

**Workshop on Societal Risk, Transport Safety
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**Protection of man and environment in the
vicinity of hazardous installations**

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The concept of "societal risks" is part of an overall strategy handling hazardous substances.

Four basic steps are identified by Carter&Riley:

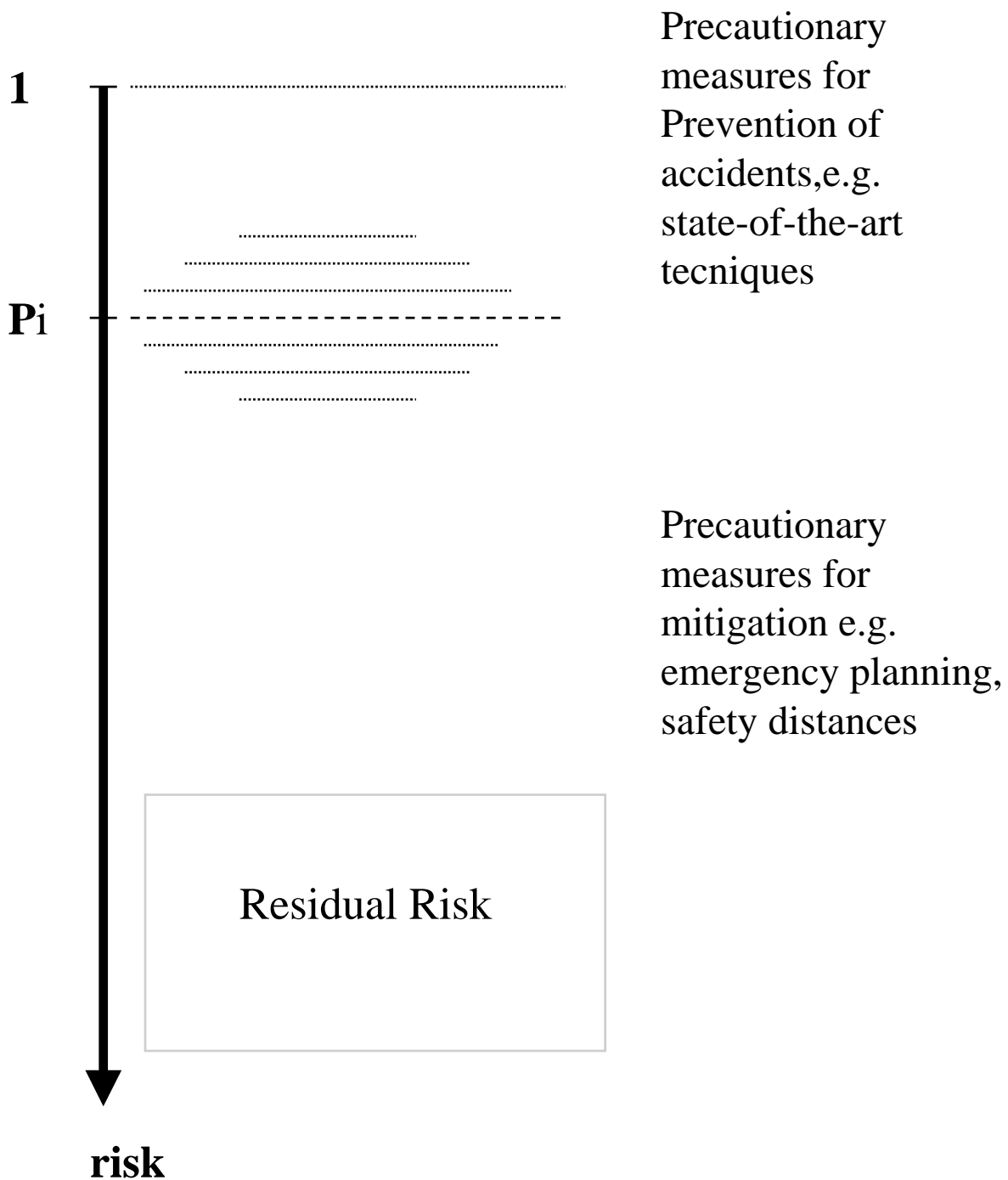
- 1. identification of the hazard**
- 2. assessment of the risk**
- 3. control of the risk**
- 4. mitigation of the residual risk**

Depending on the historical and societal background of European countries the overall strategy handling hazardous substances in industrial sites has different faces.

For the identification of hazards (step 1) we have a harmonised procedure in the 82/501/EEC.

Assessment, control and mitigation (steps 2-4) are left open to different national approaches.

QRA-solutions stand beside to more deterministic approaches.



Pi = Level of "reasonably practicable"

Riskcontrol of hazardous industrial activities in the FRG

- **Legal Framework**
- **Limit as it is "reasonably practicable"**
(High court decision)
- **Criteria for qualitative risk assessment**
- **Licensing procedure**
- **Public participation**

Weak points of deterministic concept

- **The decision in every individual case requires a high qualification and independence of the authority acting.**
- **The procedure is longlasting and expensive.**

Alternatives to the riskconcept

QRA-techniques are excellent tools for plant designer and operator rather than being an appropriate basis for administrative decisions.

Main disadvantages:

uncertainties of accident scenarios

uncertainties of data

uncertainties of models

The risk concept does not exclude damages as a principal. It does not seem to be in balance with recent sustainable development principals.

Concept of strict limitation of hazardous emissions due to accidents as a principal is preferred.