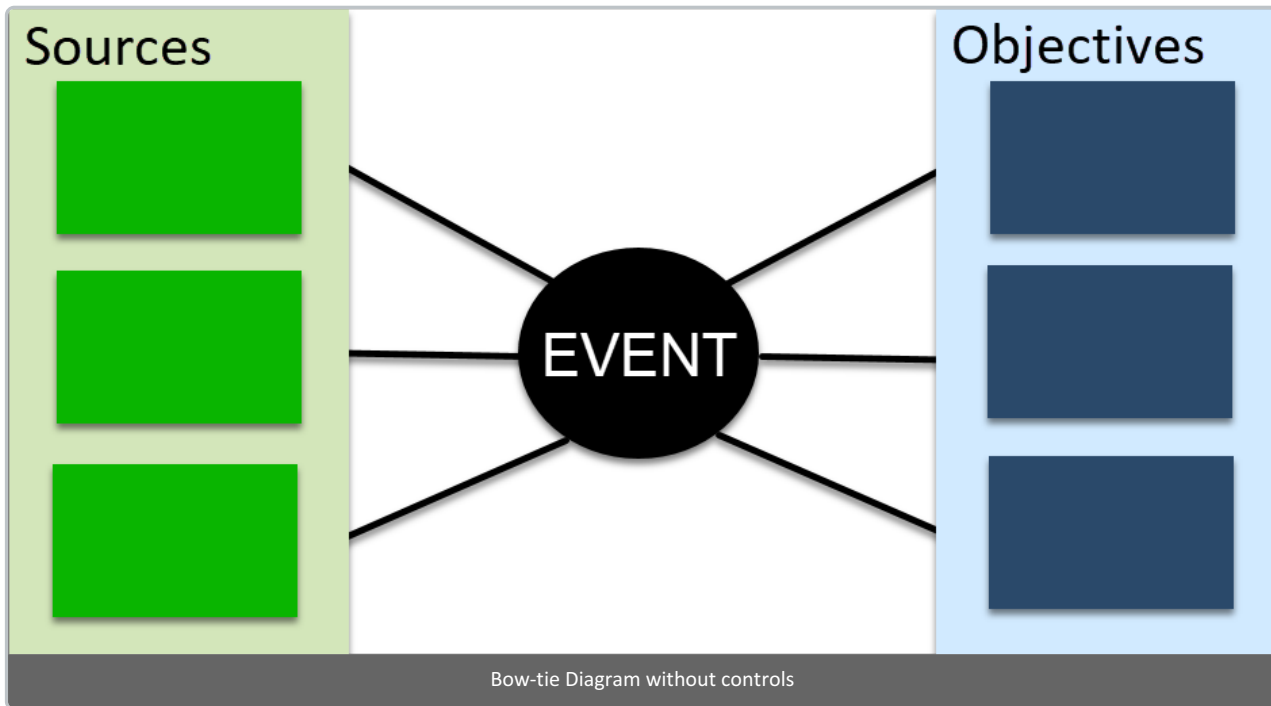


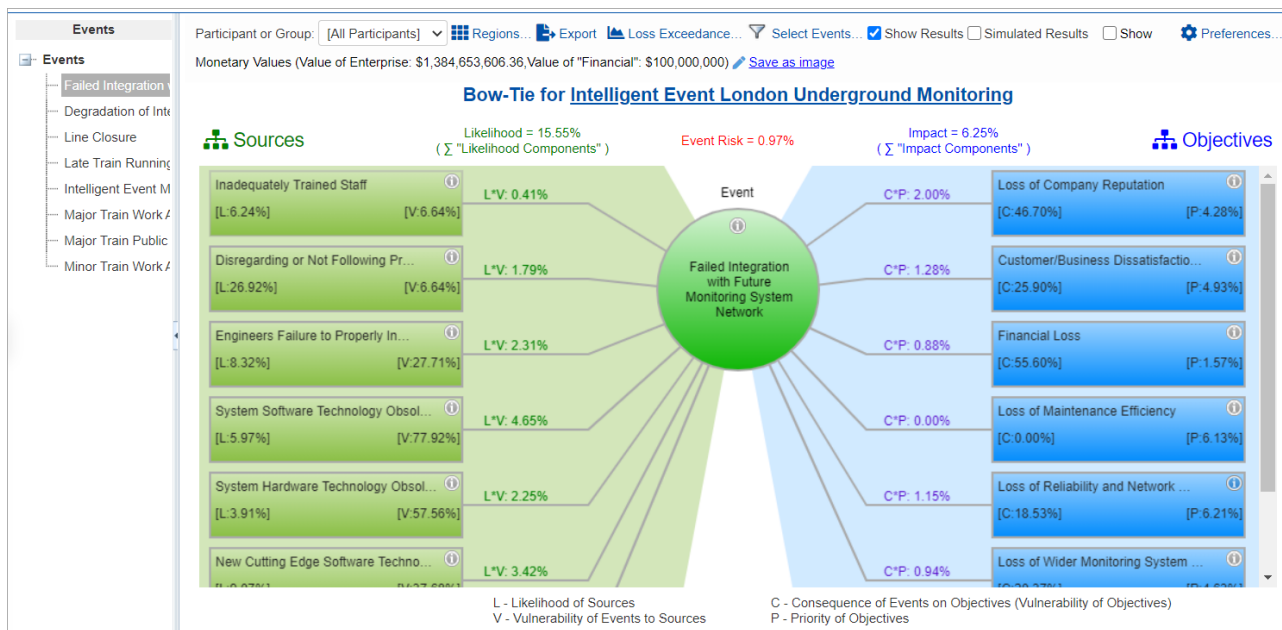
# Overall Bow-Tie Diagram

## Overview

The Bowtie method is a risk evaluation method that can be used to analyze and demonstrate causal relationships in risk scenarios. The method takes its name from the shape of the diagram that you create, which looks like a men's bowtie.



The bow-tie diagram for the Event "Failed Integration with Failure Monitoring System Network" from the Overall Source is displayed below.



The selected **Event** is displayed at the center of the diagram (circle). The event **background color** varies based on the event's %risk.

The **Sources** of the selected event are displayed on the left side of the diagram (green boxes).

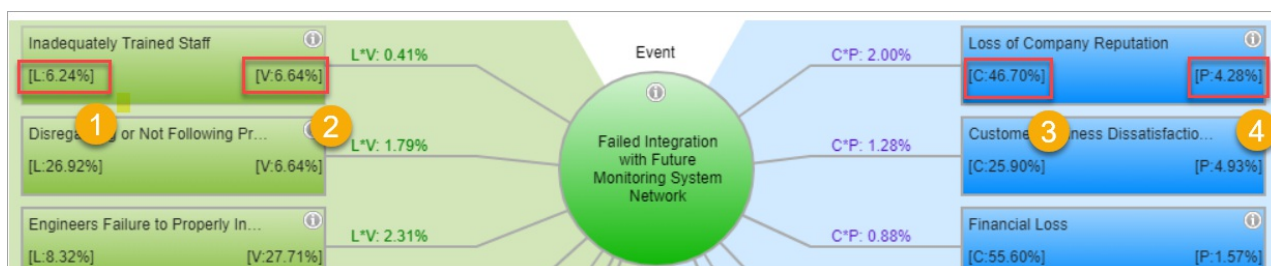
The **Objectives** of the selected Event are at the right (blue boxes).

You can also define and analyze controls in a **Bow-tie Diagram with Controls**.

You can view and analyze the following information:

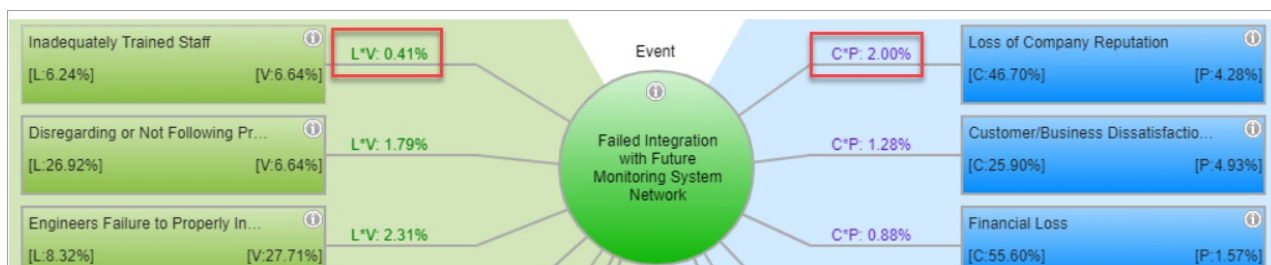
- L - Likelihood of Sources
- V - Vulnerabilities of events to sources
- C - Consequences of Events on Objectives
- P - Priority of Events on Objectives

Focusing on the first source and objective on the diagram:



1. The Likelihood (L) of the Source "Inadequate Trained Staff" is **6.24%** (overall or global likelihood)
2. The Vulnerability (V) of the Event "Failed Integration with Future Monitoring System Network" to the source "Inadequately Trained Staff" is **6.64%**
3. The Consequence (C) of the Event "Failed Integration with Future Monitoring System Network" on the Objective "Loss of Company Reputation" is **46.70%**
4. The Priority (P) of Objective "Loss of Company Reputation" is **4.28%** (overall or global impact)

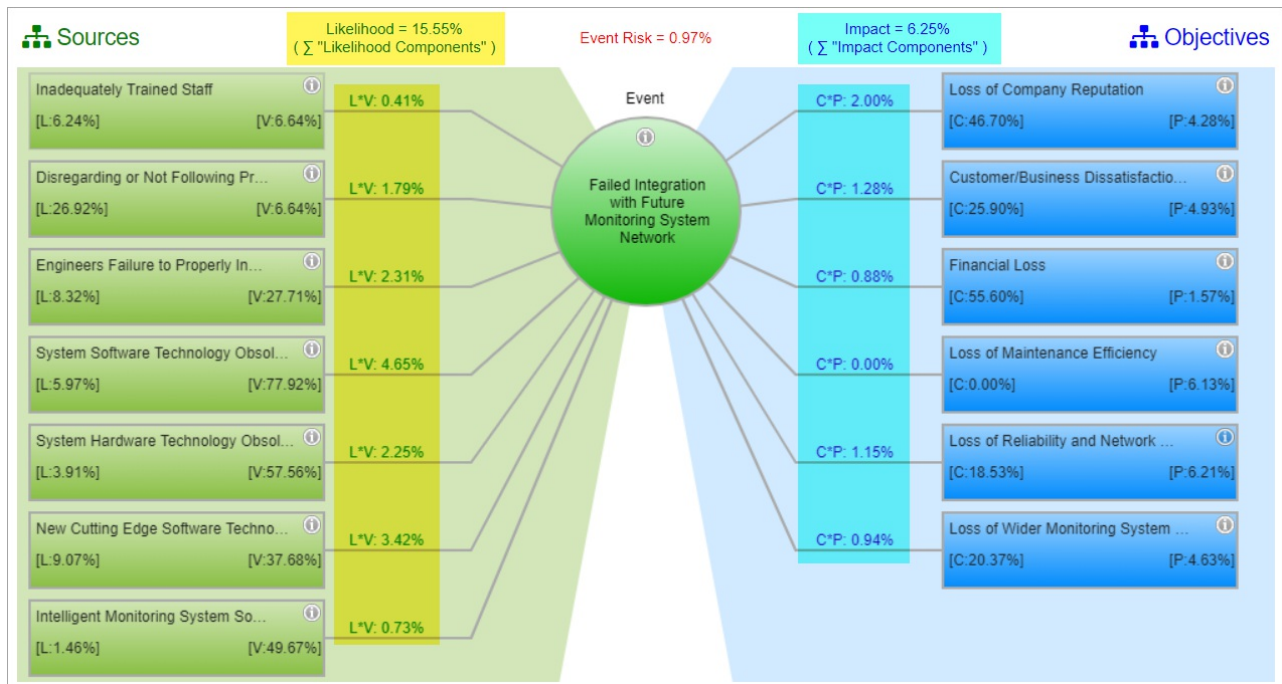
The Likelihood of the event to a given source (L\*V), and the Impact of the event (C\*P) on a given objective are shown on the connecting lines to the source/objective boxes:



- The Likelihood of the Event "Failed Integration with Future Monitoring System Network" to the source "Inadequately Trained Staff" is **0.41%**
- The Impact of the Event "Failed Integration with Future Monitoring System Network" on the Objective "Loss of Company Reputation" is **2.0%**

The summation of likelihoods ( $\sum$  "L\*V") of the event to each source is the Overall Likelihood of the event, and the

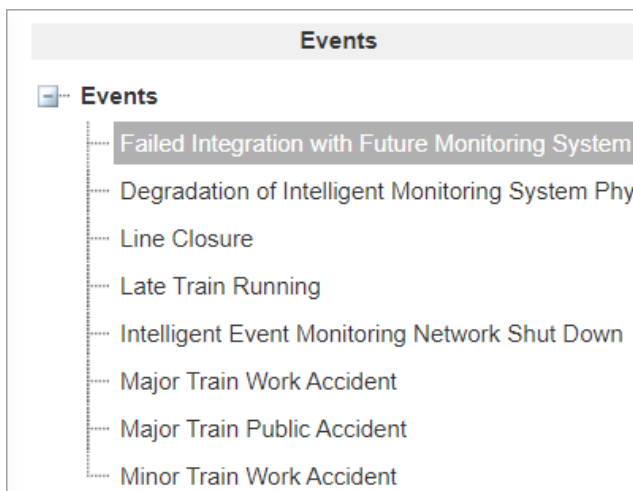
summation of impacts ( $\sum "C*P"$ ) of the event on each objective is the Overall Impact of the event.



The event "Failed Integration with Future Monitoring System Network" has Overall Likelihood and Impact **15.55%** and **6.25%** respectively.



The Overall Event Risk is then computed by Likelihoods \* Impacts,  $15.55\% * 6.25\% = 0.97\%$

You can select another Event to analyze from the Events list at the left:




### Select Participant or Group

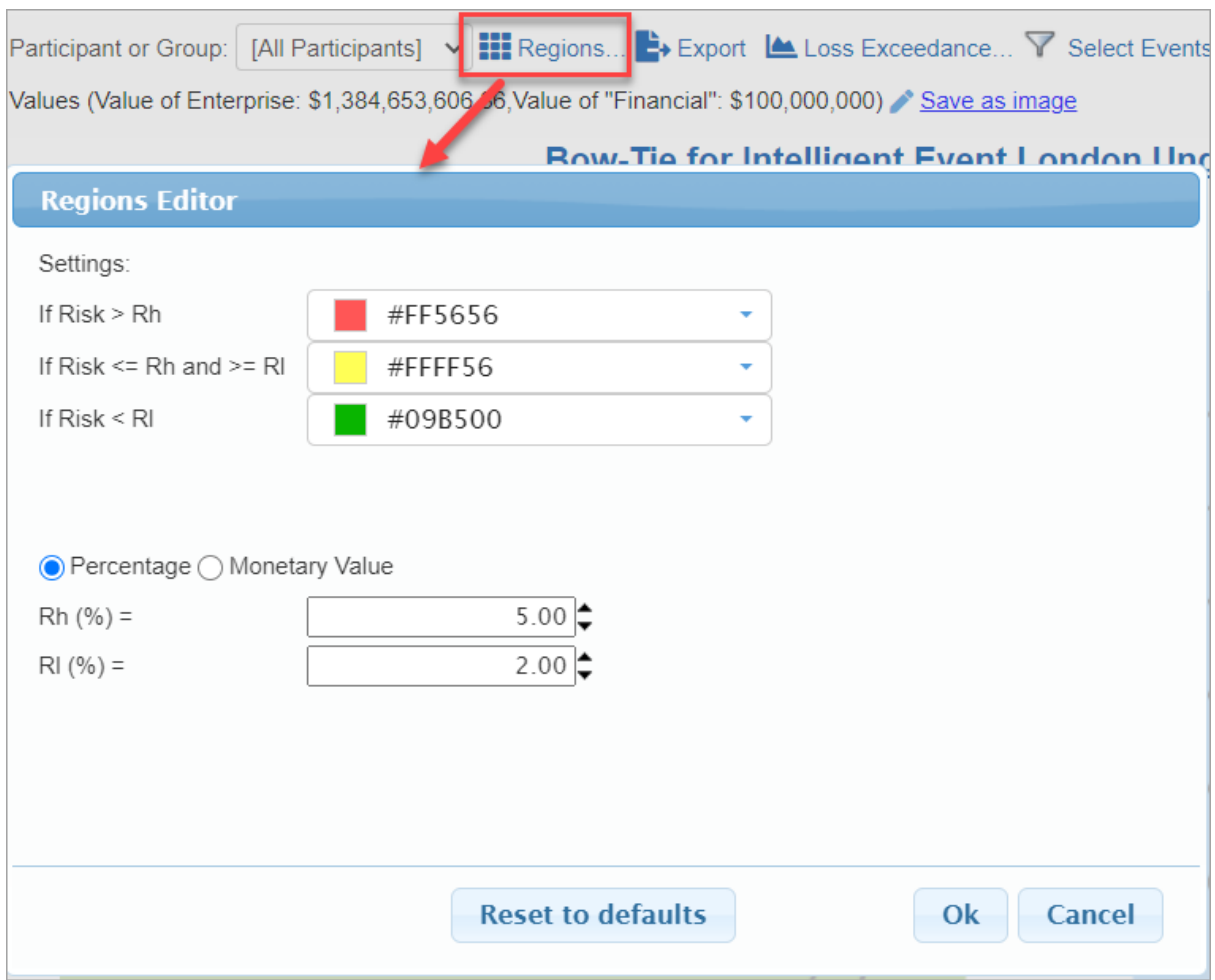
The bow-tie for the "All Participants" group is displayed by default. By selecting from the "Participants and Groups" dropdown, you can display the bow-tie analysis for another participants or group:

Participant or Group:	[All Participants] 
Show Monetary Value	[All Participants]
	[C-Level Executives]
	[Engineering]
-----	
 Sources	
Inadequately Trained [L:6.24%]	Denis Risman
	Brian Quigley
Disregarding or Not [L:26.92%]	Chief Risk Officer
	Chief Engineering Officer
Engineers Failure to [L:8.32%]	IT Supervisor
	Chief Executive Officer
System Software Te [L:5.97%]	Devin Nagy
	Michael Mankowski
System Hardware Te	John Doe

## Define Event Color (Region)

Default colors are already provided for the events on the diagram based on the event's %risk.

You can change this by clicking 



Here you can specify the limits: Rh (risk high) and RI (risk low) both for percentage or monetary.

Given the limits, you can specify the 3 regions/colors:

- High Risk
- Mid (in-between) Risk
- Low Risk

## Export Bow-tie to Excel or Image Format

Click  [Export](#) to export the bowtie into a .xlsx file.

Click [Save as image](#) link to download the diagram as an image file (.jpeg)

## Show Monetary Values

## Simulated vs Computed Event Likelihoods, Impacts, and Risks (Flaw of Averages)

## Preferences

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