

MTO Analysis

Accident investigation

The ultimate aim of all investigations is to prevent recurrence. It is therefore vital to understand why faults occur and how we can prevent them from developing into accidents. Then the knowledge can be used in a proactive way.

What can be achieved?

- Prevention of accidents, injuries and losses
- Increased understanding of risk through learning from undesirable events and use the information to improve the work processes

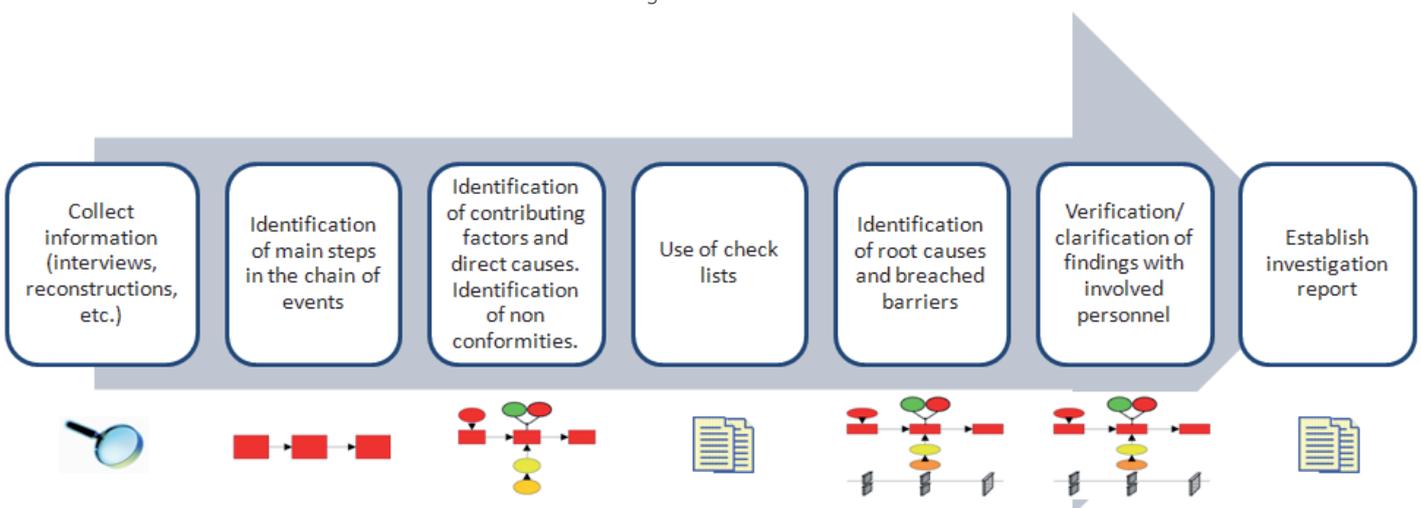
Man, Technology and Organization (MTO)

Scandpower's investigation method is based on a system perspective called MTO. This is based on the fact that most accidents happen due to a combination between human, technical and organisational factors. The

objective of MTO investigations is to identify weaknesses and failures in the system or the combination of human, technical and organisational factors, so that corrective and preventive actions can be implemented. Scandpower uses knowledge within psychology, technology, organisational theory and management in their assignments.

With insight in root causes the appropriate actions can be implemented, and system failures and weaknesses can be corrected. People make mistakes, but they also prevent faults from developing into accidents. Technical systems can function as a barrier, but it may fail. Organisations promote premises and create perspectives.

This type of analysis presents an undesirable event as a flow chart, and gives a detailed overview of the chain of events, deviations, direct- and root causes, as well as degraded barriers:



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The purpose of the analysis is to establish the root causes of the incident, so that actions can be taken to prevent recurrence, and also to understand the latent failures and weaknesses in management systems that led to the incident. Although these analyses are separate activities from the investigation of the incident itself, it is recommended to carry out the investigation and analyses concurrently, so that they can support and build on each other.

What are the outcomes of an investigation?

- Presentation of the sequence of events
- Identification of direct causes and root causes
- Identification of failed or lacking barriers
- Establishment of the relation between causes and measures.

Scandpower offers:

- MTO courses for leaders and members of investigation teams
- Management of and/or participation in investigation teams
- Analysis of accidents and near-misses
- Trend analysis of incidents
- Follow-up of serious incidents and evaluation of improvement and effectiveness of implemented measuresEnergy and Industry