

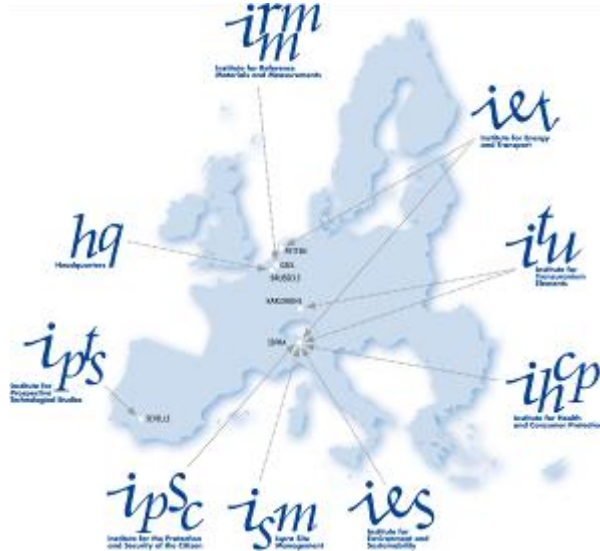


# *Water & EU policy: EU legislative tools to protect water resources*



*JF Dallemand, European Commission Joint Research Centre  
Bioenergy & Water Workshop  
UNEP, Paris, 20-21 February 2014*

## Who are we?



*JRC: the European Commission's  
in-house science service*

As a Directorate-General of the European Commission, the JRC provides customer driven scientific and technical support for the conception, development, implementation and monitoring of European Union policies.

### Institute for Energy and Transport

1 of the 7 scientific institutes of the JRC

**Our mission:** “provide support to Community policies and technology innovation to ensure sustainable, safe, secure and efficient energy production, distribution and use and to foster sustainable and efficient transport in Europe”

### Main activities:

- Renewable energies
- Sustainable & safe nuclear energy
- Energy techno/economic assessment
- Hydrogen and fuel cells
- Clean fossil fuel
- Energy efficiency
- Security of energy supply
- Sustainable transport



J R C T E C H N I C A L R E P O R T S

Bioenergy and Water

**EC JRC/Twente University/IEA  
Bioenergy Task 43 Joint  
Publication based on voluntary  
contributions from :**

**NL, EC JRC, IEA, Sweden,  
Argentina, Brazil, India,  
France, Australia, USA, South  
Africa, Germany**

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2013

## *Water protection Directives*

### **Water Framework Directive**

- **Groundwater Directive**
- **Directive on Environmental Quality Standards (EQS)**

### **Urban Waste Water Directive**

### **Nitrates Directive**

### **Floods Directive**

**+ quantitative and adaptive water management issues, for which there is currently no legislation at EU level**

**+ Marine Strategy Framework Directive**

## Common Agriculture Policy (CAP), What is new ?

- **New CAP from 2014-2020**
  - **Greening the CAP ?**
  - **Simplifying ?**
  - **Disagreement about budget (% of EU budget, GDP, % of population)**
  - **Biodiversity and hedges**
  - **Mandatory and non mandatory**
- **In most EU countries today, the average family spends around 15 % of its monthly income on food.  
The proportion is half what it was in 1962.**
- **Farmers are becoming older (EUROSTAT - Farm Structure Survey, 2007).**
  - **Wheat yields stable in the 6 original EU MS (7t/ha).**



*The Common Agricultural Policy (CAP) intends to support investments to:*

- conserve water,*
- improve irrigation infrastructures and enable farmers to improve irrigation techniques.*

*It also helps to protect water quality and quantity.*



The main CAP instruments promoting sustainable water management are the following:

- Certain **rural development measures support investments** (*incentives for farmers*)  
Improve irrigation infrastructures or irrigation techniques to obtain lower water volume abstraction and/or improve water quality.
- The **cross-compliance framework** (*conditioning direct payments to compliance for environmental rules*) includes statutory requirements for water management and protection  
Done through the implementation of:
  - Nitrates Directive
  - as well as GAEC (Good Agricultural & Environmental Conditions) standards
    - **Buffer strips along water courses**
    - **Authorisation of water use for irrigation**
    - **Groundwater protection**
    - **Minimum soil cover**
    - **Detailed implementation of the Water Framework Directive, Sustainable use of Pesticides and Herbicides is still under discussion**
- In addition, range of initiatives of EU environmental policy that will contribute to promoting the protection of waters including the EU action against climate change, the White Paper on adaptation to climate change and the Communication on water scarcity and droughts .

## PAYMENTS

### Direct payments :

- Basic payment
- Green payment
- Less-favoured areas
- Young farmers
- All coupled direct payments

### Rural development:

- Agri-environment and organic farming
- Forest-environment
- Less-favoured areas
- Natura 2000 payments
- Water Framework Directive payments**
- Animal welfare payments
- Afforestation

### Wine :

- Restructuration
- Green harvesting

## RULES

### Statutory Management Requirements (13 SMR)

- Birds and Habitats Directives
- Nitrates Directive**
- Animal Identification & Registration
- Pesticides authorisation Regulation
- Hormones ban Directive
- General Food Law
- Notification of diseases (1 act)
- Animal welfare (3 acts)

### Good Agricultural and Environmental Conditions (GAEC): 7 standards

1. **Buffer strips along water courses**
2. **Authorisation of water use for irrigation**
3. **Groundwater protection**
4. **Minimum soil cover**
5. Minimum land management
6. Maintenance of soil organic matter
7. Retention of landscape features

- **Water Framework Directive**
- **Sustainable Use of pesticides Directive**
- Greening and land maintenance
- Certain RD measures

+ Voluntary measures



## *Rural Development Priorities*

- 1. Fostering knowledge transfer and innovation in agriculture, forestry, and rural areas*
- 2. Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and sustainable management of forests*
- 3. Promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture*
- 4. Restoring, preserving and enhancing ecosystems related to agriculture and forestry*
- 5. Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors*
- 6. Promoting social inclusion, poverty reduction and economic development in rural areas*



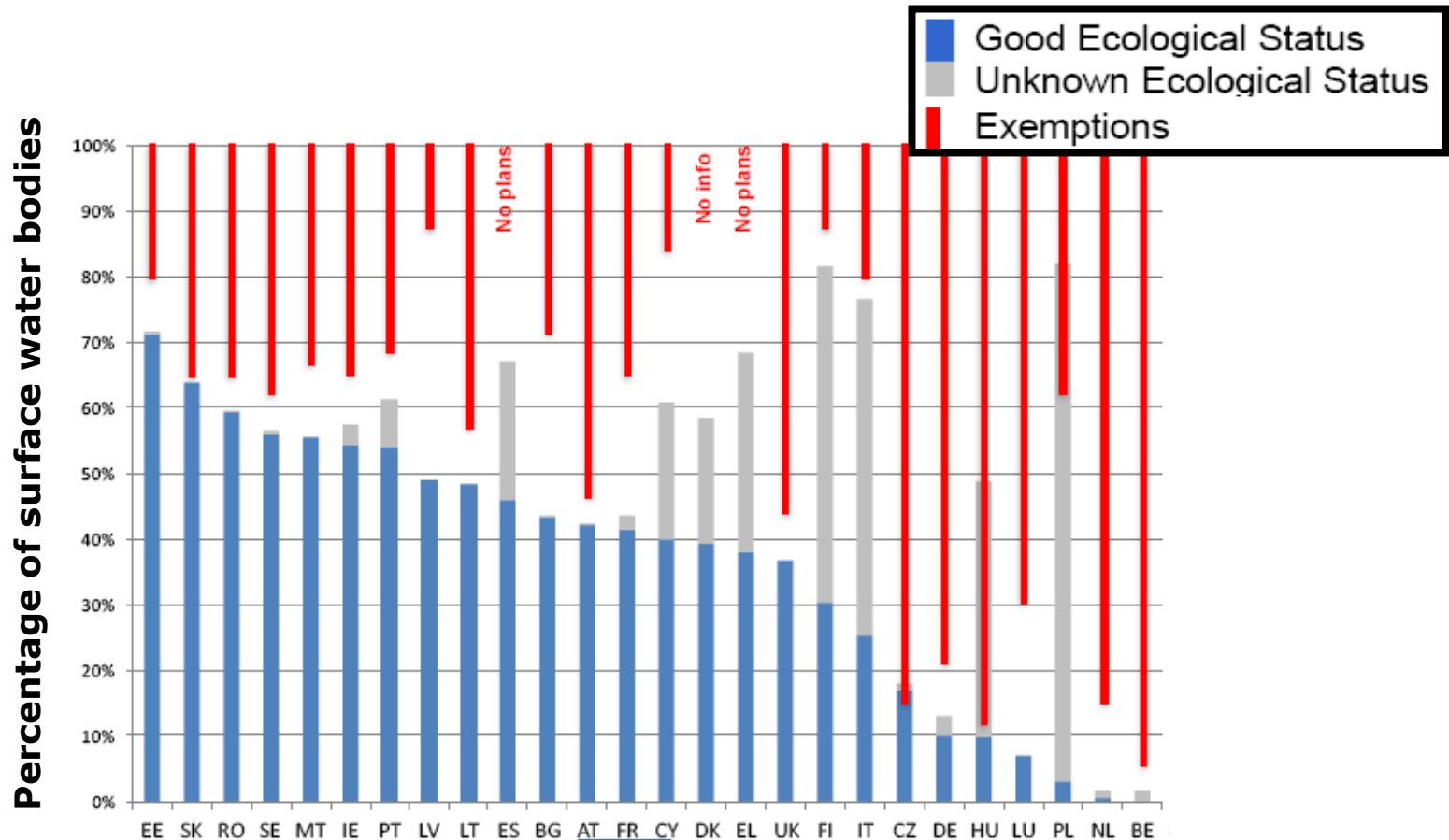


<b>Year</b>	<b>The EU Water Framework Directive</b>	<b>Reference</b>
2000	Directive entered into force	Art. 25
2003	Transposition in national legislation Identification of River Basin Districts and Authorities	Art. 23 Art. 3
2004	Characterisation of river basin: pressures, impacts and economic analysis	Art. 5
2006	Establishment of monitoring network Start public consultation (at the latest)	Art. 8 Art. 14
2008	Present draft River Basin Management Plan	Art. 13
2009	Finalise River Basin Management Plan including Programme of Measures	Art. 13 & 11
2010	Introduce pricing policies	Art. 9
2012	Make operational Programmes of Measures	Art. 11
2015	Meet environmental objectives First management cycle ends Second River Basin Management Plan risk management plan.	Art. 4
2021	Second management cycle ends	Art. 4 & 13
2027	Third management cycle ends, first meeting objectives	Art. 4 & 13

2015

2021

# 2015 ambitions vs. achievements of the EU-Water Framework Directive



## **Assessment River Basin Management Plans: some general preliminary findings**

**A lot of effort put into  
preparation of the plans**

**All plans not submitted**

**High uptake of the common  
framework and common  
language on water  
management provided by  
the WFD**

**Low ambition in many of the  
plans (extensive use of  
exemptions)**

**Integration of ecological  
perspective into water  
management**

**Lack of concrete measures  
and expected achievements**

**Enhancement of  
international cooperation**

**Lack of comparability in some  
issues (e.g. chemical  
status!)**

**Public participation,  
stakeholder involvement**

**Dressing “business-as-usual”  
as WFD**

**Impressive improvement in  
the knowledge base**

**EC has to assess the progress in the implementation of the Water Framework Directive in certain intervals and to inform the EP, the Council and the public about the results of its assessments**

**1st implementation report on the first stage of implementation (22 March 2007)**

**2nd implementation report on monitoring networks (1 April 2009)**

**3rd implementation report on the River Basin Management Plans (November 2012)**

**This 3rd WFD implementation report was adopted on 14/11/2012 and consists of the following documents:**

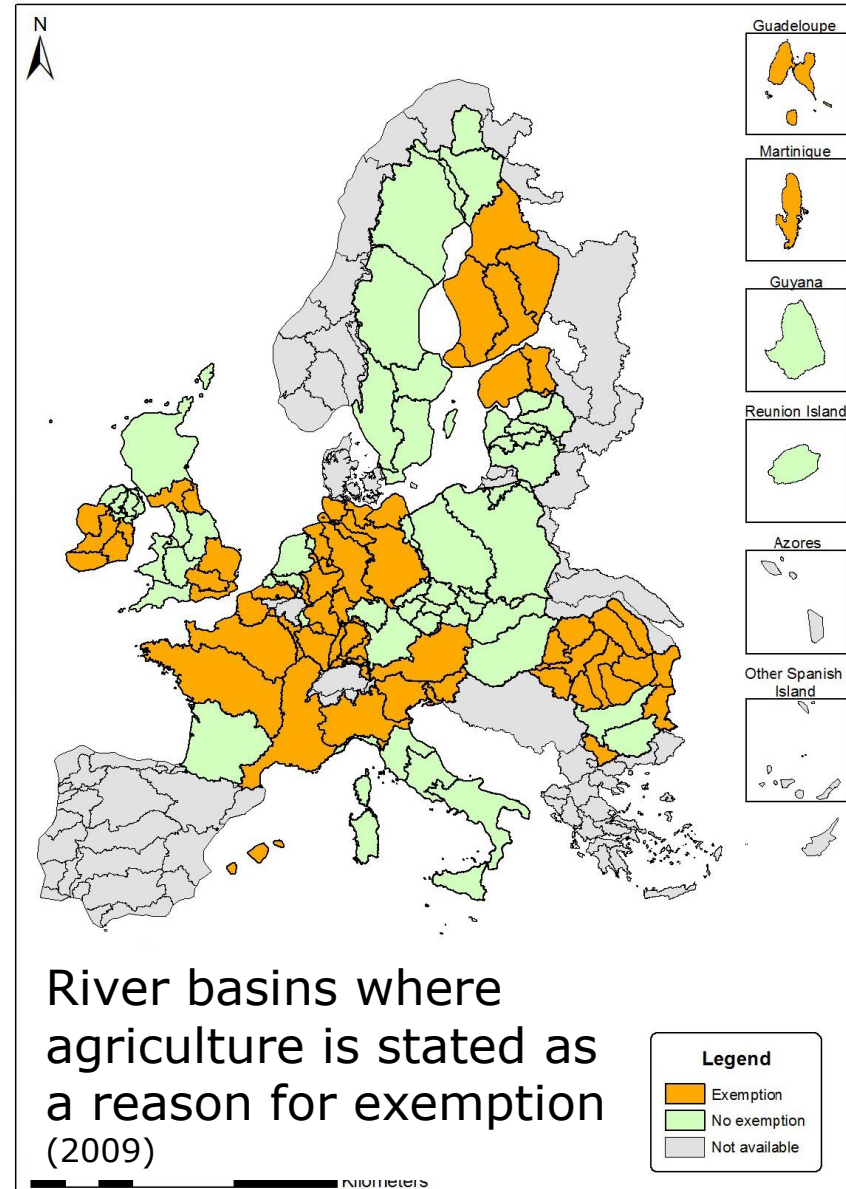
- A Commission report to the European Parliament and the Council on the implementation of the Water Framework Directive - River Basin Management Plans**
- A European Overview – Commission Staff Working Country-specific assessments for EU Member States and Norway**



# Lesson learnt from 137 WFD River Basin Management Plans

Pressure on water by agricultural activities as one of the main challenges in meeting the 2015 Water Framework Directive objectives

- Pollution (nitrogen, phosphorous, pesticides) *124 out of 137*
- Alterations of hydrologic regimes (e.g. water abstraction for irrigation) *51 out of 137*
- Hydro-morphological modifications *68 out of 137*



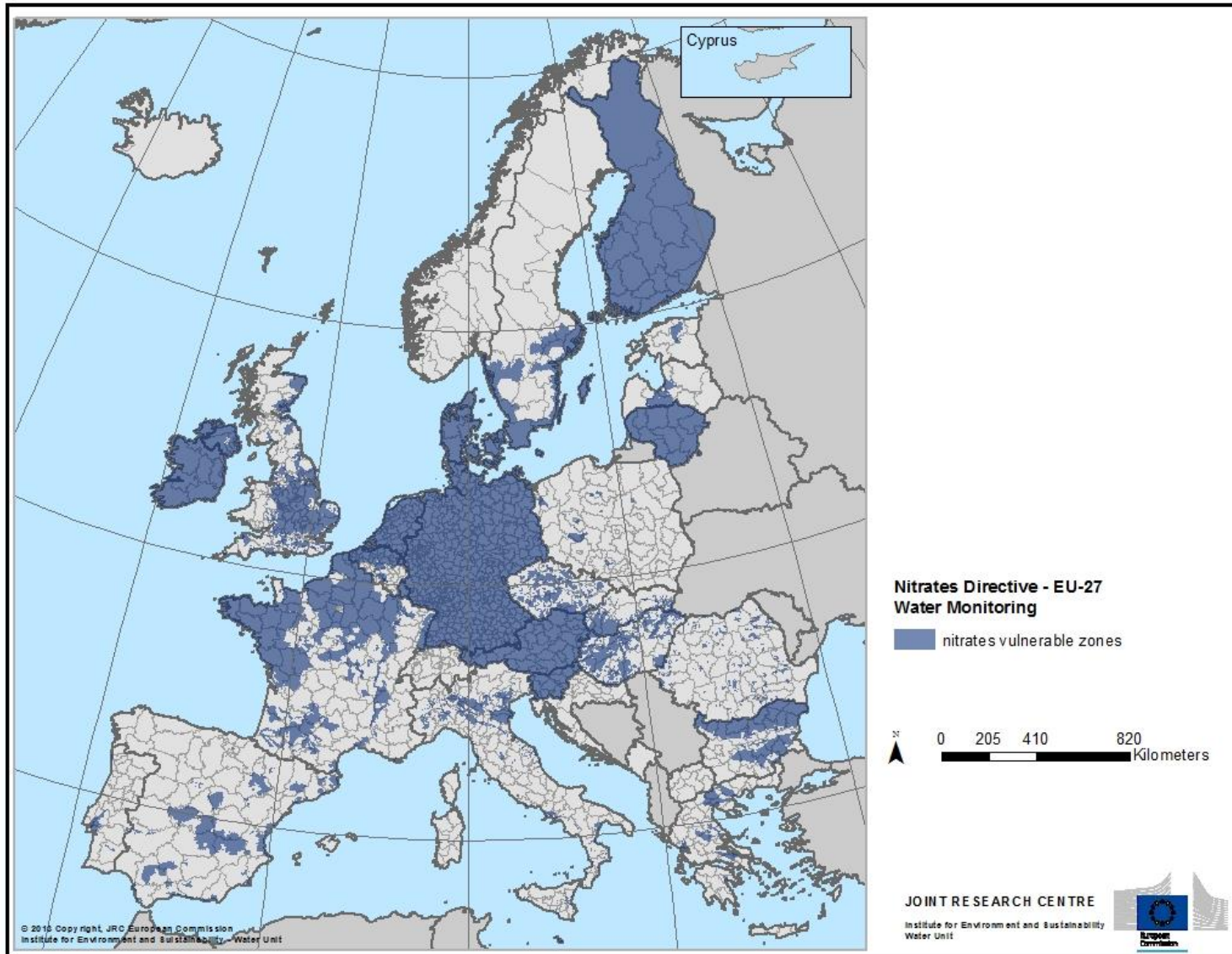
## *Nitrates Directives*

### Nitrates Directive (1991)

- **Identification of water polluted, or at risk of pollution**
- **Designation as "Nitrate Vulnerable Zones"(NVZs)**
- **Establishment of Codes of Good Agricultural Practice to be implemented by farmers on a voluntary basis**
- **Establishment of Action Programmes to be implemented by farmers within NVZs on a compulsory basis (maximum amount of livestock manure to be applied corresponding to 170 kg nitrogen /hectare/year).**
- **National monitoring and reporting.**

**Pollution as defined in Annex 1 refers to waters where nitrate concentrations are larger than 50mg-NO<sub>3</sub>/L**





## *Status as of 2013*

### Nitrates Directive (1991)

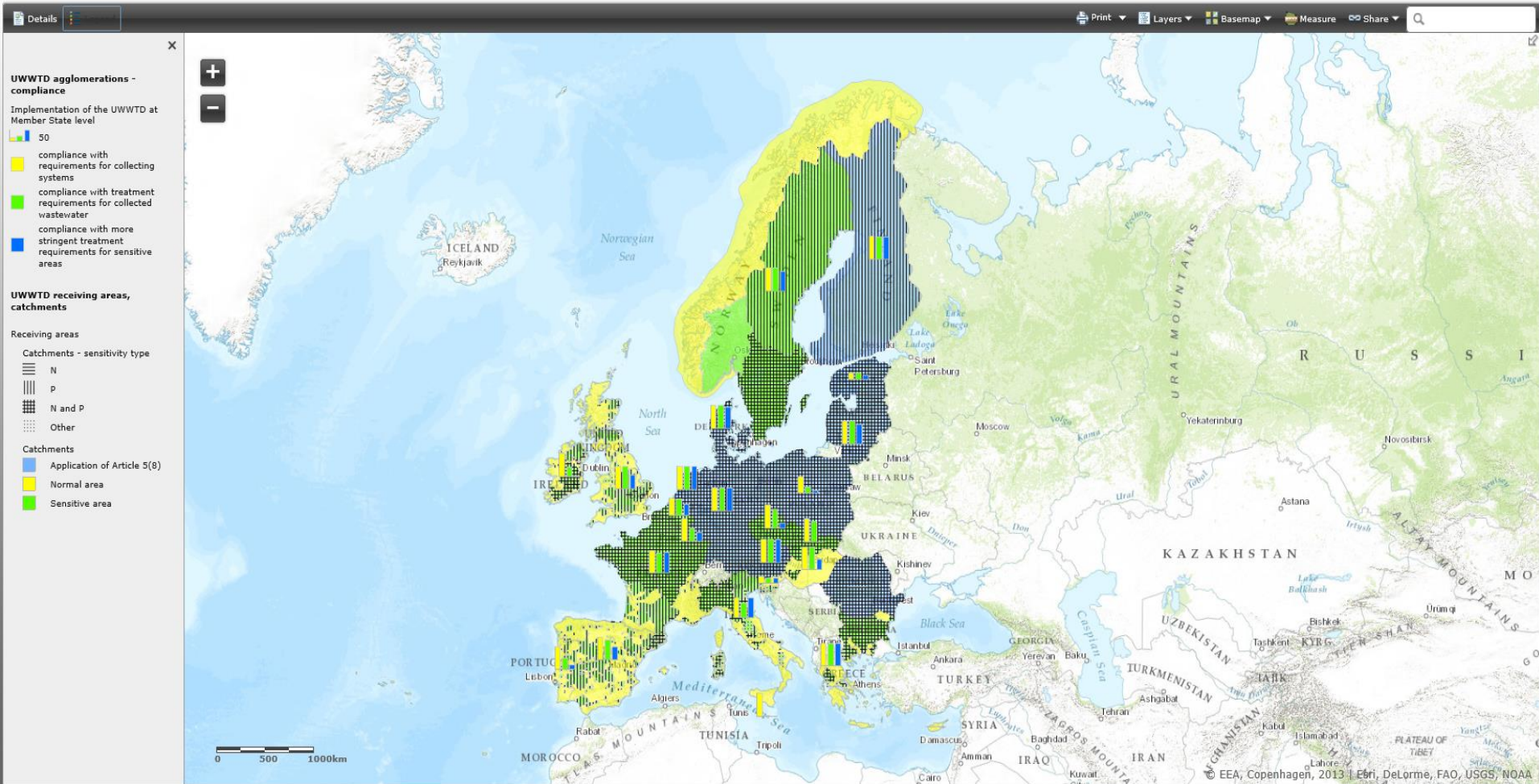
- **46.7% of total EU land area designated as Nitrate Vulnerable Zone**
- **Pressure from agriculture has decreased (cattle pigs, sheep)**
- **Decrease of mineral fertilizer**
- **Fresh surface water quality has improved**
- **However, transitional, coastal and marine waters in many parts of Europe remain eutrophic**
- **10 infringement cases against 8 Member States (FR, LU, GR, IT, PO, SK, BG, LA**

## *Urban Waste Water Treatment Directive*

### Urban Waste Water Treatment Directive (1991)

- **Designate sensitive areas**
- **Ensure that all discharges from agglomerations with more than 2 000 p.e. located within the catchment shall have more stringent than secondary treatment;**
- **Establish less sensitive areas if relevant;**
- **Establish a technical and financial programme the construction of sewage collecting systems and wastewater treatment plants**

# Urban Waste Water Treatment Directive : Compliance (EEA)





## *The Way Forward: BluePrint to safeguard Europe's Water Resources*

- **Improve the implementation of current EU water policy**
- **Foster the integration of water and other policies**
- **When necessary, seek the completion of the current policy in relation to water quantity, efficiency and adaptation to climate change**

# EEA (European Environment Agency Monitoring & Reporting

## The European Environment State & Outlook 2010

### Water resources: quantity & flows

***Main message: Europe's freshwaters are affected by water scarcity, droughts, floods & physical modifications. Many water bodies are at risk of failing to meet the aim of the EU Water Framework Directive (WFD) to achieve good status by 2015. Future policies should encourage demand management through actions such as increasing water efficiency. In addition, water management will benefit from applying an ecosystems perspective, using floodplains and groundwater aquifers for storing water, and making room (space) for rivers.***



# EEA (European Environment Agency Monitoring & Reporting

## The European Environment State & Outlook 2010

### Water resources: Freshwater quality

**Main message:** *The continuing presence of a range of pollutants in a number of Europe's freshwaters threatens aquatic ecosystems and raises concerns for public health. Current reporting under the EU Water Framework Directive (WFD) shows that a substantial proportion of Europe's freshwaters are at risk of not achieving the aim of "good status" by 2015. Driven by the EU Urban Wastewater Treatment Directive (UWWTD), improvements in the collection and treatment of wastewater in some regions of Europe have led to a reduction in the discharge of some pollutants to fresh and coastal waters. Challenges remain, however, because UWWTD implementation remains incomplete and other significant sources of water pollution exist, especially agriculture and urban storm flows. The implementation of effective and timely measures, required under the WFD, needs to encompass a greater focus on controls "at source" and the efficient use of resources including water, energy and chemicals.*



## Conclusion :

**Extensive legislative framework in relation to water and EU policy but implementation difficulties in some cases**

## What about bioenergy and water at EU policy level ?

**Bioenergy as other Renewables is part of 2009 RED (Renewable Energy Directive), 20/20/20 + 10, no specific measures of support at EU level (Open possibility at MS level or regional level with EU rural development funds)**

**Cross compliance at farm level requested by the EU + No specific requirements on bioenergy & water, feedstock used for bioenergy treated as for other uses**

**Biofuels/Biomass/Bioenergy sustainability certification for imports (Liquid biofuels for transport, solid biomass in discussion) to be accounted for RED Directive targets**

