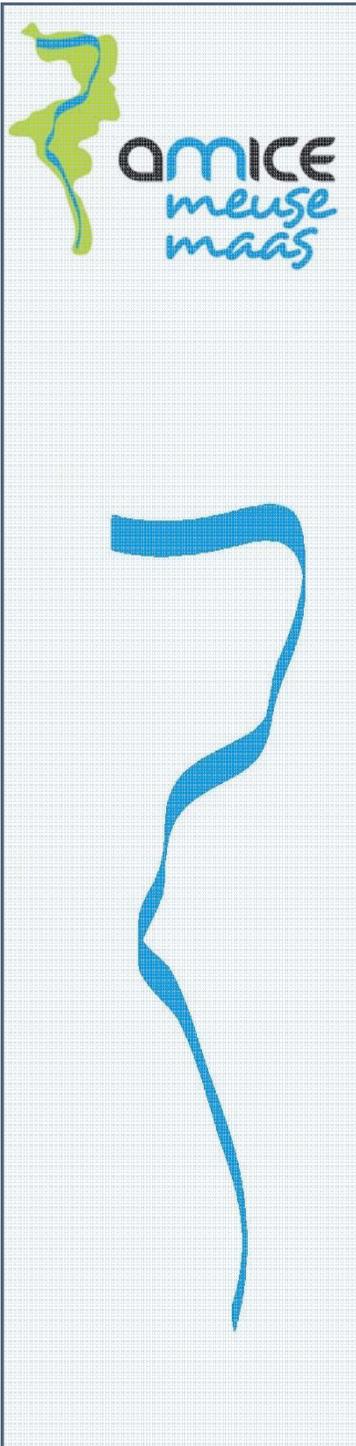


# Adaptation of the Meuse to the Impacts of Climate Evolutions

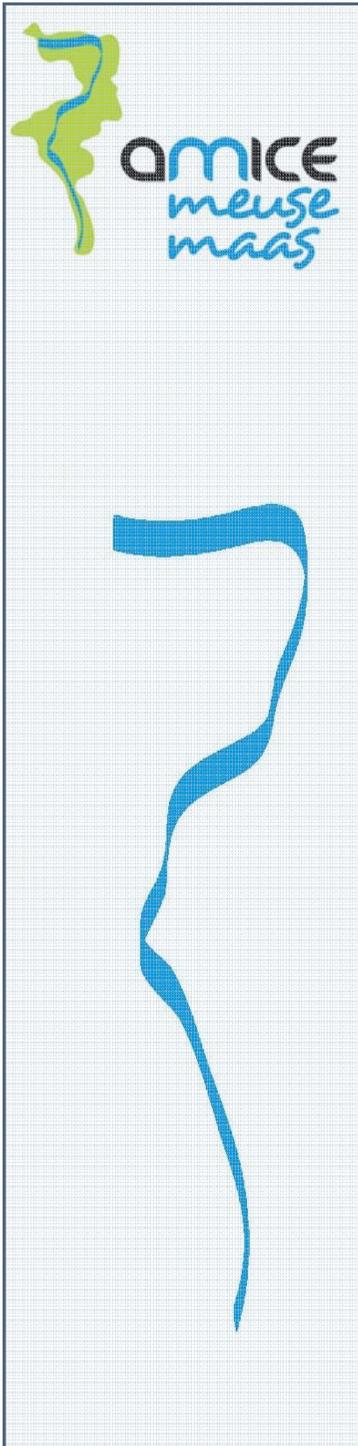


## Structure of the roadmap for climate-adaptation



# Roadmap structure

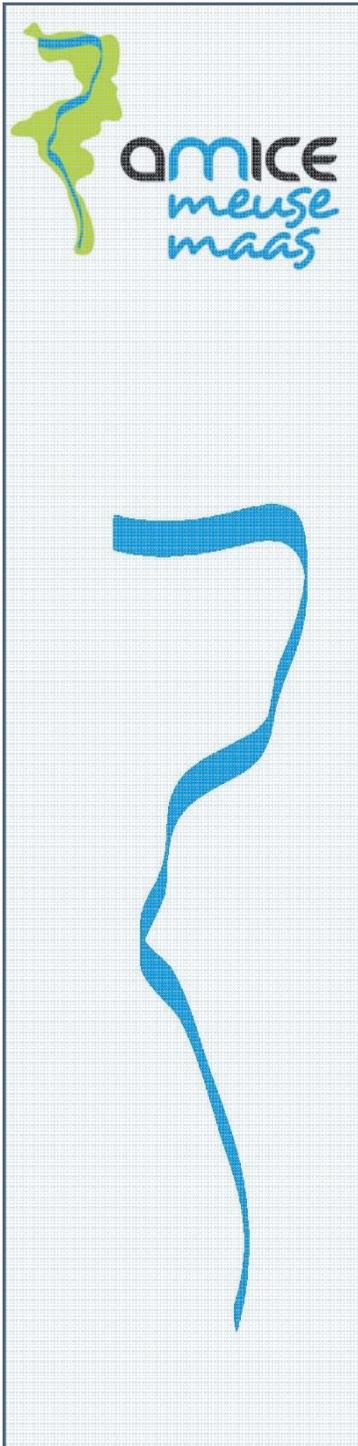
1. Description of Meuse river basin system
2. Vision of desired situation in 2100
3. List of challenges
4. List of measures and actions
5. Criteria to assess measures
6. Strategies (as sets of measures) for climate adaptation
7. List of identified steps, including a timeline



# Adaptation of the Meuse to the Impacts of Climate Evolutions



## Results from the interviews

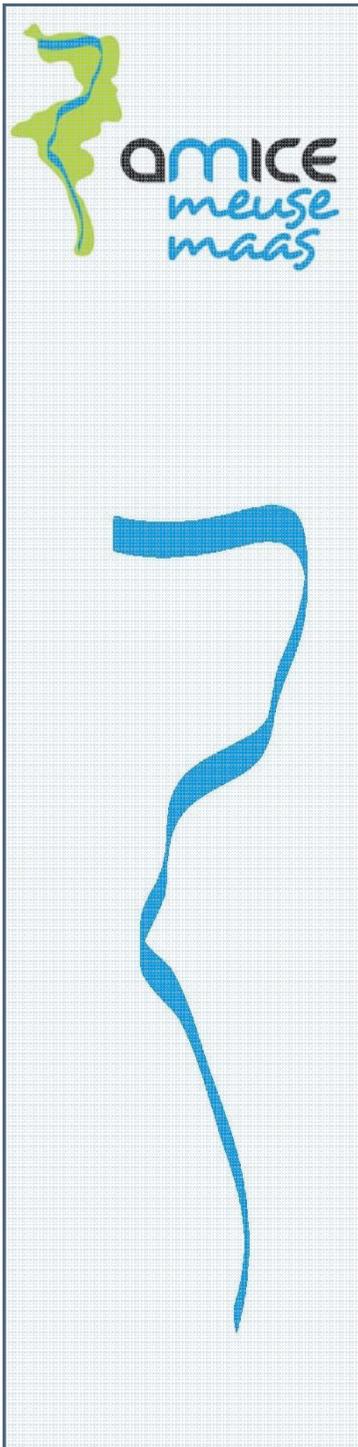


# Adaptation of the Meuse to the Impacts of Climate Evolutions



## Purpose of the interviews:

- obtain input for the roadmap
- obtain input for the workshop



# Adaptation of the Meuse to the Impacts of Climate Evolutions



## Organisations represented in interviews:

### France:

- Agence de L' eau Rhin-Meuse
- DREAL Champagne-Ardennes

### Wallonia:

- Service Public de Wallonie
- Walloon Agency for Air and Climate

### Flanders:

- NV De Scheepvaart
- Coordinatiecommissie Integraal Waterbeleid

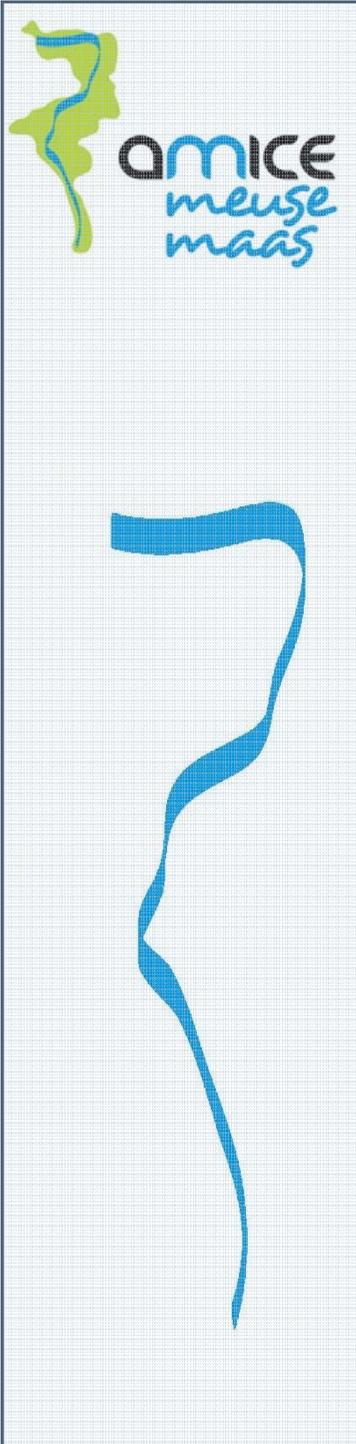
### Germany:

- Ministry for Climate Prot., Env., Agric., Nat. Cons. & Cons. Prot., State of North Rhine- Westphalia
- Federal Min. for the Env., Nat. Cons. & Nuclear Safety

### Netherlands:

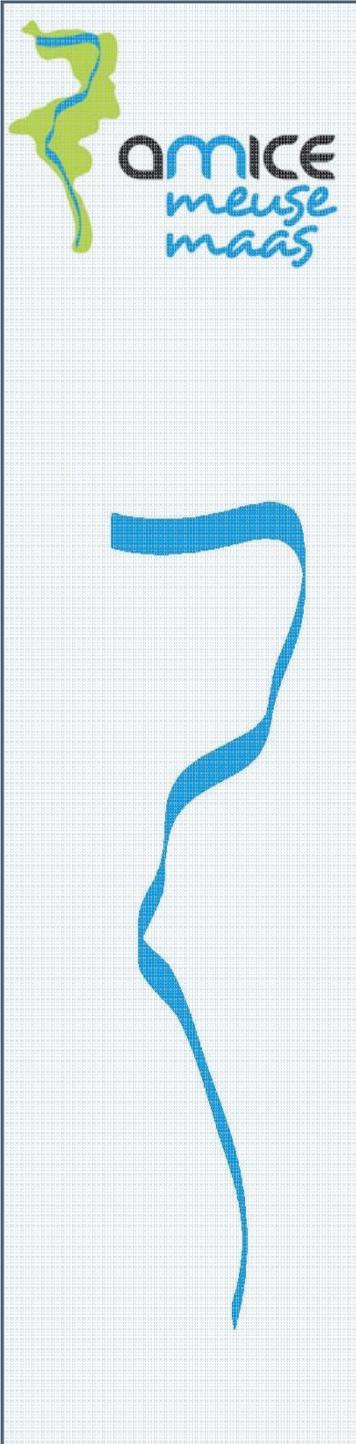
- Provincie Limburg
- Waterschap Aa & Maas

Maastricht, 30-31 may 2012



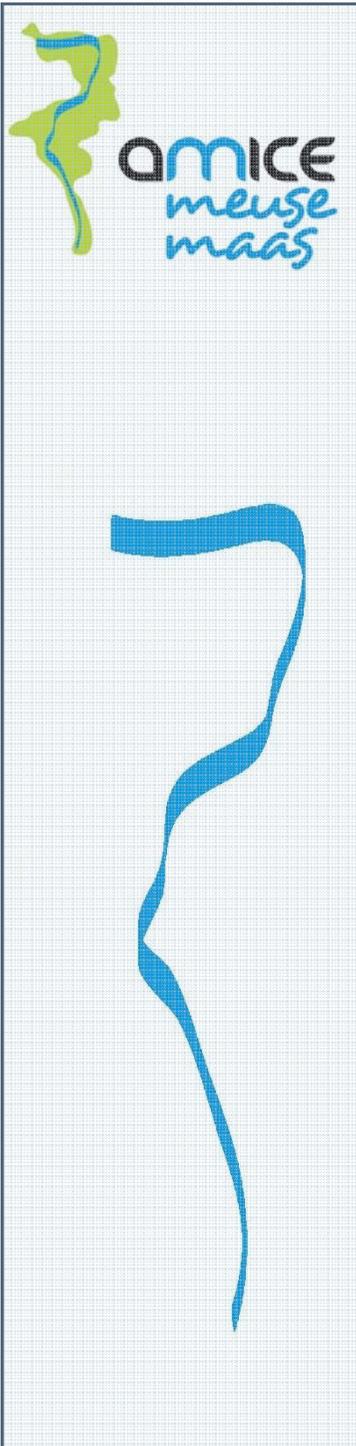
## What should be steps in improving the water management in the Meuse River Basin?

- ✓ More international coordination and communication (3x)
- ✓ More concretization of objectives, scenarios, measures (3x)
- ✓ Apply Directives (FRM and WFD) (2x)
- ✓ Determine common interests of different stakeholders (1x)



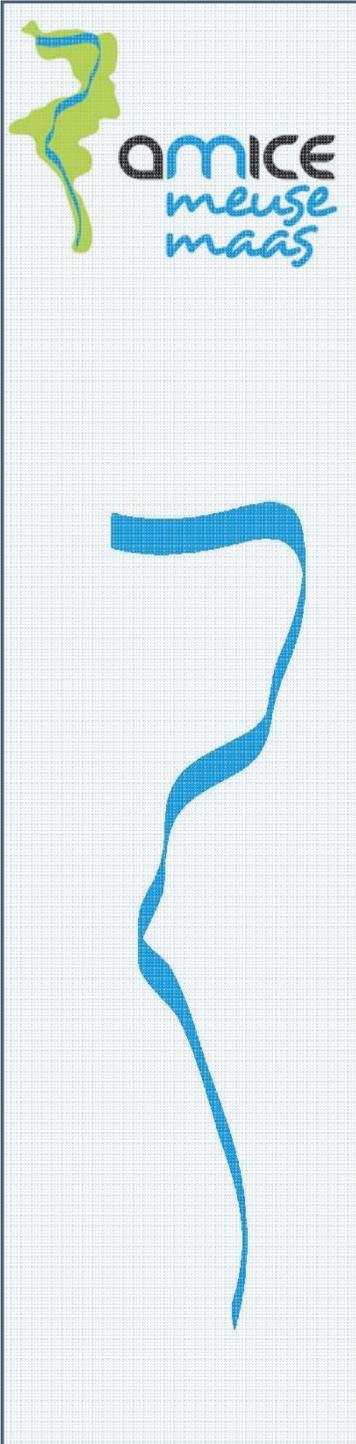
## What do you expect of the outcome of the project?

- ✓ know each other better, communication, coordination (3x)
- ✓ information, comprehensive description of Meuse RB (4x)
- ✓ Further developed scenarios, modelling (3x)
- ✓ Common problem analysis that indicate the urgency (2x)
- ✓ New vision (1x)
- ✓ Ideas on operational solutions, measures (5x)
- ✓ Results that can be adopted by the IMC (2x)



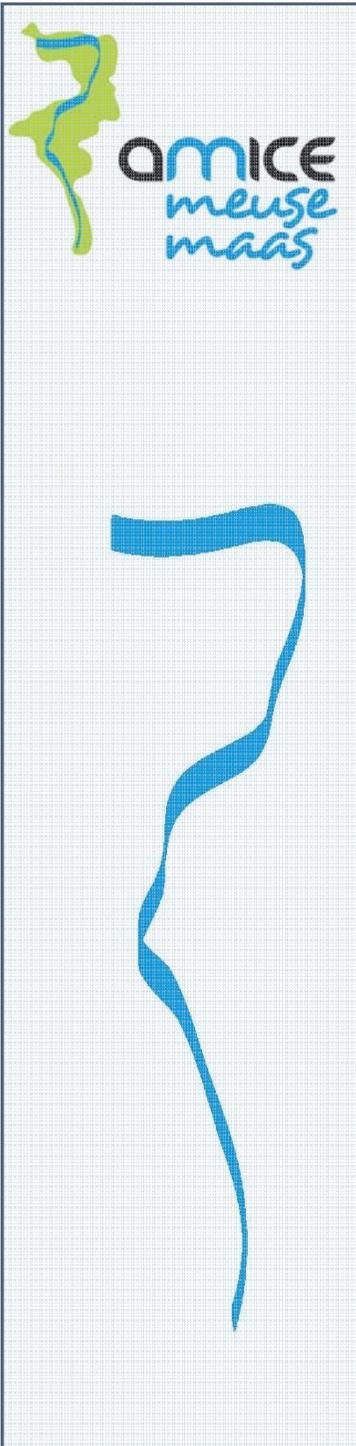
## Main issues in water management in own part of the Meuse Basin

- ✓ water quality (FR, GE, NL)
- ✓ low water (for navigation), (FR, WA)
- ✓ water temperature (FR)
- ✓ flooding (FR)
- ✓ (international) coordination (WA)
- ✓ understanding and insight of other countries (WA),
- ✓ Groundwater table problems (GE)
- ✓ Fragmentation of mandates (FL)
- ✓ growing water use and demand (FL)
- ✓ Lack of good information (NL)
- ✓ spatial planning (NL)
- ✓ No big problems (WA, GE)



## Main issues in water management in the whole Meuse Basin

- ✓ Cooperation/coordination (4x)
- ✓ Water shortage (as regards the many uses) (3x)
- ✓ Water quality (2x)



## Characteristics of good solutions

- ✓ integrated/multi-functional/win-win (4x)
- ✓ robust, flexible (4x)
- ✓ supported by organizations involved (4x)
- ✓ international support (3x)
- ✓ no-regret (3x)
- ✓ sustainable (3x)
- ✓ effective (3x)
- ✓ support from inhabitants (1x)
- ✓ addressing the right dilemma's (1x)
- ✓ addressing anticipation and awareness (1x)
- ✓ cost-efficient (1x)
- ✓ structural technical cohesion (1x)



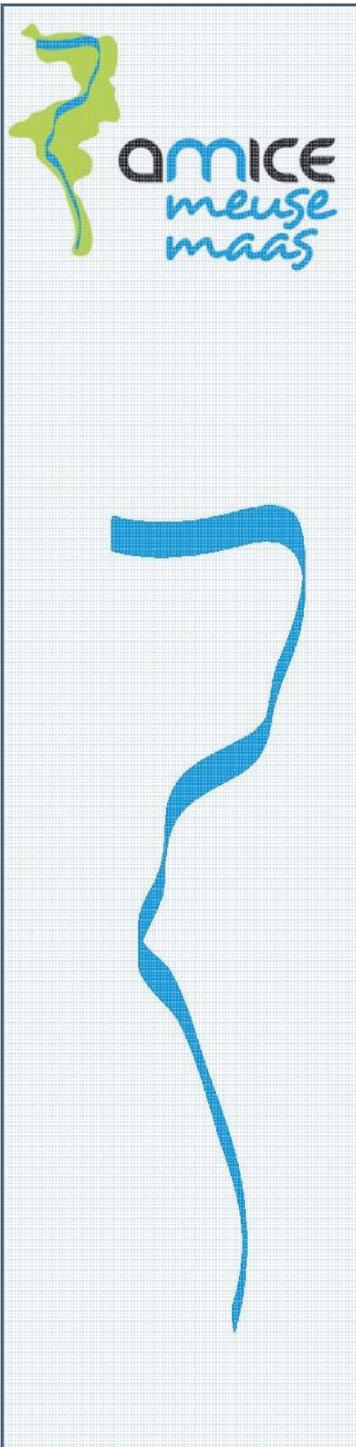
## Key solutions

### ✓ Water management:

- ✓ water retention upstream (3x)
- ✓ Delaying and leveling peak discharges (1x)
- ✓ automatic exchange of hydrological data (1x)
- ✓ improve water treatment (1x)

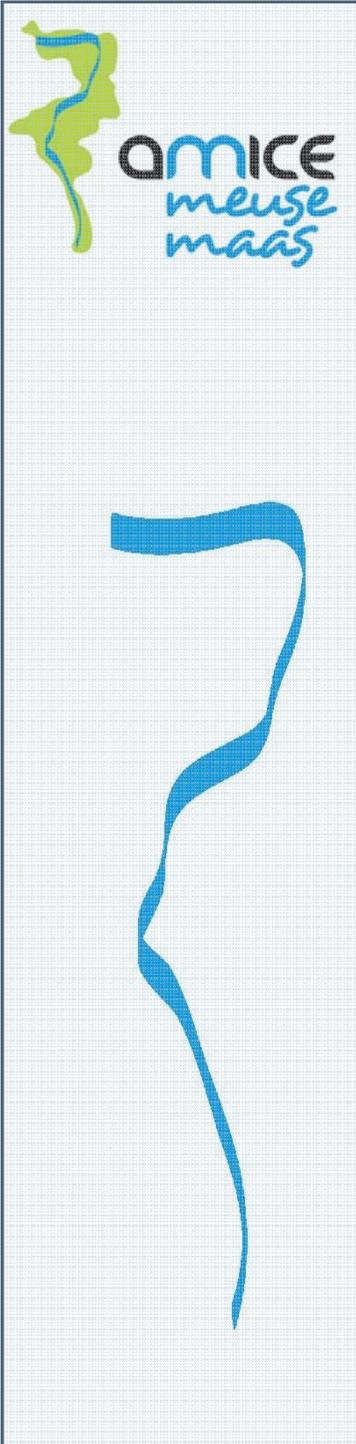
### ✓ Other sectors involved:

- ✓ room for water (2x)
- ✓ spatial planning (2x)
- ✓ communication, (1x)
- ✓ combination of FD and WFD measures (1x)
- ✓ governmental commitment, awareness (1x)
- ✓ wetland restoration (1x)
- ✓ change of agricultural practice (1x)
- ✓ evaluation of past measures (1x)
- ✓ citizen's awareness (2x)
- ✓ drought action plan (1x)



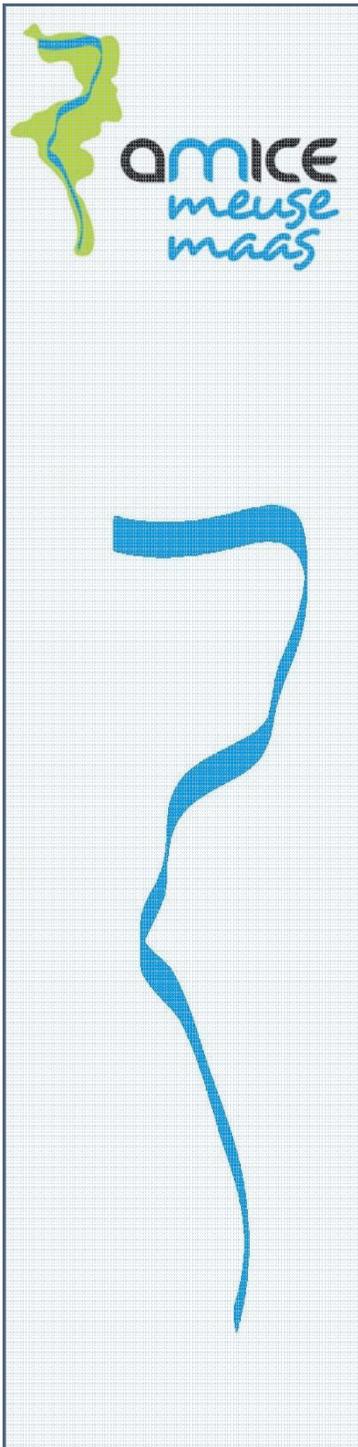
## Main points to be discussed in the workshops:

- ✓ **Validation** of methods and results (2x)
- ✓ **Compare** situation/plans in different countries (2x)
- ✓ Joint **vision** on climate impacts (3x)
- ✓ Highlight a few **problems** (1x)
- ✓ Brainstorm sessions for **solutions** (1x)
- ✓ Inspiring **examples**, good practices (2x)
- ✓ Non-structural and structural **measures** (1x)
- ✓ Consider **existing directives** (2x)
- ✓ Good example of **cost analysis** (1x)
- ✓ **Lessons** learned (1x)
- ✓ **How to proceed after AMICE** (1x)



Don't:

- ✓ Stick to your own view/domain
- ✓ Go into technical solutions, stick to the projects
- ✓ Fight about autonomy versus international solidarity
- ✓ Start all over again



# Adaptation of the Meuse to the Impacts of Climate Evolutions



# Visioning

**How will a climate  
proof Meuse Basin  
look like in 2100?**

