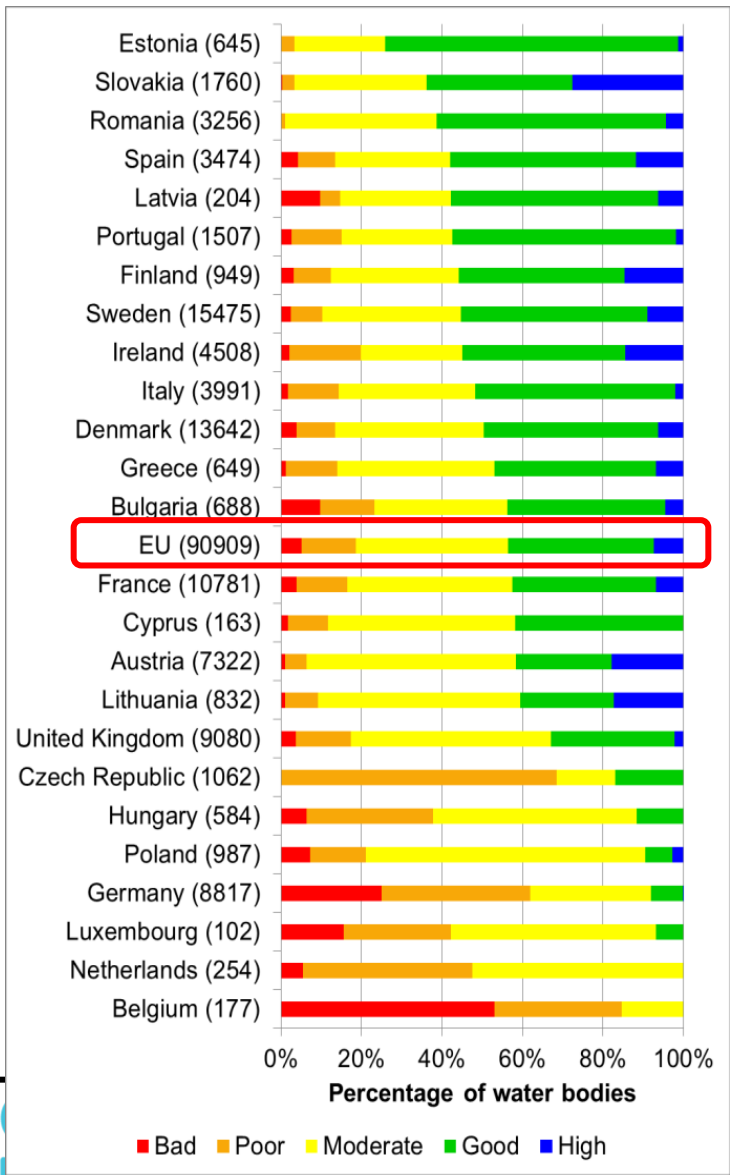


— Nitrate
— Orthophosphate

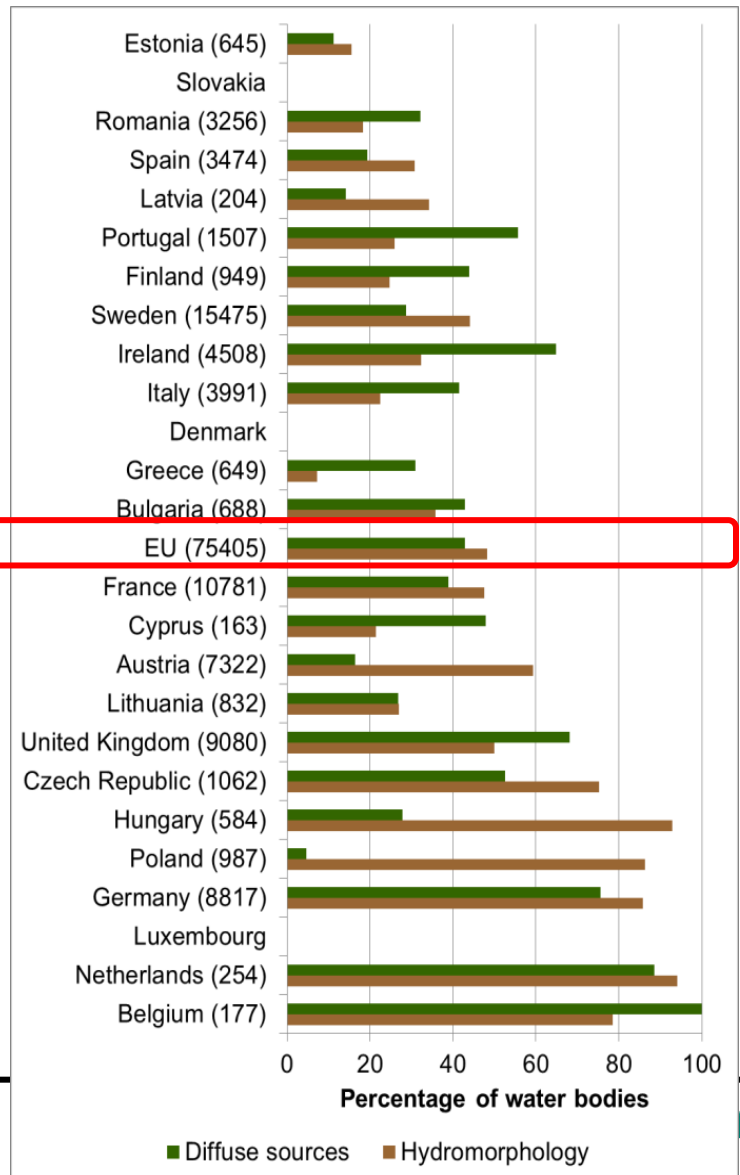


WFD Rivers ecological status and pressures per country

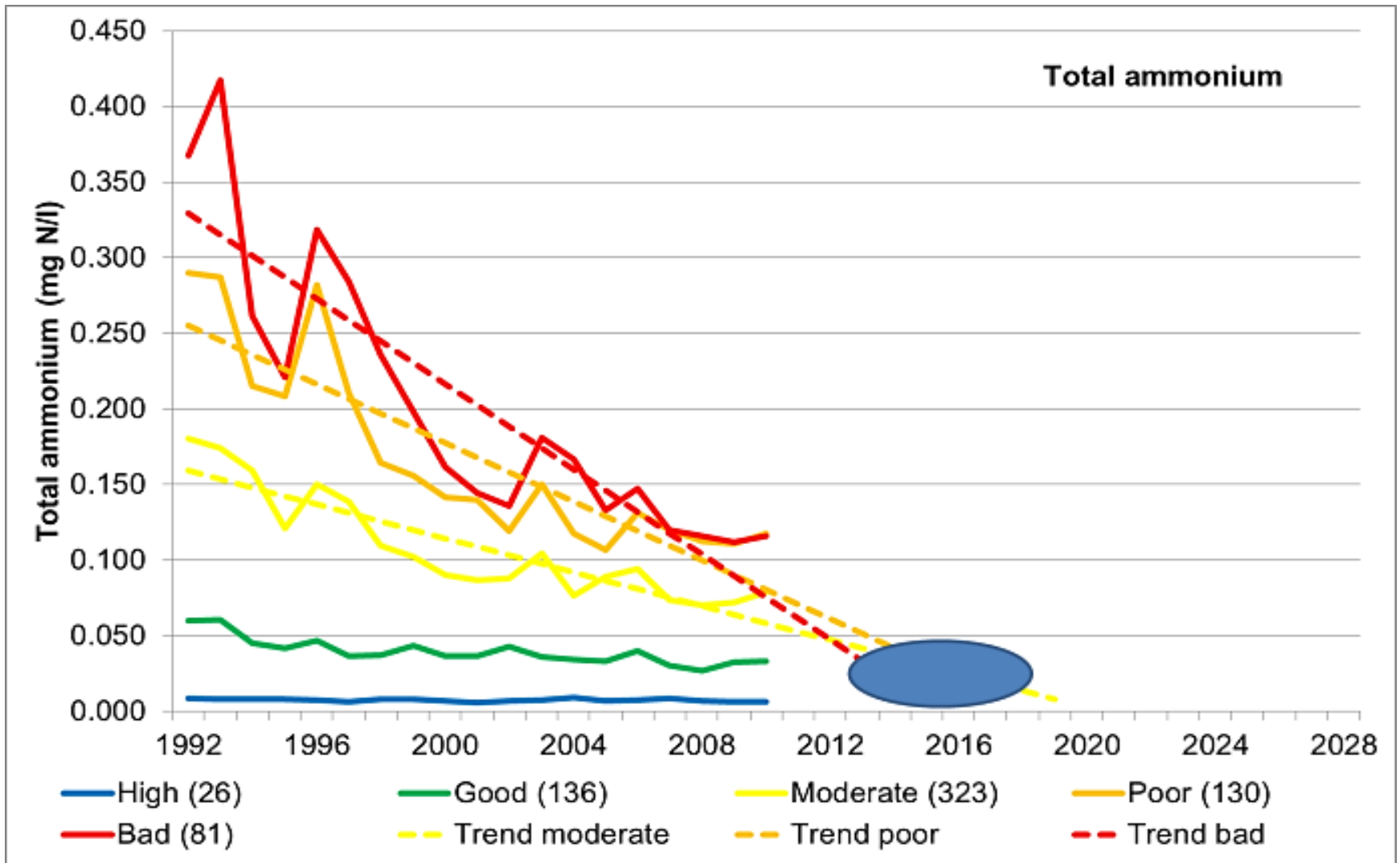
Ecological status/potential



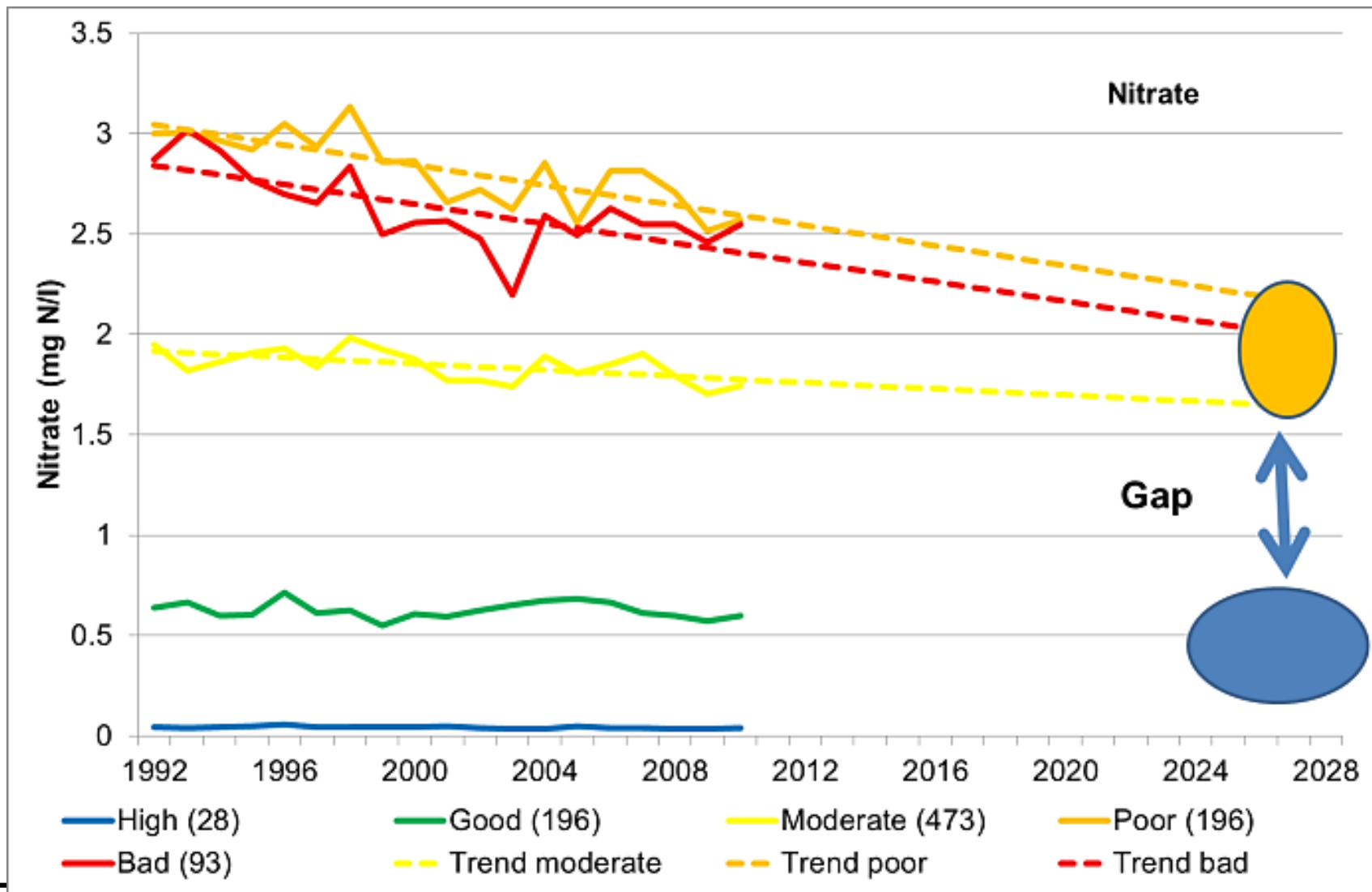
Pressures



Point sources pollution reduction



Pollution reduction from diffuse sources



River basin management

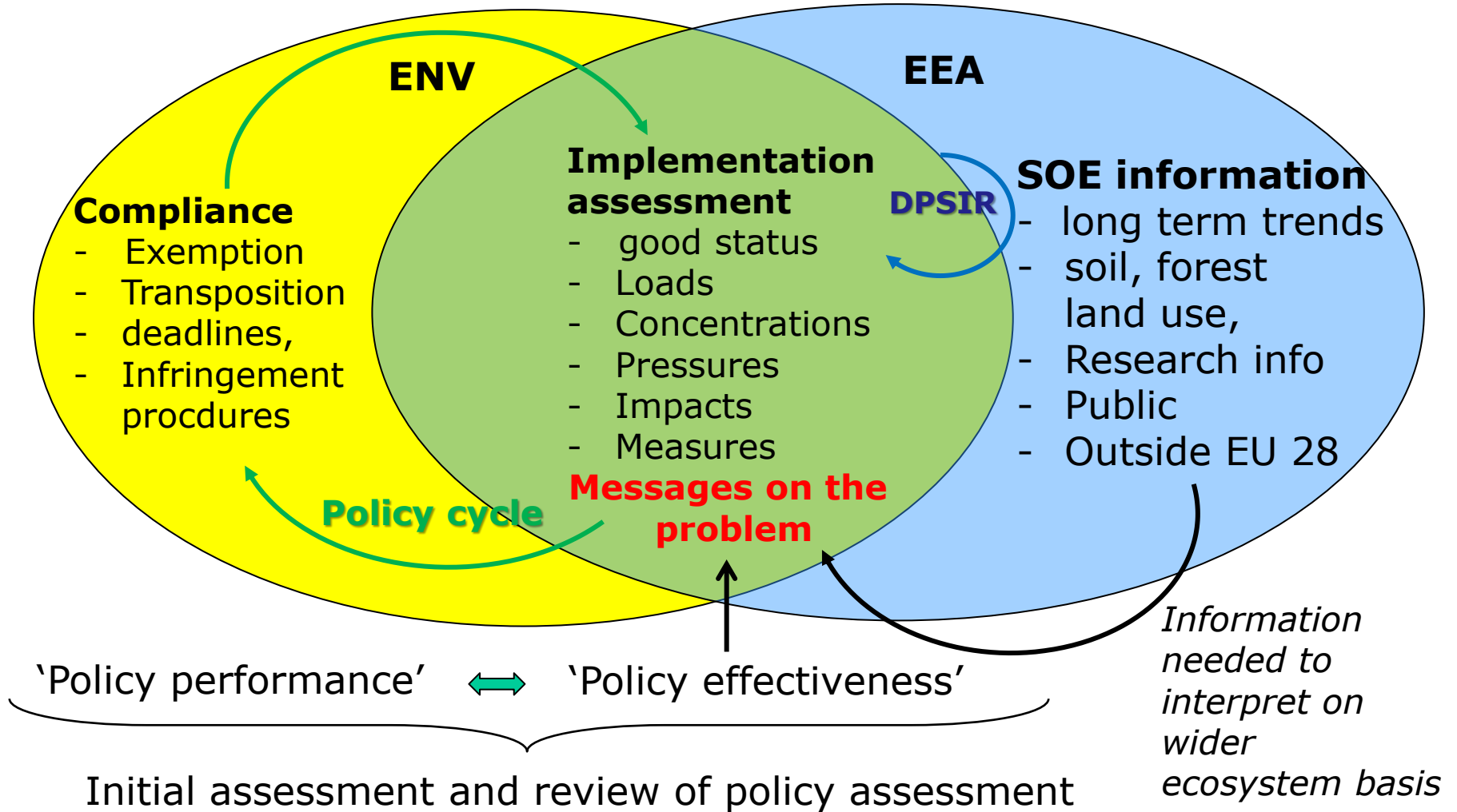
Move from quality standard approach ...



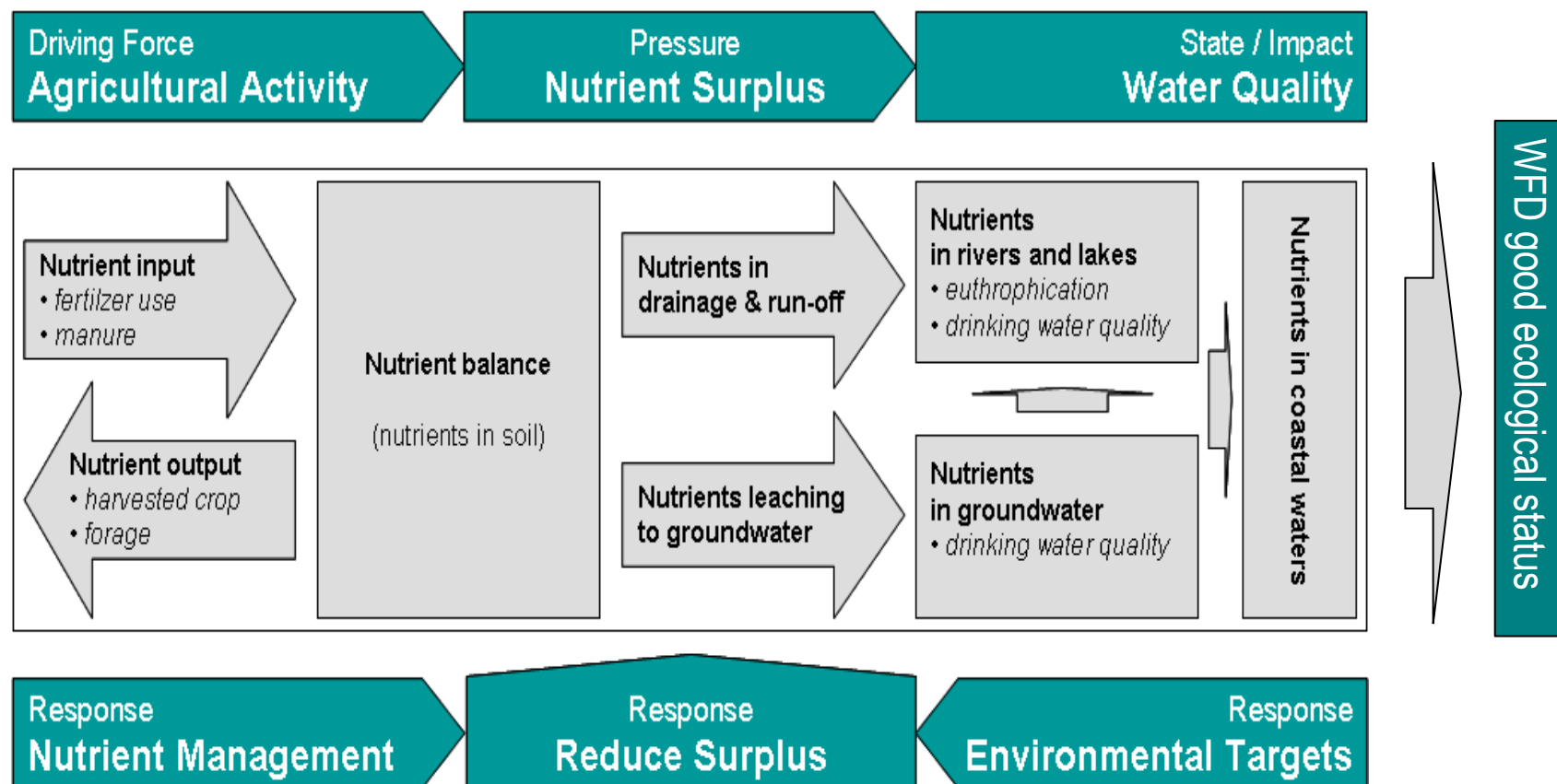
to an integrated, ecological approach.



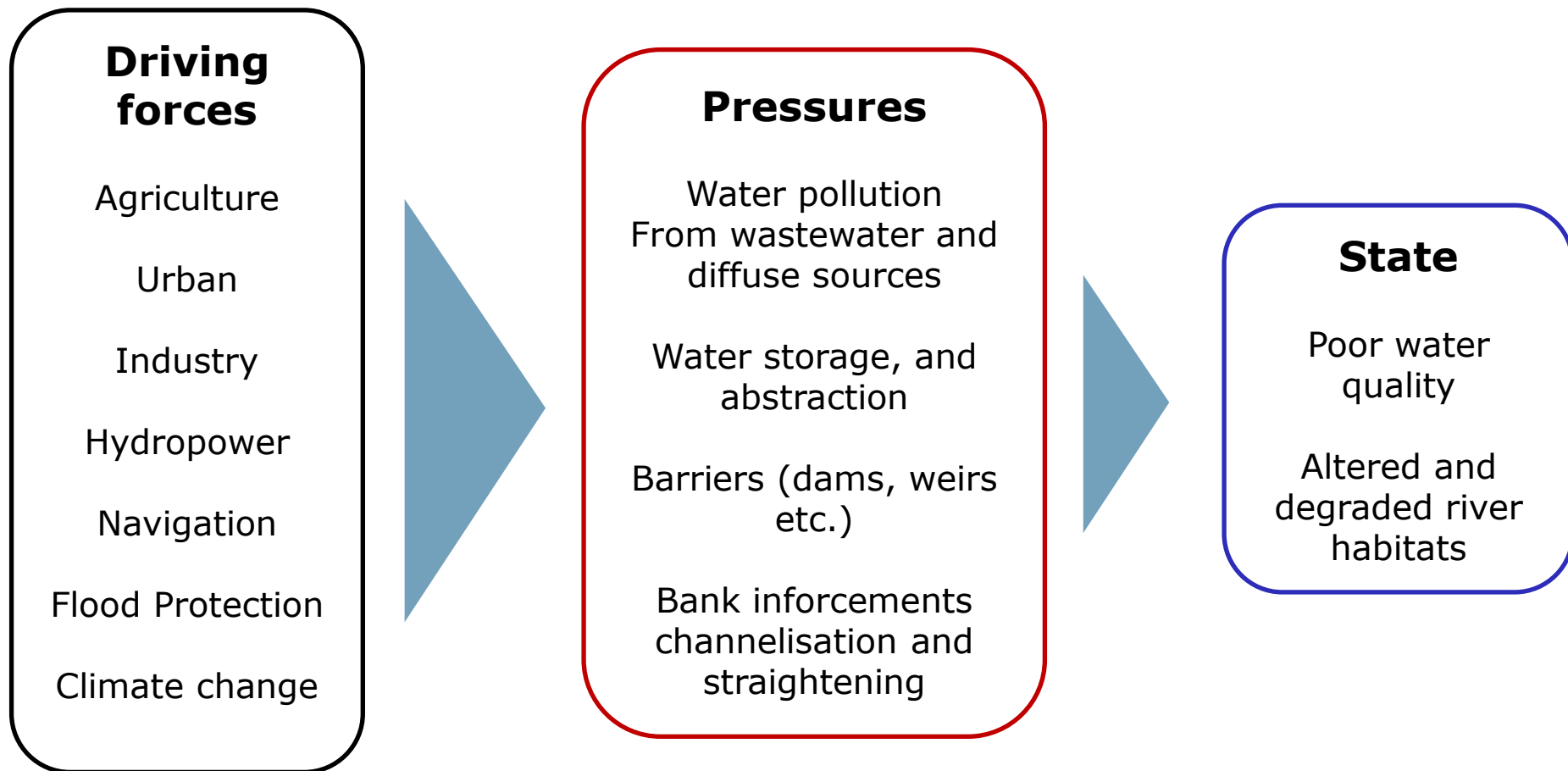
Information for better implementation in the policy cycle



DPSIR-based conceptual framework linking nutrient input through agricultural activity and water quality.



Sources of pressures



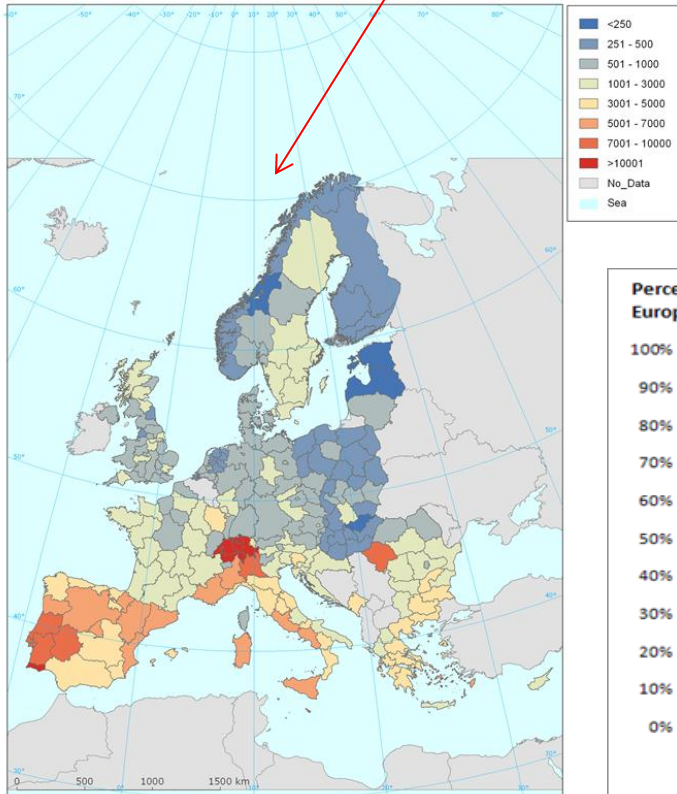
Economic Water Productivity of irrigated crops (€/m³) – ECWP

- indexed by Purchase Power Standard (PSS)

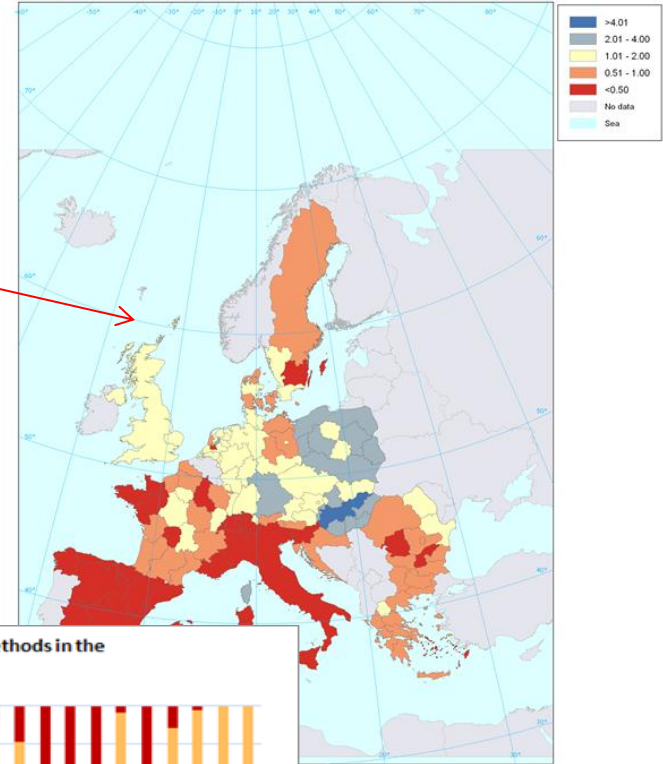
Based on water use for irrigation and crops grown

and GVA for various crops:
Calculates ECWP

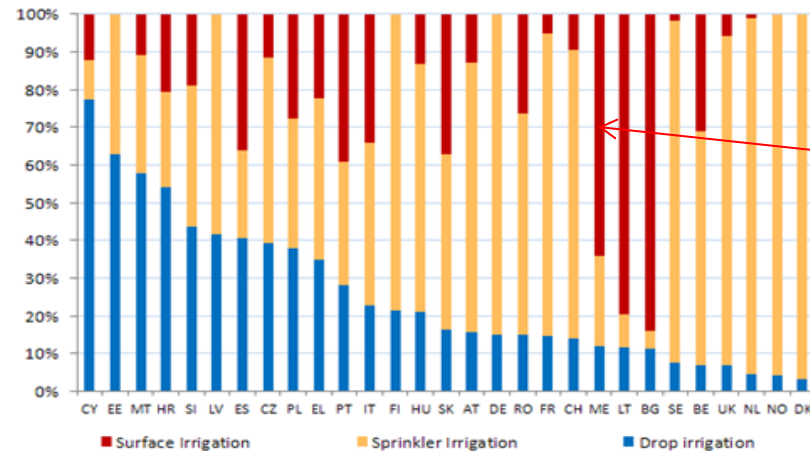
Map 1 - Water Used for Irrigation in Europe per NUTS2 Regions (m³/ha)



Map 3 - ECWP (in € PPS/m³) for maize (green and grain) across EU NUTS2 areas



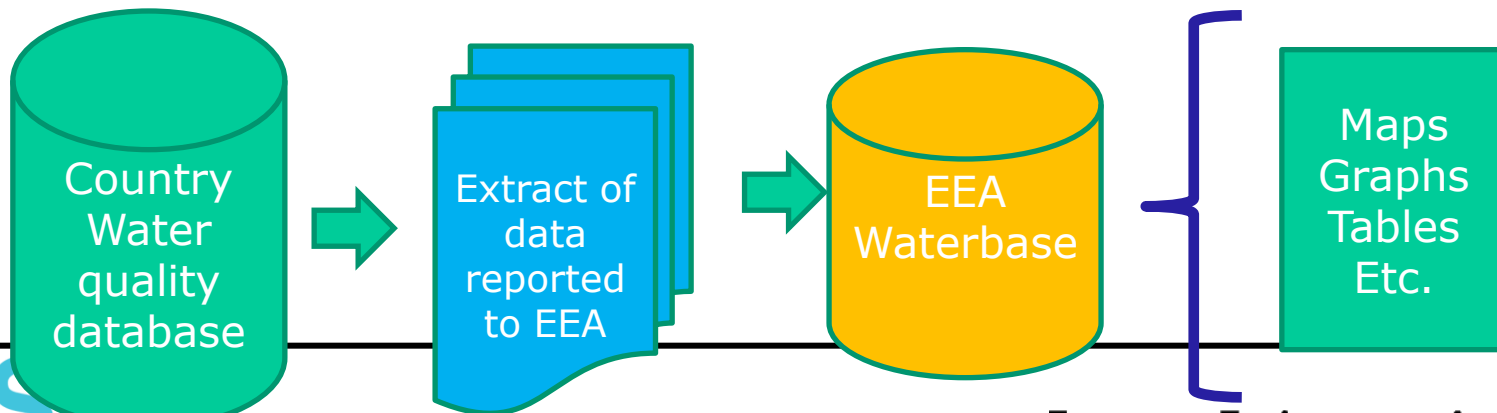
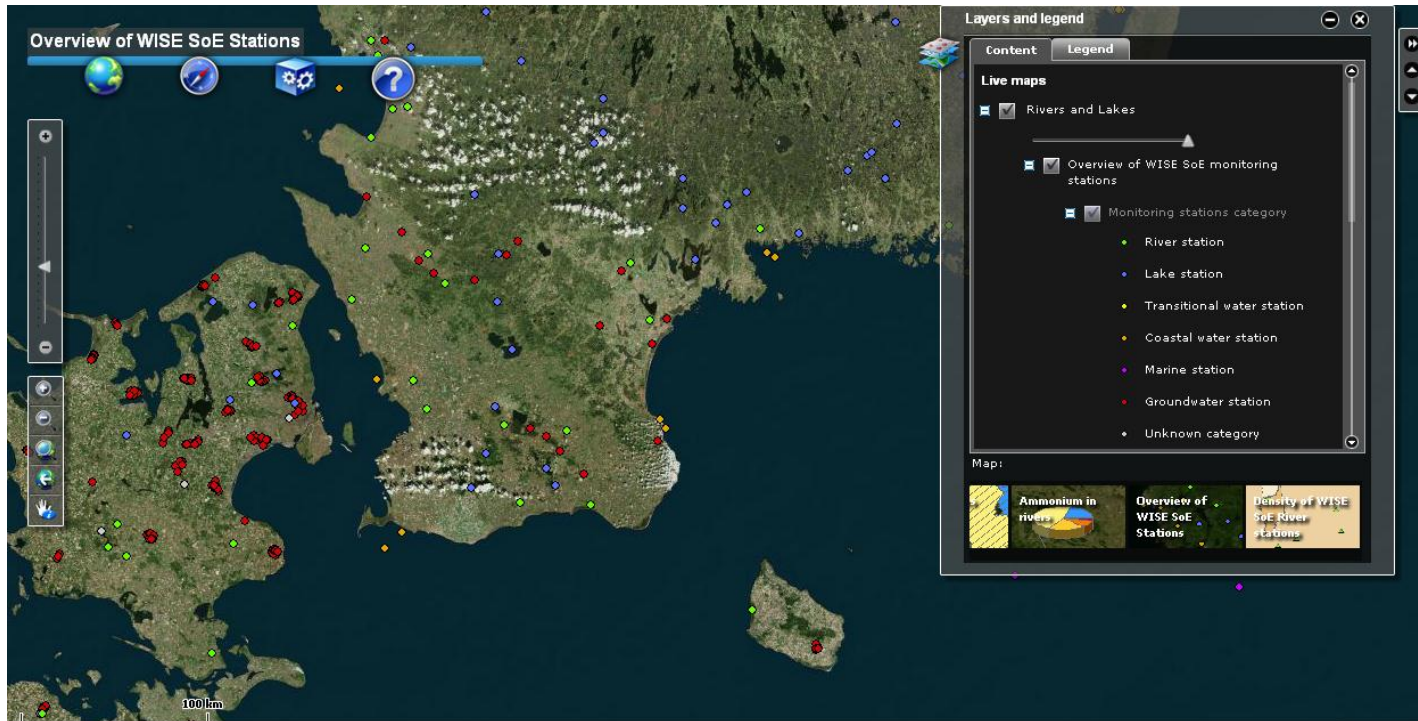
Percentage of irrigated areas applying different irrigation methods in the European countries, for the year 2010



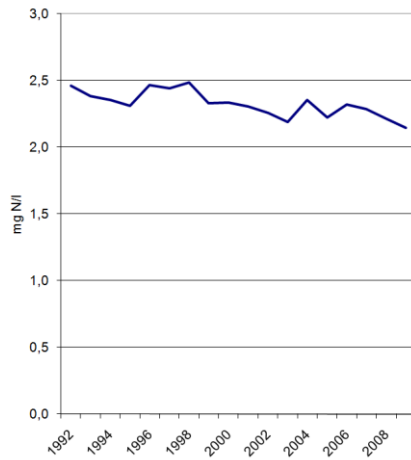
Irrigation methods may improve ECWP



Water quality based on national information

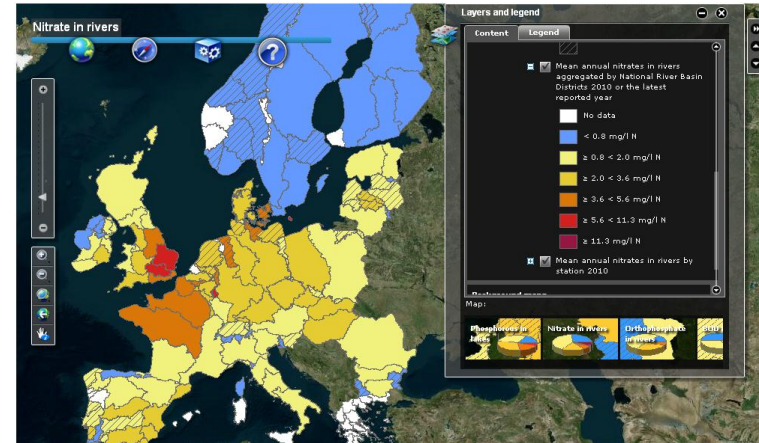


Nitrate trend in European rivers



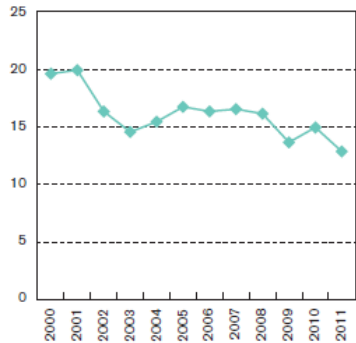
Based on 1200 river time series
(27 time series from Belgium)

Nitrate in River Basin Districts

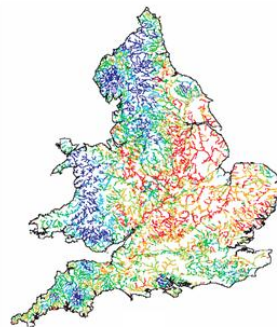


Based on 10 000 river stations

gemiddelde nitraatconcentratie (mg NO₃/l)

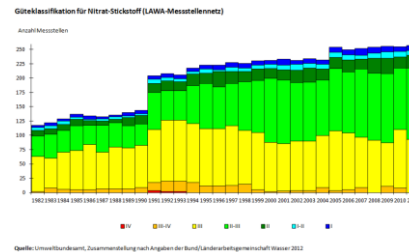


Belgium Flanders

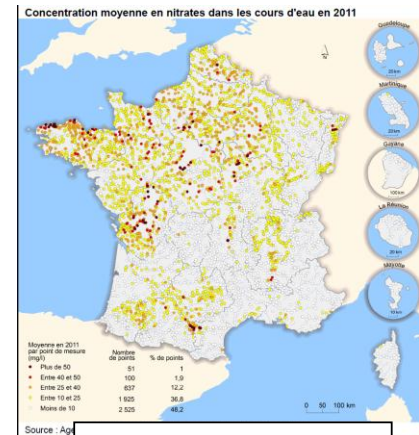


Observed River Concentration
Environment Agency Data

England & Wales



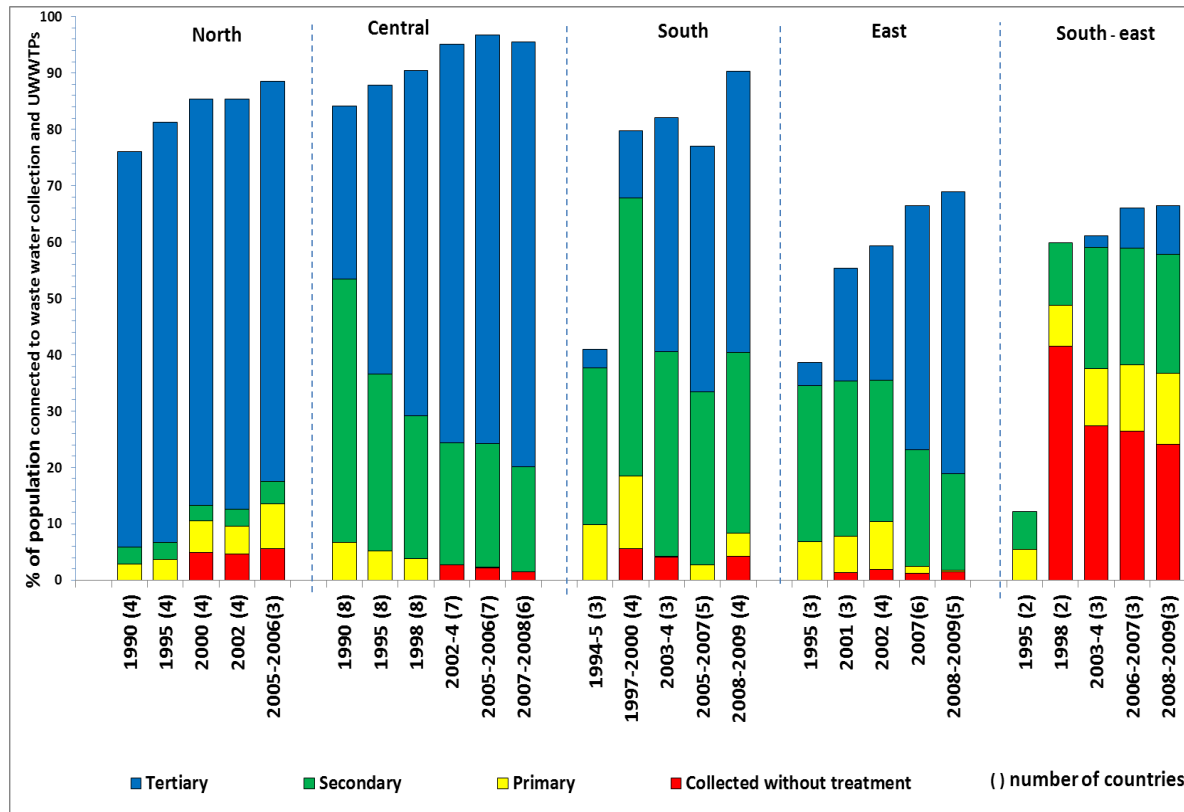
Germany



France

Improved urban waste water treatment

- Implementation of the UWWTD has led to improvements in wastewater treatment and a reduced discharge of nutrients and organic pollution to freshwater.



Urban waste water treatment – Danube river basin (2005/06)

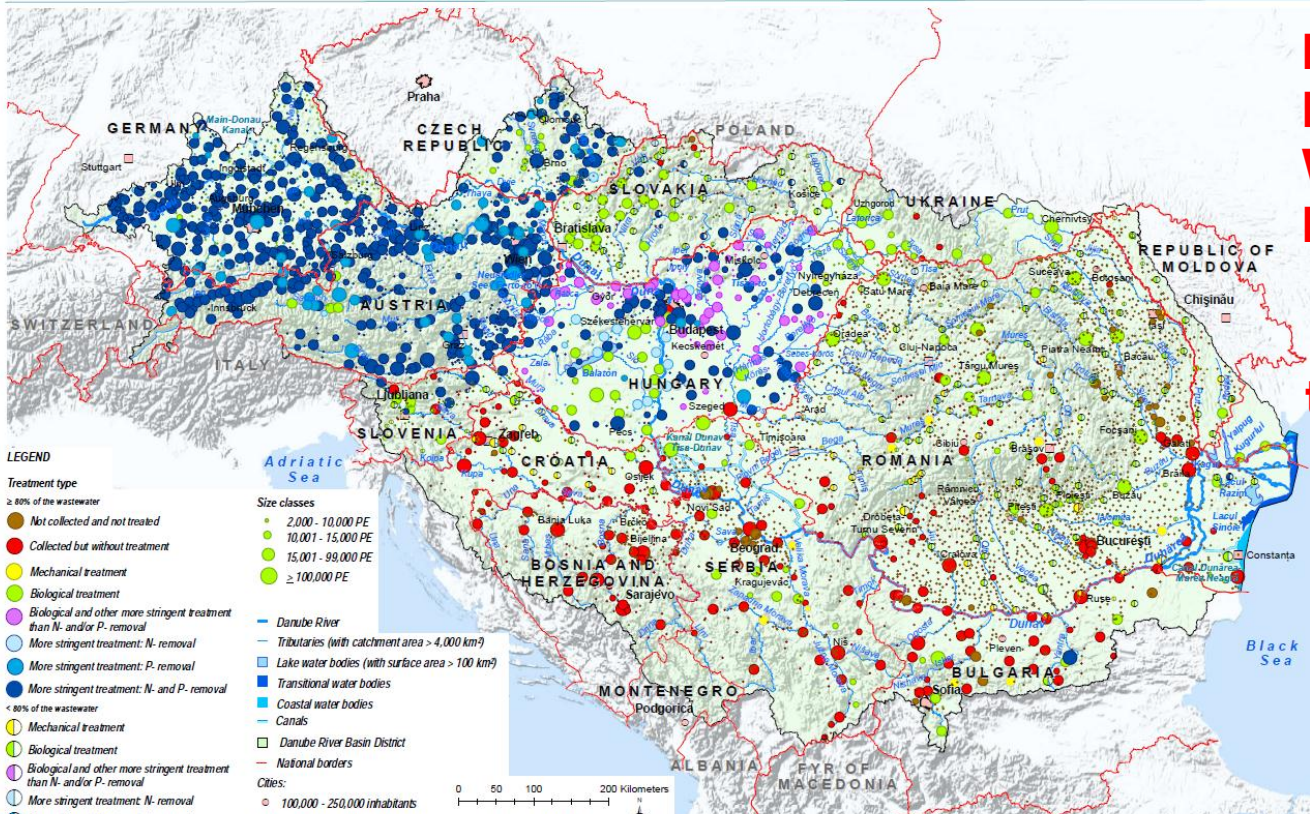
Slovakia
Hungary
Romania

Biological treatment



Danube River Basin District:
Urban Wastewater Discharges – Reference Situation - UWWT 2005/2006

MAP 18



Bulgaria
Romania
West Balkans

No treatment



Germany
Austria
Czech Rep.
Hungary

Biological and P&N removal



SEIS principles – a more decentralise and aggregates reporting

- DG ENV and EEA are discussion options for:
→ **S**tructured **I**nformation and **I**mplementation **F**rameworks
SIIF

Moving in the assessment to more **aggregated information** ;
and focus the compliance assessment on a kind of **benchmarking** ;
reduce reporting burden

Ensure that **DPSIR consistency in assessment** is kept;
assessments stay **policy relevant** and integrated throughout themes and directives



- Keep on following the DPSIR as far as data available;
Focus on policy relevance on EU level
- WFD, water industry directives (UWTD, DW, BaWa) & NiDi to be assessed towards consistent RBM planning;
→ SOE reporting and Eionet focus needs to extend to all water policies
- Follow SEIS principles, work towards decentralised systems → SIIF
 - reducing reporting but
 - increasing access and comparability
- **Data quality and consistency** (between countries & between directives) is key



Thank you



eea.europa.eu



water.europa.eu

