

Comparative Risk Assessment

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- 6) **Project leader(s):**
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- 7) **ETH researcher(s):** no entry
- 8) **External researcher(s):** no entry
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- 11) **Short Summary:** Risk analysis studies or accident collecting databases are means to achieve knowledge about the risks related to the use of different technologies. Building up comparative risk assessment on these data leads to problems related to their evaluation.
- 12) **Keywords:** Engineering Sciences, Technology

Comparative Risk Assessment

13) Project description:

Risk analysis studies or accident collecting databases are means to achieve knowledge about the risks related to the use of different technologies. Building up comparative risk assessment on these data leads to problems related to their evaluation. Reasons among others are the different kinds and degrees of consequences and the differently structured risk profiles. In order to produce definitive statements it is often necessary to aggregate and integrate the information to obtain risk indices. This again causes problems because it is accompanied by a loss of information and furthermore introduces value judgments into the factual evaluation process. Existing methods don't pay enough attention to this difficulty and therefore run the risk of leading to inconsistent or declined results because of the value judgments implicitly contained in them. This is amplified through the different inter-individual perception of the risks related to technical installations.

Starting from the existing decision analytic theories for decision making under risk pros and cons of of normative and descriptive theories for prescriptive decision making in the context of technological risk comparisons are elaborated. By choosing a Risk-Value approach a descriptive model building up on the synthetic description of probability distributions over accidental consequences is then developed.

(Start of the project in 1997, financial support through NAGRA (Swiss cooperation for the disposal of radioactive waste), 1998 finished with the interim report "Umgang mit technischen Risiken: Ihre Erfassung und Vergleichbarkeit". Continued as a dissertation jointly supported by NAGRA and KOVERS)

14) Popular description:

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15) Graphics: no entry

16) Publications: no entry

17) Links to important web pages: no entry