

# Floods

## Requirements of the Floods Directive

JASPERS Networking Platform

Workshop: Best Practices in Flood Risk Management

Brussels, 17 September 2013

# This presentation

*History of the Directive*

*Key principles*

*Main milestones*

*Coordination other legislation*

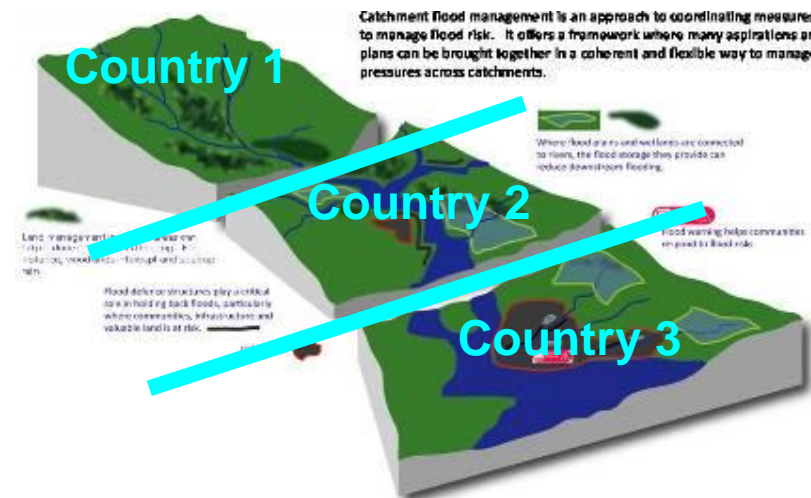
# History

- *"Inspired" by the 1998-2002 floods*
- *WFD in place since 2000 – framework for integrated river basin management – but not focussing on all flood risk management aspects*
- *Based on 2004 Communication on flood risk management (COM(2004)472 final of 12.7.2004)*
- *Consultation & Conclusions/opinions by EU institutions 2004/5*
- *Proposal adopted 18 January 2006 (COM(2006) 15 final of 18.1.2006)*
- *Impact assessment (SEC(2006)5 of 18.1.2006)*



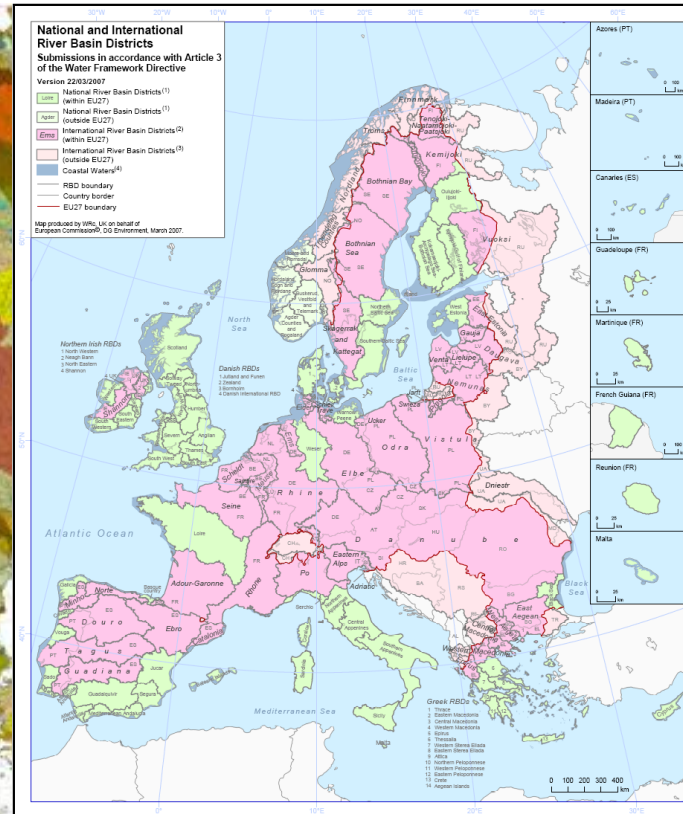


- **Legal framework for integrated water management including flood risk management.**
- **Coordination other legal acts, mainly Directive 2000/60/EC (Water Framework Directive), including cyclical implementation.**
- **Integration**, covers many sectors. Land use, civil protection, dam management, strategic and environmental impact assessments, nature legislation, public consultation.
- **Coordination across the river basin**, including requirements for transboundary coordination !
- Flood risk management plans to cover **all aspects of flood risk management**, with focus on **prevention, protection and preparedness**, including **flood forecasts and early warning systems**
- Ultimate aim is to reduce the adverse consequences of floods.



# Diversity of river basins in Europe

- Diversity of flood events across Europe, such as river floods, ice-jam floods, Mediterranean flash floods
- Flexibility for planning and action at local / regional / sub-basin level whilst ensuring cooperation/coordination across the basin



# Three stage approach

**Preliminary flood risk assessment** (*maps, experience from past floods, predictions of future floods, identification areas of potential significant flood risk*)

**22.12.2011**

**Flood mapping** (*= knowing areas at risk of flooding, different scenarios, flood hazard maps & flood risk maps*)

**22.12.2013 \***

**Flood Risk Management Plans** (*= plans to reduce flood risks, covering all elements of the flood risk management cycle*)

**22.12.2015 \*\***

## Review /update every 6 years thereafter

Reporting to the Commission : 3 months after

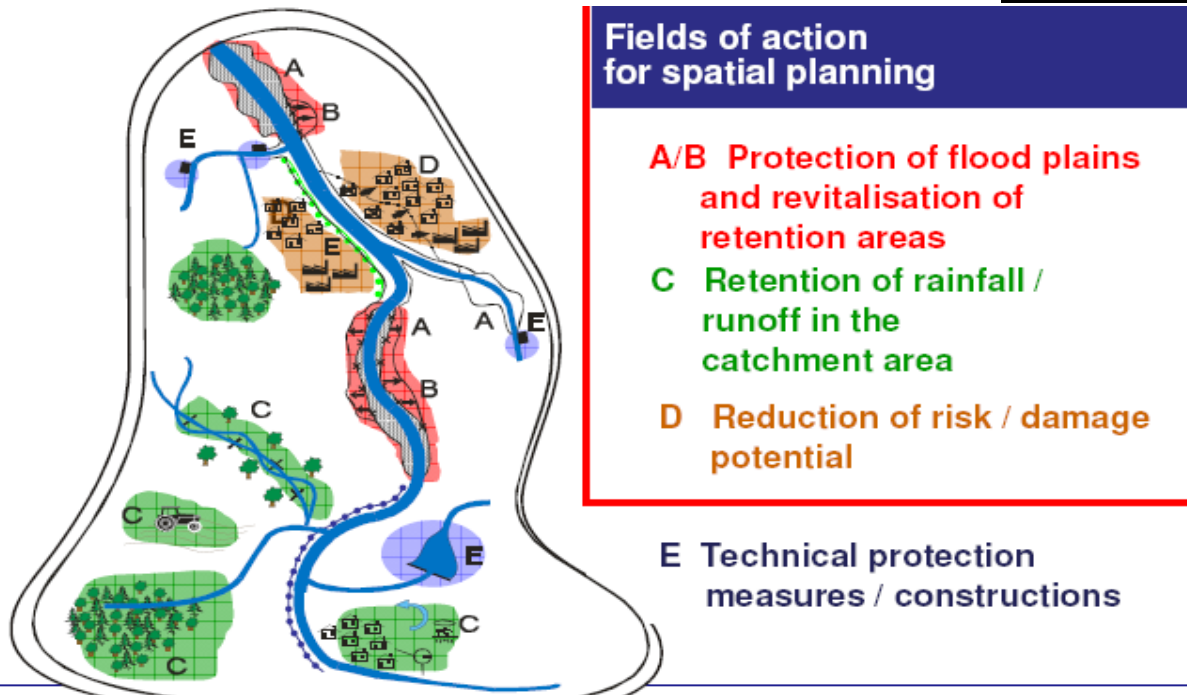
\* = date of 1st review of pressure and impact analysis under the WFD

\*\* = deadline for 2<sup>nd</sup> cycle WFD river basin management plans

# Working on a catchment level !

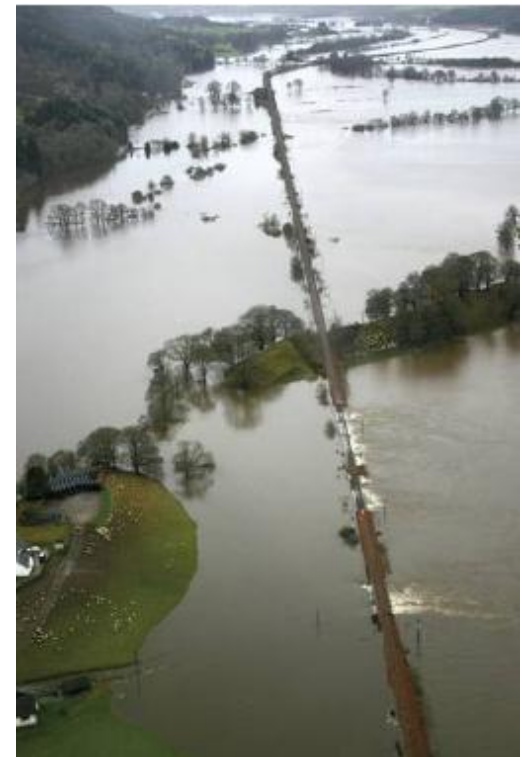
## IRBM & Flood risk management

**Sustainable land use practices !**



## IRBM & Flood risk management

# Involving stakeholders !



Pictures from WWF-Scotland.



## IRBM & Flood risk management

**Coordination Water Framework  
Directive – find better environmental  
options – work with natural process  
and create win-win-win solutions !**



Glen Dey restored wetland, River Devon



Floodplain woodland site, River Devon



Tillicoultry erosion control site, River Devon



Detail of Tillicoultry erosion control site, River Devon



## Costs of damage and flood risk management measures

- Significant costs of implementation, but also very significant damage!
- Flooding problems expected to change and increase over time with climate change and land use.
- Flexibility to Member States to set objectives and design measures.
- Structural and non-structural measures



Comune di Malborghetto-Valbruna, Italia: "Alluvione: cinque anni dopo"



Floodsite, HR Wallingford.



Dresden © IOER



Floodsite, HR Wallingford.



Floodsite, HR Wallingford.





European  
Commission

## Same place – new consequences

- regular review of the  
implementation cycle

**View from Rudsberget (Karlstad,  
Sweden) in 1916 och 2007**

*(Courtesy pictures : Karlstad Kommun)*

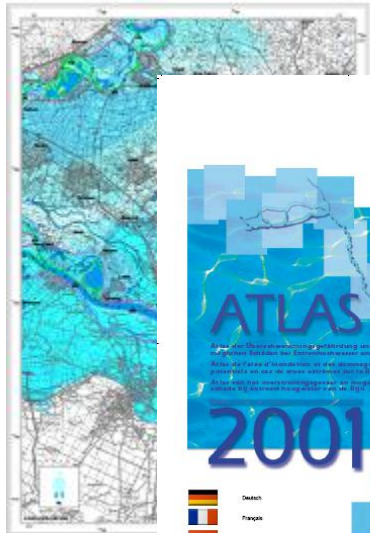




European  
Commission

# Building on experience

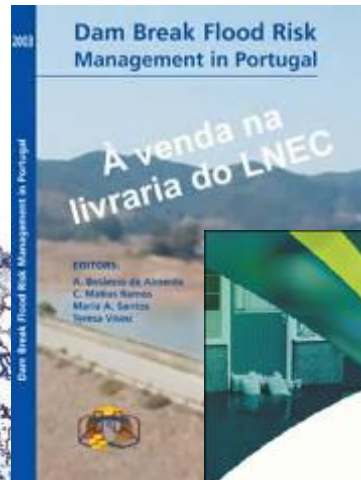
- Building on experience, planning and programmes already in place; using existing cooperation structures such as river basin agreements and civil protection plans



Deutsch  
France  
Niederlande  
England



Les communes à risque inondation



Analyse der Hochwasserereignisse vom August 2002 – FloodRisk  
Synthesbericht



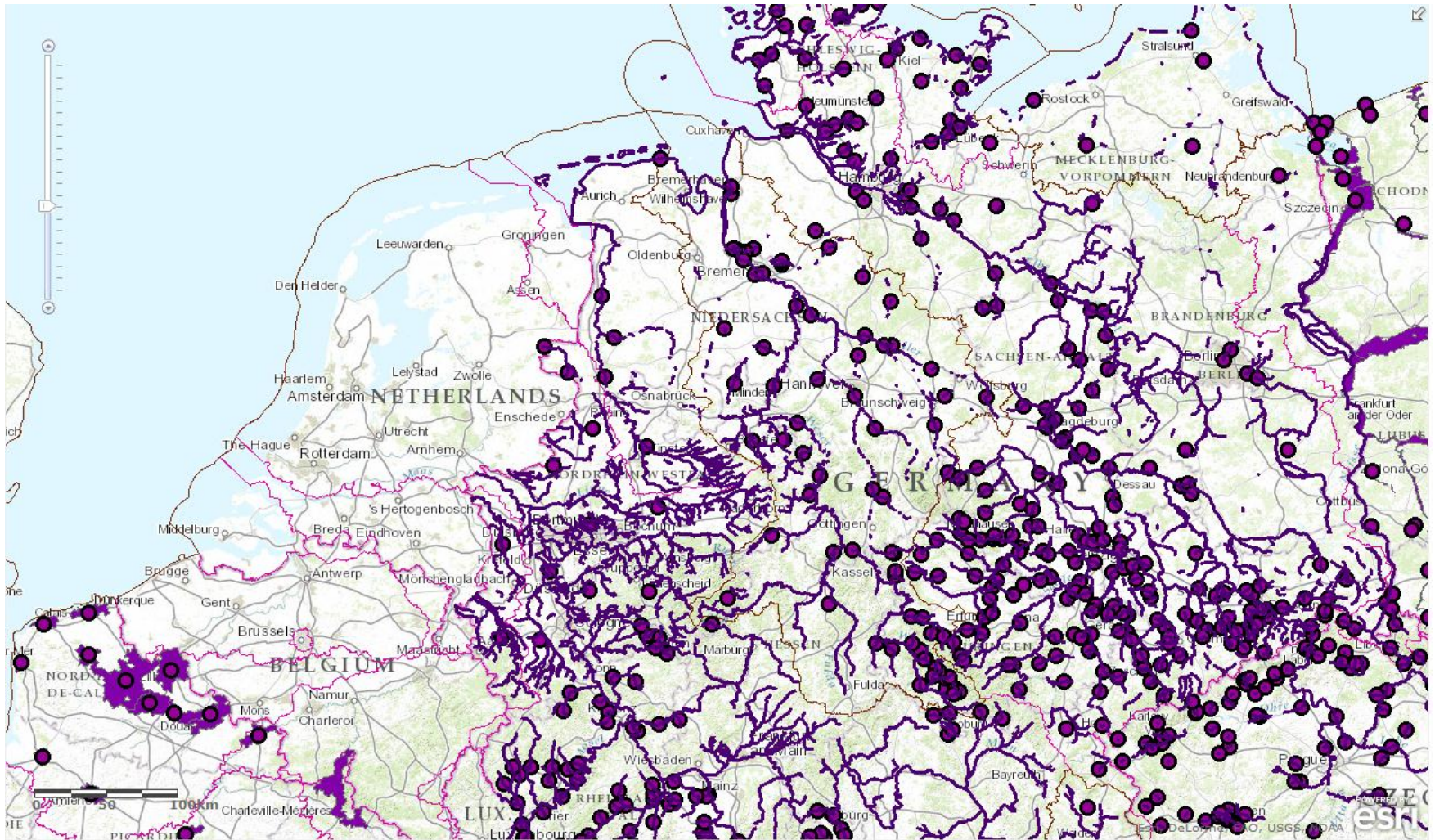


## Preliminary flood risk assessment (art 4-5)

**Objective: identification of areas of potential significant flood risk**

- *Maps of the river basin district showing topography and land use*
- *Key issues to consider:*
  - **Information on past floods**
  - **Assessment of man-made flood defence structures**
  - **Consideration of the impact of climate change**

# Areas of Potential Significant Flood Risk



## Flood hazard maps and risk maps (art 6) (2013)

### **Flood hazard maps**

- Three **scenarios**: low, medium (>100 years) and high probability
- For each scenario flood extent, water depths or water level, flow velocity

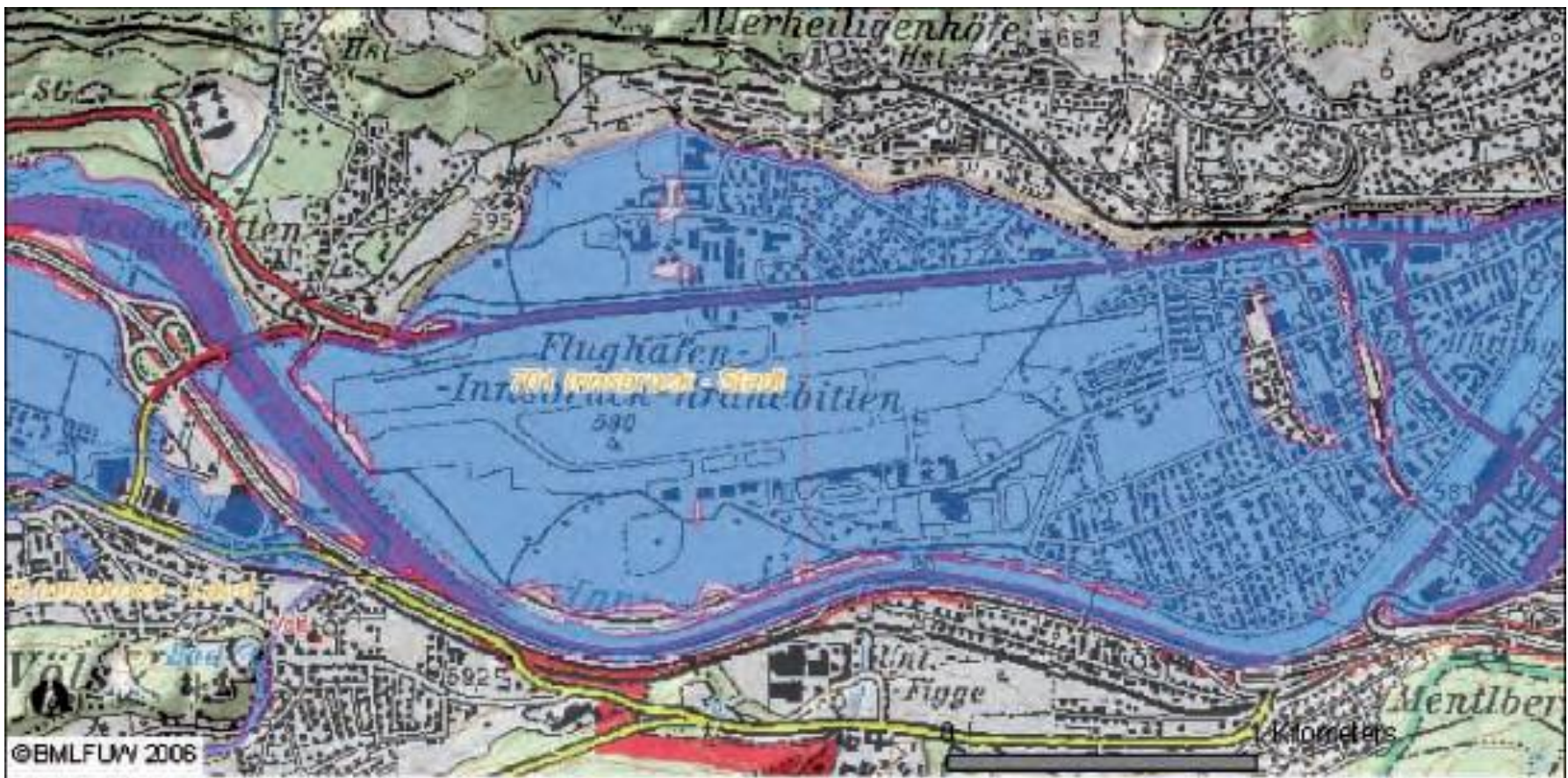
**Flood risk maps** showing the potential adverse consequences associated with flood scenarios in terms of

- Number of **inhabitants** potentially affected;
- type of **economic activity** of the area potentially affected
- **Industrial** installations which might cause accidental pollution in case of flooding and protected areas (drinking water, bathing water, habitats)
- If useful information on significant transport of sediment and debris



# Flood risk maps – example

(Innsbruck, At - Atlas of Flood maps)





# Flood risk management plans (art 7)

Deadline : 22.12.2015

- **Objectives**
- **Measures**
- **Focus on**
  - reduction of potential adverse consequences of flooding
  - If appropriate, non-structural initiatives and/or on the reduction of the likelihood of flooding
- **Should cover**
  - prevention,
  - protection,
  - preparedness, including flood forecasts and early warning systems

## Flood risk management plans (art 7)

### ***Shall take into account relevant aspects such as :***

- costs and benefits,
- areas which have the potential to retain flood water, such as flood plains,
- the environmental objectives of Article 4 of Directive 2000/60/EC, nature conservation and water management,
- Soil, spatial planning and land use,
- navigation and port infrastructure.

### ***may also include the promotion of :***

- sustainable land use practices,
- improvement of water retention
- the controlled flooding of certain areas in the case of a flood event.

***"Solidarity clause" measures cannot be taken by a MS which increases flood risk up or downstream***

## Coordination (art 8 and 9)

### **Article 8 : Coordination in the river basin districts**

*National, shared between EU member States and shared with third countries.*

*If coordination fails – “conflict resolution mechanism”.*

### **Article 9 : Coordination and synchronisation with the WFD, not necessarily integration**

*Flood hazard and risk maps <-> characterisation of the RBD (Art 5)*

*Flood risk management plans <-> River basin management plans (Art 13)*

# Coordination other legislation

## Full coordination requirement

- Directive 2000/60/EC ([Water Framework Directive](#))

## Recitals

- European Union Solidarity Fund ([EUSF](#))
- Council Decision 2001/792/EC ([Civil Protection Mechanism](#))

## Mapping – Annex (FRMP)

- Council Directive 2010/75/EU ([IED Directive](#))
- Protected areas - WFD, Habitats, Birds, Drinking water

Annex (FRMP Flood related measures in other legislation), examples given :

- Directive 2011/92/EU ([EIA Directive](#))
- Directive 2012/18/EU of ([Seveso](#)),
- Directive 2001/42/EC ([The SEA Directive](#))

## Implicit

- [Aarhus Convention and related Community legislation](#) on public participation and the access to environmental information.

Other : *Critical infrastructure, Urban Waste Water treatment, Civil protection...*



# Floods Working Group (WG F)

*Established by Water Directors*

*Participants :*

- MS and stakeholders, research projects, international org (WMO, ICPDR..)

*Purpose :*

- Support implementation of the Floods Directive
- Reporting : concept paper and reporting system
- Information exchange

*Common Implementation Strategy (WFD)*

- Existing informal structure
- Facilitate coordination with WFD and its implementation activities
- Hydromorphology, climate change, economics, agriculture...

# Deliverables

- Handbook of good practices for flood mapping in Europe, including an Atlas of flood maps (2007)
- Good practice on delivering flood-related information to the general public (2007)
- Guidance document “River basin management in a changing climate”(2009)
  - “Where more in-depth vulnerability studies on climate change impacts on flood risk have been carried out, the conclusion is often that although the information is uncertain it is robust enough to warrant that adaptation action can already be started.”
  - Coordination across the catchments/coastal areas on, all aspects of the Directive also in view of CC
  - Need for “win-win “ and “no-regret” measures
  - Make sure potential changes to flood risk are built into multi-hazard disaster risk reduction civil protection/emergency measures
  - Increase the resilience of civil protection and disaster management infrastructure in view of climate change.

# Thematic workshops

- Land use, January 2007, Oslo, NO
- Land use and local planning, April 2008, SI/AT.
- Flood mapping, 9-10.9.2008, IE.
- Preliminary Flood Risk Assessment, 25-26.5.2009, CZ.
- Climate change and floods, 8-10.9.2009, SE;
- Flood Risk Management Plans, January 2010, NL.
- Catchment Approach, 14-16 October 2009, UK.
- Flash floods and Pluvial floods, 26-28.2010, IT.
- Floods and economics, 25-26.10.2010, BE.
- Stakeholder involvement, 17-18.4.2012, RO.



**Thank you for your attention !**

**More information**

**<http://water.europa.eu/policy>**





For info or further questions on this presentation, or on the activities of the JASPERS Networking Platform please contact:

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