

WG 3 - Model application

- c. 15 members
- What are good examples of model application to applied problems?
 - Planning
 - Interaction with customers and **end-users**
 - Modelling
 - Interpretation of results
 - Implementation



State-of-the-art report

- **Started with 36 case studies, reduced to 28**
- **End-user survey**
 - Informal contacts
 - Participation in meetings
 - Results from case studies
- **Special topics**
 - Decision support systems
 - “Shared vision modelling”
 - Scaling (generic to all WGs)
 - Uncertainty (generic to all WGs)
 - Validation (with WG2)



End-user survey

- **E.g.**
 - Public bodies resource and river management
 - Companies – water, hydro
 - Consortia – committees, public, private, NGO
 - Don't forget the local people
- **The issue of scale**
- **Species or community**
- **Models too specialist**
- **Modellers don't give "the answer"**



Case-studies

- UK (2)
- USA (2)
- Finland (2)
- Norway (4)
- Spain (1)
- Austria (1)
- Switzerland (2)
- France (2)
- Belgium (1)
- Slovenia (1)
- Canada (3)
- Netherlands (1)
- Denmark (1)
- Germany (3)



Case studies

- A valuable resource
- How models were applied
- Three categories
 - "natural morphology rivers", keep it simple, collect and use data
 - Simple models used in minimum flow studies
 - More complex situations: resource allocation, trade-offs, flow regulation on engineered channels

Case Studies – good examples

- Agreement
- Consultation, participation
- Use of instrumentation to collect data rapidly
- Moving towards:
 - multi-variate
 - multi-reach, broader scales
- Reality check
- Recommendations applied (+ elsewhere)
- Alternatives suggested, refined and discussed interactively



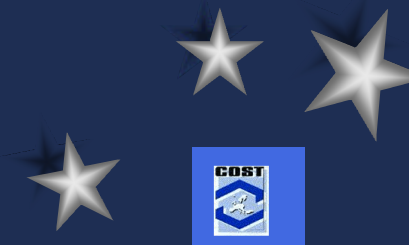
Case studies – not so good

- Managers asking questions that modellers cannot answer
- Models at too small scale – upscaling non-existent or uncertain
- Modellers unclear as to WHO END-USERS ARE
- Role of experts unclear



Future work

- Many WG3 members interested in the issue of scale
 - what is an appropriate scale?
 - should we be up-scaling (and how?)
 - how can data from different scaled be integrated



Future work

- **Progress**

- Meeting on scaling in December 2002
- Collaborative project(s)
 - Validation of habitat classifications using detailed hydraulic data
 - use of large-scale river models
 - review paper – scaling concepts from hydrology and ecology
 - more please!

