

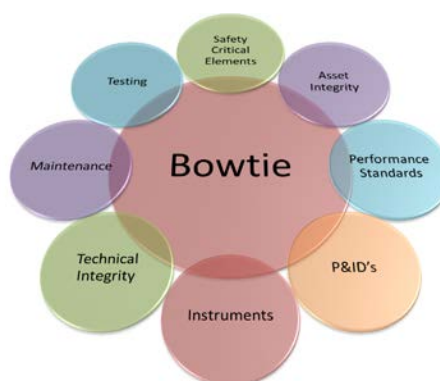
## Dynamic Bowtie Barrier Management

### Introduction

Safety barrier management is well established in the industry. However, operationalising barrier management is still in his infancy. A wealth of data is largely locked away in systems, logs, registers and books that are not readily available in a digestible format for use on various levels of the organisation. By having a solution that connects to a wide variety of data sources, including CMMS, DCS systems and document management systems the real value of Dynamic Barrier Management is realised. It enables a step change in safety and management of major hazards.

### Controlling Business risks

The Dynamic Bowtie Barrier Management is an interactive tool that can monitor and demonstrate control of your Business risks. With the tool it is easy to show that your company complies with all corporate regulations and legislation. If there is no compliance, documents are missing, tasks are not timely executed and/or documents are not timely updated, the tool gives a warning. Furthermore, integration with other source systems enables you to demonstrate that your company is safe and you are in control.



**Figure 1. Dynamic Bowtie Barrier Management and its Interface with other information streams.**

### Tool features

The Dynamic Bowtie Barrier Management tool has custom made features. A grasp of its features are, among others:

- 1) Better integration with studies, for example
  - a) HAZOP - LOPA
  - b) Electronic Safety cases with dynamic monitoring of barriers
  - c) Asset Integrity Studies (see figure 2)
- 2) Connection with different source systems and automated cross references by tag numbers, document numbers, procedures or SCE Barriers gives the user a quick view to all related documents and data
- 3) Pro-active monitoring of changes and expected changes in documentation and Performance Standards

Bowties, Performance Standards and Operational Integrity are key elements of overall Asset Management to realize safe, effective and reliable Asset performance, adding value and preventing major accidents.

Versatec can help you by offering a Dynamic Bowtie Barrier Tool.

As part of our prolonged and dedicated consultancy advisory in the area of Health, Safety & Environment and Operational Assurance, Versatec offers a comprehensive insight into your business risks and interface with other sources. Automated cross references will be made by tag numbers, document numbers, procedures or SCE barriers.

In addition, Versatec can provide training, coaching and operational support to implement the required organizational and behavioral aspects in your organization. The tool can be tailor made to your operational needs and standards.

#### Contact:

Versatec Energy B.V.  
Korenmolenlaan 4  
3447 GG Woerden  
Tel: +31 348 437 460  
Fax: +31 348 437 461  
Email: [info@versatec.nl](mailto:info@versatec.nl)  
Website: [www.versatec.nl](http://www.versatec.nl)



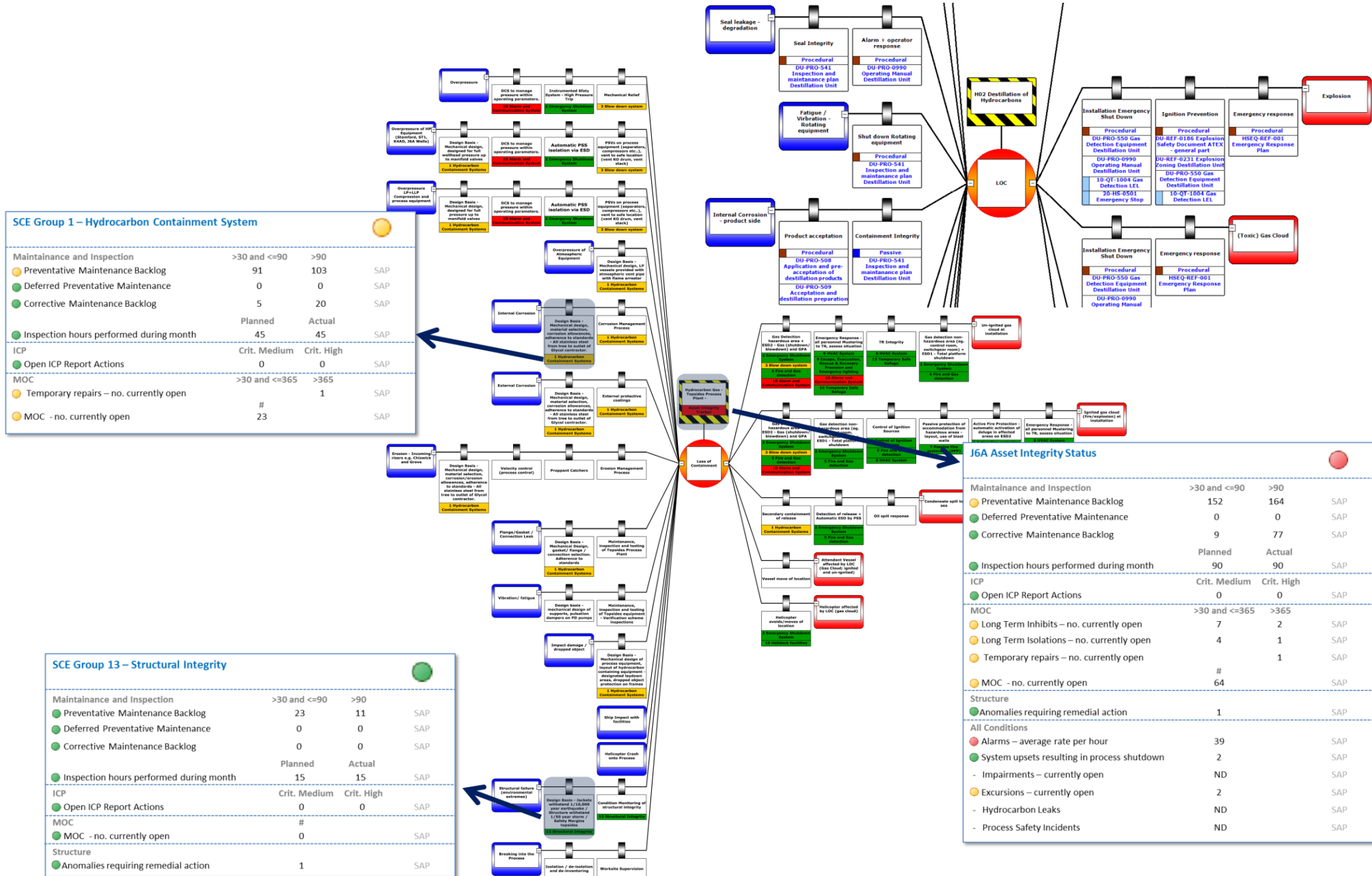


Figure 2. Bowtie, Asset Integrity and Performance Standards integrated view. (2 examples, left-centre and top right)