

### Description

Originally, the scenario technique came from the military field, but today it is also frequently used for economic and social issues. Basically, the scenario technique combines quantitative and qualitative forecasting elements. Thus, no pure linear projection is made on the basis of historical data. The aim of the procedure is to prepare companies for future developments in order to improve their ability to act.

The complexity is reduced by the calculation and exclusion of inconsistent future developments. The scenario technique provides consistent future projections based on the information collected during the process. For these scenarios, corporate strategies can be developed that react adequately to future risks.

Table 1: Example of a scenario analysis (Rosoff and Winterfeldt 2007)

Consequences	Medium Scenario	High Scenario	Measure
Blast and acute radiation effects	0-10	0-50	Fatalities
Latent cancers	0-20	0-1,000	Fatalities
Port shutdown and related business loses	0-200 million	30-100 billion	Dollars
Evacuation cost	Negligible	10-100 million	Dollars
Decontamination costs	10-100 million	10-100 billion	Dollars
Business loss	Negligible	1-3 billion	Dollars

### Basic procedure

At the beginning, a team should be formed and a clear project goal should be defined. The scenario technique can be summarized in five phases:

1. Preparation and definition of the design field
2. Analysis of the scenario field
3. Projection of identified trends
4. Creation of scenarios
5. Transfer of scenarios

### Prerequisites/Aids

Due to the complexity of the analysis, a team of expert is required. Some phases of the scenario technique require the use of special software.

### Effort

High expenditure of time and personnel as well as possible investments in software required.

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Several possible alternatives are considered</li> <li>• Combination of quantitative and qualitative forecasting methods</li> <li>• Extreme scenarios are taken into account</li> <li>• Preparing for an uncertain future</li> </ul>	<ul style="list-style-type: none"> <li>• High time expenditure</li> <li>• Cost-intensive, since it is associated with high personnel expenditure and possibly external services (purchase of consultants / data)</li> <li>• Software might be required</li> </ul>

### Sources

Rosoff, H. / Winterfeldt, D. von (2007): A Risk and Economic Analysis of Dirty Bomb Attacks on the Ports of Los Angeles and Long Beach, *Risk Analysis*, 27(3), 533–546. <https://doi.org/10.1111/j.1539-6924.2007.00908.x>