

*5th meeting of the EFDRR
7th October 2014, Spain
Working Group
DRR and CCA*



EFDRR

Working Group

Disaster Risk Reduction and Climate Change Adaptation

„Reducing Disaster Risk must be part and parcel of any climate change adaptation plan and strategy“

(Kristalina Georgieva, ECHO)

„DRR and CCA are one of the most fundamental challenges for territorial development in Europe“

(Connie Hedegaard, DG Climate Action)

How does Europe link DRR and CCA?

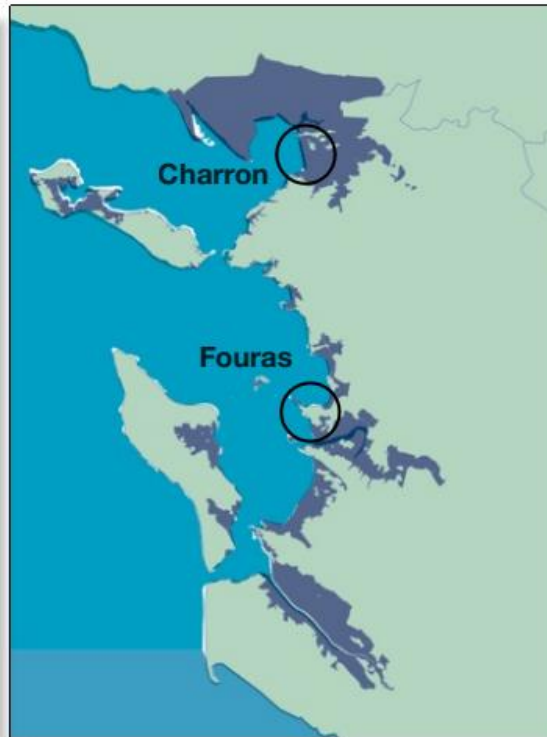
Case Studies from France, Norway, Poland
and Germany concerning floods

Case Study France:

The IPCC fifth assessment report expects a sea level rise of between 0.52 and 0.98 m in 2100.



Map of the Santones area under the Romans Pertuis of Antioch, Augustus Lacurie source (1878)



Current coastline and areas submerged by storm Xynthia in 2010 (sources DDTM 17 and DDTM 85, 2014)



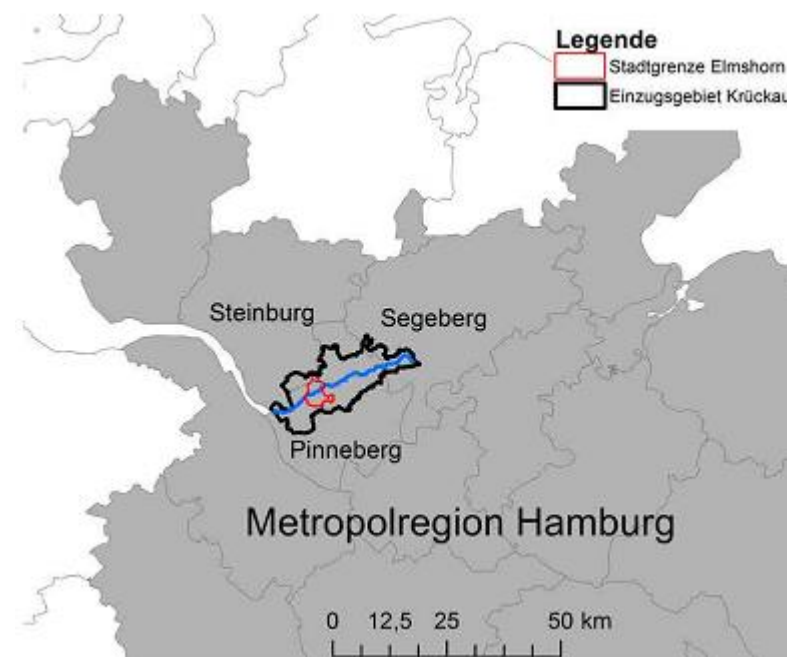
Static simulation of sea level rise in 2100 (without new defenses): + 1.00 m and + 3.00 m in case of overvaluation), source <http://flood.firetree.net>

Adaptation Principles:

1. The assessment of the system of **interdependencies** embracing the coastline, the back-coastal zones and the hinterland;
2. The rejection of systematic coastal defense policy and the **de-urbanization**, then the **re-naturation** of the eventually submersible coastal strip
3. The **relocation** of properties through an **adapted re-urbanization** of the back-coastal zones, increasing the density of existing villages, which is both strategic and structured with a landscape pattern which restores the **expansion potential of watercourses**

Case Study Germany – City of Elmsholm:

- More frequent and intense flooding is expected
- Integrated adaptation strategies have to potential to reduce loss and damages
- Participation is key for effective implementation of adaptation strategies



Adaptation Principles:

1. Reduction of inner urban floods requires close cooperation with river catchment areas.
2. Participative approaches will ensure comprehensive identification of challenges.
3. Science need to be embedded into participative approaches in order to form a common knowledge base.
4. Clear roles and responsibilities are precondition for sustainable and long term participation.

Case Study Norway:

- Flood management in Norway now takes into account future changes in flood patterns; more frequent and more intense floods, and more unpredictable floods.
- Floods in the winter will occur more frequently, flood levels may increase in certain areas, ice jams will occur in new places, and there will be more frequent and intense floods caused by rainfall.
- The Water and Energy Directorate recommends for flood risk mapping to add 20 per cent to the current flood levels to ensure that new developments takes future flood levels into account.

Adaptation

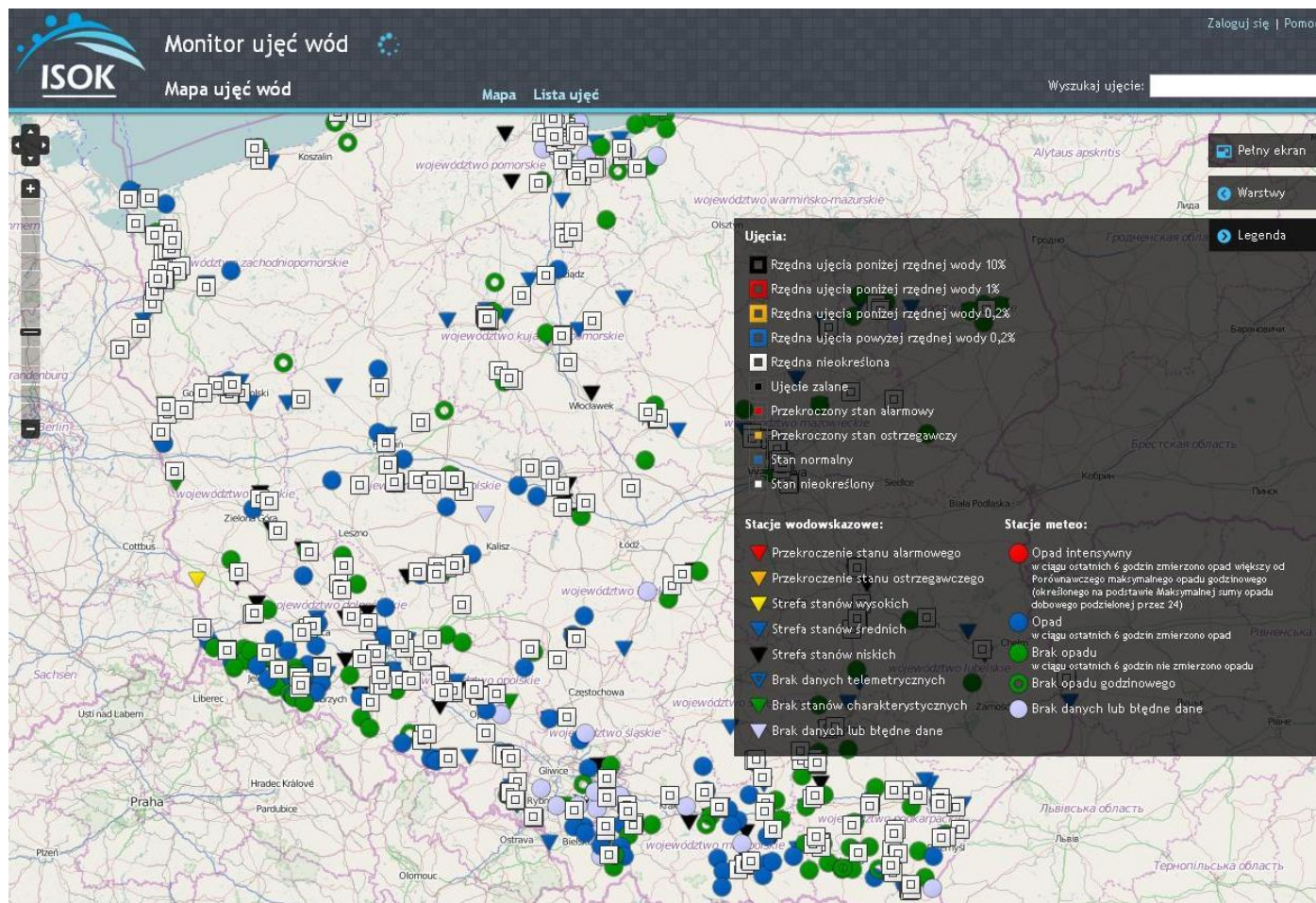
Pilot Project: The transforming of the former Oslo Airport Fornebu (closed 1998) into a residential area

- Integration of **alternative solutions** for management of excess water into the development of new urban areas.
- Fornebu is implementing '**green**' **solutions** to flood management by turning storm water from a problem into a recreational and ecological value.
- Establishment of a **disaster risk sensitive environment** before any building development commenced.

Case Study Poland:

- In Poland, after flood in 2010 the estimated losses in the water intakes infrastructure reached almost the equivalence of 4 million Euros
- Protection of water intakes from the consequences of flooding is one of the objectives of the IT System of Country Protection against Extreme Hazards (ISOK)
- Main idea of the developed monitor is to present the policymakers and owners of the water supply infrastructure the **possible consequences** of flood which require **taking actions**, including **alternative solutions** to the water supply duty.

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Screen of the water intakes monitor application

Conclusion

- DRR and CCA are managing risks.
- New risks will be caused by climate change

What should be the guiding principle in dealing with the new risks, DRR or CCA?