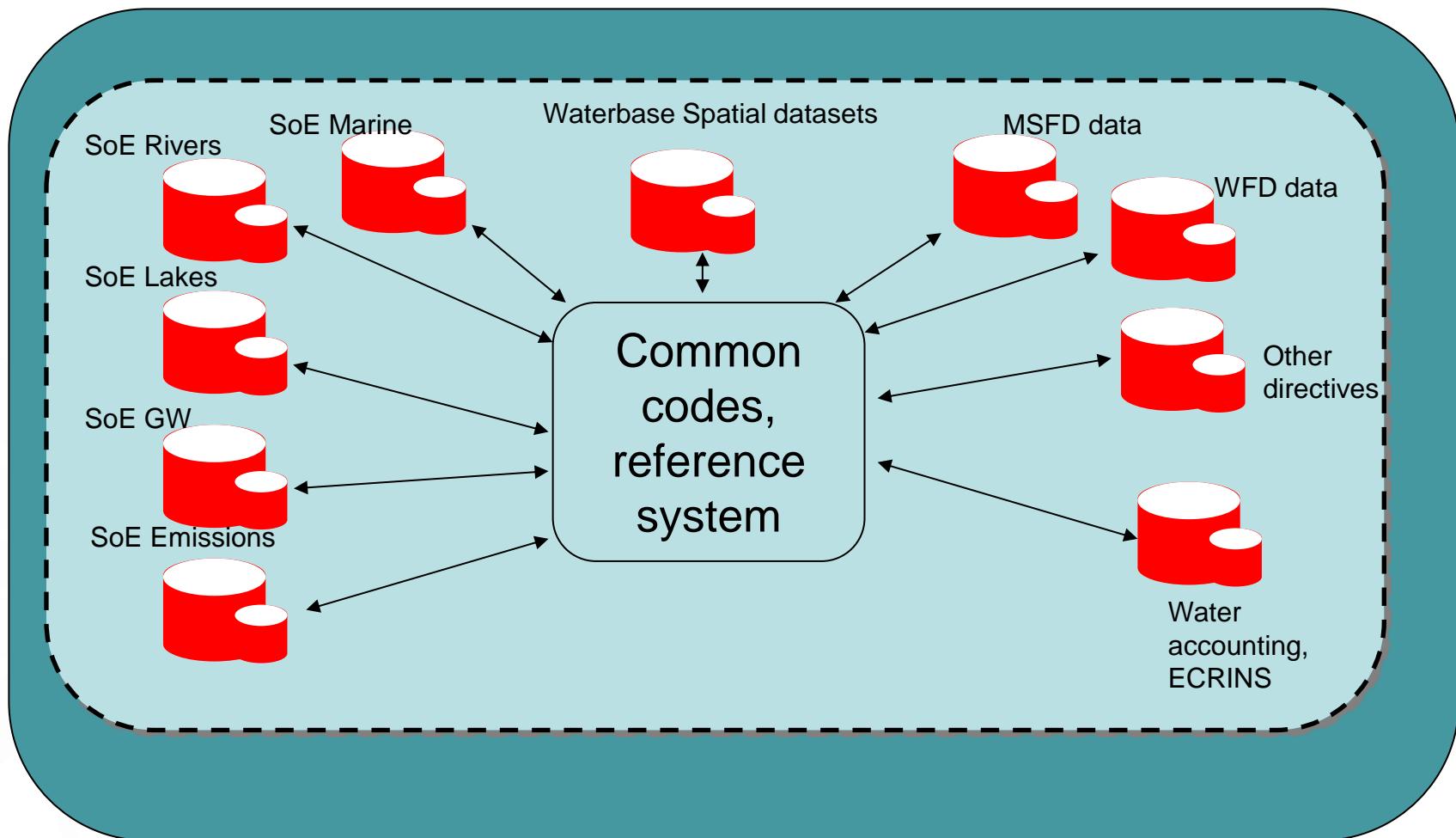


Linking the different databases

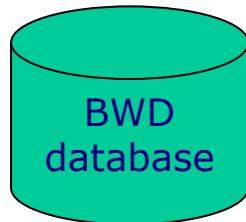
Peter Kristensen
European Environment Agency

Linking the different databases

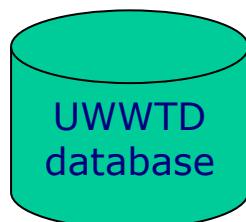
WISE system development – using and developing EEA infrastructure from the content perspective



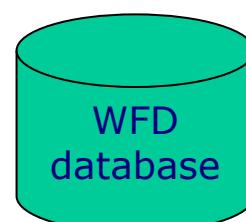
Combining WFD data with other WISE datasets



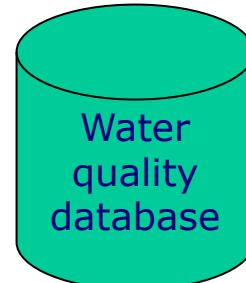
21000 sites
BW quality
(years)



Agglomerations
WWT plants
Compliance



130 000 Water
bodies
Ecological
status
Pressures



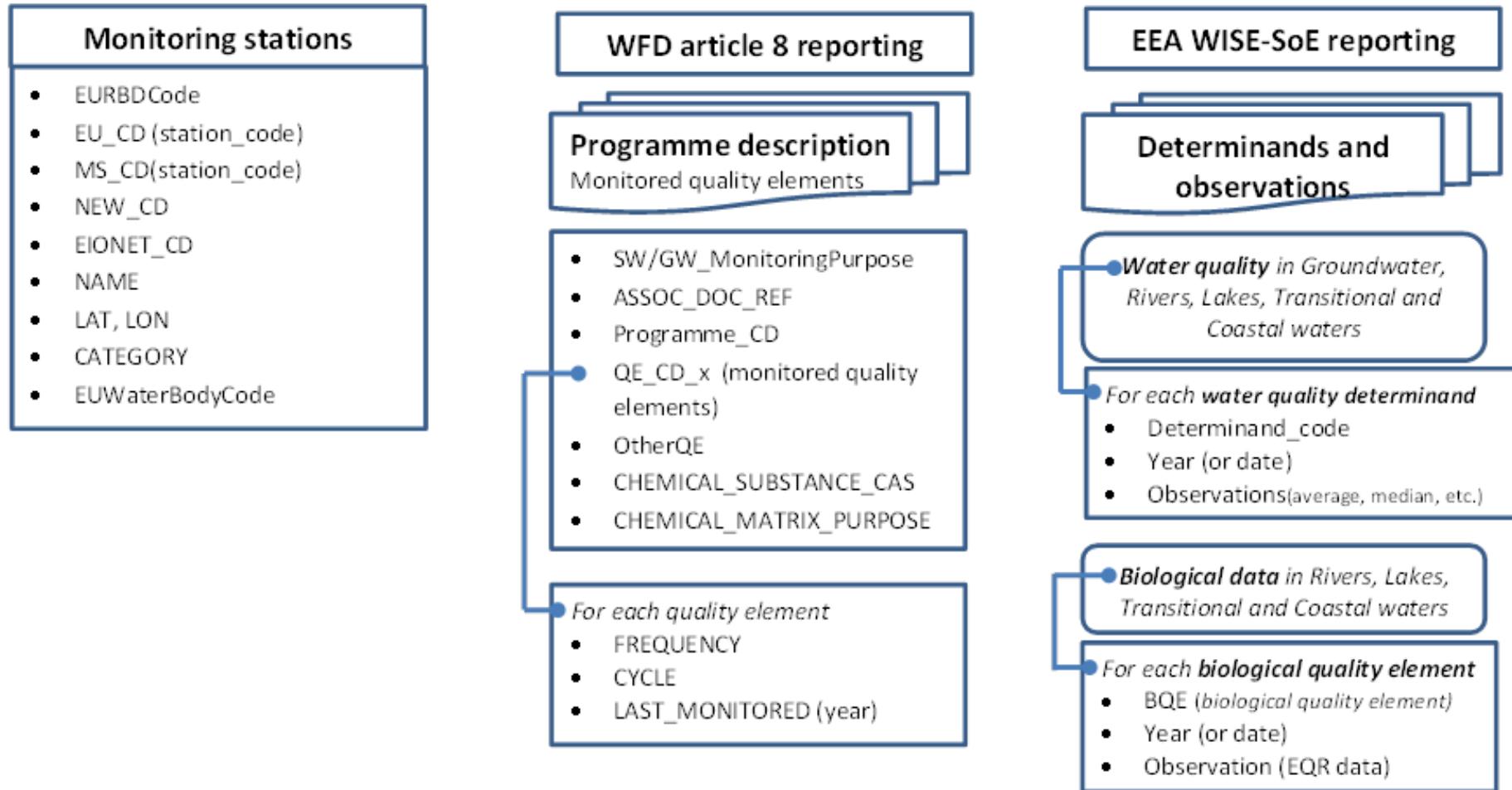
Stations
(rivers, lakes,
coastal)
Water quality
(years)

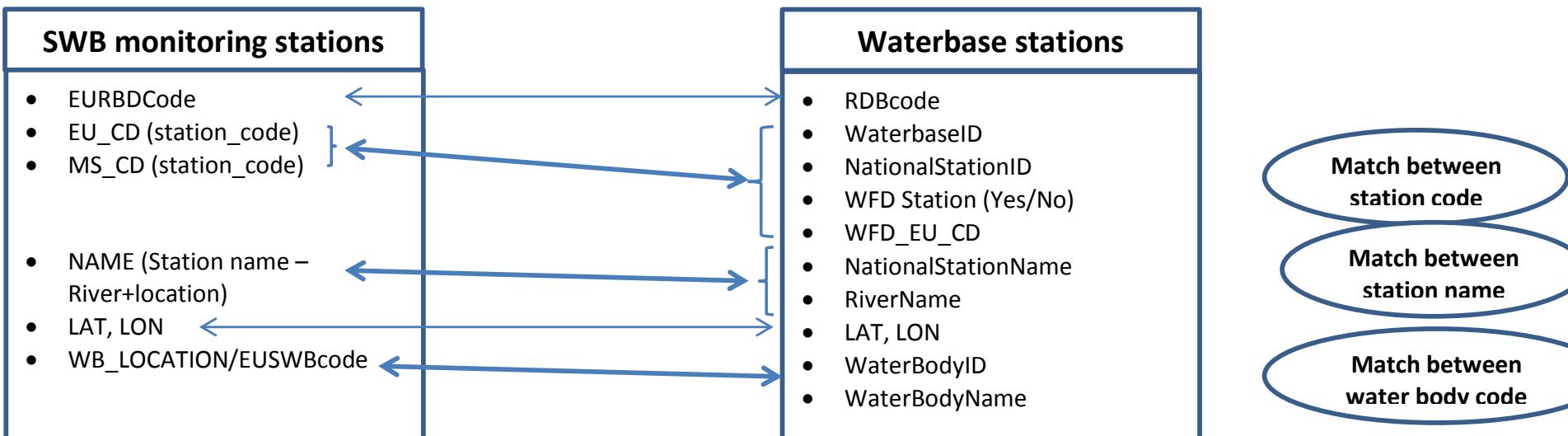
Common codes

- WFD Water body code
- Monitoring station codes
- Coordinates
- Names (e.g. Lake name)



WFD monitoring stations and WISE SoE Stations





EU_CD	LTR1514
MS_CD	R1514
NAME	Venta auksčiau Kursenu
WB_LOCATION	LT300100015
LON	22.95087
LAT	55.98028

WaterbaseID	LT_RV_R1514
NationalStationID	R1514
WFDstation	yes
WFD_EU_CD	LTR1514
NationalStationName	ABOVE KURSENAI
RiverName	VENTA
WaterBodyID	LT300100016
WaterBodyName	
Longitude	22.9509
Latitude	55.9803



EU_CD	EERM1166500_1/1
MS_CD	RM1166500_1/1
NAME	Irase pkr: Matu (Unimäe)
WB_LOCATION	EE1166500_1
LON	22.4499
LAT	58.2788

WaterbaseID	EE_RV_SJA2855000
NationalStationID	SJA2855000
WFDstation	yes
WFD_EU_CD	EERM1166500_1/1
NationalStationName	MATU (UNIMÄE)
RiverName	IRASE PEAKRAAV
WaterBodyID	EE1166500_1
WaterBodyName	IRASE
Longitude	22.4483
Latitude	58.2752

EU_CD	ATFW31000247
MS_CD	FW31000247
NAME	Absdorf, uh ARA
WB_LOCATION	ATOK408330038
LON	15.99417
LAT	48.40285

WaterbaseID	AT_RV_31000247
NationalStationID	31000247
WFDstation	
WFD_EU_CD	
NationalStationName	ABSDORF, UH ARA
RiverName	SCHMIDA
WaterBodyID	408330038
WaterBodyName	
Longitude	15.9942
Latitude	48.4029



Waterbase Rivers - 15000 stations

WFD Monitoring Stations
~67200 stations

Match by WFD(EU_CD station_code) -
WaterbaseRivers (WFD_EU_CD)

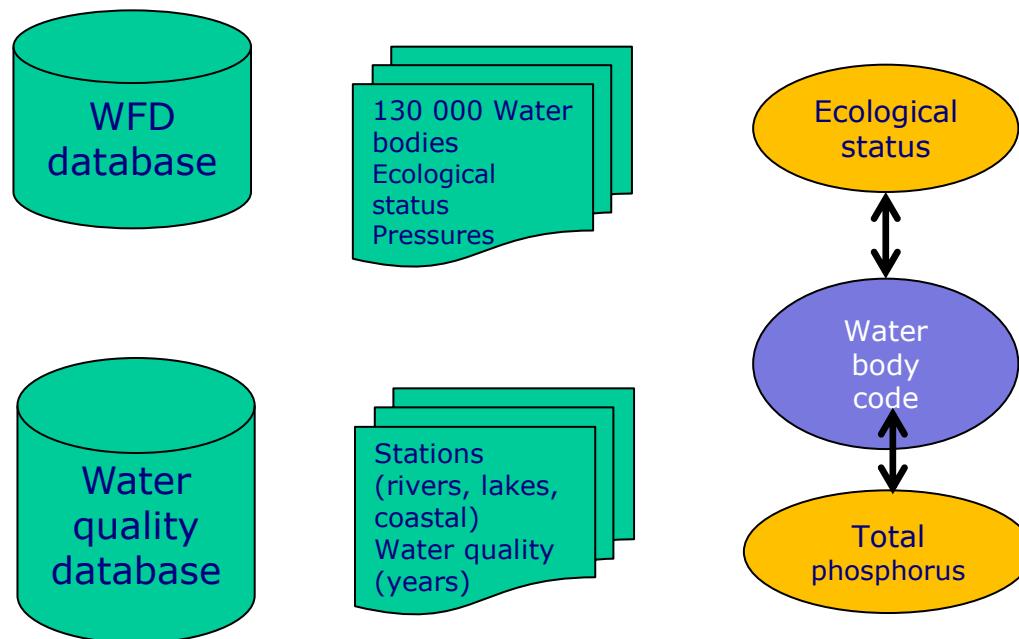
4875 stations: AT (27), BE (290), BG (90), CY (31), CZ (56), DE (259), EE (93), FI (178), FR (1590), IE (26), IT (217), LT (85), LV (36), NL (5), PL (765), PT (60), RO (108), SE (94), SI (29), SK (112), UK (724),

No match: DK, ES, GR, HR, HU, MT, NO

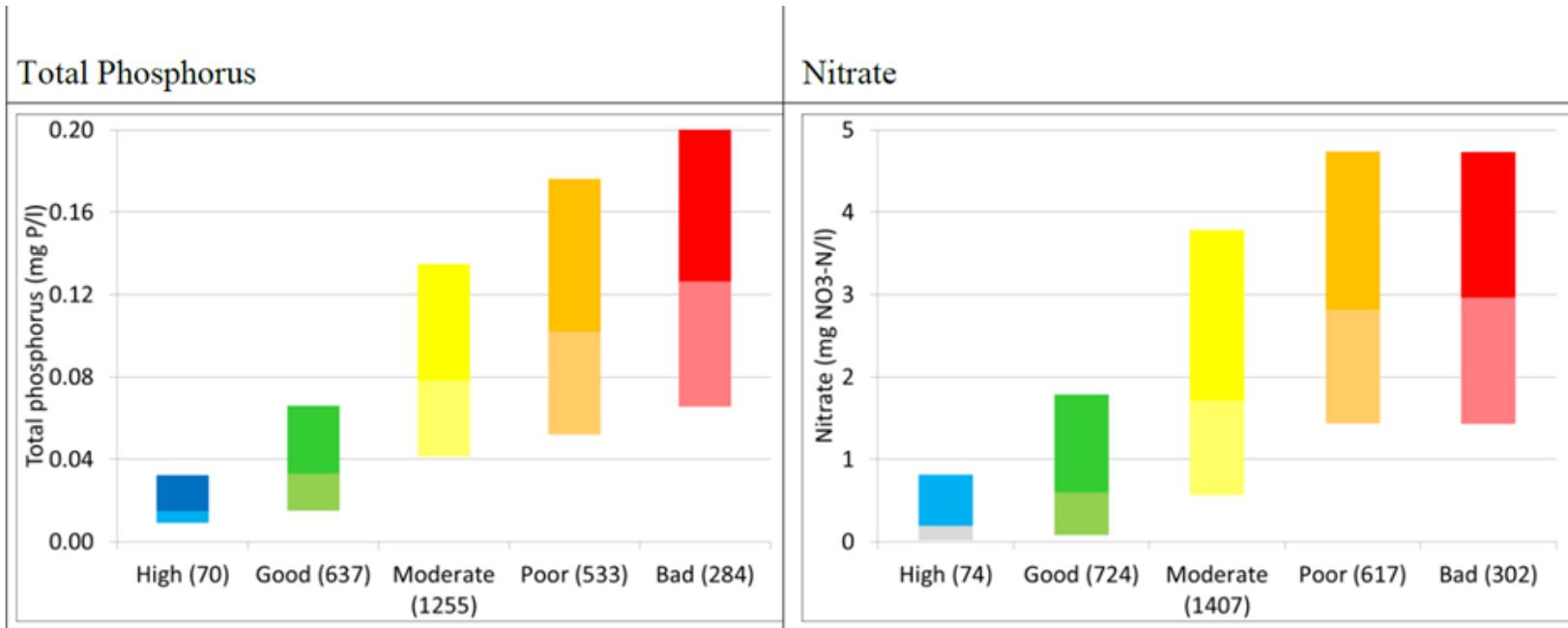
Country	Total river stations	Of which WFD monitoring station	WFD monitoring Surv/Op
AT	290	93	91/597
BE	299	296	71/423
BG	118	106	146/218
CY	33	31	19/12
CZ	73	56	111/835
DE	268	266	287/8348
DK	42	42	776/2475
EE	292	194	189/83
ES	3676	264	2525/1393
FI	308	197	273/220
FR	1948	1610	1673/4267
GR	135		298/134
HR	52		
HU	152	31	122/474
IE	211	208	179/2516
IT	2156	946	1180/1276
LT	121	101	128/309
LU	4	4	8/131
LV	125	37	38/182
MT	3	3	
NL	31	7	81/339
NO	63		
PL	950	767	521/2105
PT	67	63	324/321
RO	151	143	1263/547
SE	135	128	234/769
SI	33	31	48/200
SK	133	113	560/594
UK	2350	730	5584/29708
	14219	6467	16214/56381



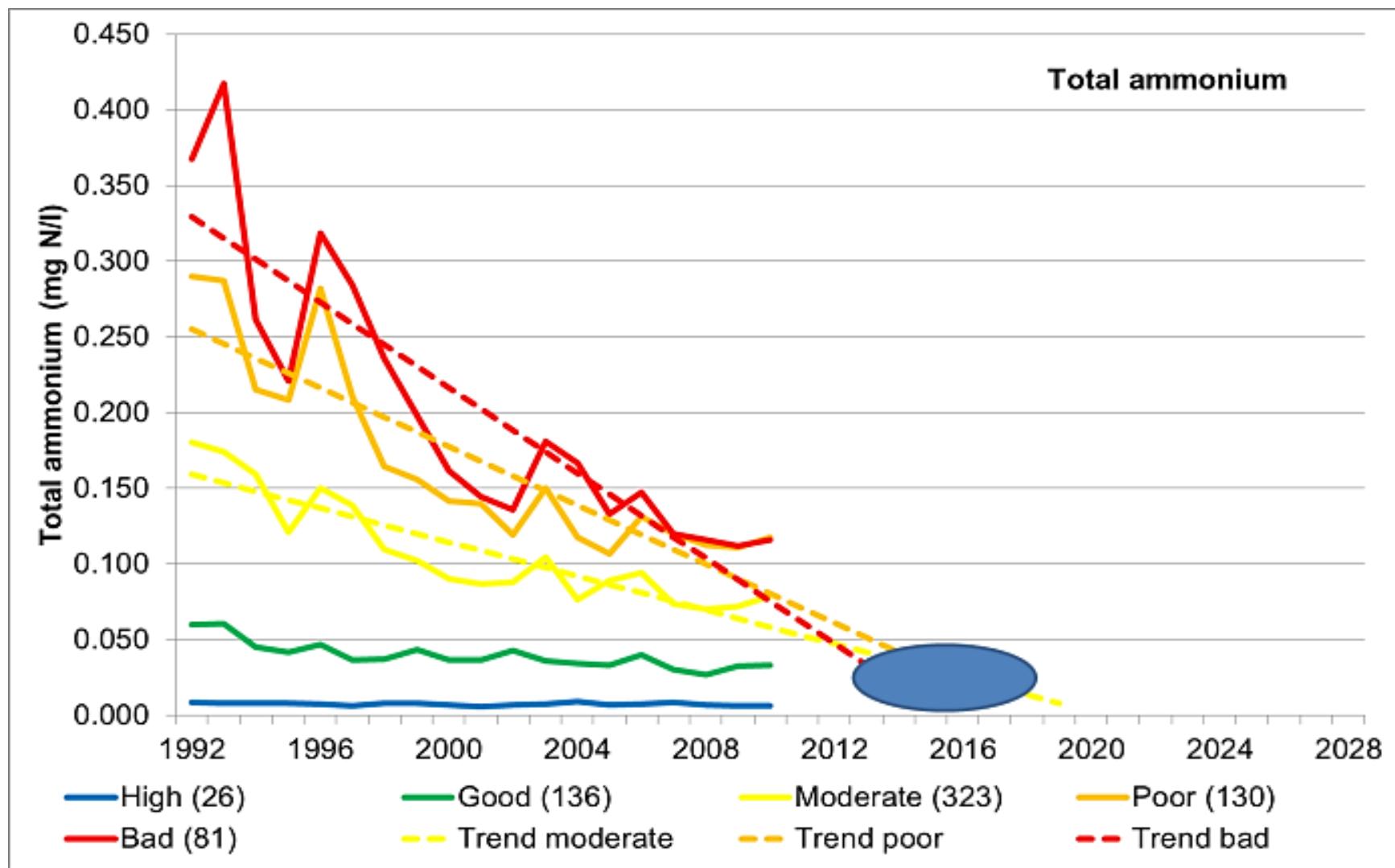
Combining WFD water bodies and WISE SoE data



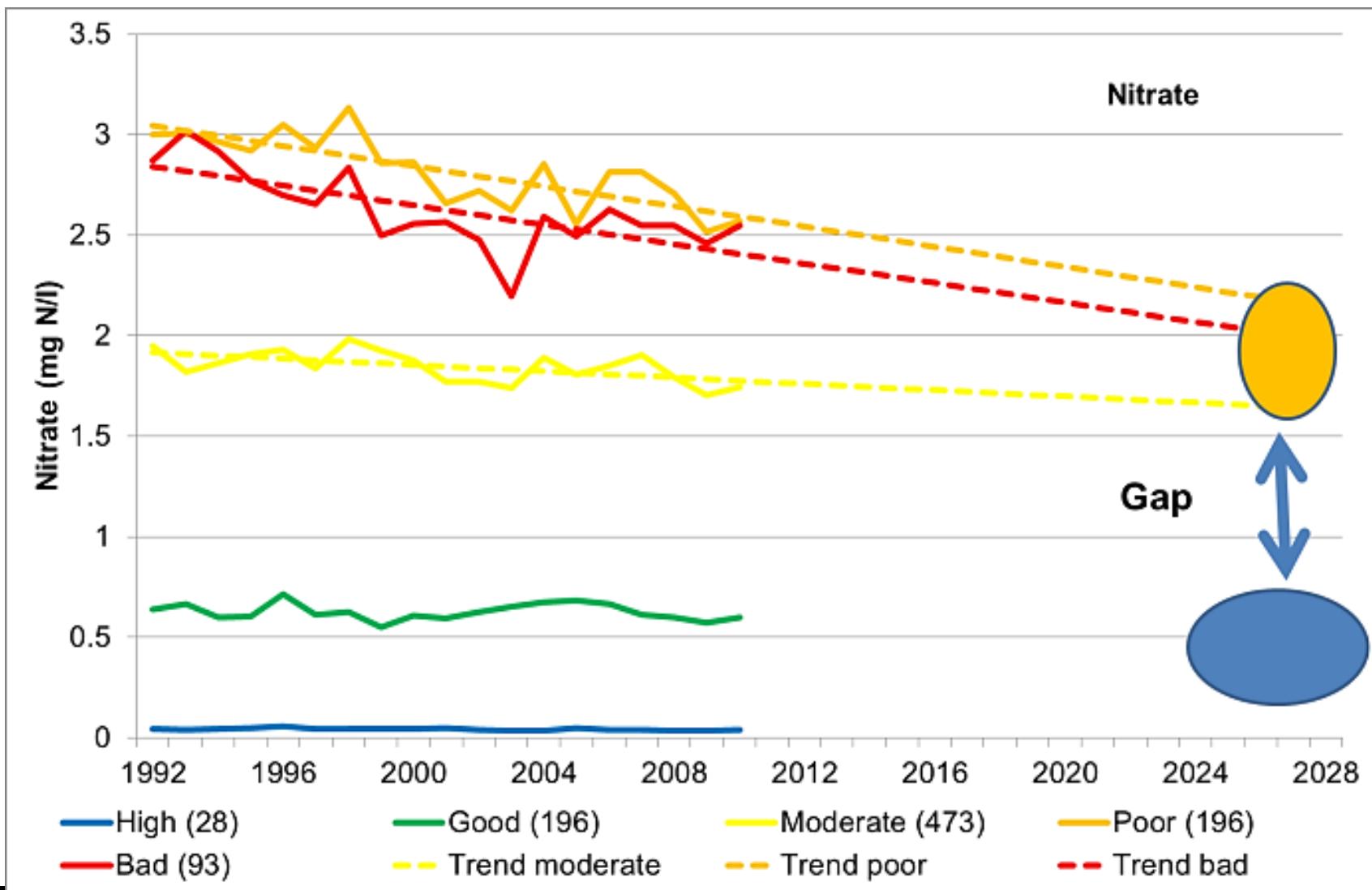
Rivers: Concentration range (1st quartile, median and 3rd quartile) of annual average nutrient concentrations in river water bodies in different classes of ecological status or potential (high to bad)



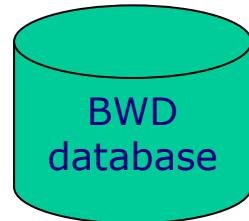
Pollution reduction from point sources



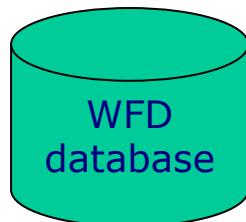
Pollution reduction from diffuse sources



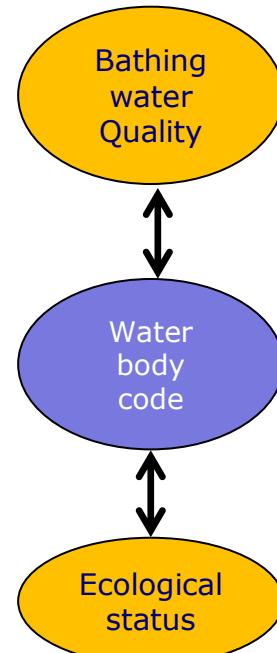
Combining Bathing water data with other WISE datasets



21000 sites
BW quality
(years)



130 000 Water
bodies
Ecological
status
Pressures



In 2012 MS have reported WBID for 14464 bathing waters (out of 22397)
- Many BW could be matched with WFD water bodies – but not all

WFD Water bodies

BWName	WBID	EUSurfaceWaterBodyCo	SWB_Name	RBDID	CATEGORY	CountryCc
Kinrooi - De Steenberg (Maas)	BEVL05_201	BEVL05_201	SPAANJERD + HEERENLAAK	BEMaas_VL	Lake	BE
Harelbeke - De Gavers	BEVL05_195	BEVL05_195	GAVERS HARELBEKE	BESchelde_VL	Lake	BE
KAMCHIYA - PLAZH ROMANTIKA	BG2BS000C006	BG2BS000C006	н.Иалнджик	BG4	Coastal Water	BG
BYALA - SEVEREN PLAZH	BG2BS000C007	BG2BS000C007	н.Емине	BG4	Coastal Water	BG
BYALA - TSENTRALEN PLAZH	BG2BS000C007	BG2BS000C007	н.Емине	BG4	Coastal Water	BG
BYALA - PLAZH CHAYKA	BG2BS000C007	BG2BS000C007	н.Емине	BG4	Coastal Water	BG
BYALA - KAMPING LUNA	BG2BS000C007	BG2BS000C007	н.Емине	BG4	Coastal Water	BG

Bathing waters

European Environment Agency



Bathing waters with WBID (EUSWBCode)

Country	No	Yes	Total BWs
AT	119	150	269
BE	43	80	123
BG	1	92	93
CY		113	113
CZ	26	160	186
DE	572	1750	2322
DK		1136	1136
EE	15	41	56
ES	247	1916	2163
FI	40	285	325
FR	3337	3337	3337
GR		2155	2155
HU	43	192	235
IE		137	137
IT	1374	4161	5535
LT	1	118	119
LU		20	20
LV	5	41	46
MT		87	87
NL	399	305	704
PL	3	244	247
PT		526	526
RO		49	49
SE	448	448	448
SI	1	46	47
SK		34	34
UK	5	626	631
Total	7933	14464	22397

Match between WBID & EUSWBCode

Country	BW_SWB	Total BW
PL	243	221
GR	2155	2155
BG	92	93
DK	1066	1090
SI	45	47
CY	100	112
FI	284	320
PT	425	526
LT	91	114
SK	26	33
IT	3837	5509
ES	1349	2156
LV	27	46
DE	1112	2295
NL	305	696
UK	108	629
BE	2	133
AT	0	266
CZ	0	160
EE	0	54
FR	0	3322
HU	0	232
IE	0	136
LU	0	11
MT	0	87
RO	0	49
SE	0	448
EU27	11267	20930



BWName	Faaker See, Faak	Pressegger See, Nord	Pressegger See, Süd	Pressegger See, Nordost
WBID	AT9506000	AT9505800	AT9505800	AT9505800
WBName				

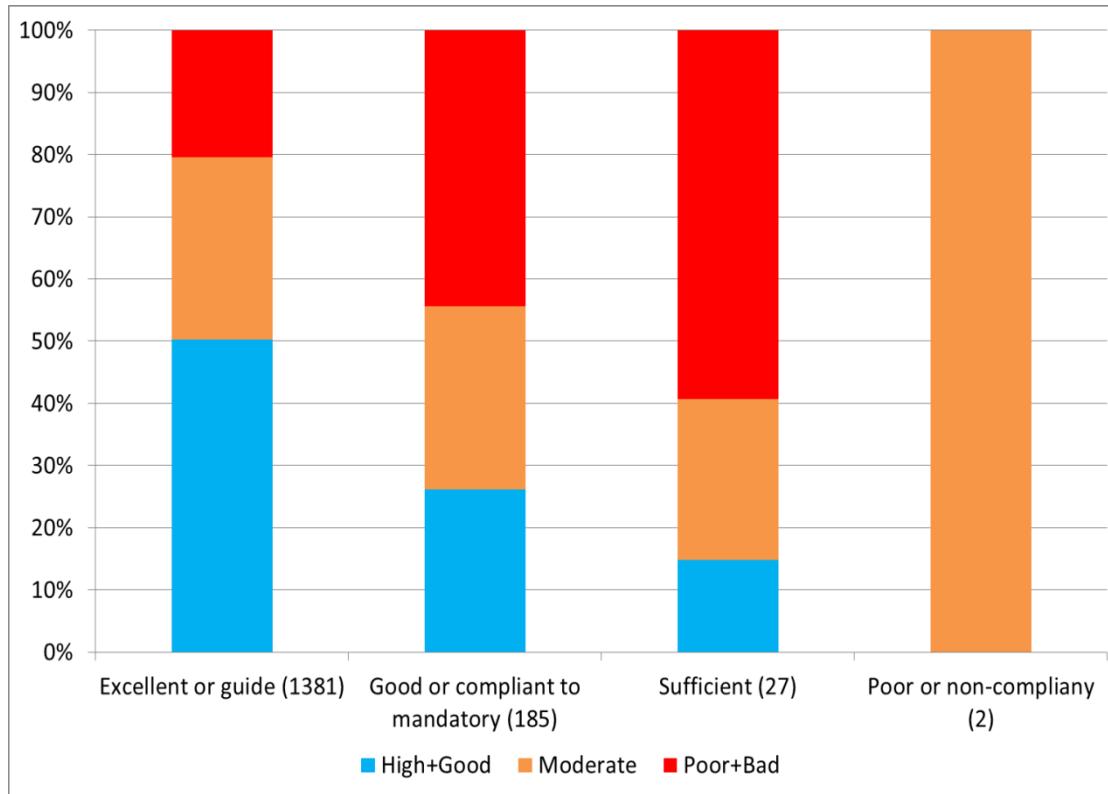
Match via
adjusted code

EUSurfaceWaterBody	ATOK9506000	ATOK9505800	ATOK9505800	ATOK9505800
SWB_MS_CD	OK9506000	OK9505800	OK9505800	OK9505800
SWB_Name	Faaker See	Pressegger See	Pressegger See	Pressegger See



Country	WBID_SWB_MS_CD
BE	37
CZ	152
EE	28
ES	144
HU	191
IE	112
LT	91
MT	86
NL	305
SI	45
UK	596

Ecological status of lake bathing waters according to bathing water quality



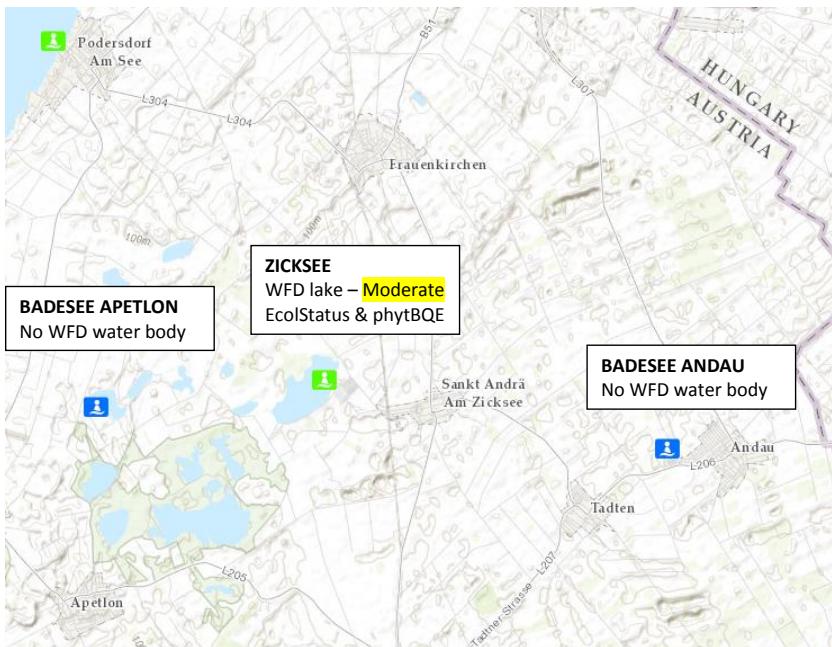
1595 lake BW had mathing ecological status (87% Excellent quality)

BWs with excellent quality had better ecological status than BWs with good or sufficient quality

Bathing water sites and WFD water bodies

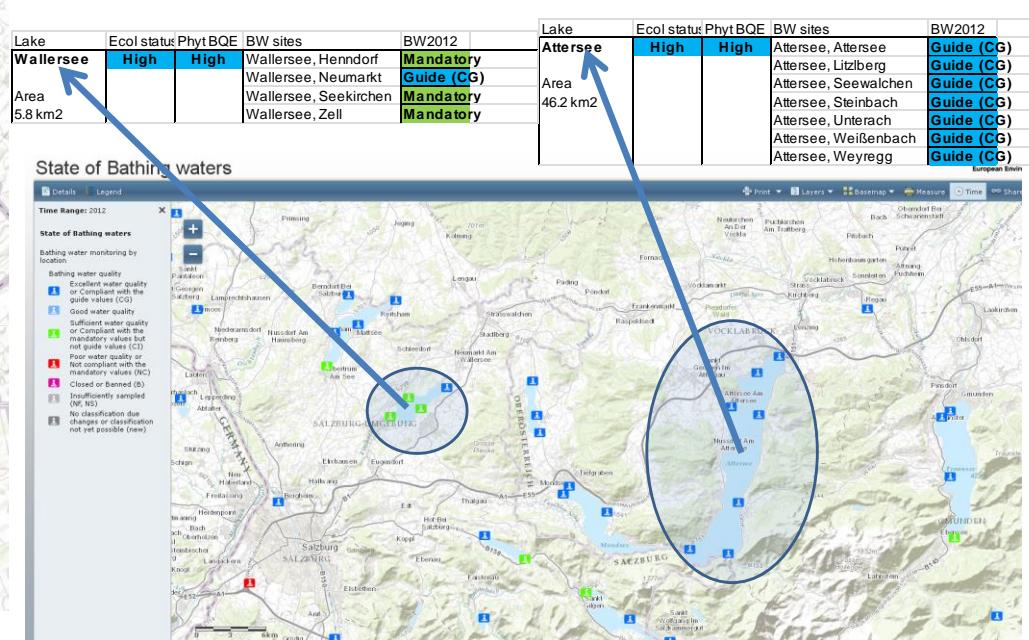
Several bathing waters are not WFD water bodies

Austrian lakes



Source: <http://bit.ly/1dC6rgH>

Often lakes (one WFD water body) have many bathing waters



Country	SWBID	Total
AT	634	639
BE	615	795
BG	416	1053
CY	4	26
CZ	788	788
DE	4285	4302
DK	407	407
EE	55	57
ES	2264	2554
FI		222
FR		3406
GR		237
HU	642	642
IE	441	441
IT	4380	6529
LT		97
LU	34	34
LV	134	135
MT	8	8
NL		416
NO		321
PL	1490	1488
PT	470	470
RO	683	684
SE		366
SI	114	114
SK	322	322
UK	1914	1914
Total	20100	28467

Urban Waste Water Treatment Discharge points – with SWBcode (SWBID)

UWWT discharge point WBID

uvwCode	uvwName	dcpWaterbodyID
DETP_SH56027	Hetlingen	DE_RW_DESH_el_03
DETP_SH61018	Brokdorf	DE_RW_DESH_el_03
DETP_SH61029	Glückstadt-Nord	DE_RW_DESH_el_03
DETP_HH4/4 AI 3	Klärwerksverbund Köhlbrandhöft Dradenau	DE_RW_DEHH_el_02
DETP_NI151005201	1514022109 KA Brome	DE_RW_DEST_MEL03OW04-00
DETP_NI154003201	1540032050 KA Büddenstedt	DE_RW_DEST_SAL18OW14-00
DETP_NI154019201	1540192048 KA Schöningen	DE_RW_DEST_SAL18OW15-00

20100 of 28500
discharge points
had SWBcode

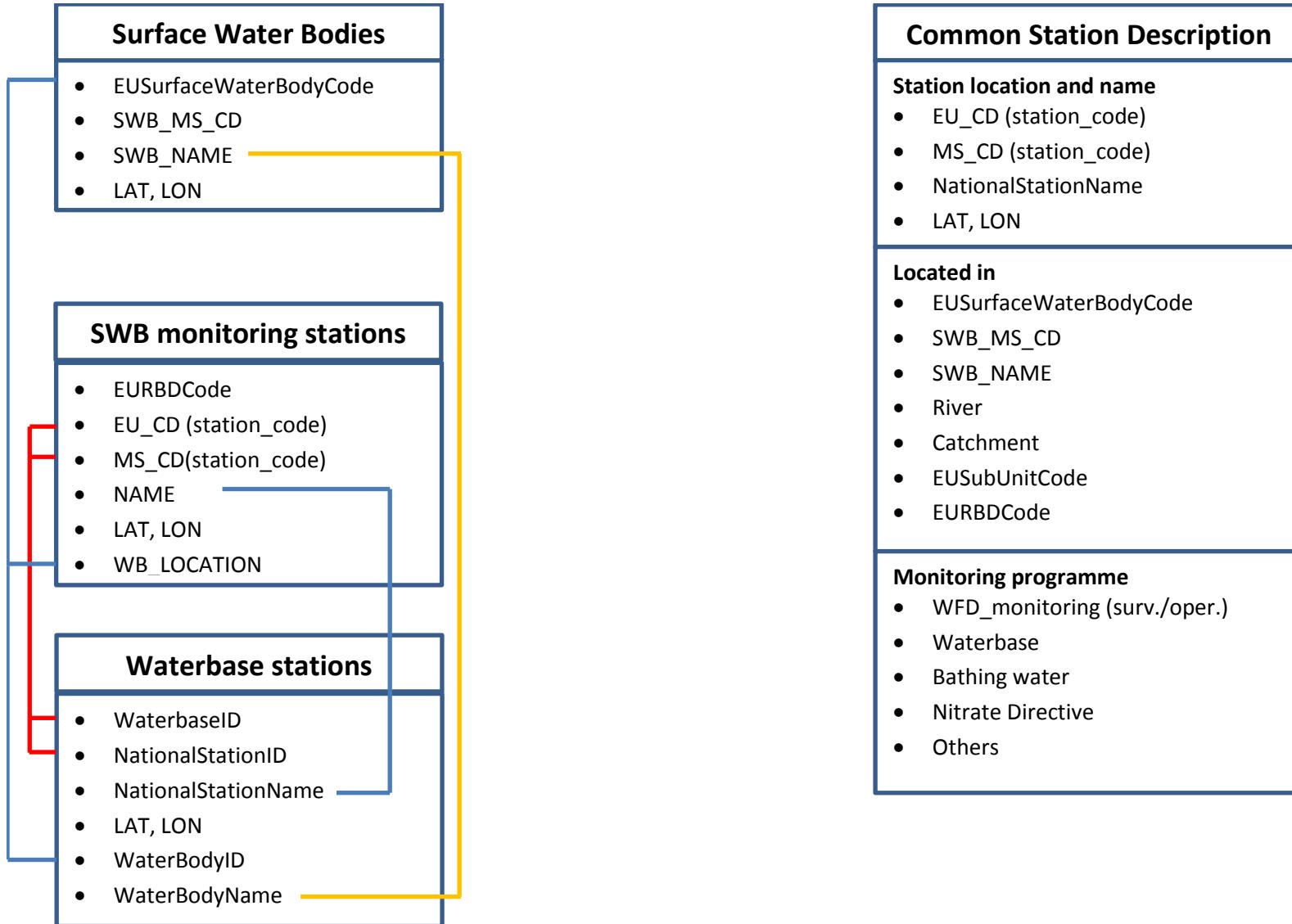
In some case
WFD and UWWT
codes have a
good match

WFD SWBs

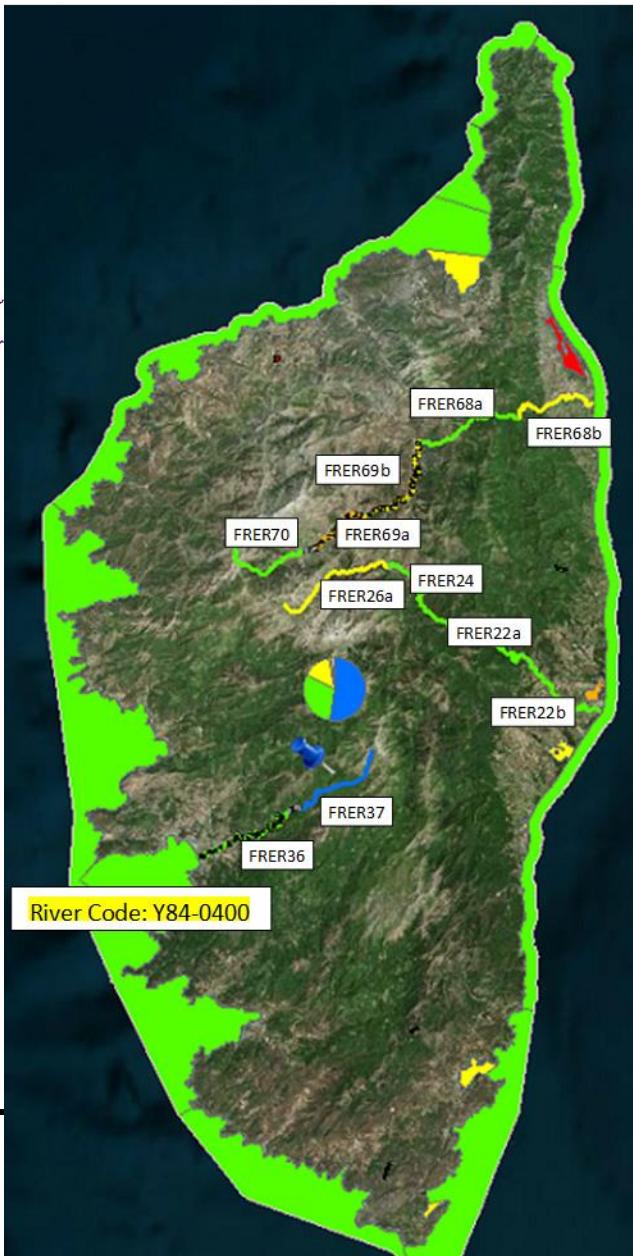
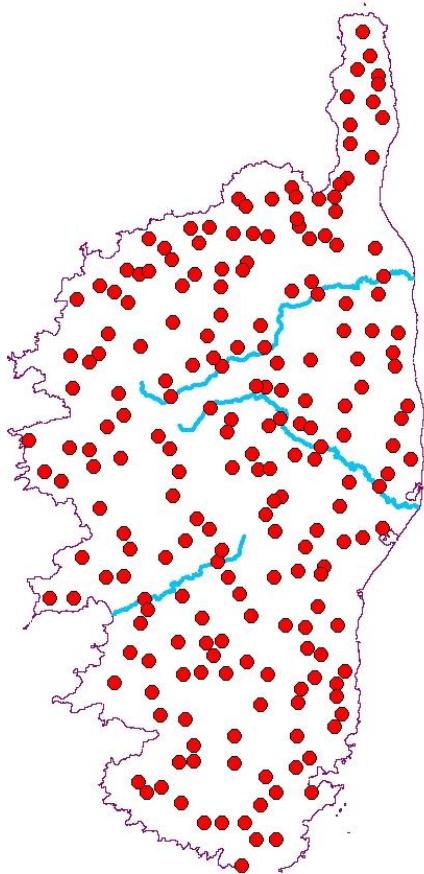
EUSurfaceWaterBodyCoDE_RW_DE
DE_RW_DESH_el_03
DE_RW_DESH_el_03
DE_RW_DESH_el_03
DE_RW_DEHH_el_02
DE_RW_DEST_MEL03OW04-00
DE_RW_DEST_SAL18OW14-00
DE_RW_DEST_SAL18OW15-00



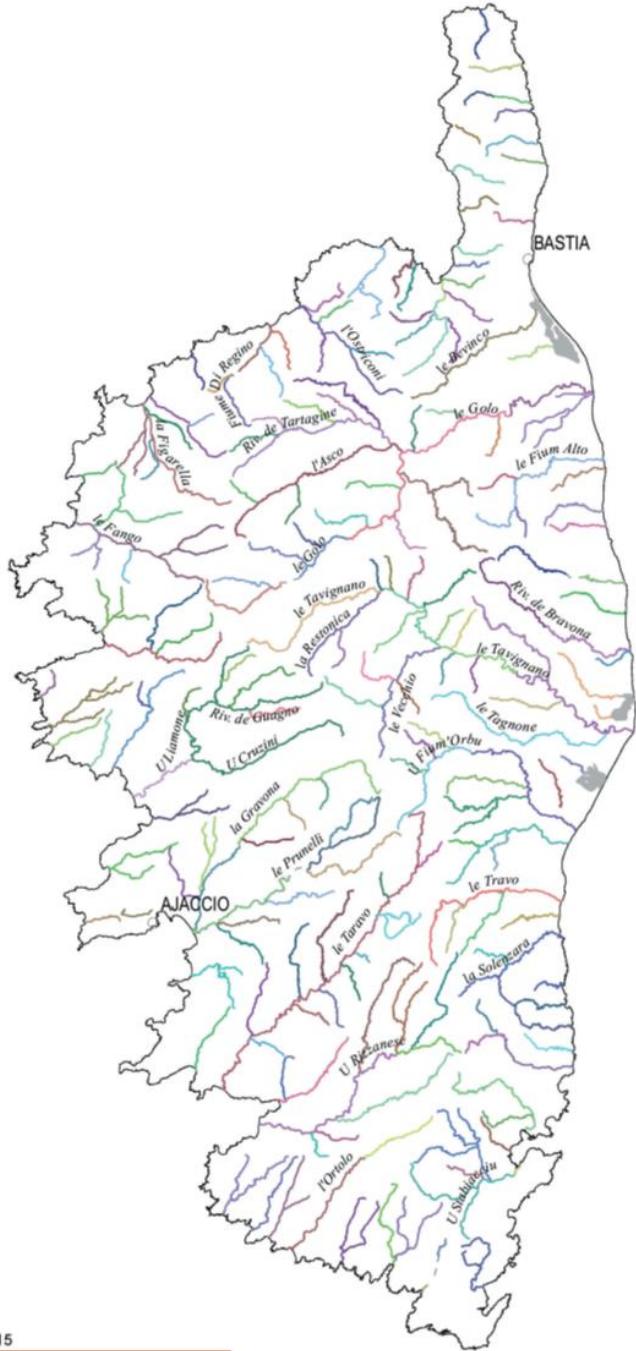
Combining WFD Water Bodies and stations with Waterbase Stations

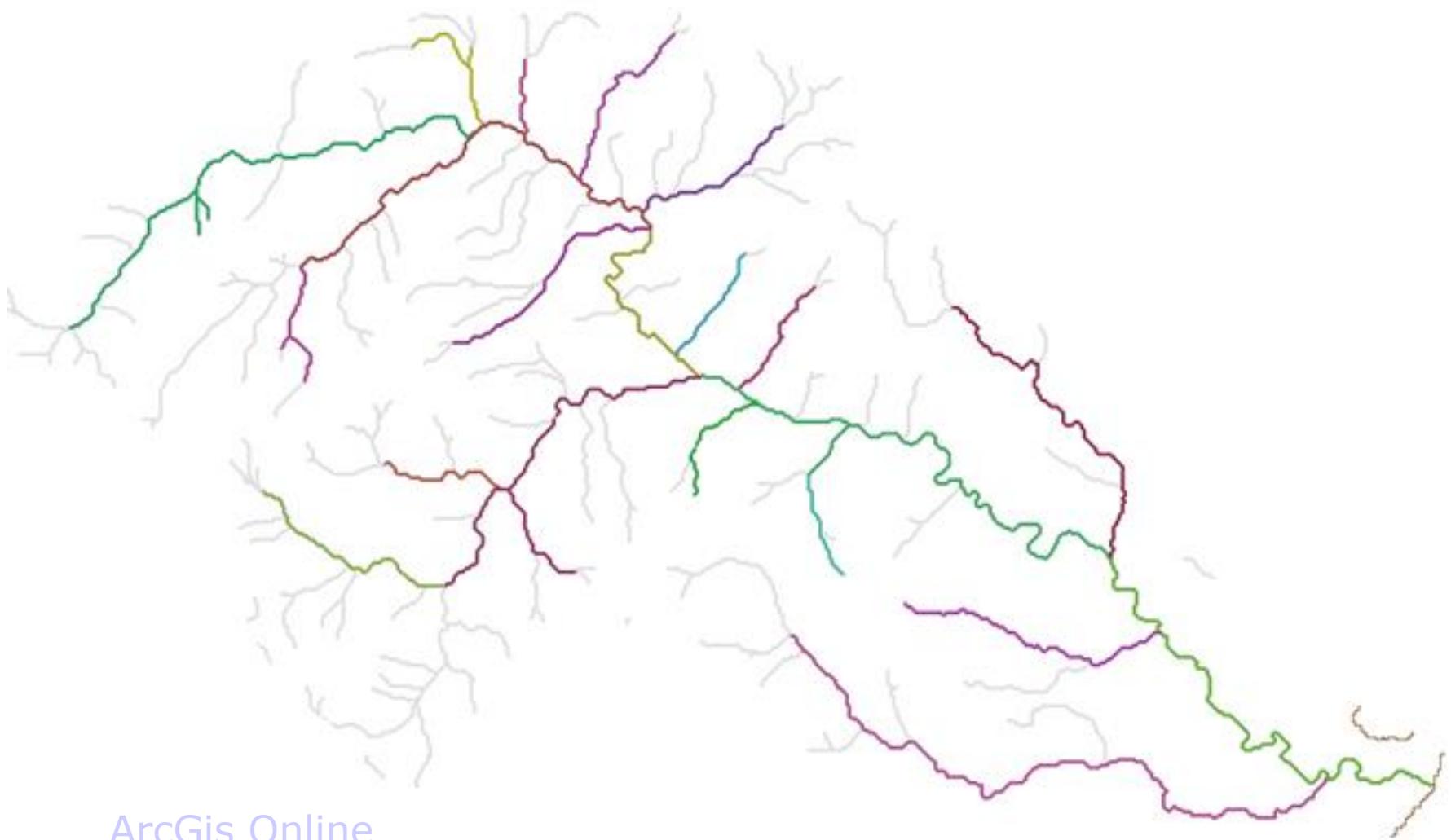


First RBMPs reported 210 river water bodies
- 10 with shape files – 210 with centroid coordinates



Masses d'eau cours d'eau





[ArcGis Online](#)

Summary

- The stations in the different WISE-databases will be linked to WaterBodies
- Common stations in WFD monitoring and WISE-SoE will be identified
- Common station description for all databases
- Hierarchical system will enable different aggregation of information
- EEA will during the next year provide country fiches and probably RBD fiches

