

Visualization of Cause-Effect Relationships in Complex Process Chains Using the Example of Battery Cell Production

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Abstract: Complex production processes require a holistic understanding of the process chain in order to improve their effectiveness and efficiency. Cause-effect relationships contribute to this because, if they are known and used appropriately, they enable product quality to be improved and rejects to be reduced. In order to be able to trace and apply cause-effect relationships once they have been derived, they must be documented. Due to the numerous relationships and interactions in complex production processes, this documentation is particularly challenging. For this reason, this publication aims to identify possible forms of visualization for cause-effect relationships, to evaluate them on the basis of suitable criteria and to recommend a suitable form. This is done using the example of battery cell production.

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