

DESIGN AND USE OF DECISION SUPPORT SYSTEMS

DISCUSSION

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Workflow of discussion per unit

- statement
- assessment on facts and knowledge
- x-check with statement
- create “take home” message

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1. Criteria and standards of DSS

Decision Support System is a general term for any computer application that enhances a person or group's ability to make decisions.

Technical criteria:

- computer-based (online or software on CD)
- interactive
- consists of
 - communications technologies,
 - data,
 - documents
 - knowledge and/or models
- ...

Scientific criteria:

- refers to academics and research
- integrated model system
- flexibility of the tool (allows flexible updates)
- reliability of data, model output and scientific results
- especially for climate, but also risk etc: uncertainty
- based on scenarios (see also uncertainties)

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**To this point, the system may still be
entirely academic!
(integrated model systems, GIS, ...)**

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Additional criteria for a „real“ DSS:

- **depending on the term „decision“, user-dependent**
- **orientation towards solving problems, also alternatives and its evaluation**
- **start from users‘ needs**
- **user-friendly interface**

Definition of „user“:
decision making body in general,
representative for decision on a sustainable world

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2. Importance and acceptance of DSS

**Decision Support Systems are important tools
for day-to-day use by stakeholders.
Stakeholder involvement is essential
for the development and acceptance of DSS.**

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Ways to support acceptance, relevant steps:

- communicating uncertainties
- communicate that system includes state-of-the-art knowledge, but it is still a model, simplified knowledge which has to be elaborated by experience or common sense
- communicate the limits of the system, system boundaries
- good visualization, user friendliness
- connect the DSS development to aspects of day-to-day business of users
- discuss in time: uncertainty, reliability, legal aspects

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3. Best practice and implementation of DSS

**A relevant and best practice Decision Support System
will last beyond the lifetime of a project.**

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Dos and don'ts:

- users' boards on a regular basis, consultation
- work in small groups (around 10)
- explain added value of participation, clarify direct relevance
- interactive discussion rather than presentations
- strategy for sessions as guideline
- personal connections
- enhance effectiveness
- choice of place and time, access
- provide interaction with developers, influence
- relate to relevant issues of users
- good marketing

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DSS Workshop participants enjoying a walk to the Rhine

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