

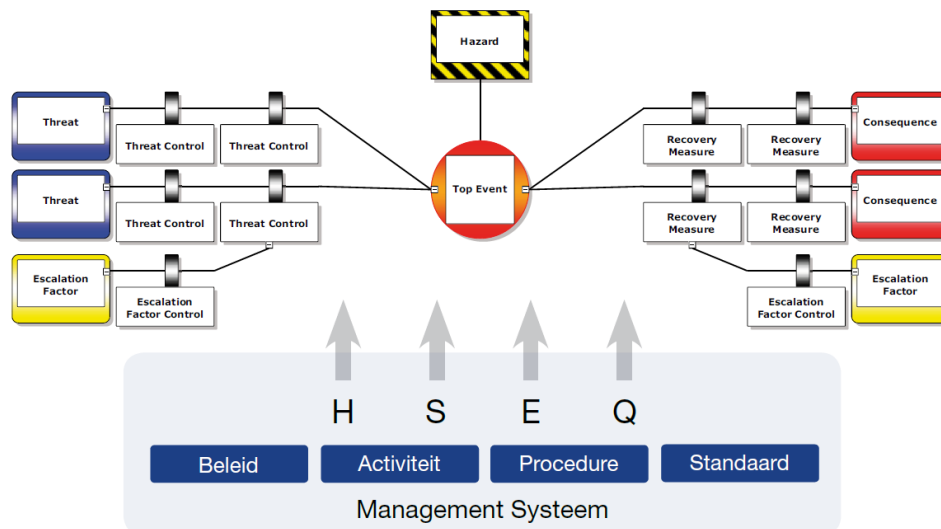
BOWTIE

BowTie Methodology

Many companies and professionals currently use the BowTie methodology as part of their standard HSE (Health, Safety & Environment) assessment tools. For Safety & Health-cases it constitutes an essential component to analyse the functionality of available safety barriers. We call this 'Operational Barrier Management'. BowTies can offer more than 'just' an assessment. The BowTie method visualises the different risks and corresponding barriers in one clear and comprehensible picture.

The effect of using BowTie

'BowTie' is a scenario based qualitative risk-management technique to analyse, visualise and improve the operational situation of an installation or during an activity with regard to safe practices. The added value of the BowTie method is that it visualises a systematic overview of the different risks, corresponding barriers, preventive and reactive actions.



The BowTie diagram looks like a bow-tie, creating a clear differentiation between proactive and reactive risk management. The diagram visualizes a clear overview of multiple plausible scenarios.

The overview of hazards, threats and consequences delivers scenarios which give a better understanding of the risks involved, and the process to manage them. The barriers are used to interrupt the scenario so that the threats do not result in a loss of control (i.e. the 'Top Event') or do not escalate into an actual impact (i.e. the 'Consequences'). Barriers can be mechanical, instrumental or procedural.

Companies in the area of Health, Safety & Environment (HSE) use BowTies to create an efficient and transparent way of handling risk management.

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The diagram visualizes a clear overview of multiple plausible scenarios.

Please consult Versatec for more information on how to create and optimize BowTies for your organization or project.





Barrier Risk Management

Applying BowTie to critical activities or events is called 'Barrier Based Risk Management'. The BowTie method uses available data, procedures, descriptions and systems. This way of looking identifies concrete issues where resources should be focused for risk reduction, i.e. prevention or mitigation.

The BowTie method can also be used for multidisciplinary brainstorm-sessions about risks within an organization. In this case the analysis yields a risk matrix with clear priorities, which 'barriers' are significant en where control is necessary.

Support and training from Versatec

Versatec can help you recognize and develop an understanding of barriers and how to develop a proper BowTie instead of just a 'mind map'. This is accomplished by zooming in on the barriers and providing a framework to understand what a barrier is, how to define it and how to use this effectively in your organization to further improve HSE behavior. The structured approach is practical and the result is a set of realistic, reliable and usable BowTies, ensuring that all Safety and Environmental Critical Elements (SECE's) are properly addressed.

As part of our prolonged and dedicated consultancy advisory in the area of Health, Safety & Environment and Operational Assurance, Versatec organizes one or two-day BowTie courses targeted at the operational aspects of (safety) barrier management. This course is of interest to people involved in day-to-day risk-management, such as Managers, Operators, Contractors, Regulators and Industry Bodies and specifically intended for persons working in HSE, Operations and/or Management functions.

Questions are addressed like:

- How do BowTies fit in the management of risk?
- What does the BowTie tell us - Are we in control?
- Barrier Management - How to operationalize the BowTies?
- What is the difference between a Barrier and a Barrier-element?
- BowTie within your organization: where does it integrate with the other organizational processes?

Please contact Versatec for dates for a BowTie course.

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Power Your Project*

Check our Product Information Sheets for BRZO, IPR, Explosieveiligheid, Commissioning, HAZIDS, HAZOPs and more.

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