

Costs and Benefit Assessments in the Water Framework Directive

Watercost Seminar, Newcastle, 23 November 2006

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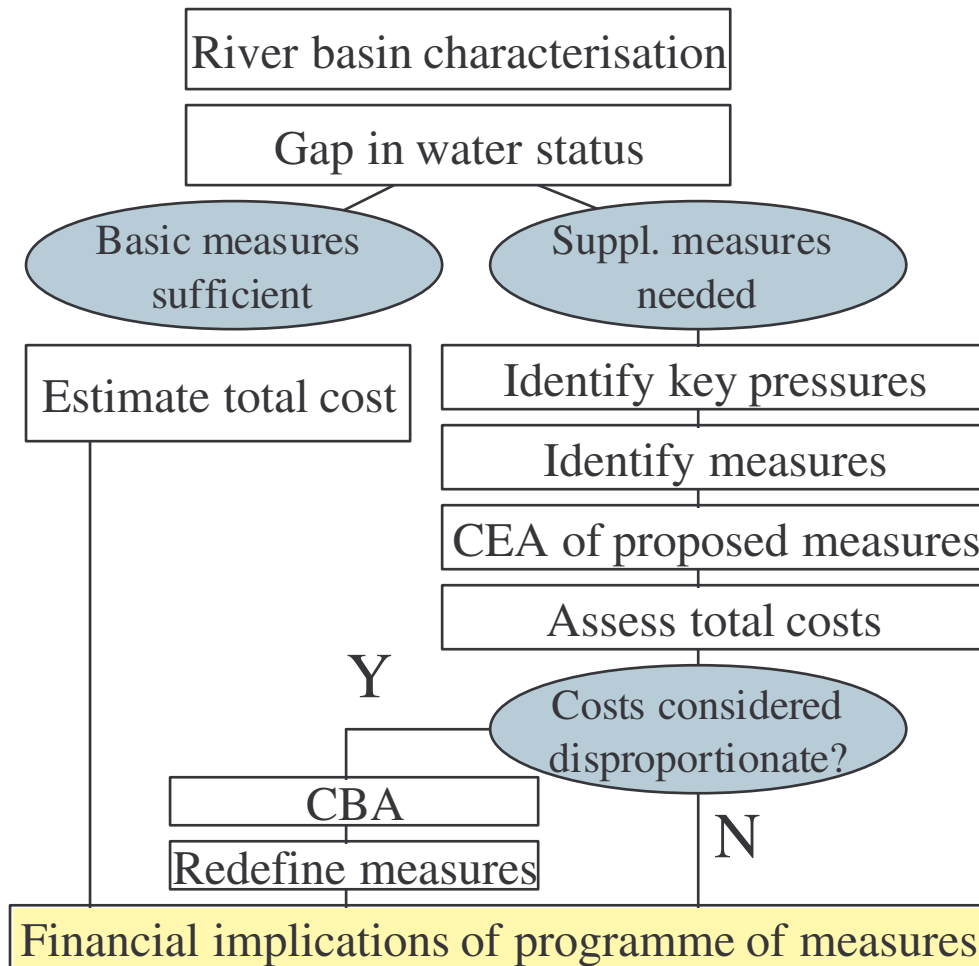
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the AquaMoney project**

Introduction: economics and the WFD

- **WFD as the first major environmental Directive that incorporates economic approaches**
 - **Economic information: baseline scenario**
 - **Economic instruments: incentive pricing**
 - **Economic methods: cost-effectiveness analysis (CEA), cost-benefit analysis (CBA), internalisation of external costs**

Costs and benefits *in* the WFD

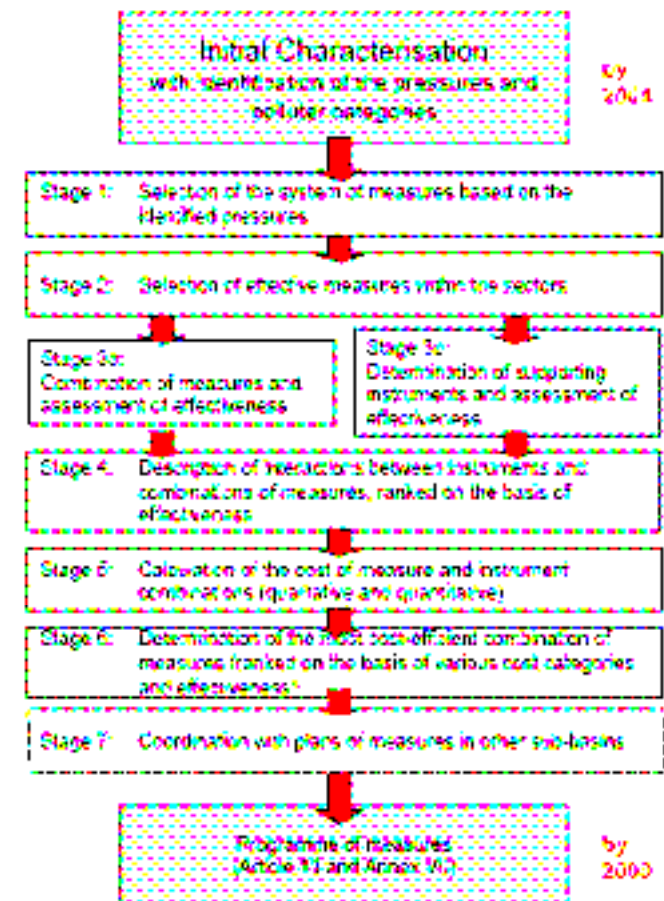


- **Economic analysis applied to additional measures (not basic)**
- **Suitable measures ranked by cost-effectiveness (ensure lowest cost)**
- **Disproportionate cost assessment (e.g. as CBA, distributive impacts) - safety valve**

(Figure based on Reinhard 05)

Selection of measures (Art. 11 WFD)

- Effective measures screened
- Combination of measures
- Combinations selected according to cost-effectiveness
 - costs in monetary terms
 - effectiveness in physical terms
- Measures and instruments working on different levels



... no role for monetary benefits

Disproportionate costs analysis (Art 4)

- **Exemptions (time extension, lower target) if achieving target disproportionately expensive**
- **Disproportionate in proportion to**
 - **Benefits of improved water quality (CBA)?**
 - **Ability to pay of affected sectors?**
 - **Available budget?**
 - **Cost of other measures elsewhere?**
- **Discussion ongoing at EU level and in the Member States**

Environmental & resource costs (Art 9)

- **MS “shall take account of principle of cost recovery of water services, including environmental & resource costs”**
- **Water uses should make “adequate contribution” to cost recovery of services**
- **Triple purpose of cost recovery:**
 - **Reduce cross-subsidies, increase transparency**
 - **Internalise external costs**
 - **Correct incentives of water uses**

Costs and benefits *of* the WFD

- **Mandatory assessments conducted on the costs and benefits of implementing the WFD**
 - **Studies exist in UK 1999, Scotland 2002 (somewhat dated by now)**
 - **Studies under preparation in NL, EU**
 - **EU Study with particular focus on agriculture: reducing phosphorous emissions, tackling overabstractions for irrigation**
- **Considerable uncertainty, patchy data, WFD objectives not yet defined**

Monetary valuation and the WFD

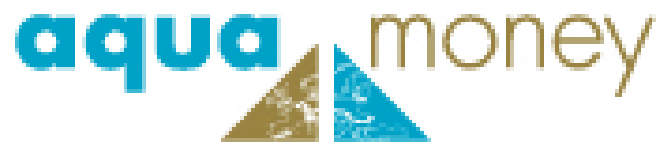
- **Valuation needed in several instances:**
 - **Cost-effectiveness (Art. 11):** little use for valuation
 - **Disproportionate cost analysis (Art. 4):** depends on the definition of proportionality
 - **Environmental & resource costs (Art. 9):** some valuation necessary
- **Valuation in high demand & in short supply?**
 - **Reduce demand - target use of monetary valuation on the cases where it is most needed**
 - **Increase supply - make monetary valuation more efficient, simplify methods...**

Target the use of monetary valuation



- Interviews et al 05 for SNIFFER - The role of valuation studies in the WFD
 - Horses for courses: using monetary valuation where it is most helpful
 - Screening out clear-cut cases / focus on complex decision situations
 - Staged approach for proportionality:
 - At firm level: proforma, expert knowledge
 - Sectoral analysis, e.g. multi-criteria
 - Scotland-wide assessment of costs & benefits across sectors
 - Local-level CBA if there is no agreement

Making valuation easier: **aqua**money



- **aqua**money: development & testing of practical guidelines for the assessment of environmental and resource costs and benefits in the WFD
- European research project funded under the 6th EU Framework Programme





aquamoney: the project approach

- **Focus: environmental and resource costs and benefits in view of disproportionate costs (Art. 4 WFD) and cost recovery (Art. 9 WFD)**
- **Key output: guidelines with particular focus on the transferability of values across water bodies and basins (incl. feasibility of GIS value map)**
- **Assessment of policy maker demand as key input to the guideline development**
- **Guidelines tested in 10 European pilot river basins, including Danube, Scheldt, Rhine...**



aquamoney: the project consortium

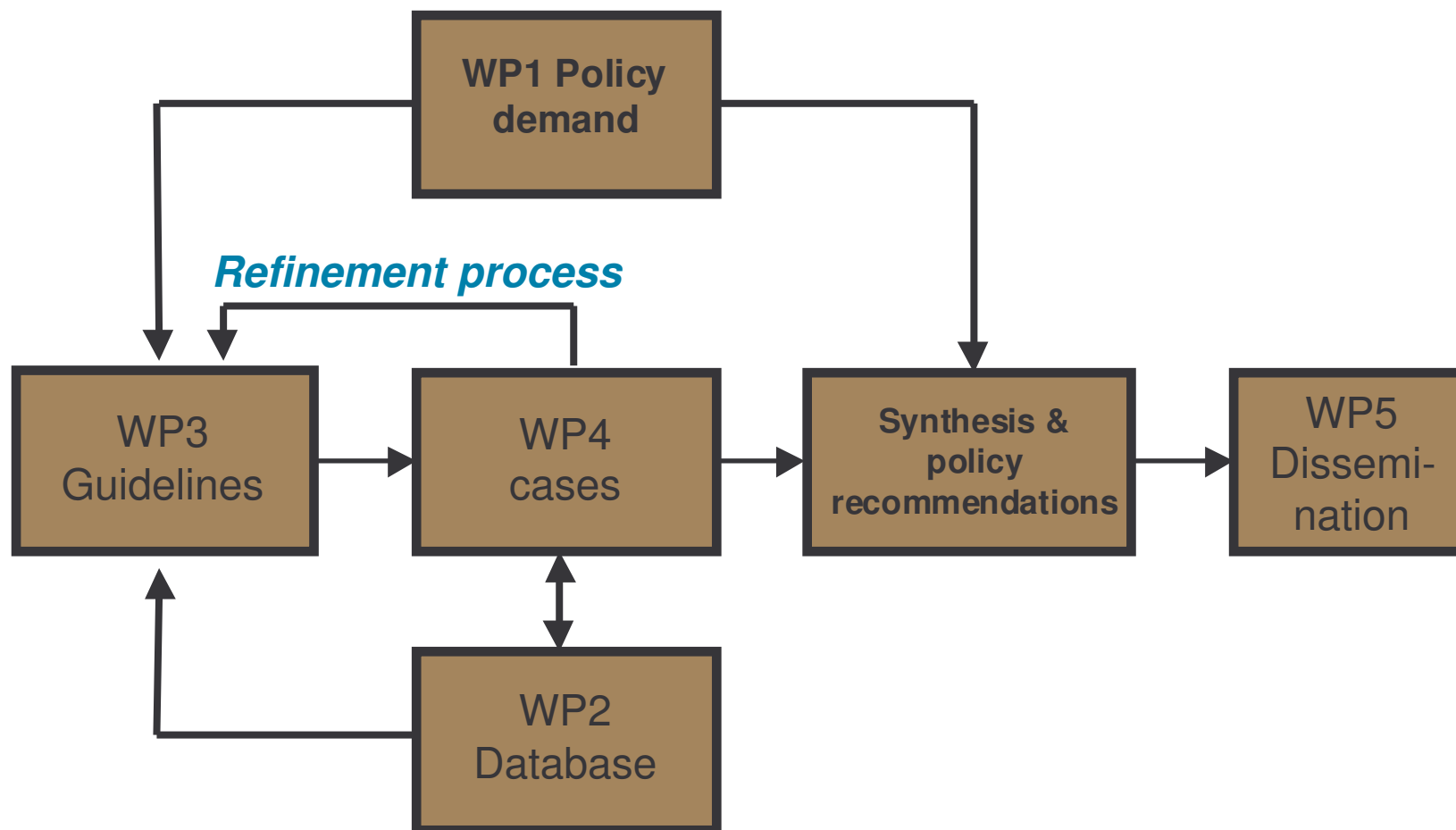
- Institute for Environmental Studies (IVM) (coordinator) NL
- Institute for Intern. and European Environmental Policy (Ecologic) DE
- University of East Anglia (UEA) UK
- University of Life Sciences (UMB) NO
- Universidad Politecnica de Valencia (UPVLC) ES
- Bureau de Recherches Geologiques et Minières (BRGM) FR
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- Institute for Water Research (NIVA) NO
- Royal Veterinary and Agricultural University DK
- University of Bucharest RO
- Institute for Advanced Studies Carinthia (IHSK) AT
- Corvinus University of Budapest HU

aquamoney: set-up of work packages

- **WP1: Identification and integration of policy demand for practical guidelines and information**
- **WP2: Data base development and meta-analysis for the purpose of benefits transfer**
- **WP3: Development of practical guidelines**
- **WP4: Testing of guidelines in pilot case studies in representative European river basins**
- **WP5: Communication and dissemination of results**



aquamoney: workstream



aquamoney: the case studies

- 10 case studies to test the draft guidelines
- 3 international basins
- Different sizes
- Different regions
- Different issues (nutrients, abstraction, morphology)
- All WFD-related

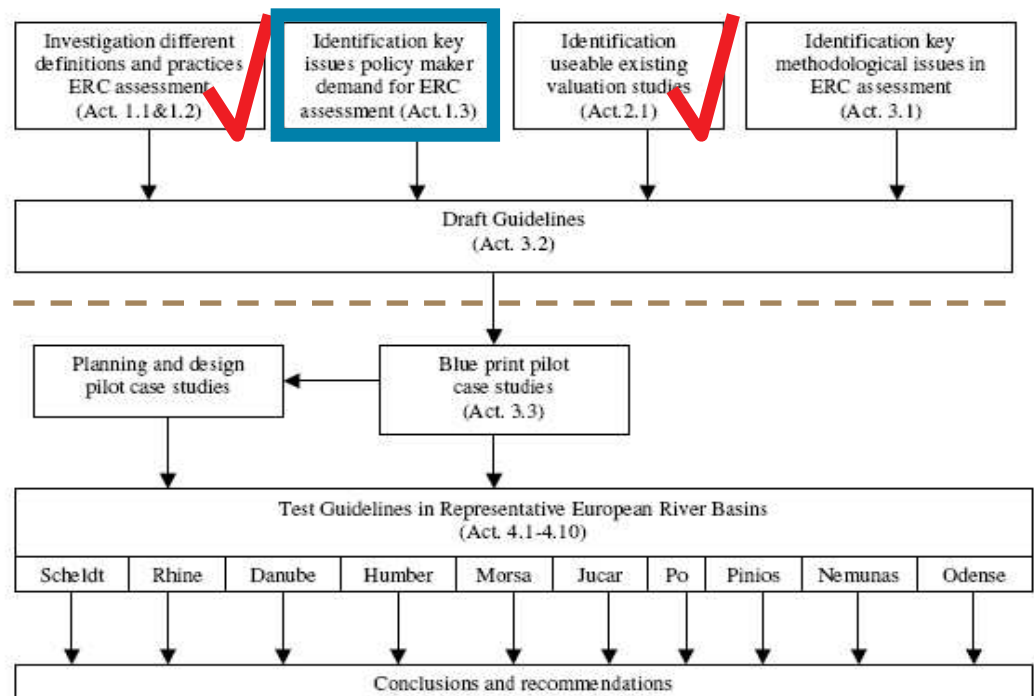




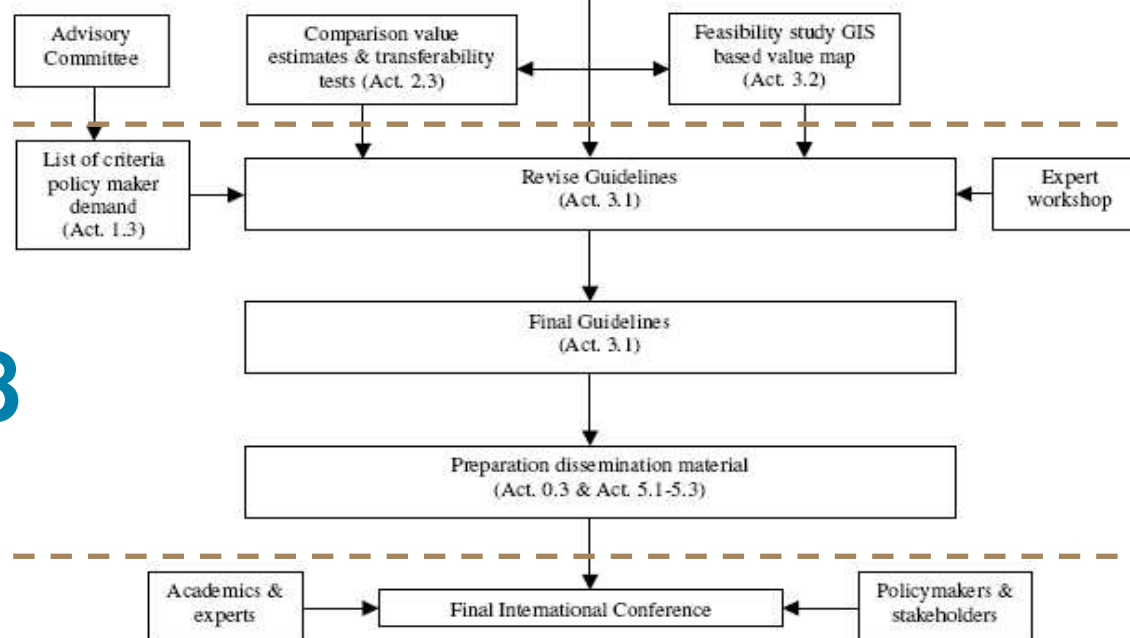
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aquamoney: the work plan

2007



2008



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for more information on [aquamoney](http://aquamoney.org):

www.aquamoney.org

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