Floods Directive:
The European Perspective

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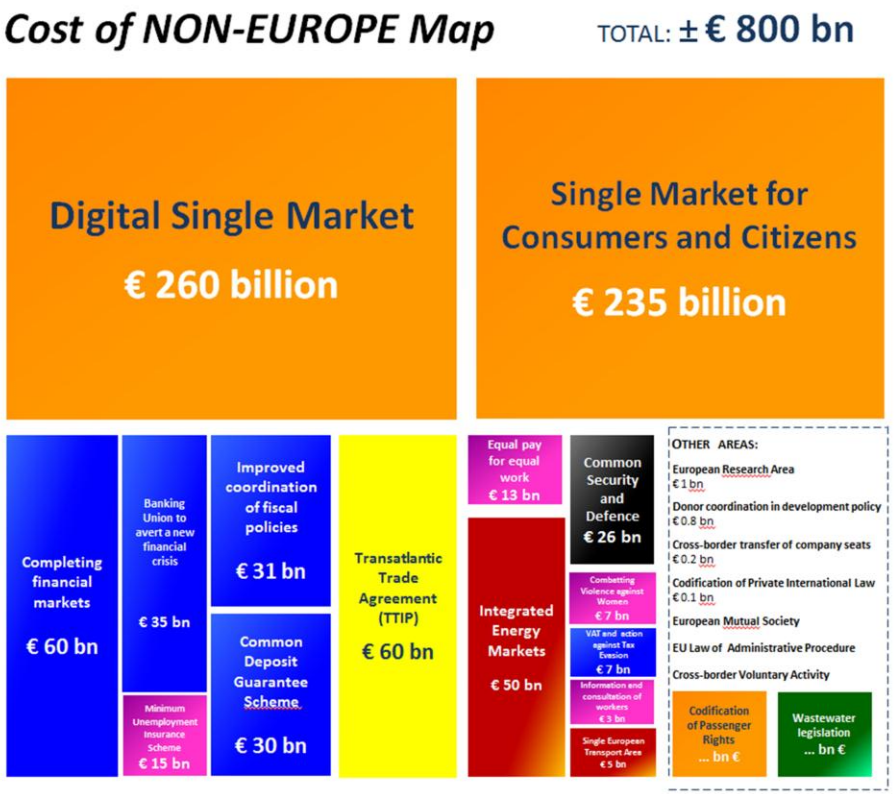
Paris, 5 November 2014

paste
dramatic photo with
floating houses and piled up cars
-> here <-

Mapping the Cost of Non-Europe

A graphic representation of the efficiency gains per year (2014-19)*:



* a contribution to the growing discussion about the European Union's policy priorities
http://www.europarl.europa.eu/the-secretary-general/resource/static/files/files/mapping-the-cost-of-non-europe--march-2014-.pdf

Costly natural catastrophes: half of losses derived from inland flooding

Economic tightness or not, the opportunity costs of having to restore people, residences, infrastructure and facilities in flood stricken areas can be high:

For low flood protection levels, annual damages could reach 38 billion EUR by 2020*.

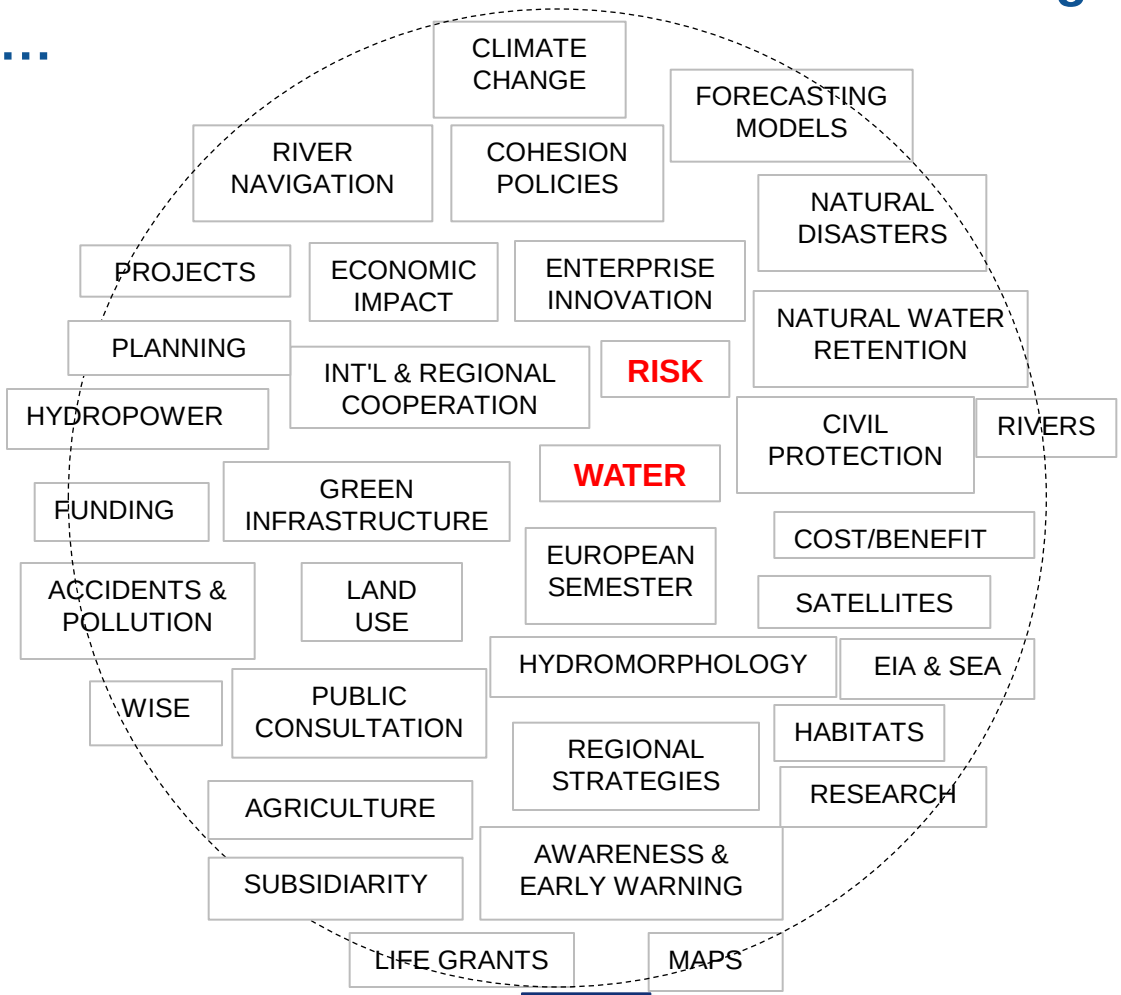
*Climate change and river floods in the European Union: Socio-economic consequences and the costs and benefits of adaptation, Joint Research Centre, European Commission (http://ies.jrc.ec.europa.eu/news/580/155/The-economic-benefits-of-adapting-to-river-floods.html)

This "equals" to wiping out the potential efficiency gains from an improved coordination of fiscal policies (= 31.0 billion EUR per year)

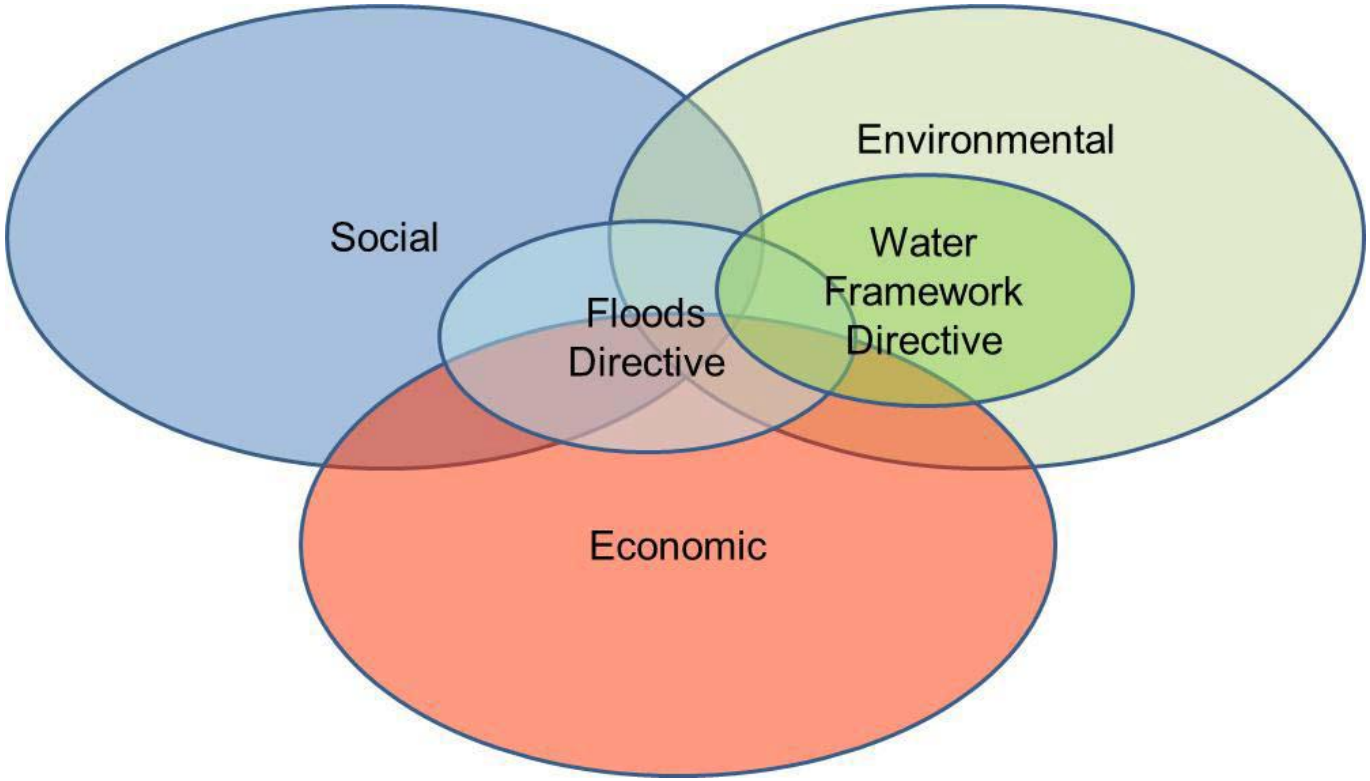
We must use all the tools at our disposal!

The Floods Directive is a tool:

It creates a framework for the assessment and management of flood risks…



…for reducing the adverse consequences for human health, economic activity, the environment, and cultural heritage



Technical Report - 2014 – 078, Links between the Floods Directive and Water Framework Directive (adapted from Evers and Nyberg, 2013)

Flood Risk Mang't in three steps:

1. **Identify the risk** Preliminary Flood Risk Assessment and identification of Areas of Potentially Significant Flood Risk (by Dec. 2011)

2. **Evaluate the risk** Flood Hazard and Risk Maps (by Dec. 2013)

3. **React to the risk** Flood Risk Management Plans (by Dec. 2015)

…start all over again! Risk Mang't is iterative

Principles of the Floods Directive:

Member States define objectives based on local and regional circumstances;

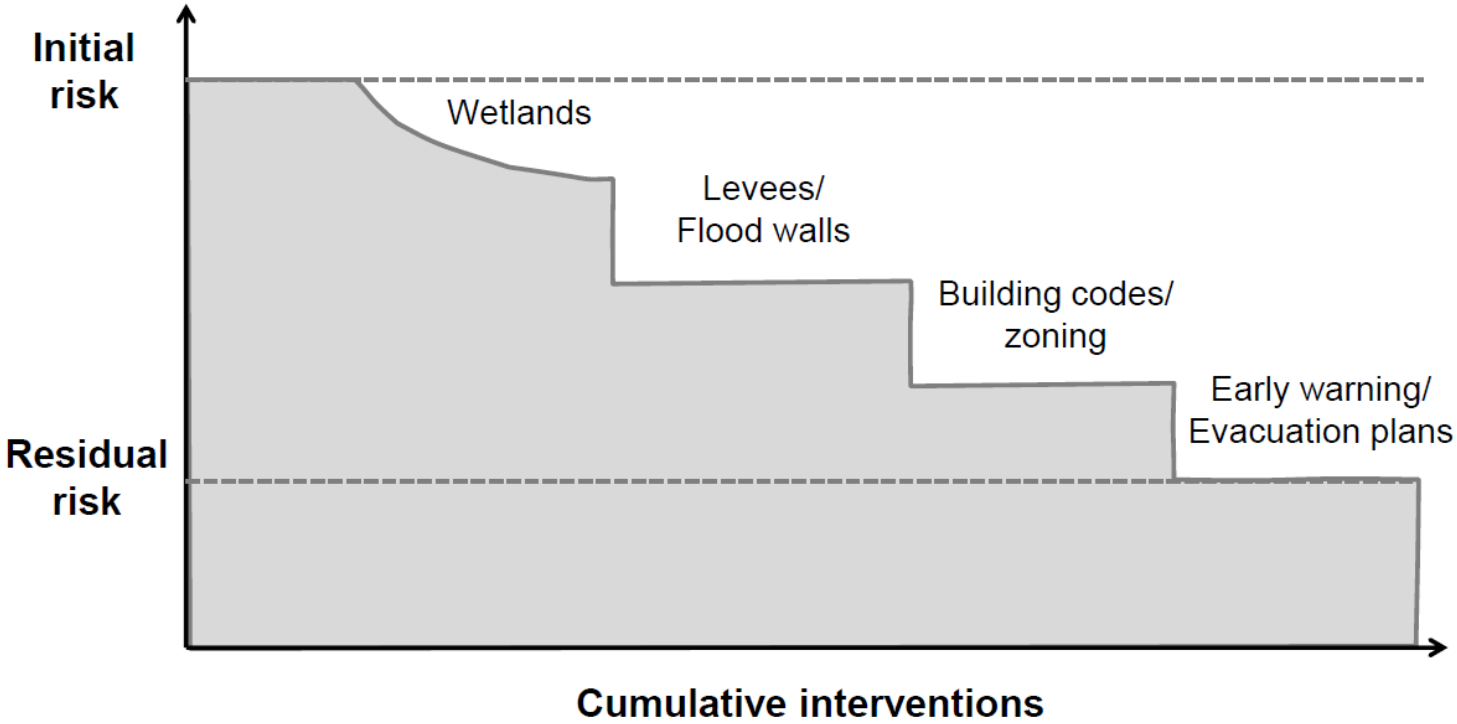
Member States define measures and their **prioritisation;**

Active involvement of all interested parties in the production, review and updating of the flood risk management plans (coordinated with the active involvement under the WFD);

Consider **relevant Directives;**

Principles of the FD (*cont'd*):

Consider **land use** policies, **space for the river**, **natural water retention measures** and **climate change**;



Cascade of risk reduction measures

Spalding et al. 2014 (from DELTARES presentation to "*Think Tank Nature Based Solutions for Disaster Risk Reduction*", 2 & 3 October 2014, Brussels

Principles of FD (*cont'd*)

Integrated river basin management: Coordinate measures throughout a river basin (coordinate FD and WFD planning);

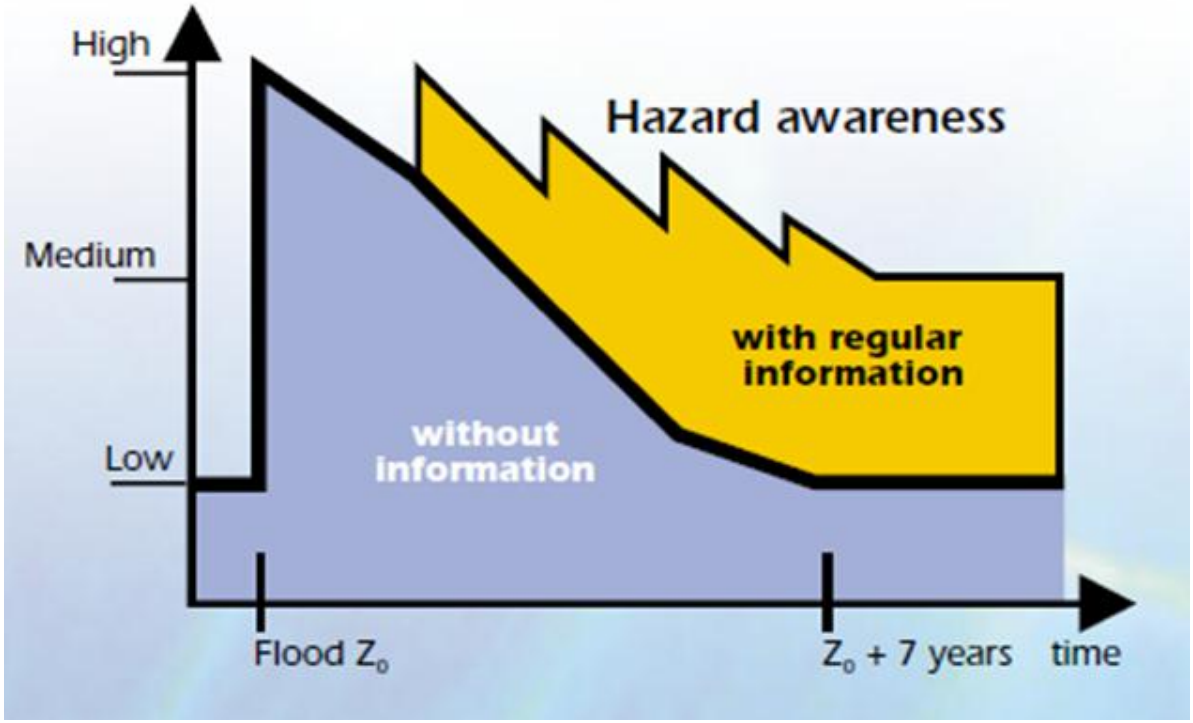
Ensure **coordination and exchange of information** for international river basins;

Refrain from taking measures which significantly increase the risk of flooding in other Member States…and in other municipalities in the same MS!

Int'l UoM: DE=8, ES=5, FR=4, IT=2, UK=2

Principles of FD (*cont'd*)

Focus on **prevention, protection and preparedness** (floods forgotten by public after roughly 7 years*)



Graphic from ICPR presentation to the 25th ICPDR FP EG, Brno, 2013 (www.iksr.org)

Flood risk perception in lands “protected” by 100-year levees*:

"*We surveyed residents of a recently constructed subdivision in California, to assess their awareness of their risk of flooding. Median household income in the development was $80,000, 70% of respondents had a 4-year university degree or higher, and the development was ethnically mixed. Despite the levels of education and income, they did not understand the risk of being flooded.*"

* Jessica Ludy, G. Matt Kondolf, Springer Science+Business Media B.V. 2012

Around two thirds of increases in economic damages are attributed to socio-economic growth (infrastructure/assets in floodplains), with the remaining third due to climate change*

The commitment of land use planners and decision makers at the local level is needed to control development of flood prone areas

* NATURE CLIMATE CHANGE: Increasing stress on disaster-risk finance due to large floods (http://www.nature.com/nclimate/index.html)

Findings of the PFRA phase

- More than 18.000 historical floods reported, oldest from 100 AD (ES=6.165, PL=4.860, FR=2.248, UK=650, DE=515)

- Most common source is fluvial (67%), pluvial and sea water; not always clear which types of flood were excluded by the MSs and why

-Most common reason for flooding is natural exceedance

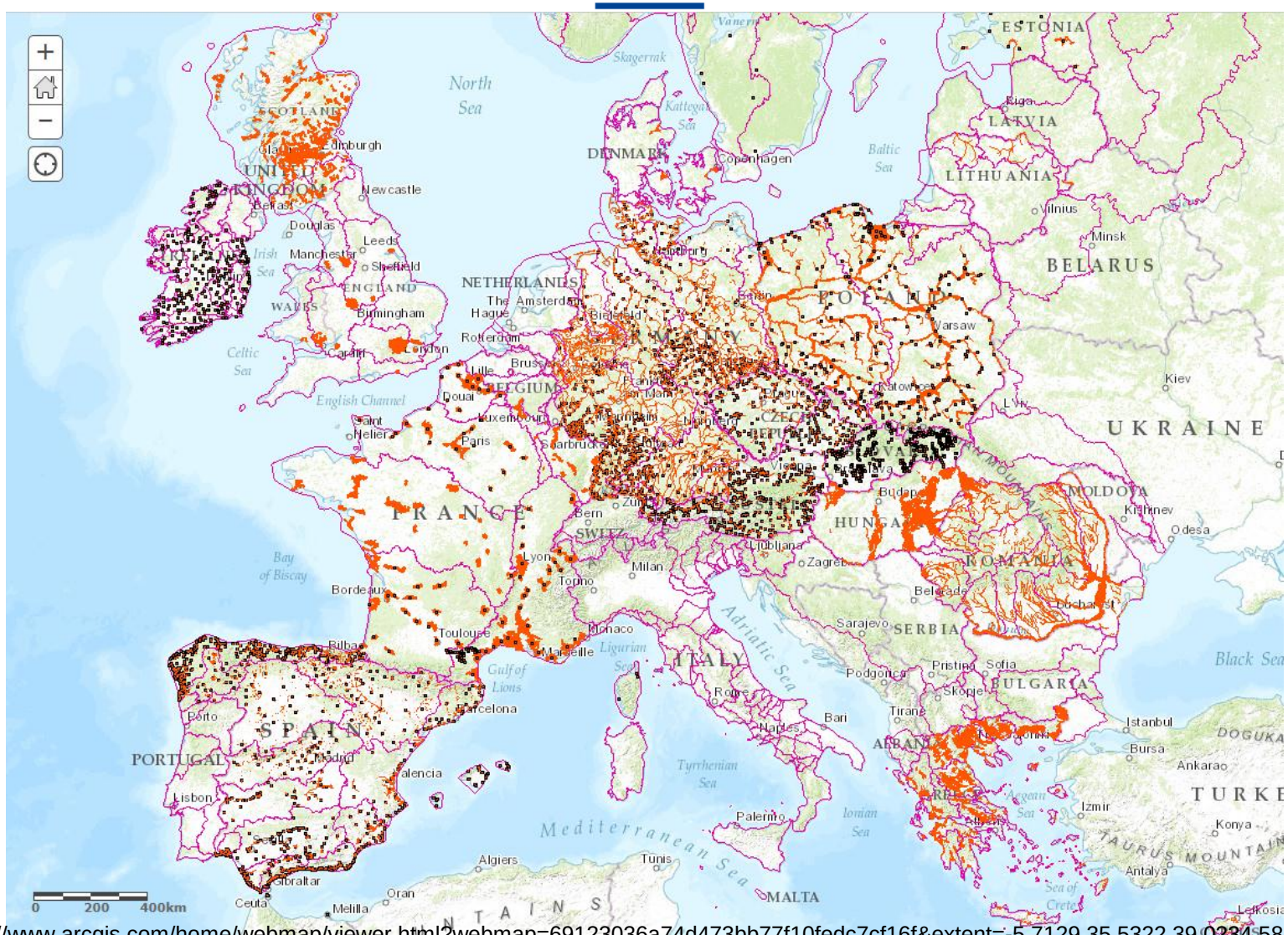
Findings of the PFRA phase (cont'd)

- Aspect most frequently not considered was the effectiveness of existing flood defences

- Methods and criteria to identify significant historic floods very diverse. Need for more clarity

- Same for methods and criteria to define potentially significant future floods and quantify potential future adverse consequences

No of APSFRs: ES=1.178, DE=732, UK=281, PL=268, FR=122 (4.830 reported in total)



http://www.arcgis.com/home/webmap/viewer.html?webmap=69123036a74d473bb77f10fedc7cf16f&extent=-5.7129,35.5322,39.0234,58.2402

Findings of the PFRA phase (cont'd)

- Long term trends to be considered for evaluating future development of risks: More than half of MSs made an effort to consider climate change

- Few MSs considered development of settlements, of infrastructure and socio-economic developments.

- Reporting of methodologies used to assess future developments needs to become clearer

Flood Hazard and Risk Maps

5 MS not reported yet

Variation in approaches expected

Assessment of reporting will not be finalised before mid 2015

MSs have done a big effort so far. This effort must go on!

Despite this being the first cycle of implementation of the Floods Directive, there is wide recognition that positive change is brought about throughout the EU in the management of flood risks

Thank you for your attention!

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