



# **EU Water Legislation**

**A crucial part  
of Montenegro's  
EU accession  
negotiations**

**Žabljak, 22 March 2018**

**Helmut Bloech**

# Water = a key concern of citizens

2014 and 2017 EU-wide opinion polls



## Water pollution -



- One of the most common environmental concerns of citizens across Europe;
- Highest share of people worried in
  - Finland (67%),
  - Greece (64%),
  - Sweden (64%),
  - Latvia (61%).

# Our waters in Europe: diversity of uses, aspirations and impacts



# EU water legislation

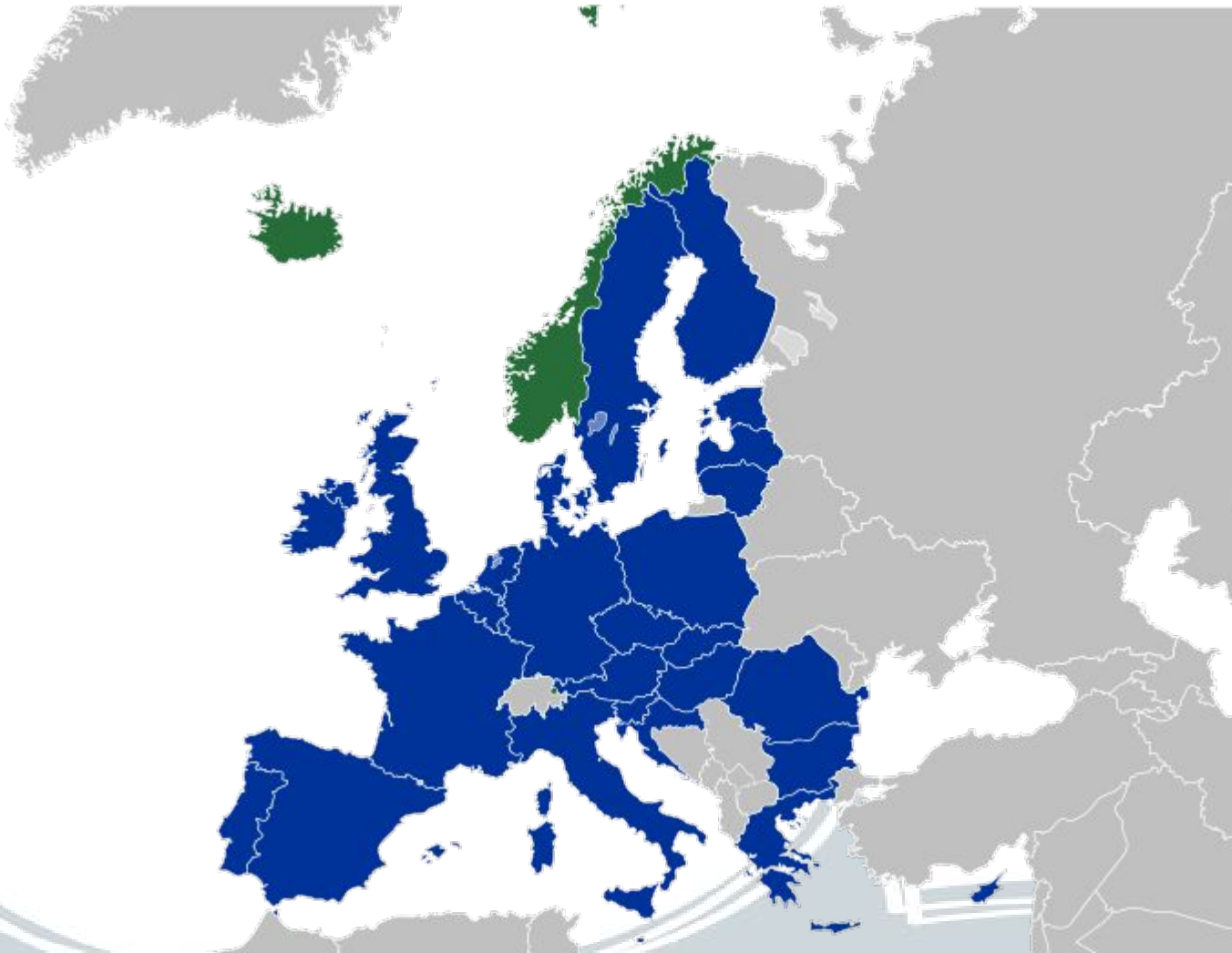
- to aim at protecting our waters
- to take into consideration the uses and impacts

- 
- Water Framework Directive
  - Urban Waste Water Treatment Directive;
  - Drinking Water Directive;
  - Bathing Water Directive;
  - Directive on Nitrate Pollution from Agriculture;
  - Floods Directive;
  - Marine Strategy Framework Directive;
  - Legislation on detergents: biodegradability; ban on phosphate-containing detergents;
  - ....
- 
- Also important: what is not regulated at EU level, e.g. questions of ownership in water utilities.

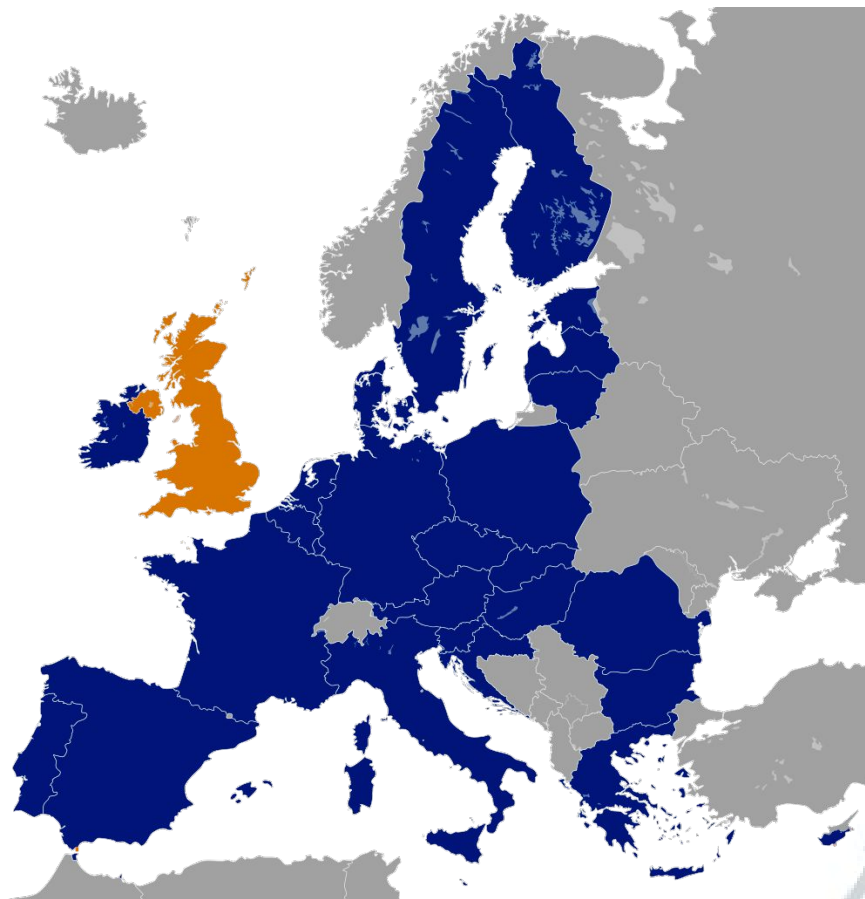


# EU water legislation

## Current geographical scope of application



# Impact of Brexit on EU water policy and legislation ?



## BRIEFING PAPER

Number 07213, 26 August 2016

## Brexit: impact across policy areas

Edited by Vaughne Miller



- Inside:
1. Background
  2. Trade relations
  3. Other economic impacts
  4. Employment
  5. Agriculture
  6. Fisheries policy
  7. Environment
  8. Energy and Climate Change
  9. Transport
  10. Immigration
  11. Justice and Home Affairs
  12. Human rights
  13. Social security
  14. Health policy and medicines regulation
  15. Higher education
  16. Culture, communication, copyright, broadcasting, sport
  17. Consumer policy
  18. Foreign policy
  19. International development
  20. Defence and the armed forces
  21. The devolved legislatures

# Impact of EU water policy on water quality in the UK: beaches of Blackpool

1990 2006



**theguardian** 16 October 2017



# Water Framework Directive (WFD)

Flagship of EU water legislation

- Scope: all waters (rivers, lakes, groundwaters, coastal waters), and all human impacts;
- Objective: obligation to achieve/maintain good water quality; specific protection for drinking water sources;
- Cooperation: obligation to plan and work together in shared river basins;
- 'Good status' comprehensively defined: for surface waters in terms of biological, physico-chemical and hydromorphological parameters; for groundwaters in terms of quantity and chemistry;
- Combined approach of emission control for major pollution sources, and quality standards;
- Plans and programmes for achieving good status had to be developed first by 22.12.2009; EU-wide report has been published end-2012; update plans 2015 and 2021.
- Cost recovery: pricing policy for water-related services to be based on cost recovery (capital expenditure and operational expenditure).



# Water Framework Directive

## “Good status”

### “Good water status”

- for surface waters defined by biological, chemical and hydromorphological parameters;
- for groundwaters defined by water quantity (= balance between abstractions and natural recharge) and chemical parameters;

Complemented by a ‘non-deterioration’ clause (separate obligation, as clarified by the Court of Justice in July 2015).

# Water Framework Directive

“Good status” derived from “high status”; example

## “high status” – phytoplankton

The composition and abundance of phytoplanktonic taxa are consistent with undisturbed conditions.

The average phytoplankton biomass is consistent with the type-specific physicochemical conditions and is not such as to significantly alter the type-specific transparency conditions.

Planktonic blooms occur at a frequency and intensity which is consistent with the type-specific physico-chemical conditions.

## “good status” – phytoplankton

The composition and abundance of phytoplanktonic taxa show slight signs of disturbance.

There are slight changes in biomass compared to type-specific conditions. Such changes do not indicate any accelerated growth of algae resulting in undesirable disturbance to the balance of organisms present in the water body or to the quality of the water.

A slight increase in the frequency and intensity of the type-specific planktonic blooms may occur.

# **WFD: *One* management frame for all water-related legislation**





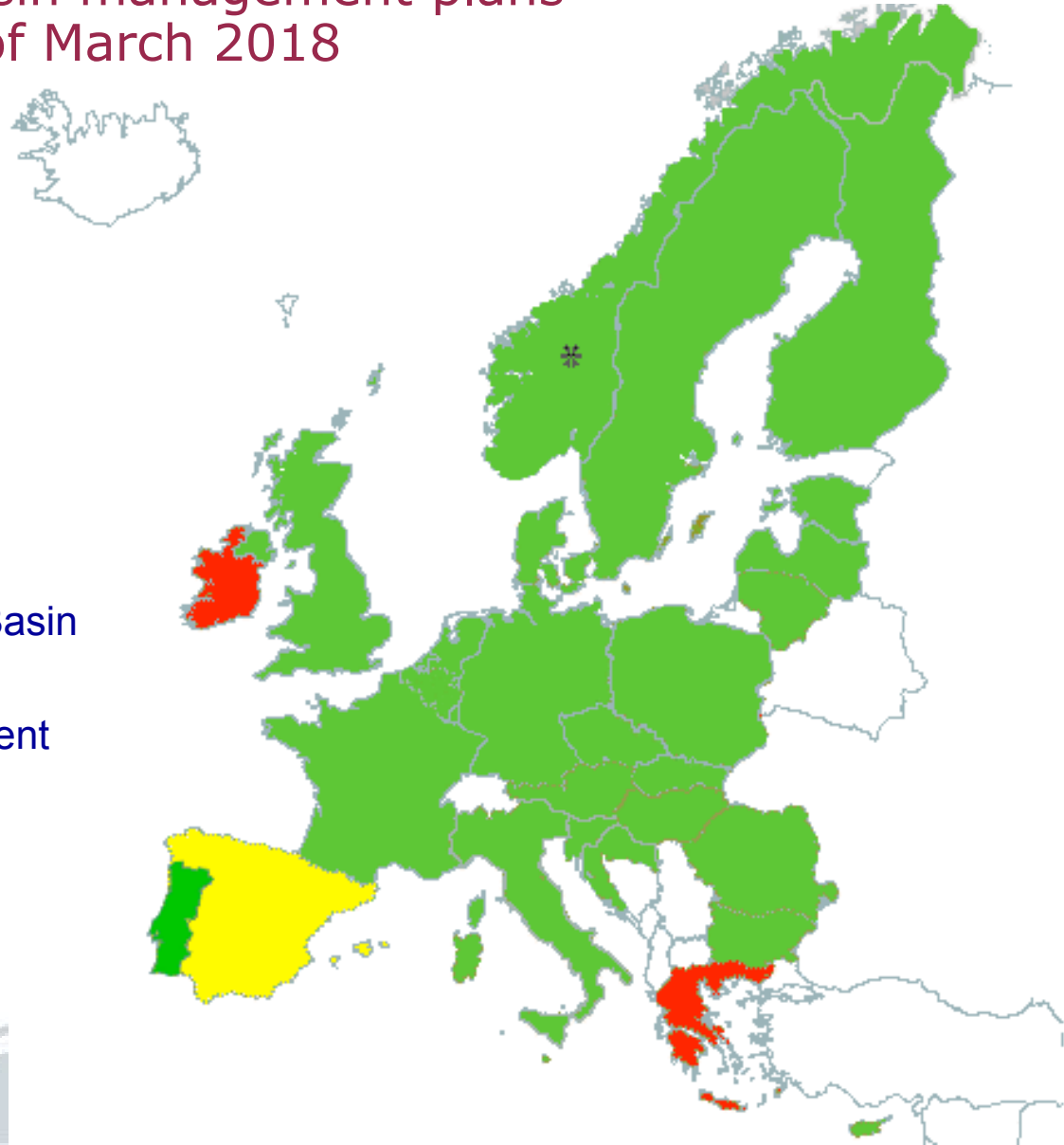
# WFD state of play

2<sup>nd</sup> river basin management plans  
as of March 2018

GREEN - all second River Basin  
Management Plans adopted

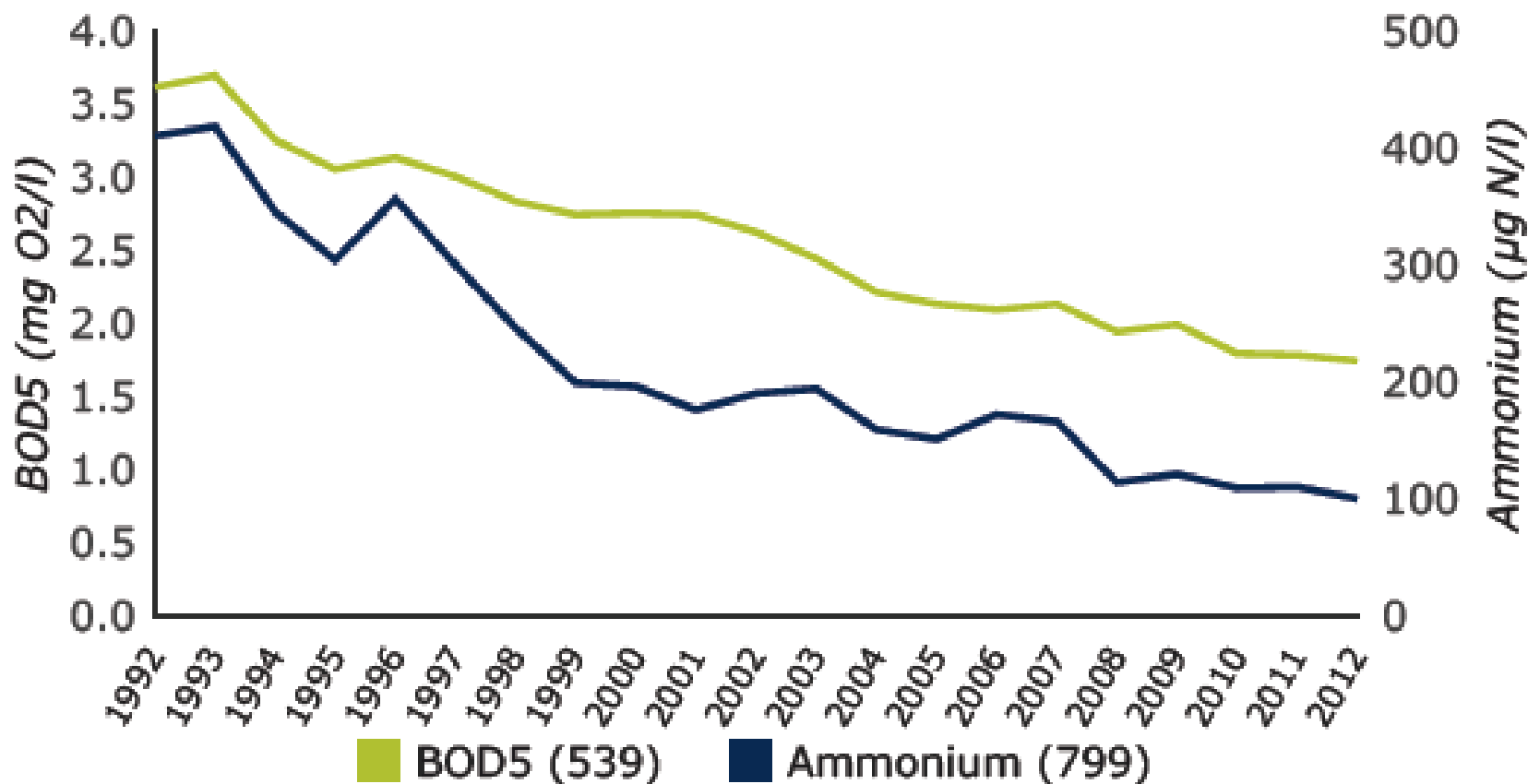
YELLOW - part of the second River Basin  
Management Plans adopted

RED - second River Basin Management  
Plans not yet adopted



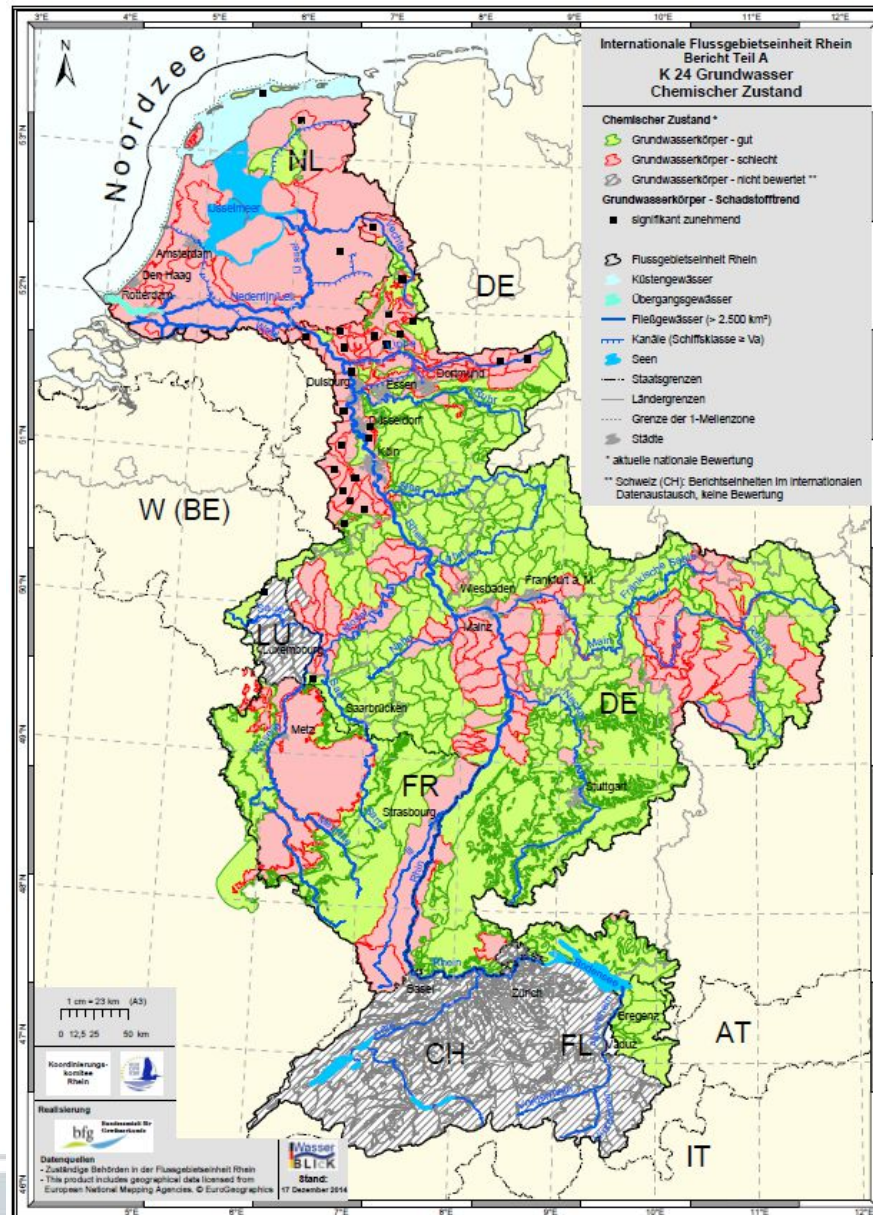
# Development of river quality since 1992

## March 2015 European Environment Agency Report



# Groundwater status in the Rhine basin

## December 2014 Rhine Commission Report



Good  
status



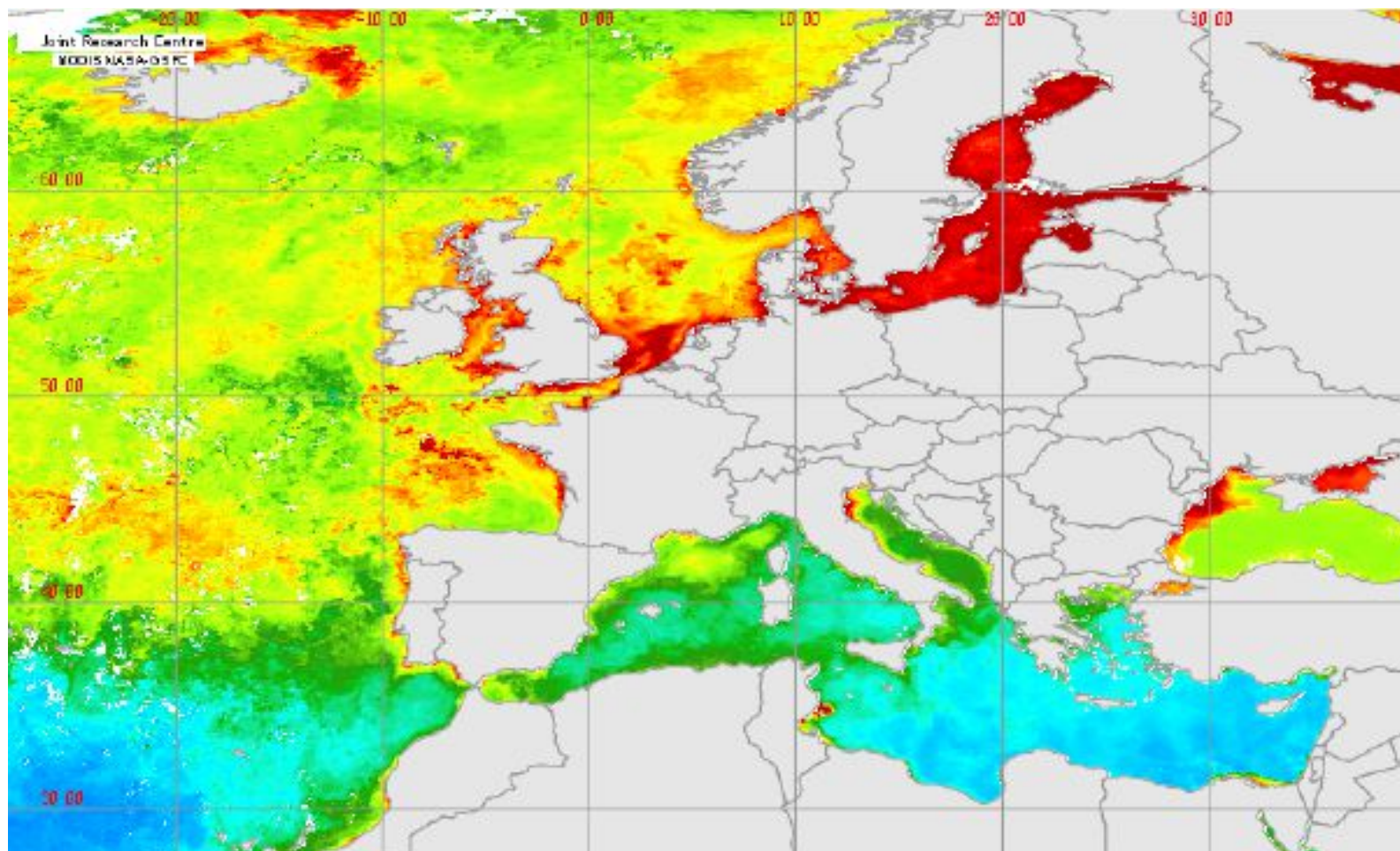
Bad status



# Eutrophication of European seas

## Early summer chlorophyll-a concentrations 2016

EU Joint Research Centre, Environmental Marine Information System

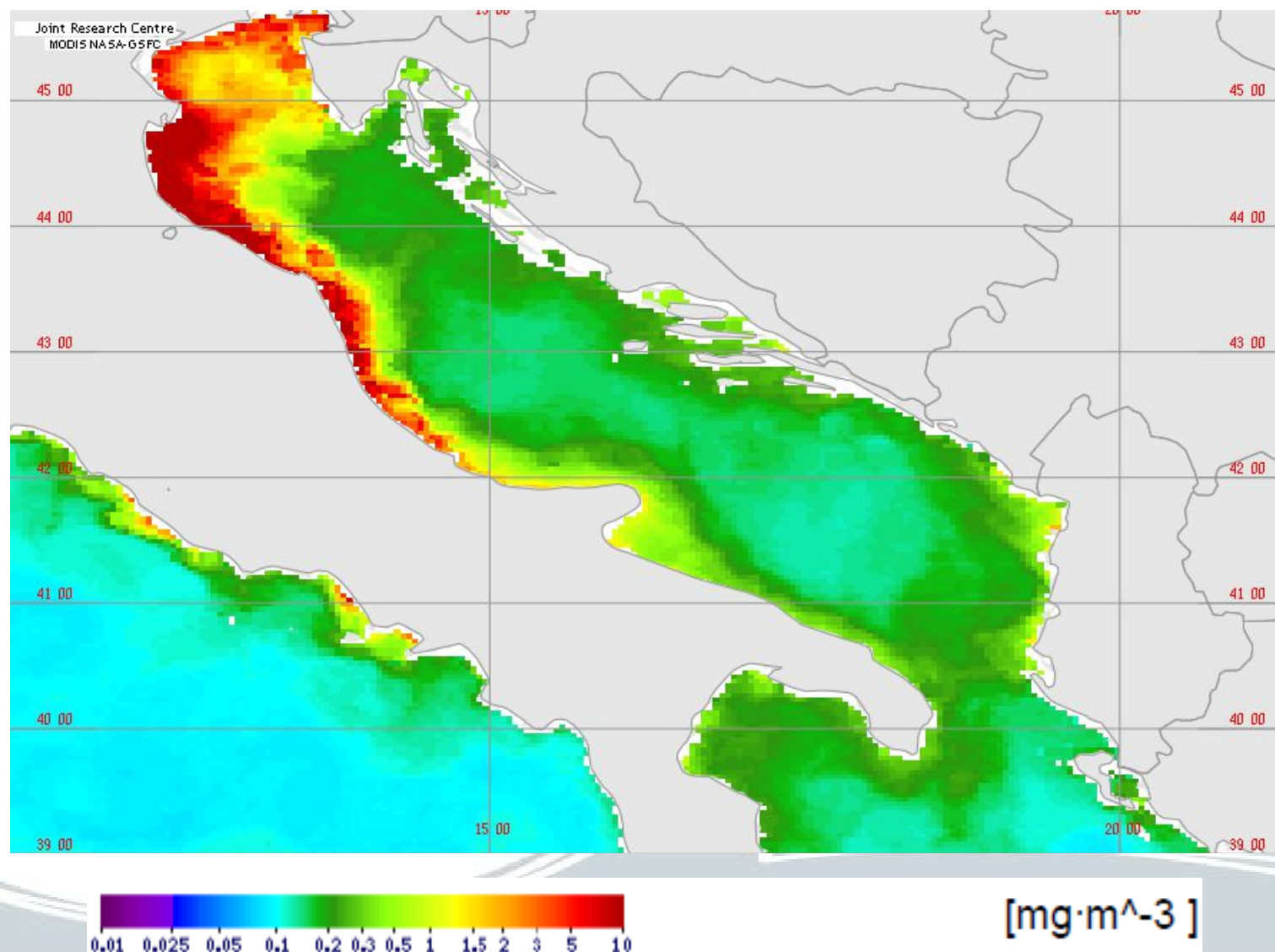


$[\text{mg} \cdot \text{m}^{-3}]$

# Eutrophication of European seas

## Early summer chlorophyll-a concentrations 2016

EU Joint Research Centre, Environmental Marine Information System



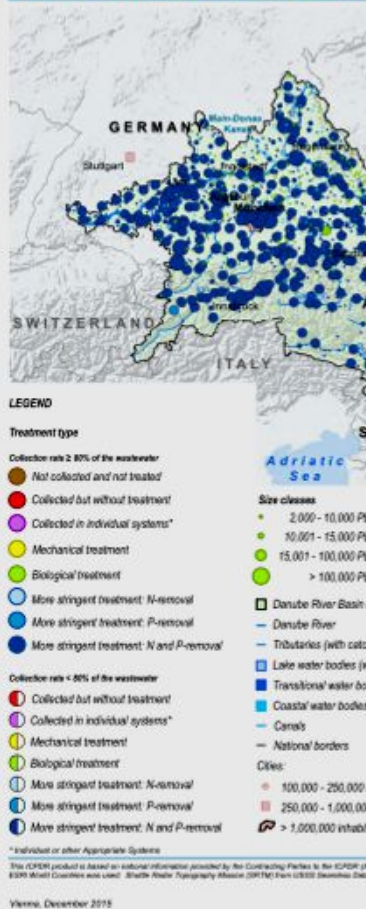


# Cooperation in the Danube river basin

## A showcase of transboundary cooperation

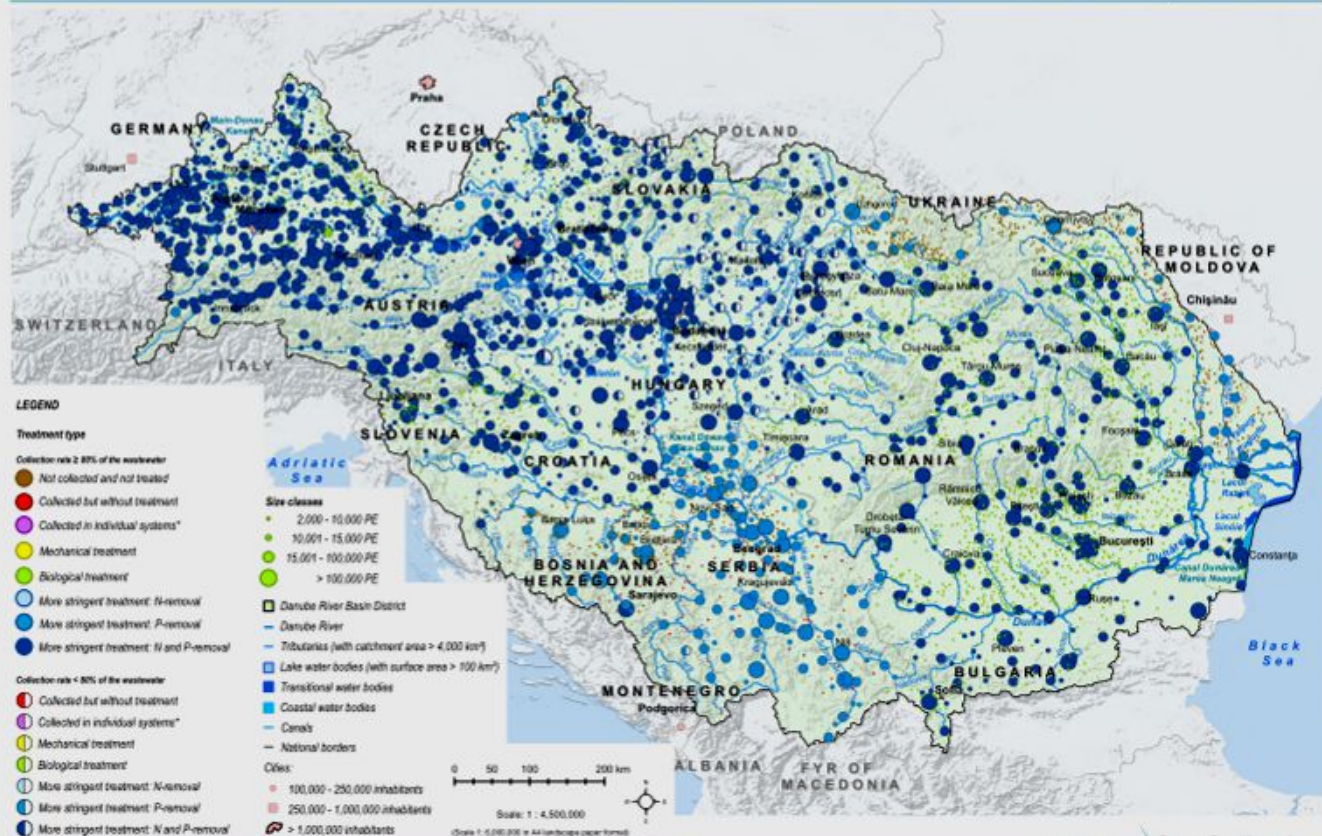
Urban Wastewater Treatment – Reference Situation 2011/2012

DRBM Plan - Update 2015 - MAP 5



Status of Urban Wastewater Treatment – Midterm Scenario

DRBM Plan - Update 2015 - MAP 29



\* Individual or other Appropriate Systems

This ICPR product is based on national information provided by the Contracting Parties to the ICPR (AT, BA, BG, CZ, DE, HR, HU, MD, RO, SI, SK, UKR and UK). EuroGeographics data from EuroGeographics was used for all national borders except for AL, BA, BG where the data from the ERM World Countries was used. Shuttle Radar Topography Mission (SRTM) from USGS Database Distribution System was used as elevation data. Data from the European Commission (Joint Research Centre) was used for the water bodies of the ICPR (AT, CZ, HU and PL).

[www.icpr.org](http://www.icpr.org)

**icprdr ikd**  
International  
Commission  
for the  
Protection  
of the  
Danube  
River





# Urban Waste Water Directive

Principles,  
objectives,  
key challenges  
in implementation

# Urban Waste Water Directive

## Criteria for waste water treatment



Art.  
4-7

- Standard minimum treatment: As a rule secondary treatment (= treatment by a process generally involving biological treatment with a secondary settlement or other process, and complying with the requirements of table 1 of Annex I;
- More stringent treatment: All discharges of agglomerations >10000 p.e. into catchments of sensitive areas, complying with the requirements of table 2 of Annex I;
- Appropriate treatment (= meeting 'good status' in the receiving water): For agglomerations <2000 (freshwaters and estuaries) and <10000c p.e. (coastal waters) respectively, where there is an existing collecting system;
- Industrial waste water: permit and pre-treatment requirement before discharge into urban systems mandatory.
- Cost recovery (CAPEX, OPEX): Water Framework Directive.



Art. 11

# Key terms for your planning (and budget):

(1) “agglomeration”: Where is action (collection and treatment) required?

- ‘agglomeration’ means an area where population and/or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point.



- Agglomeration ≠ political entity !



# Key terms for your planning (and budget):

## (2) "sensitive areas": more stringent treatment or not?



Sensitive areas = largely areas with eutrophication problems.

- Northern Montenegro: The entire Danube basin including all tributaries require more stringent treatment (eutrophication of the Black Sea NW shelf and the Danube Delta).
- Southern Montenegro drains into the Adriatic, requires standard treatment, unless eutrophication problems require more stringent treatment (e.g. Boka Kotorska, Lake Skadar, Bojana river)

Art.5

Annex II

# Urban Waste Water Directive

## More stringent treatment: options

Option “compliance for each individual plant >10000 p.e.”

Maximum effluent concentrations  
(table 2, column 2)

Parameters	Concentration
Total phosphorus	► <b>C1</b> 2 mg/l (10 000 – 100 000 p.e.) ◀ 1 mg/l (more than 100 000 p.e.)
Total nitrogen (2)	15 mg/l (10 000-100 000 p.e.) (2) 10 mg/l (more than 100 000 p.e.) (2)

Minimum pollution reduction  
(table 2, column 3)

Parameters	Minimum percentage of reduction (1)
Total phosphorus	80
Total nitrogen (2)	70-80

Legal basis:  
Article 5(3)

Option “catchment approach - compliance for all plants >2000 p.e. in the catchment”

Minimum overall pollution reduction: ≥75% reduction for total nitrogen and ≥75% reduction for total phosphorus

Legal basis:  
Article 5(4)

# Waste water treatment plants with fluctuating pollution loads

Design criteria set out in article 4(4)



Design criteria for treatment plants with fluctuating pollution load (e.g. holiday resorts with a distinct summer or winter tourist season)

“The load expressed in p.e. shall be calculated on the basis of the maximum average weekly load entering the treatment plant during the year, excluding unusual situations such as those due to heavy rain.



Art.  
4(4)

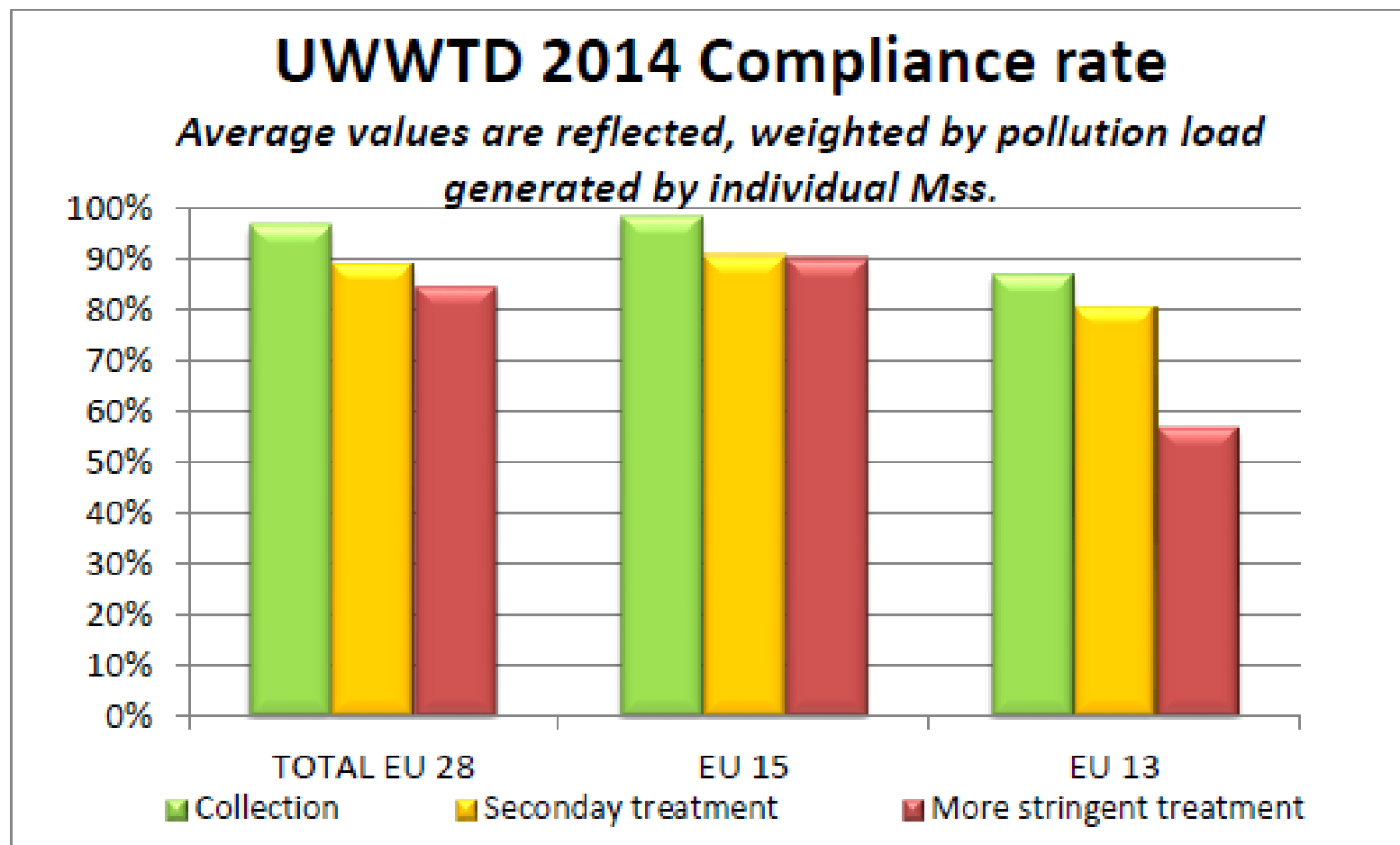
# Urban Waste Water Directive

## Deadlines for compliance

- Standard deadlines apply to 15 Member States including the 1995 enlargement (AT, FI, SW): 1998/2000/2005;
- 2004 enlargement (CY, CZ, EE, HU, LT, LV, MT, PL, SI, SK): staged transition period up to 2015;
- 2007 enlargement (BG, RO): staged transition deadlines up to 2015/2018;
- 2013 enlargement (Croatia): staged transition periods until 2023;
- 2014 Mayotte (now overseas department of France, EU law applies there from 1.1.2014): staged transition periods until 2027, with the implementation programme due by 2014.

# Waste water collection and treatment: state of play EU-wide

European Commission report December 2017; data 2014





# Urban Waste Water Treatment Directive

## Points to bear in mind (1)



*Legislation sets obligations to collect and treat waste water to defined standards, but also provides for financial and technical safeguards:*



*Adequate tariffs to sustain construction, operation and maintenance of sewers and treatment plants (capital expenditure and operational expenditure): article 9 WFD;*



*Safeguards against industrial waste water with potentially damaging impacts: permit requirement, and pre-treatment requirement: article 11 + annex I.C UWWTD.*



*Public participation: participation mechanisms are not in the UWWTD but in the WFD: comprehensive obligations for information and consultation of citizens, local communities, NGOs and stakeholders: article 14 WFD.*

# Urban Waste Water Treatment Directive

## Points to bear in mind (2)



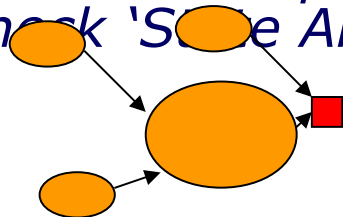
*Directive is indispensable for complying with the WFD; does not prescribe technology: any technology delivering on the objective is allowed, thus allowing and promoting innovation.*



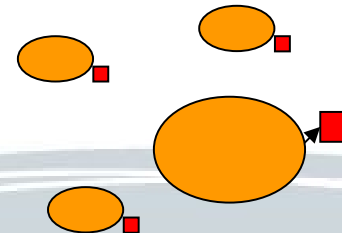
*Treatment plants require space, and an adequate location (e.g. not close to housing areas, hospitals ...). They need to be integral part of local spatial planning.*



*Directive does not prescribe 'decentralised' or 'centralised'. However, your utilities structure must be such to ensure cost-efficient operation. For financial and funding considerations an assessment of different options is required. Private investors envisaged ? ⇒ check 'State Aid' ...*



or



or ...

# **Case-law by the Court of Justice**

## **Penalty payments**



2014 judgment against Belgium: lump sum of EUR 10 million, penalty payment of EUR 859 404 for each six-month period of delay;

2014 judgment against Luxembourg: lump sum of EUR, 2 million, penalty payment of EUR 2800 for each day of delay;

2015 judgment against Greece: lump sum of EUR 10 million, penalty payment of EUR 859 404 for each six-month period of delay;

2016 judgment against Portugal: lump sum of EUR 3 million, penalty payment of EUR 8000 for each day of delay.



# Drinking Water Directive

- Scope: all drinking water supply systems serving more than 50 people; water from bottles, tankers and containers; water used in food-processing industry;
- Binding drinking water quality standards (microbiological and chemical parameters);
- Regular quality monitoring, and remedial action in case of problems revealed;
- Information of consumers on quality of the drinking water;
- Protection of resources through specific protection under the Water Framework Directive.

Art.  
2+3

Art.4,  
5,6

Annex  
I

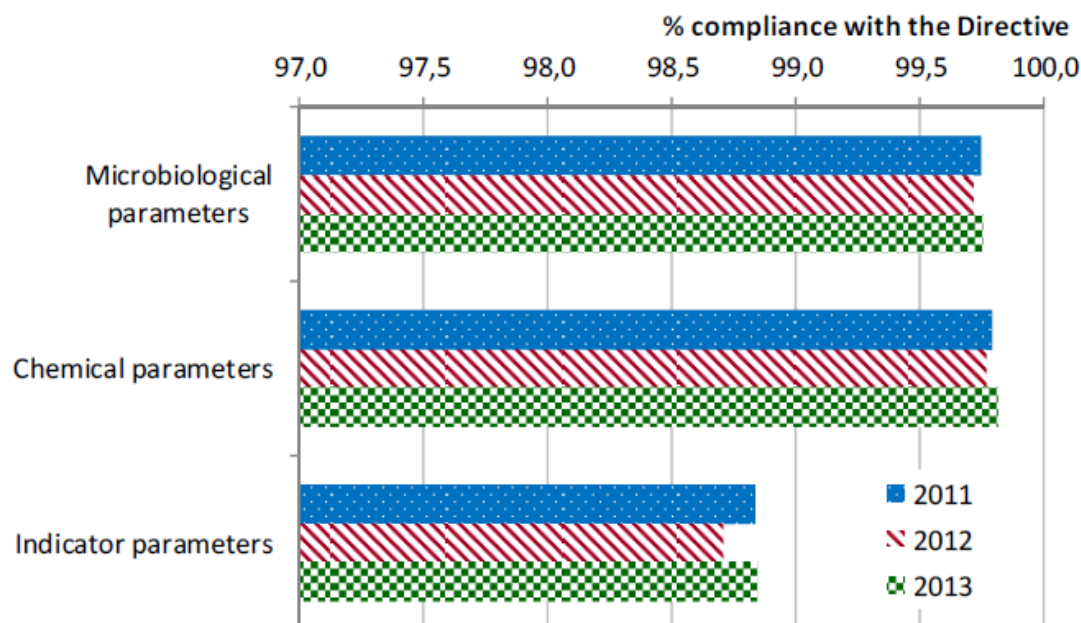
Art.  
7+8

Art.13

WFD  
art.7

# Drinking water quality in the EU

Compliance of **large** supplies  
(supplying >5000 consumers)  
consumers)



of **small** supplies  
(<5000



Austria	80-87%
Belgium	40-71%
Bulgaria	37-43%
Cyprus	32-63%
Germany	84-89%
Netherlands	13-100%
Romania	55-64%
Spain	66-79%
Sweden	65-88%
UK	49-89%

Commission report 2016; data 2011-2013



# Revision of the Drinking Water Directive

Legislative proposal (February 2018) currently with EU legislators

- Updating parameters and parametric values including introduction of parameter and monitoring of legionella;
- Introducing a risk-based approach to water safety including catchments of water supplies and domestic distribution systems;
- Introducing better information for consumers, beyond the current information on parametric values, and now including elements such as cost structure and tariffs, drinking water volume consumed as compared to average households;
- Introducing a (still rather vague) article on 'access to drinking water', however falling short of an obligation for Member States to supply all their citizens with drinking water within a set deadline;
- Allowing for less comprehensive monitoring in cases where the risk assessment would allow for such action.

All texts at [http://ec.europa.eu/environment/water/water-drink/review\\_en.html](http://ec.europa.eu/environment/water/water-drink/review_en.html)

# Drinking Water Directive

## Points to bear in mind



*Directive does not prescribe technology how to achieve the microbiological quality standards (disinfection) and chemical quality standards: any technology delivering on the objective is allowed.*



*Sustainable financing (CAPEX, OPEX) is covered by the Water Framework Directive (article 9).*



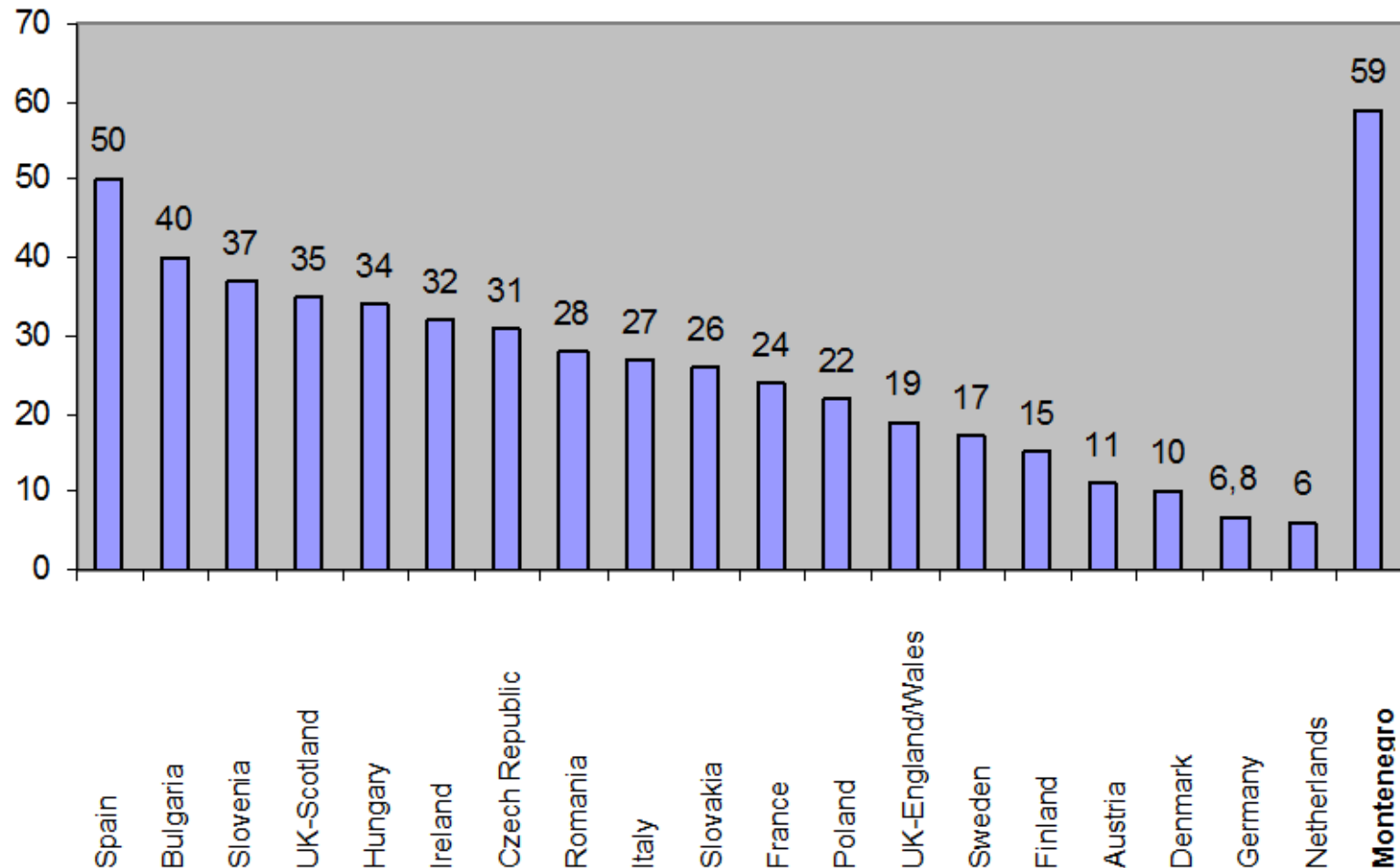
*EU legislation (Nitrates Directive, Water Framework Directive, Pesticides legislation) provides for specific protection for those waters used for drinking water supply, or intended for such future use.*

*Directive does not require public drinking water supply everywhere; only if there is a supply, obligations apply; > important to assess your legal obligations at the start of accession negotiations ( $\neq$  waste water, where there is an obligation to collect and treat >2000 inhabitants); recall EU funding (Cohesion Fund; IPA II).*



# Drinking Water Directive

% ... and a further point to bear in mind: leakages



59% of drinking water abstracted and fed into distribution systems is lost there. This is an environmental and an economic challenge, not least against the fact that Southern Montenegro is "likely to be most vulnerable to climate change (source: World Bank 2015 Report; National communication on climate change in Montenegro, Podgorica 2010). **Action is overdue.**

# Bathing Water Directive

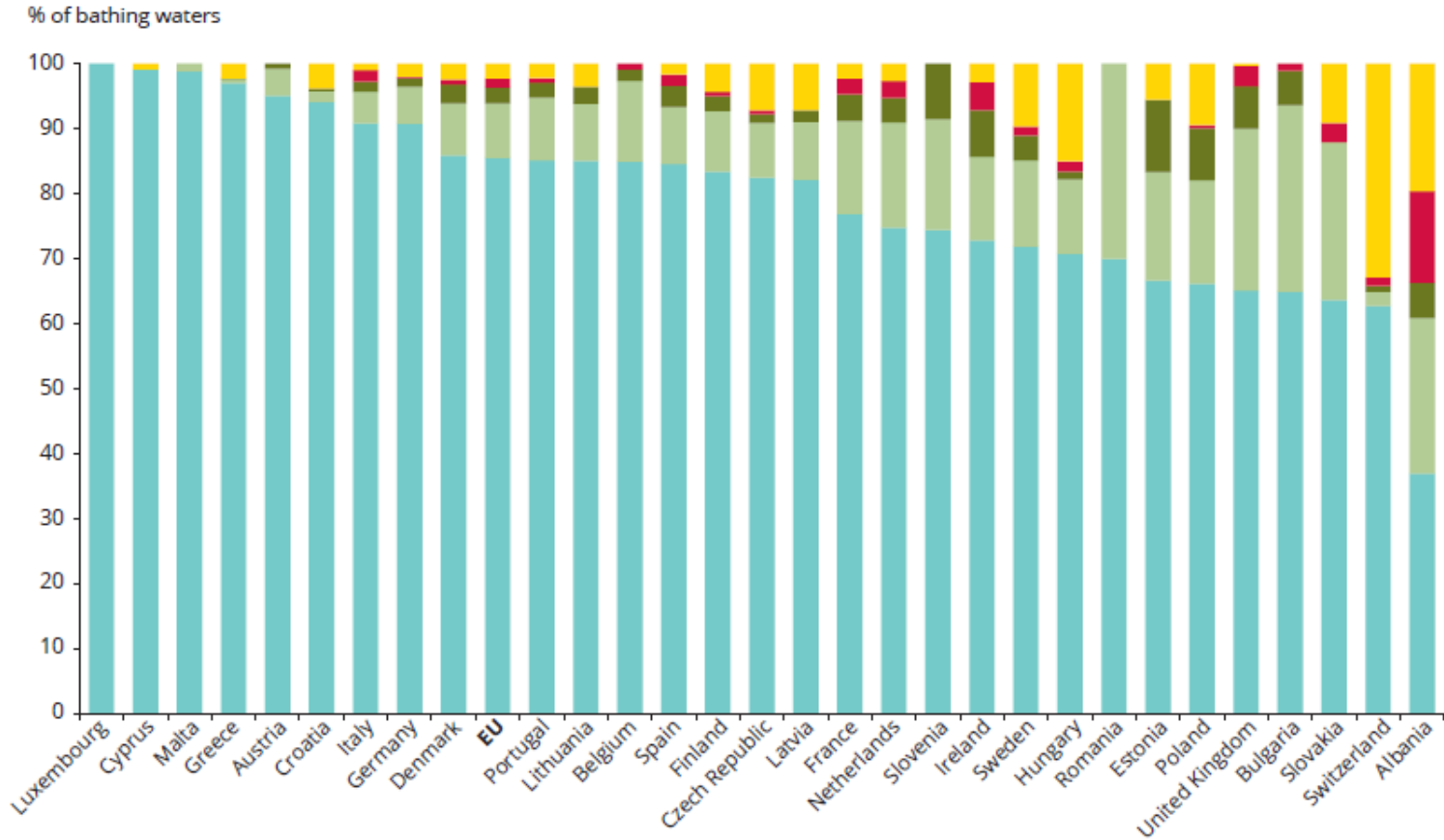
- Numerical quality standards for 2 microbiological parameters – “intestinal enterococci” and “Escherichia coli”
- Establishment of an annual bathing water list, with consultation of citizens, municipalities and NGOs;
- Regular monitoring;
- Regular publication of the monitoring results, at EU-level in an EU-wide report.





# Bathing water quality in the EU

## Report May 2017



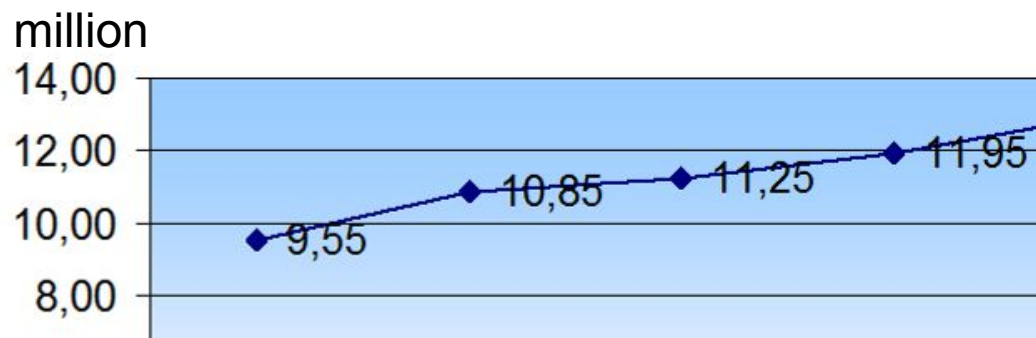
- Quality classification not possible: not enough samples/new bathing waters/bathing waters with changes/closed
- Poor quality
- Sufficient quality
- Good quality
- Excellent quality

# Bathing water quality

## Southern Adriatic 2016



**Safe drinking water (quality, availability) and clean beaches are -essential for tourism**  
... and require sustainable financing.



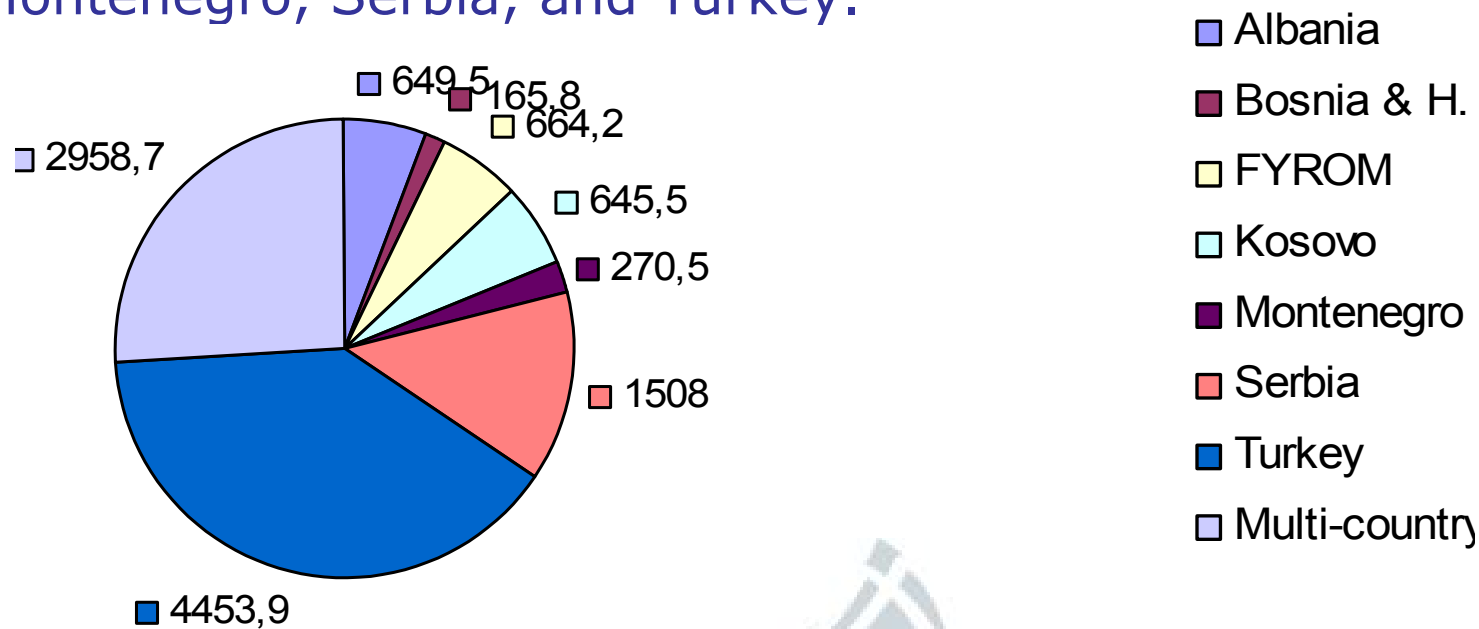
Overnight stays in  
Montenegro 2014-2017

(Statistical Office of Montenegro)



# EU financial support for Montenegro before accession: IPA (Instrument for Pre-Accession Assistance)

Total IPA budget for the period 2014 - 2020 11.7 billion EUR; current beneficiaries are: Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Kosovo\*, Montenegro, Serbia, and Turkey.



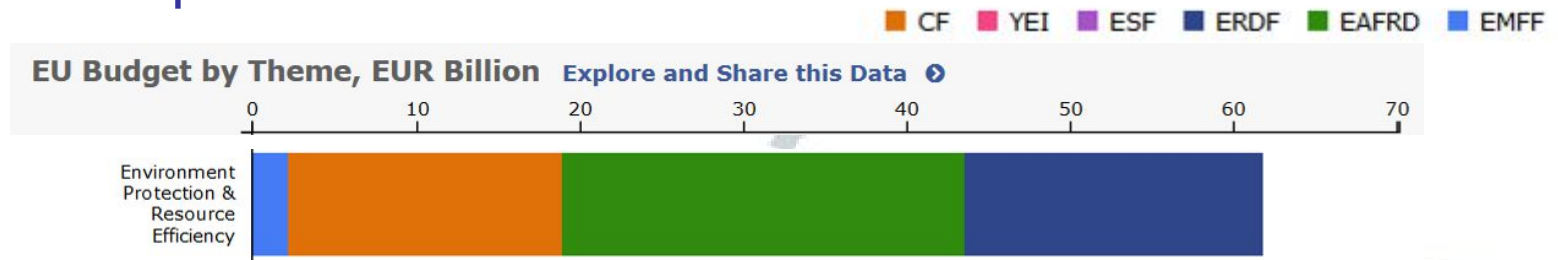
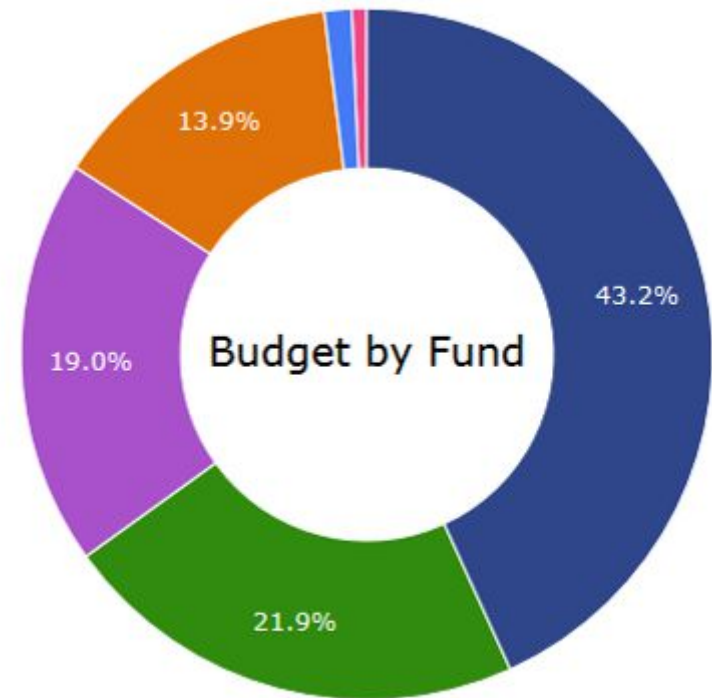
Million EUR

\* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.



# EU financial support for Montenegro after accession: main support instruments

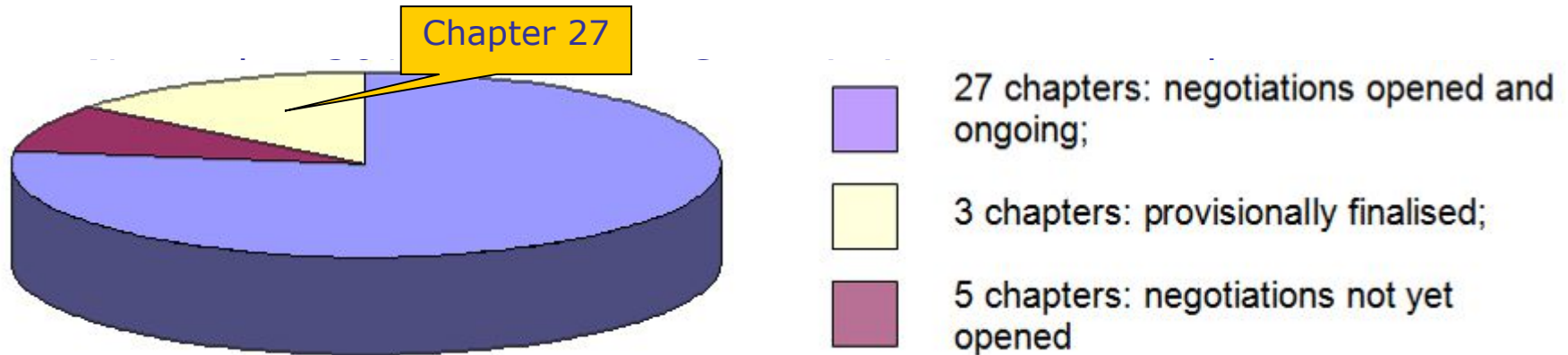
- Cohesion Fund
- European Regional Development Fund
- European Social Fund
- EU Solidarity Fund
- European Agricultural Fund for Rural Development



Compliance with EU water legislation is *one* indispensable criterion for funding, however out of the possible options your projects have to choose the best cost-benefit solution.

# EU - Montenegro Accession Negotiations

Steps so far



- February 2018: Commission Western Balkans Strategy "Accession negotiations are already well underway with Montenegro and Serbia. With strong political will, the delivery of real and sustained reforms, ... they could potentially be ready for membership in a 2025 perspective."
- By March 2018: negotiations on 30 chapters opened, and on 3 already provisionally closed;
- June 2018: negotiations on chapter 27 (environment) planned to be opened – and *"water" will be a crucial part of it.*



# EU - Montenegro Accession Negotiations

November 2016 Commission Report

On chapter 27 “Environment and climate change”

- . . . Montenegro is at some level of preparation in this area. Good progress was achieved in further aligning policies and legislation with the acquis. However, significant efforts are needed on implementation and enforcement, **in particular in water, nature protection and waste management sectors. . . .**
- The level of alignment on **water quality is limited**. The national strategy and action plan on water protection have yet to be adopted. Preparatory work on river basin management plans is in its initial phase. The river management authorities are not yet operational. A system for monitoring water quantity and quality is needed. Identification of agglomerations and definition of sensitive areas is required, as laid down in the Urban Waste Water Treatment Directive.

Full report at

[http://ec.europa.eu/enlargement/pdf/key\\_documents/2016/20161109\\_report\\_montenegro.pdf](http://ec.europa.eu/enlargement/pdf/key_documents/2016/20161109_report_montenegro.pdf)

# World Bank 2015 Report (1)

## Water and waste water services in the Danube region "Montenegro": main challenges



- **Financing investments to upgrade the water X and wastewater sector infrastructure.**

The second phase of the national Master Plan Implementation requires infrastructure investments for both water and sanitation in order to achieve EU directives compliance by 2030. Those investments are estimated at around €640 million over the next 15 years, or twice the current level of investment. Some EU -related funding (through the Instrument for Pre-accession Assistance, IPA) should be available to finance these investments. Efforts will have to be made to improve both the quality of drinking water delivered, since the compliance rate is only 85%, and the wastewater effective level of collection and treatment.

- **Improving the efficiency and cost-effectiveness of water utilities.**

As stated in the Strategy for Public Administration Reform, efficiency and performance of water utilities are a challenge. To achieve this objective, nonrevenue water levels have to be lowered by improving the quality of metering devices and reducing network leakage through sound maintenance and renewal of assets. Overstaffing has also been identified by the Strategy as an issue that needs to be addressed, since it results in high labor costs, thereby increasing utility operational expenses.



# World Bank 2015 Report (2)

## Water and waste water services in the Danube region "Montenegro": main challenges



WORLD BANK GROUP  
Water



International Association  
of Water Supply Companies  
in the Danube River  
Catchment Area

*(main challenges continued)*

- **Implementing sound cost recovery principles.**

Water utilities do not generate sufficient revenues to ensure proper maintenance and sustainability of infrastructure. For many utilities, subsidies from central and local budgets are needed to cover routine operation and maintenance costs. This situation threatens the long-term sustainability and good performance of water and wastewater services. To reverse this trend, tariffs may need to be reviewed according to sound cost recovery principles, especially since the investments to upgrade the existing infrastructure will generate an increase in operational costs.

Summarising, the World Bank concludes that on average the country performs well in terms of access to piped water and flush toilet, continuity of service and affordability. The main deficiencies of Montenegro's water sector identified through the sector sustainability assessment are the operating cost ratio, staffing level, and wastewater treatment coverage.

Full report at

[http://www.danubis.org//files/File/country\\_resources/user\\_uploads/SoS\\_Montenegro%20\(1\).pdf](http://www.danubis.org//files/File/country_resources/user_uploads/SoS_Montenegro%20(1).pdf)



**Hvala na pažnji. Thank you for your attention.**