

RAID database system specification and features overview

Designed to provide a simple and cost-effective way of centralising risk management and reporting, riskHive quickly and effectively imports, consolidates, and maintains your existing risk registers in a portfolio database allowing you to start generating information and reports straight away by importing current excel risk registers.



riskHive ERM brings together and consolidates RAID data and information from everywhere your business operates, securely incorporating and amalgamating both your organisation and its supply chain, instantly creating your whole risk universe.

ERM application System features

- Manage risks, opportunities, issues, assumptions, benefits and more...
- Hyper-configurable user interfaces with user/project maturity alignment
- Configurable to reflect ISO, AU/NZ and COSO standards
- Project > Programme > Portfolio aggregation system
- Multiple hierarchical data organisation structures
- Simultaneous multiple languages and currencies
- Qualitative and quantitative assessment and reporting
- NEC3 Trend (emerging risk) management process
- Fast and easy import / export of data and information
- Advanced interactive data graphics; bowties, word-clouds, map-views, radials, heatmaps and risk-radars
- Built-in Monte Carlo Simulation and Analysis for cost (CRA) and schedule (SRA) and combined cost & schedule analysis (JCSRA) – all at the click of a button, removing reliance on SMEs and making analysis accessible to all
- Linkable to BIM data and other third-party management systems

ERM application Elemental diagram



ERM System specification

- Industrial-strength professional database application
- 2048-bit data encryption and SSL TLS security
- Encryption of data at rest and in-transit
- Single sign-on (SSO) SAML2 multi-level and hybrid IP capability
- Super-secure cloud hosting or on-premises installation
- Browser-based application works with all platforms & browsers
- No client-side downloads, plug-ins or add-ins required
- High resilience, low data bandwidth, auto-archiving of data
- Triple-system deployment: Live, Staging and Training environments
- Supports 25 - 25,000 system users (<250 concurrent)
- Super-fast deployment: ready for configuration in <48 hours
- Application is 'white-labelled' and can be branded to client specification

ERM application Features diagram



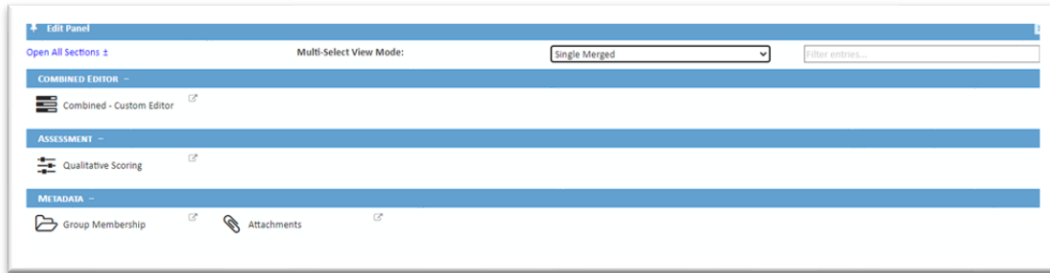
Highly Configurable Editors and User Interface

One of the most configurable parts of the system available to Administrators, allowing the ability to create Custom Editors and User Interfaces.

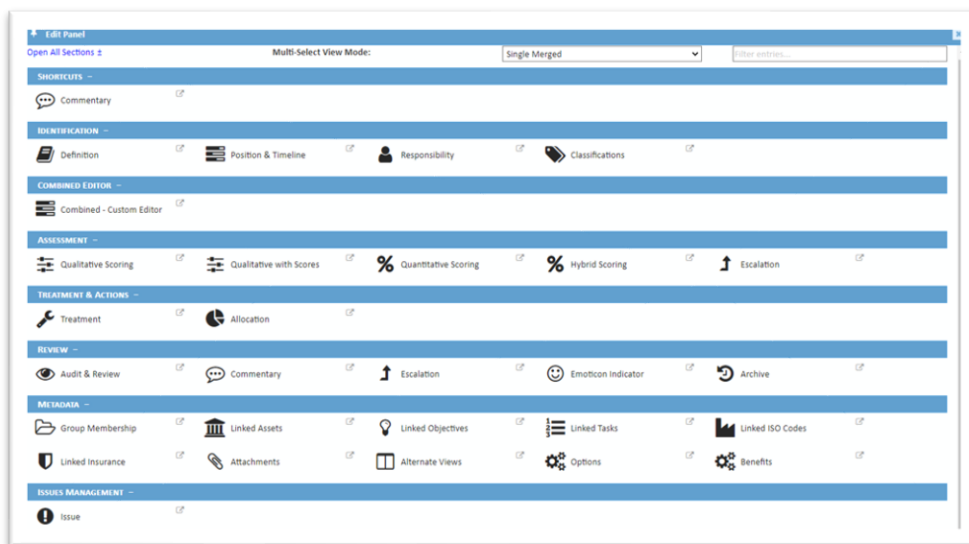
Custom Editors – Enable System Administrators to determine what fields they wish to be shown and in what order. Editors can be combined to provide a user with a single editor to make risk updates quicker and easier.

User Interfaces – Our out of the box provision of Basic, Standard and Intermediate User Views available, System Administrators can create unique editors that display exactly what the user needs, no more, no less, supporting users where they are at different levels of risk management understanding, or can be used as part of enhanced permission requirements.

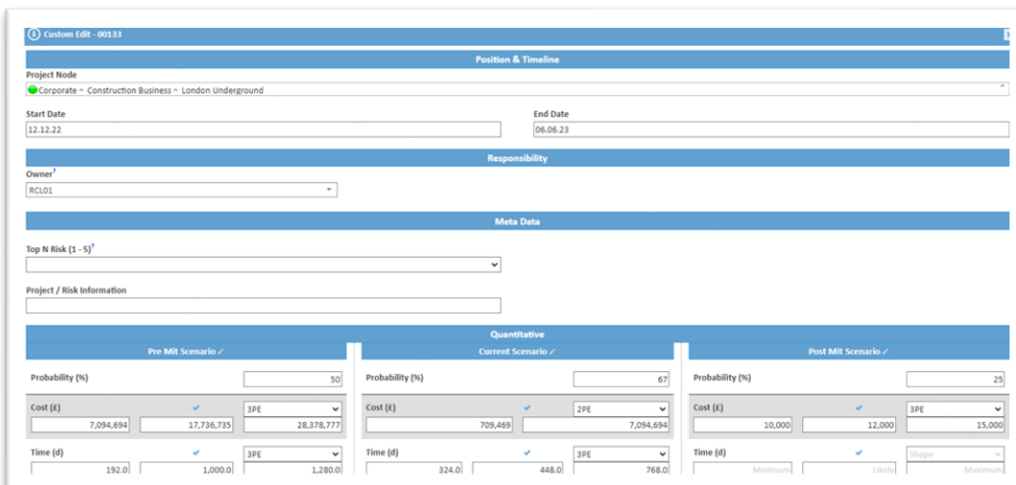
A Basic User may only see the Editors below:



An Intermediate User may be given access to many more functions and features.



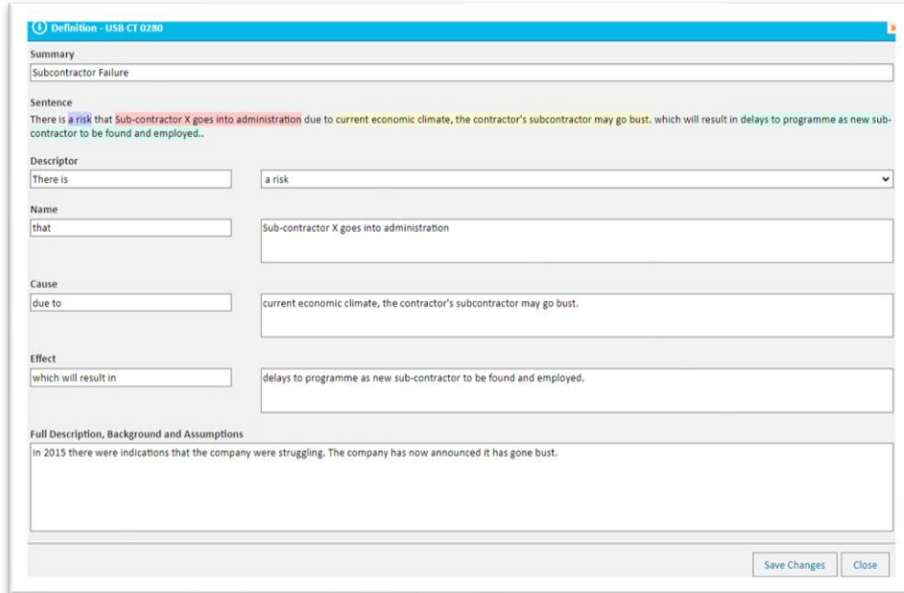
An example of a single editor for a Basic User - providing them with just the fields they need



Pre Mit Scenario	Current Scenario	Post Mit Scenario
Probability (%)	Probability (%)	Probability (%)
Cost (£)	Cost (£)	Cost (£)
Time (d)	Time (d)	Time (d)

Risk Wizard

Probably the hardest thing to get right is the articulation of the risks. Our risk wizard is designed to help users to build an accurate and informative description of the risk, its causes, and its effects.



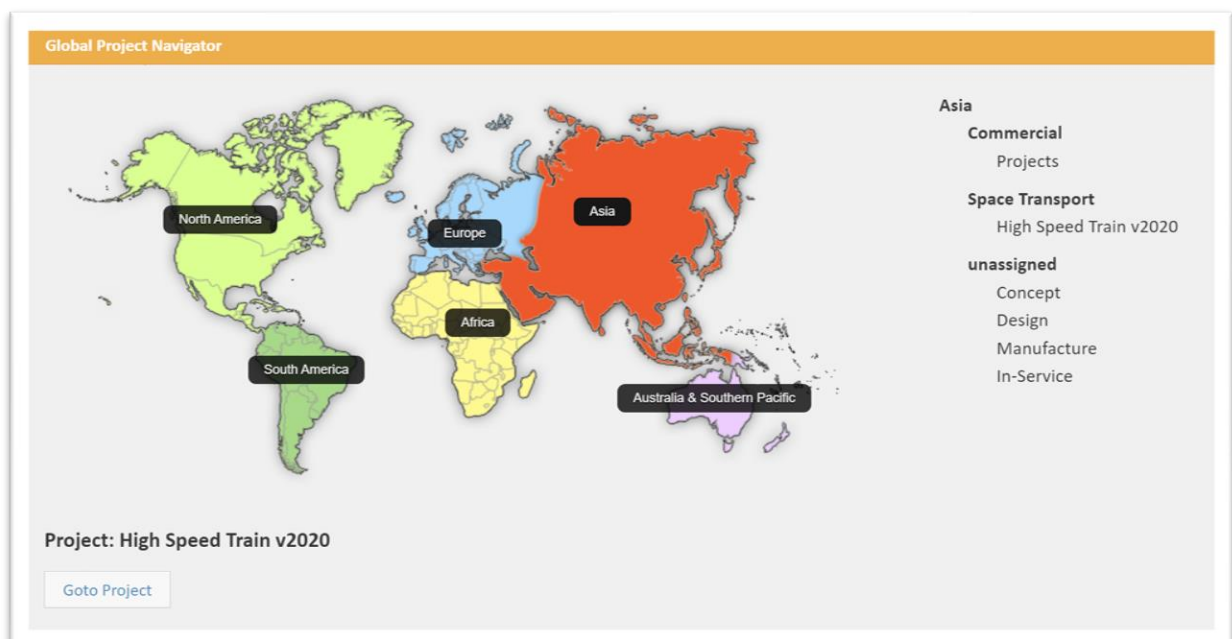
The screenshot shows a web-based form titled "Definition - USB CT 0280". The form is divided into several sections:

- Summary:** A text box containing "Subcontractor Failure".
- Sentence:** A text box containing "There is a risk that Sub-contractor X goes into administration due to current economic climate, the contractor's subcontractor may go bust. which will result in delays to programme as new sub-contractor to be found and employed..".
- Descriptor:** A dropdown menu with "a risk" selected.
- Name:** A text box containing "that" followed by "Sub-contractor X goes into administration".
- Cause:** A text box containing "due to" followed by "current economic climate, the contractor's subcontractor may go bust..".
- Effect:** A text box containing "which will result in" followed by "delays to programme as new sub-contractor to be found and employed..".
- Full Description, Background and Assumptions:** A text box containing "In 2015 there were indications that the company were struggling. The company has now announced it has gone bust..".

At the bottom right of the form are two buttons: "Save Changes" and "Close".

Global Navigator Map View

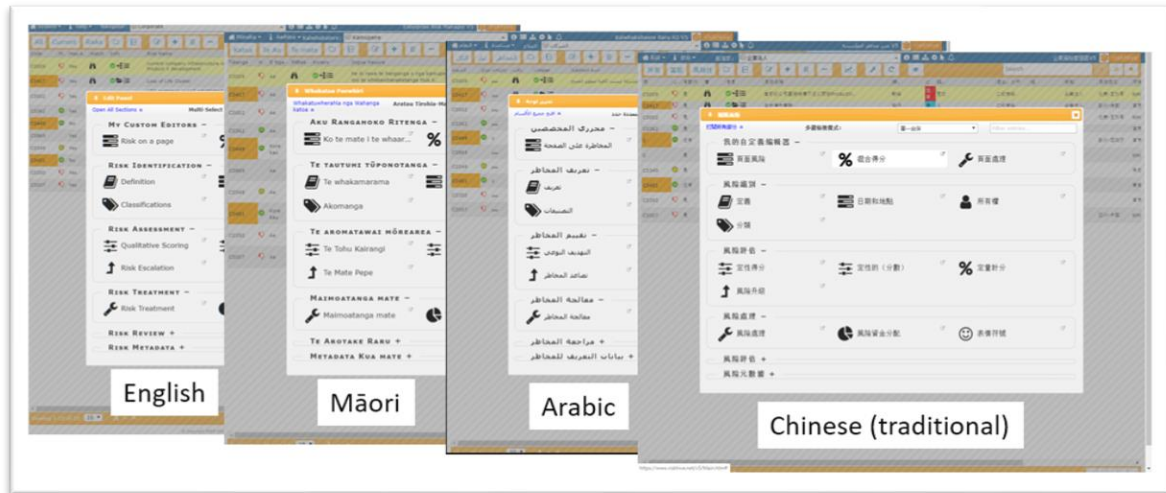
Displays projects overlaid onto their continental locations. Click-through on continent to see projects by category and then select project to view in main system grid.



User Interface in over 70 National Languages & currencies

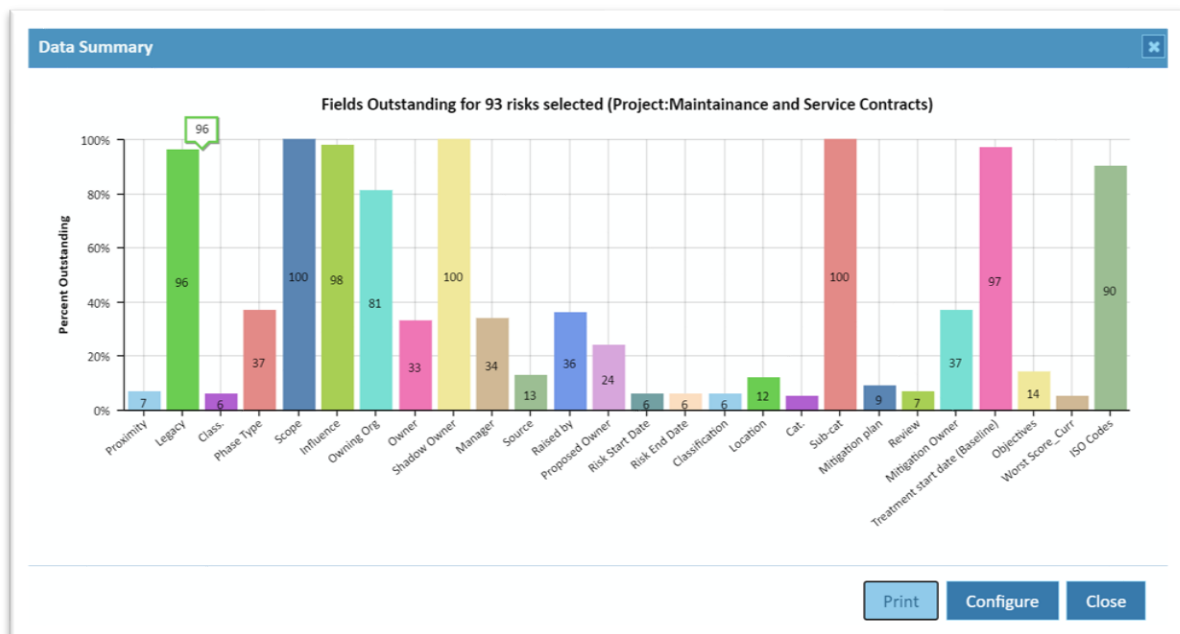
Designed to work with Google Translate extension, the application can be viewed in any one of 109 different languages (and counting). Trans-national users can view the same screen at the same time in their own national language and any local currency.

Both the application controls and text-entry information are translated in real-time. Central management teams can view the whole portfolio in any currency of choice.



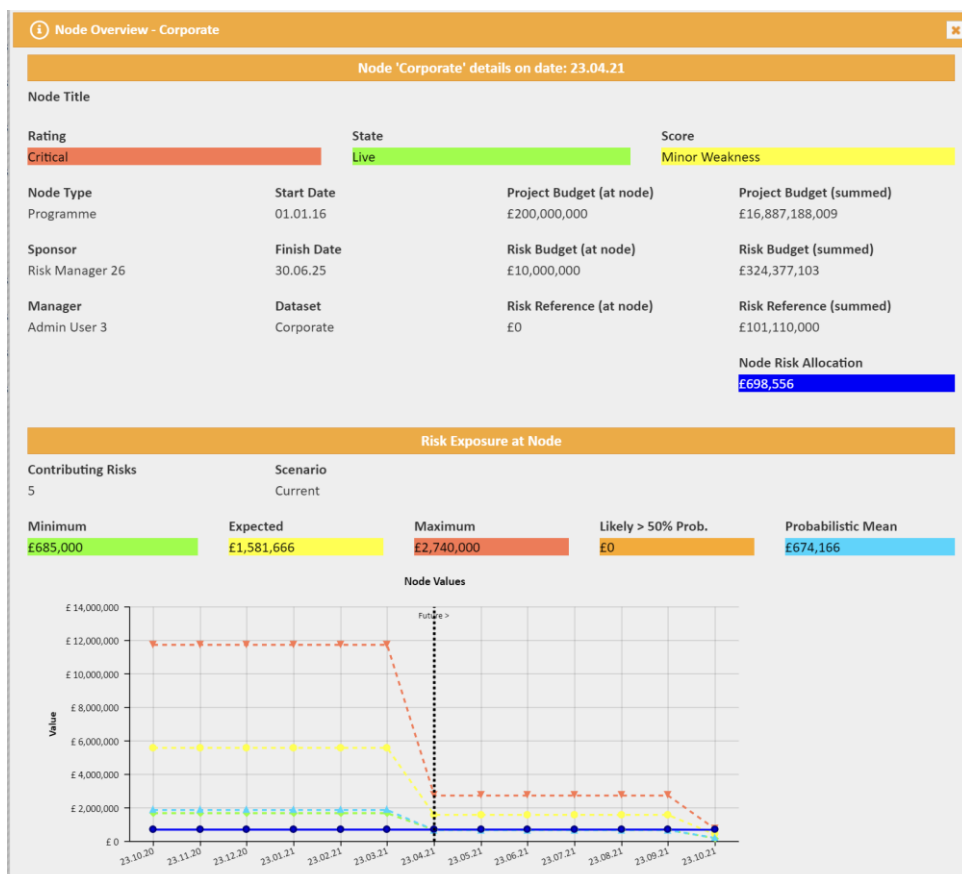
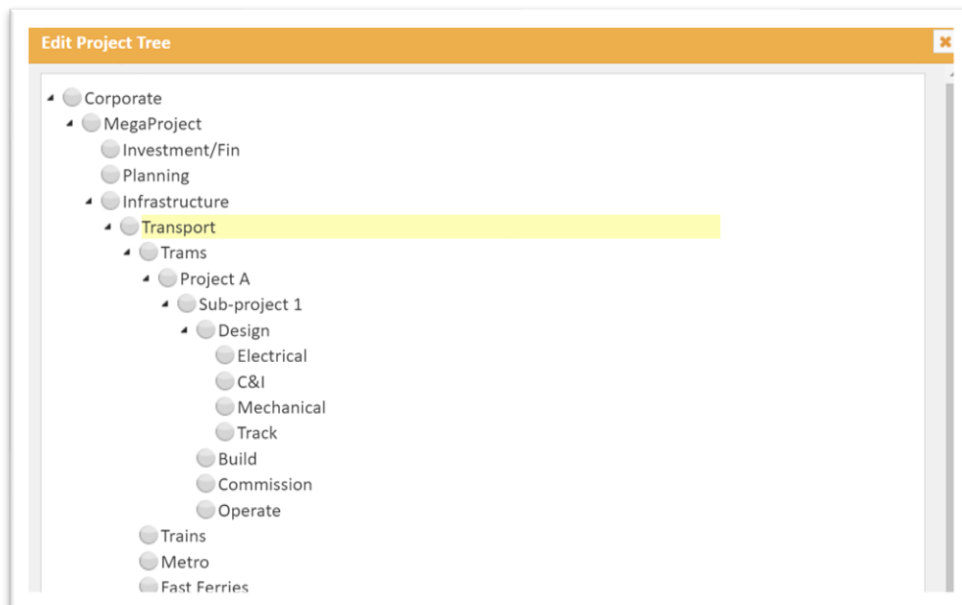
Data Field Complete/Missing Identification

These reports generate histograms displaying mandated field titles and their degree of completeness or, conversely, the extent of missing data across the portfolio.



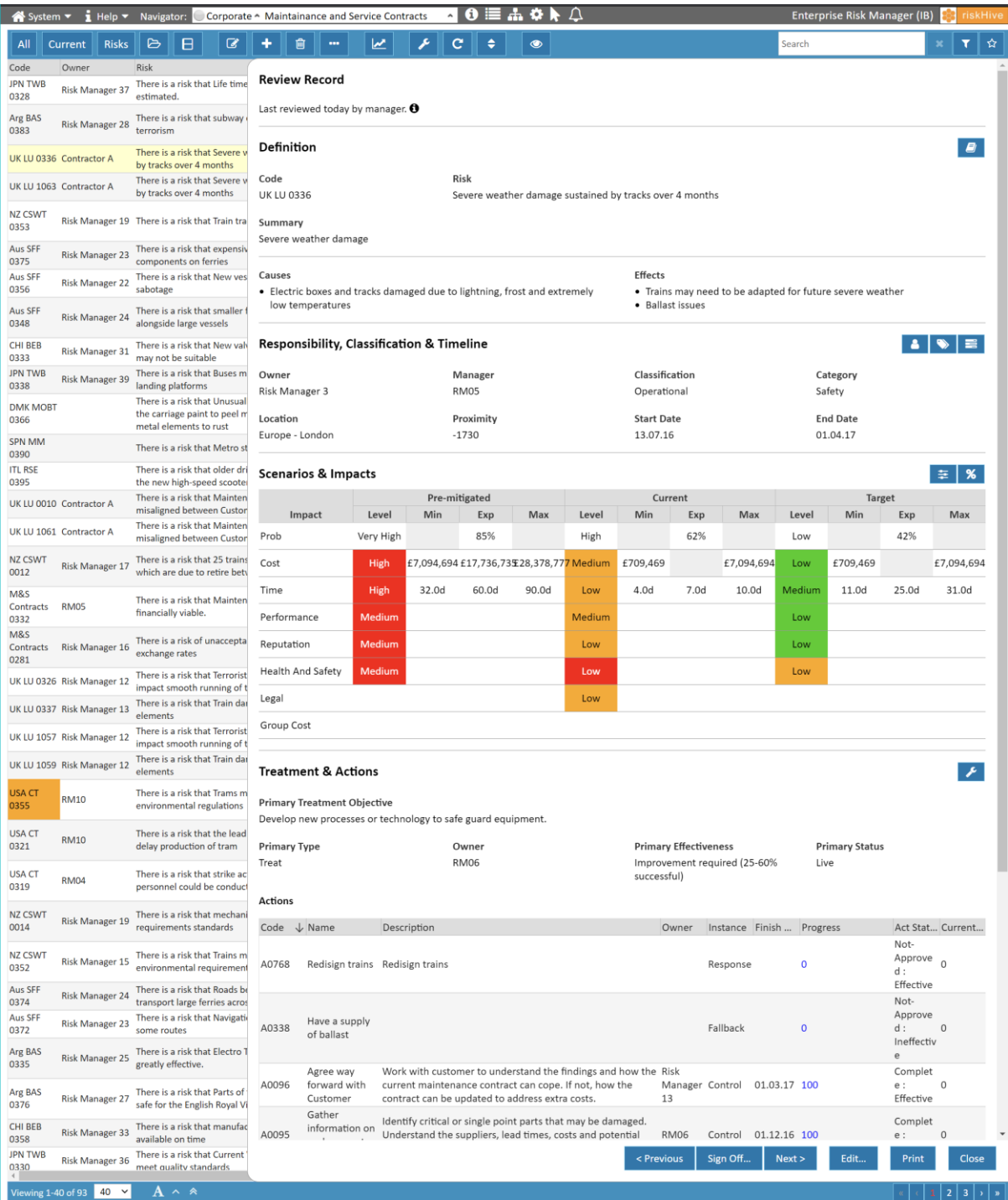
Instant hierarchical risk portfolio aggralytics

Even with different risk register formats, currencies and scoring mechanisms being used across the organisation, ERM can homogenise and aggregate data and information into an instant portfolio – displaying your whole ‘risk universe’ at the click of a button. Search, filter and report in a live and agile way like never before and say goodbye to Excel®.



Risk Review Mode - made to make risk reviews easy

ERM supports workflow for interactive risk reviews. Using a split-screen approach, a list of risks - whether contained in a single project or a subset or superset from the whole portfolio - can be systematically reviewed, amended (with logs) and checked-off one-by-one. A configurable data panel displays detail with click-through to access data fields.



The screenshot displays the 'Review Record' for a specific risk in the riskHive Enterprise Risk Manager. The interface is split into two main panes: a list of risks on the left and a detailed view of the selected risk on the right.

Risk List (Left Pane):

Code	Owner	Risk
JPN TWB 0328	Risk Manager 37	There is a risk that Life time estimated.
Arg BAS 0383	Risk Manager 28	There is a risk that subway terrorism
UK LU 0336	Contractor A	There is a risk that Severe v by tracks over 4 months
UK LU 1063	Contractor A	There is a risk that Severe v by tracks over 4 months
NZ CSWT 0353	Risk Manager 19	There is a risk that Train tra
Aus SFF 0375	Risk Manager 23	There is a risk that expensiv components on ferries
Aus SFF 0356	Risk Manager 22	There is a risk that New ves sabotage
Aus SFF 0348	Risk Manager 24	There is a risk that smaller f alongside large vessels
CHI BEB 0333	Risk Manager 31	There is a risk that New vah may not be suitable
JPN TWB 0338	Risk Manager 39	There is a risk that Buses m landing platforms
DMK MOBT 0366		There is a risk that Unusal the carriage paint to peel m metal elements to rust
SPN MM 0390		There is a risk that Metro st
ITL RSE 0395		There is a risk that older dri the new high-speed scoote
UK LU 0010	Contractor A	There is a risk that Mainten misaligned between Custor
UK LU 1061	Contractor A	There is a risk that Mainten misaligned between Custor
NZ CSWT 0012	Risk Manager 17	There is a risk that 25 trains which are due to retire bet
M&S Contracts 0332	RM05	There is a risk that Mainten financially viable.
M&S Contracts 0281	Risk Manager 16	There is a risk of unaccepta exchange rates
UK LU 0326	Risk Manager 12	There is a risk that Terrorist impact smooth running of t
UK LU 0337	Risk Manager 13	There is a risk that Train da elements
UK LU 1057	Risk Manager 12	There is a risk that Terrorist impact smooth running of t
UK LU 1059	Risk Manager 12	There is a risk that Train da elements
USA CT 0355	RM10	There is a risk that Trams m environmental regulations
USA CT 0321	RM10	There is a risk that the lead delay production of tram
USA CT 0319	RM04	There is a risk that strike ac personnel could be conduct
NZ CSWT 0014	Risk Manager 19	There is a risk that mechani requirements standards
NZ CSWT 0352	Risk Manager 15	There is a risk that Trains m environmental requirement
Aus SFF 0374	Risk Manager 24	There is a risk that Roads b transport large ferries acros
Aus SFF 0372	Risk Manager 23	There is a risk that Navigati some routes
Arg BAS 0335	Risk Manager 25	There is a risk that Electro T greatly effective.
Arg BAS 0376	Risk Manager 27	There is a risk that Parts of safe for the English Royal Vi
CHI BEB 0358	Risk Manager 33	There is a risk that manufa available on time
JPN TWB 0330	Risk Manager 36	There is a risk that Current meet quality standards

Risk Detail (Right Pane):

Review Record
Last reviewed today by manager: **RM05**

Definition
Code: UK LU 0336
Risk: Severe weather damage sustained by tracks over 4 months

Summary
Severe weather damage

Causes
• Electric boxes and tracks damaged due to lightning, frost and extremely low temperatures

Effects
• Trains may need to be adapted for future severe weather
• Ballast issues

Responsibility, Classification & Timeline

Owner	Manager	Classification	Category
Risk Manager 3	RM05	Operational	Safety

Location	Proximity	Start Date	End Date
Europe - London	-1730	13.07.16	01.04.17

Scenarios & Impacts

Impact	Level	Pre-mitigated			Current			Target				
		Min	Exp	Max	Level	Min	Exp	Max	Level	Min	Exp	Max
Prob	Very High		85%		High		62%		Low		42%	
Cost	High	£7,094,694	£17,736,735	£28,378,777	Medium	£709,469		£7,094,694	Low	£709,469		£7,094,694
Time	High	32.0d	60.0d	90.0d	Low	4.0d	7.0d	10.0d	Medium	11.0d	25.0d	31.0d
Performance	Medium				Medium				Low			
Reputation	Medium				Low				Low			
Health And Safety	Medium				Low				Low			
Legal					Low							

Treatment & Actions

Primary Treatment Objective
Develop new processes or technology to safe guard equipment.

Primary Type: Treat
Owner: RM06
Primary Effectiveness: Improvement required (25-60% successful)
Primary Status: Live

Actions

Code	Name	Description	Owner	Instance	Finish ...	Progress	Act Stat...	Current...
A0768	Redesign trains	Redesign trains		Response		0	Not-Approved: Effective	0
A0338	Have a supply of ballast			Fallback		0	Not-Approved: Ineffective	0
A0096	Agree way forward with Customer	Work with customer to understand the findings and how the current maintenance contract can cope. If not, how the contract can be updated to address extra costs.	Risk Manager	Control	01.03.17	100	Completed: Effective	0
A0095	Gather information on	Identify critical or single point parts that may be damaged. Understand the suppliers, lead times, costs and potential	RM06	Control	01.12.16	100	Completed: Effective	0

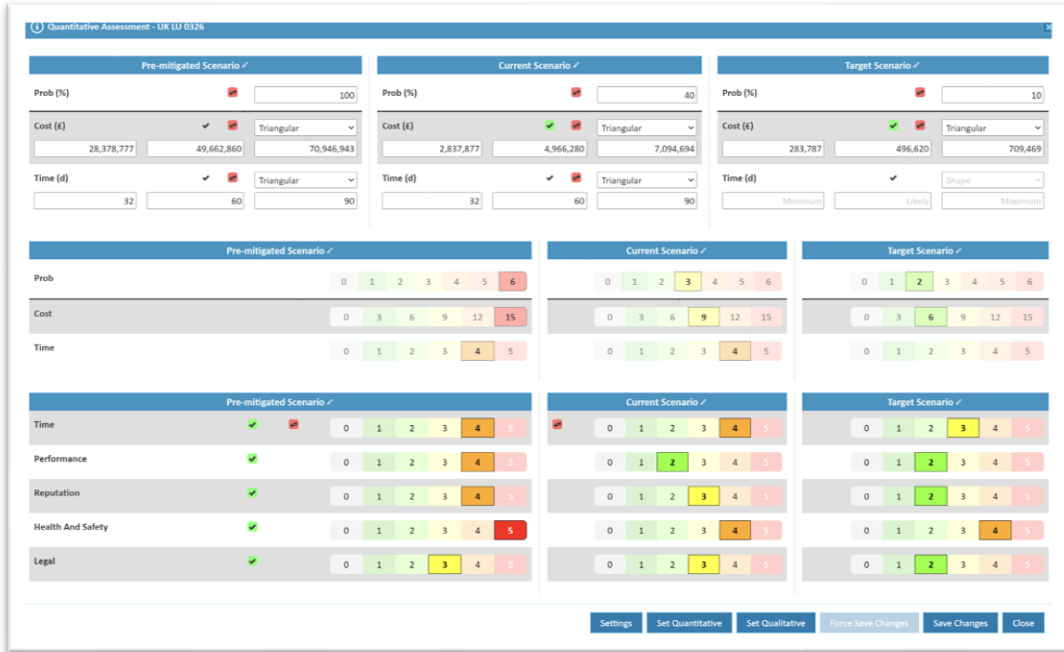
Navigation: < Previous Sign Off... Next > Edit... Print Close

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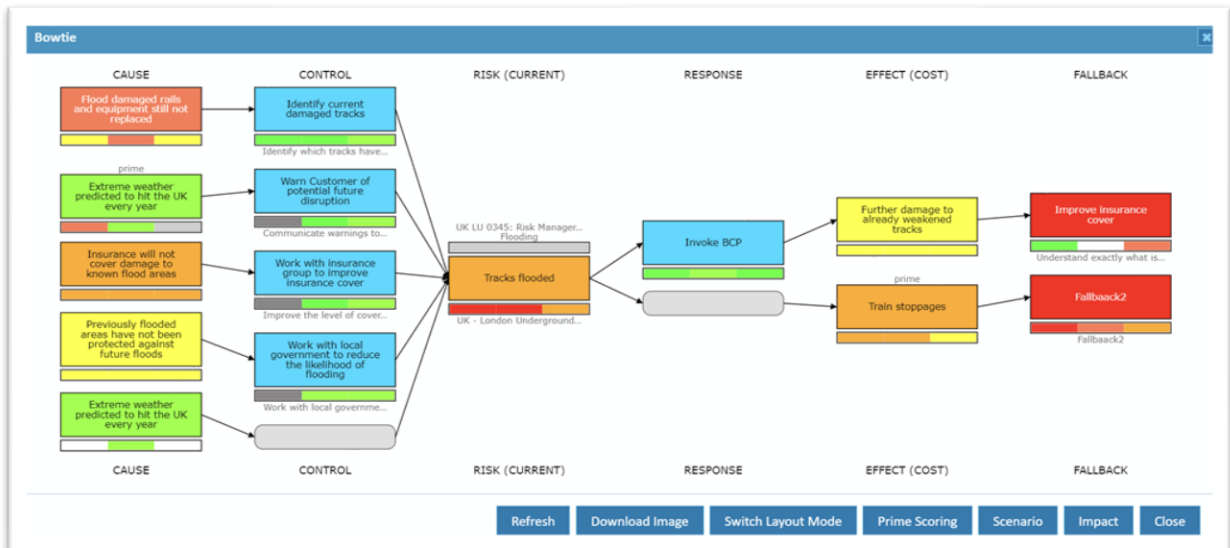
Custom Hybrid scoring mode

Facilitates a combination of quantitative and qualitative scoring on one screen. Enforce the use of quantitative data input where appropriate – the system automatically calculates the qualitative equivalent score so all the heatmaps still work.



Bow-Tie Graphical Interface

The interactive graphics of our Bowtie visualiser allow the user to define the threat-space more effectively by describing not just risk line items but multiple causes and effects, active controls, and fallback actions. The risk information in the database can be edited and added to using the graphical interface with all changes being committed back to the system database. Bowties can also be generated from multiple risks or word-searches.

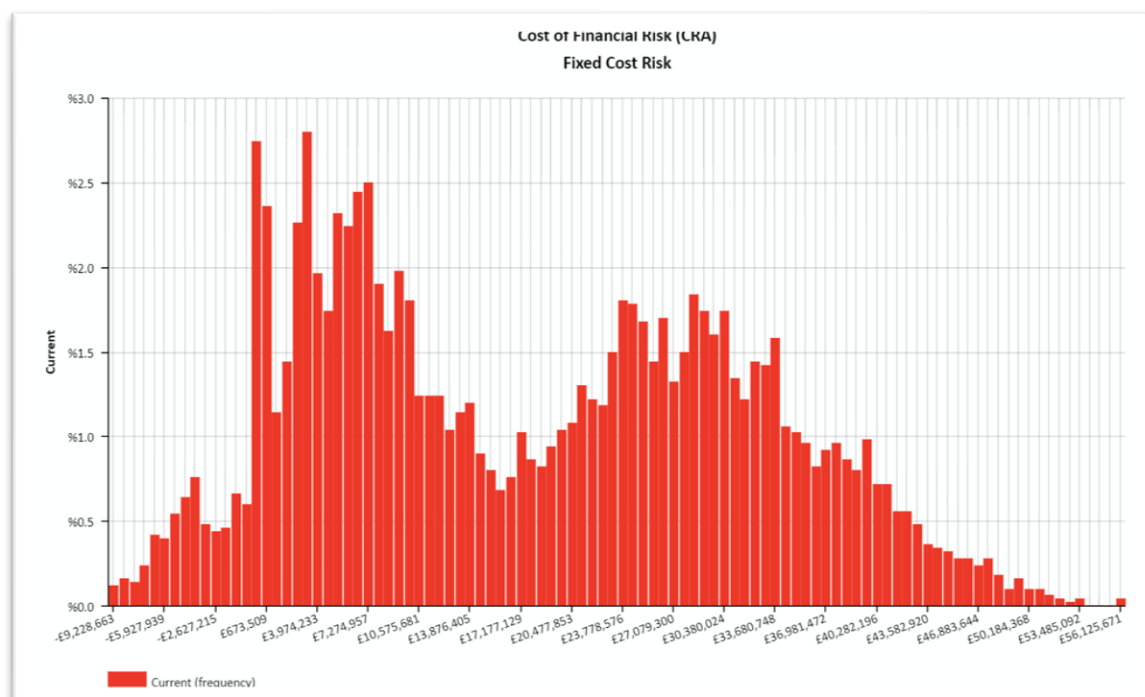
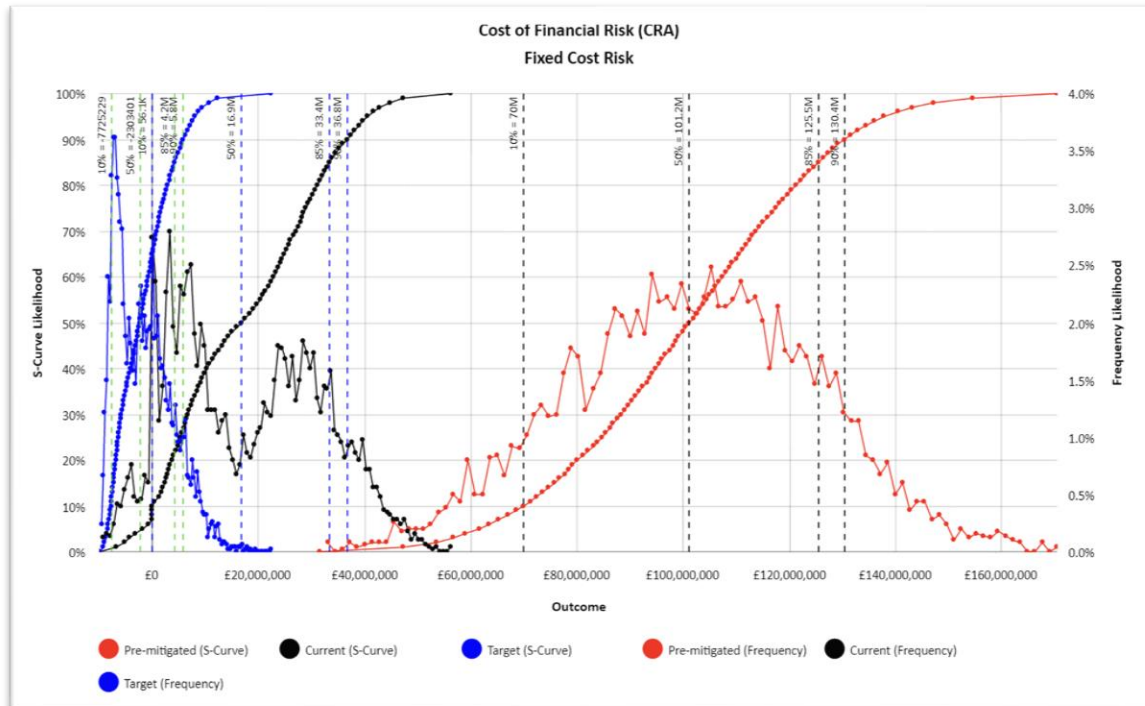


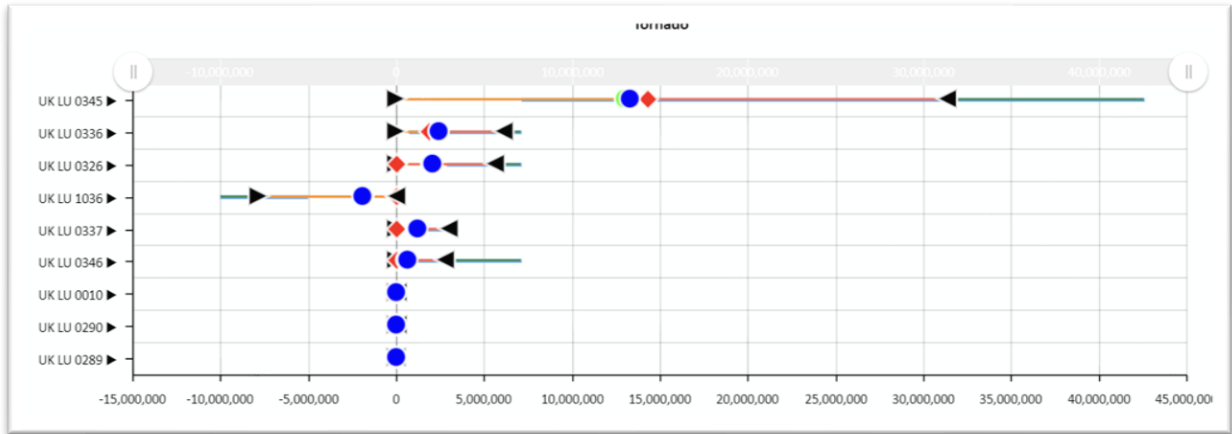
True Monte Carlo Simulation for Cost (CRA)

Online risk analysis of cost based on filtered and sorted data is as simple as clicking a mouse. Multiple scenarios such as Pre, Current and Post mitigation can be run simultaneously and compared side by side on a single graph or chart which is drillable.

Standard outputs such as S-curves, histograms and cost-risk tornadoes are all easily produced for no additional effort and all data can be exported to Excel files. Analysis can even be aggregated through the hierarchical tree structure which gives statistically correct views at project, programme and portfolio level.

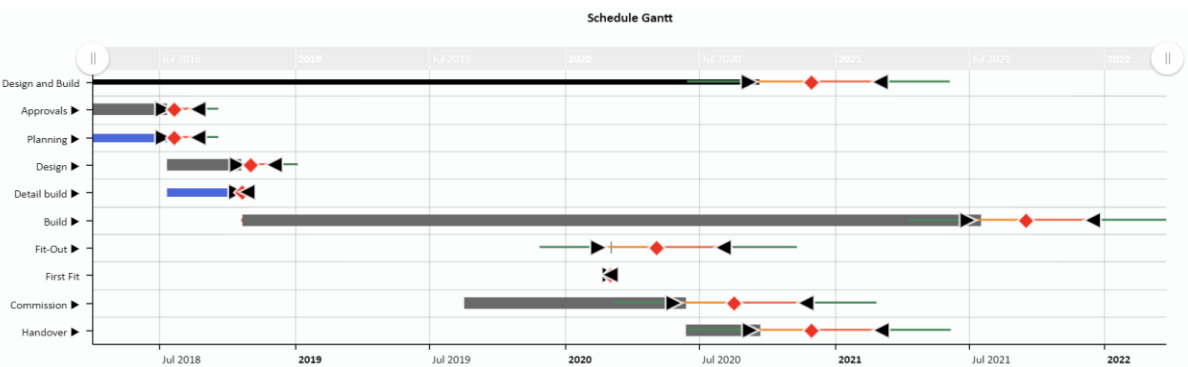
All simulations and results are archived and can be easily retrieved.





Schedule Risk Analysis (SRA) including Cost (JCSRA)

Our built-in scheduler can be used to create nested schedules using the simple online interface without the need for external plans from P6 or Project if they do not exist, although they can be imported using simple file translation. Risks can be associated with tasks or phases and monte carlo analysis calculates the combined effect on cost from both cost and schedule extension perspectives, as well as durations and finish dates. S-curves, tornadoes and risk-adjusted Gantt charts advise the risk or project manager.



Word Clouds

Word clouds expose common themes and subjects by displaying the most frequently occurring words in the database. These can be filtered individually and composed of title, cause, effect, or all description fields.



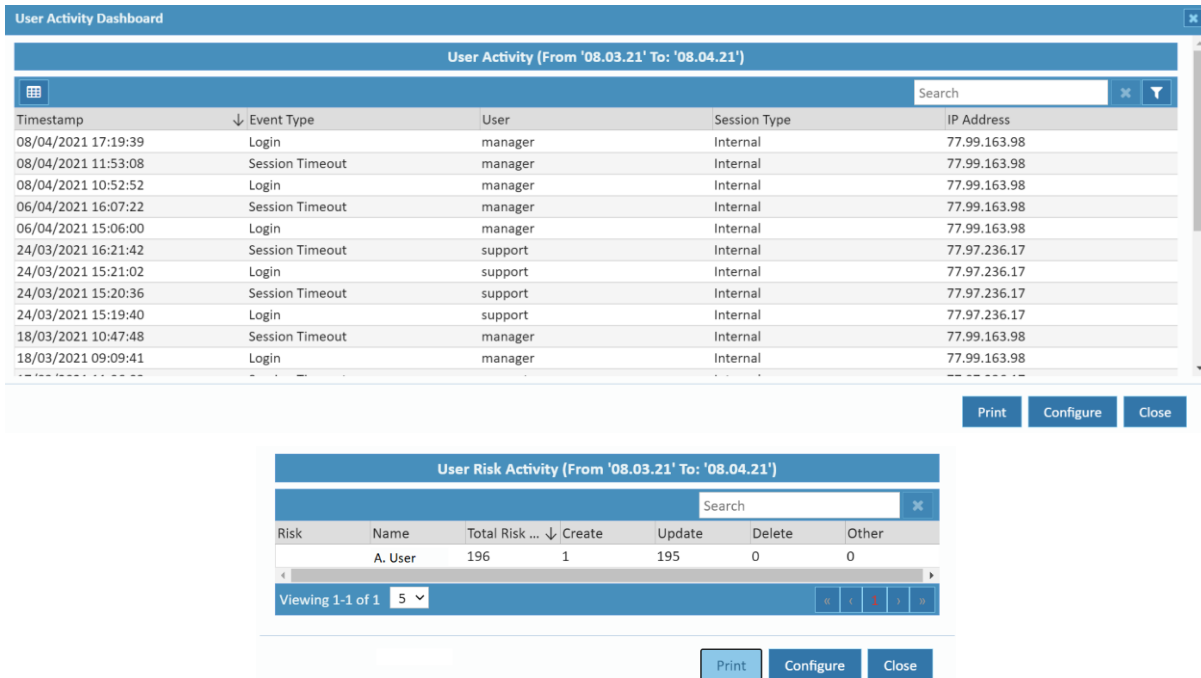
Duplicate / Common Risk / Sentence Finder

The system features an automated search facility to identify common words or even sentences within the database. All description fields may be interrogated and then applied as a filter to view in the main grid.

All			Current			Risks		
Code	Owner	Risk	Text Analysis					
Aus SFF 0374	Risk Manager	There trans	Risk Count	Word	Risks	Search?		
Aus SFF 0372	Risk Manager	There on so	14	damage	Aus SFF 0348, Aus SFF 0374, Aus SFF 0375, CHI BEB 0333, IRE DT 0403, IRE DT 0405, SPN MM 0386, UK LU 0336, UK LU 0337, UK LU 0345, UK LU 1055, UK LU 1059, UK LU 1063, USA CT 0370	X		
Arg BAS 0335	Risk Manager	There be gr	14	delays	CHI BEB 0359, CHI BEB 0360, DMK MOBT 0378, IRE DT 0401, IRE DT 0402, IRE DT 0404, IRE DT 0405, NZ CSWT 0352, NZ CSWT 0353, UK LU 0290, UK LU 1056, USA CT 0280, USA CT 0319, USA CT 0321	X		
Arg BAS 0376	Risk Manager	There safe f	12	Customers	Aus SFF 0373, CHI BEB 0333, CHI BEB 0347, DMK MOBT 0367, IRL RSE 0400, JPN TWB 0338, M&S Contracts 0281, M&S Contracts 0443, SPN MM 0388, SPN MM 0389, UK LU 0346, UK LU 1062	X		
CHI BEB 0358	Risk Manager	There be av	12	trains	DMK MOBT 0368, DMK MOBT 0378, DMK MOBT 0380, NZ CSWT 0011, NZ CSWT 0012, NZ CSWT 0352, UK LU 0010, UK LU 0326, UK LU 0336, UK LU 1057, UK LU 1061, UK LU 1063	X		
JPN TWB 0330	Risk Manager	There meet	10	maintenance	Arg BAS 0376, DMK MOBT 0367, DMK MOBT 0368, JPN TWB 0331, M&S Contracts 0320, M&S Contracts 0332, NZ CSWT 0011, UK LU 0010, UK LU 1061, USA CT 0319	X		
JPN TWB 0339	Risk Manager	There Busen	10	train	Arg BAS 0382, Arg BAS 0383, DMK MOBT 0367, DMK MOBT 0368, DMK MOBT 0379, NZ CSWT 0353, UK LU 0337, UK LU 0345, UK LU 1055, UK LU 1059	X		
JPN TWB 0331	Risk Manager	There Busen	Sentences					
DMK MOBT 0380	There could Sved		Risk Count	Sentence	Risks	Search		
IRE DT 0404	There wast		2	Loss of life	Arg BAS 0383, SPN MM 0386			
IRE DT 0401	There track		2	Water Buses may need to be removed from service	JPN TWB 0329, JPN TWB 0330			
M&S Contracts 0320	There addit		2	Maintenance records may be misaligned between Customer	UK LU 0010, UK LU 1061			
M&S Contracts 0996	Risk Owner 1	There deple	Word Cloud Clear Grid Search Print Configure Close					

User Access Logging & Activity Reports

The system keeps track of users logging-in and logging-out and also records what they have done so activity can be viewed over time. This makes it simple to identify users with the most and least data update activity.



User Activity Dashboard

User Activity (From '08.03.21' To: '08.04.21')

Timestamp	Event Type	User	Session Type	IP Address
08/04/2021 17:19:39	Login	manager	Internal	77.99.163.98
08/04/2021 11:53:08	Session Timeout	manager	Internal	77.99.163.98
08/04/2021 10:52:52	Login	manager	Internal	77.99.163.98
06/04/2021 16:07:22	Session Timeout	manager	Internal	77.99.163.98
06/04/2021 15:06:00	Login	manager	Internal	77.99.163.98
24/03/2021 16:21:42	Session Timeout	support	Internal	77.97.236.17
24/03/2021 15:21:02	Login	support	Internal	77.97.236.17
24/03/2021 15:20:36	Session Timeout	support	Internal	77.97.236.17
24/03/2021 15:19:40	Login	support	Internal	77.97.236.17
18/03/2021 10:47:48	Session Timeout	manager	Internal	77.99.163.98
18/03/2021 09:09:41	Login	manager	Internal	77.99.163.98

Print Configure Close

User Risk Activity (From '08.03.21' To: '08.04.21')

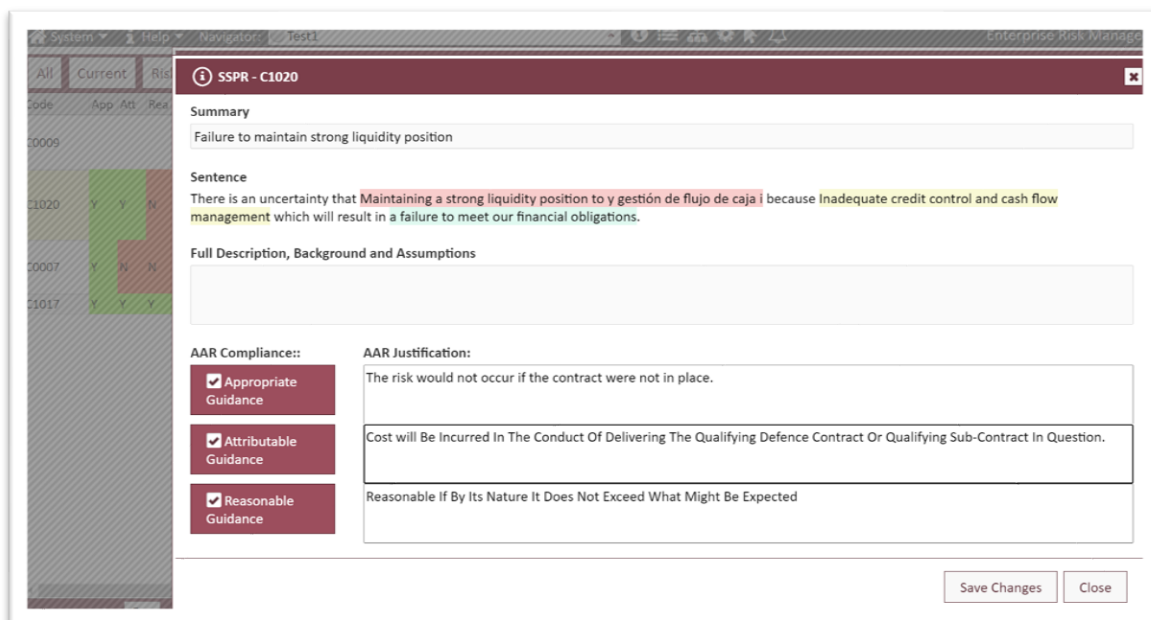
Risk	Name	Total Risk ...	Create	Update	Delete	Other
	A. User	196	1	195	0	0

Viewing 1-1 of 1 5

Print Configure Close

AAR Compliance (UK Single Source Pricing Regulation)

The system provides a facility for capturing AAR justification data for each risk (Appropriate, Attributable and Reasonable) and checkbox compliance status.



System Help Navigator: JG91 Enterprise Risk Manager

All Current Risks

SSPR - C1020

Summary
Failure to maintain strong liquidity position

Sentence
There is an uncertainty that Maintaining a strong liquidity position to y gestión de flujo de caja i because Inadequate credit control and cash flow management which will result in a failure to meet our financial obligations.

Full Description, Background and Assumptions

AAR Compliance:

- Appropriate Guidance
- Attributable Guidance
- Reasonable Guidance

AAR Justification:

The risk would not occur if the contract were not in place.

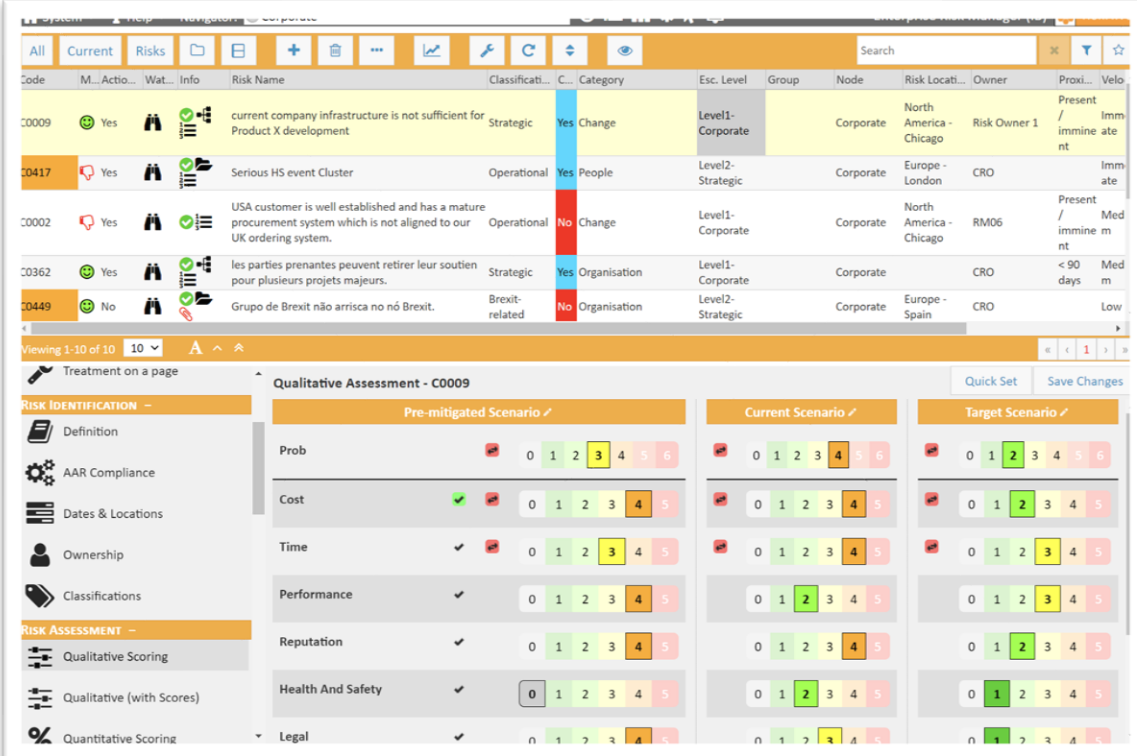
Cost will Be Incurred In The Conduct Of Delivering The Qualifying Defence Contract Or Qualifying Sub-Contract In Question.

Reasonable If By Its Nature It Does Not Exceed What Might Be Expected

Save Changes Close

Inline risk editor

An inline editor function allows data entry and update of single or multiple risks at once. This interface also facilitates the side-by-side comparison of metadata for up to 5 risks at any one time – useful when comparing similar risks across the breadth of a risk portfolio.

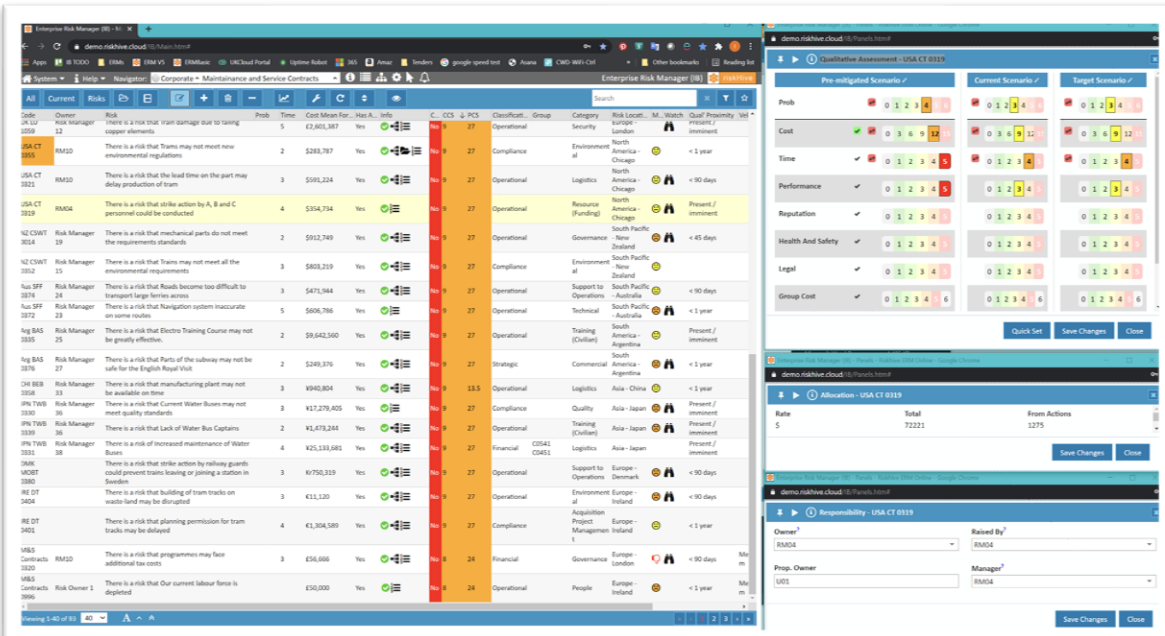


The screenshot displays the 'Enterprise Risk Manager' interface. At the top, there is a navigation bar with tabs for 'All', 'Current', and 'Risks'. Below this is a table of risks with columns for Code, M...Actio..., Wat..., Info, Risk Name, Classific..., C..., Category, Esc. Level, Group, Node, Risk Locati..., Owner, Proxi..., and Velo. The table lists several risks, including C0009, C0417, C0002, C0362, and C0449.

Below the table, there is a section for 'Qualitative Assessment - C0009'. This section is divided into three columns: 'Pre-mitigated Scenario', 'Current Scenario', and 'Target Scenario'. Each column contains a grid of risk factors (Prob, Cost, Time, Performance, Reputation, Health And Safety, Legal) with corresponding scores (0-6) and status indicators (green, yellow, red).

Synchronous Multiple edit windows

Synchronised multiple windows allow an array of data entry and update screens to be viewed simultaneously, where you want to see multiple aspects of each risk all at once.

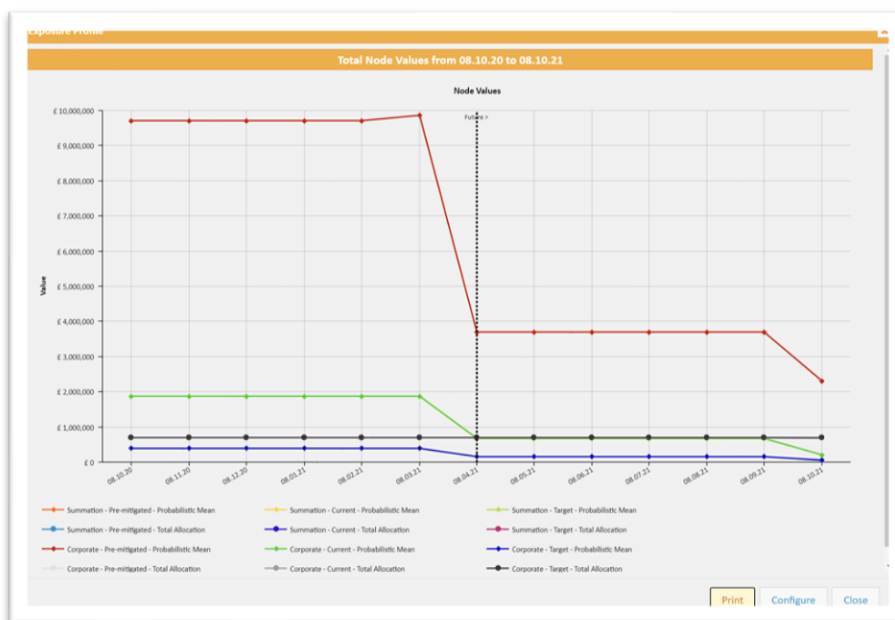


The screenshot shows the 'Enterprise Risk Manager' interface with multiple windows open. The main window displays a table of risks. Several other windows are open in the foreground, showing detailed views of specific risks, including 'Qualitative Assessment', 'Risk Identification', and 'Risk Assessment' screens. These windows are synchronized, allowing for simultaneous data entry and updates across different aspects of the risk portfolio.

ERM Dashboards and reports

Risk Exposure Waterfall Chart

A fully user-configurable chart showing quantitative exposure and mitigation spend for all scenarios and levels within the nodal hierarchy, including node aggregation. Rebuild the chart on the fly with live-edit functionality.



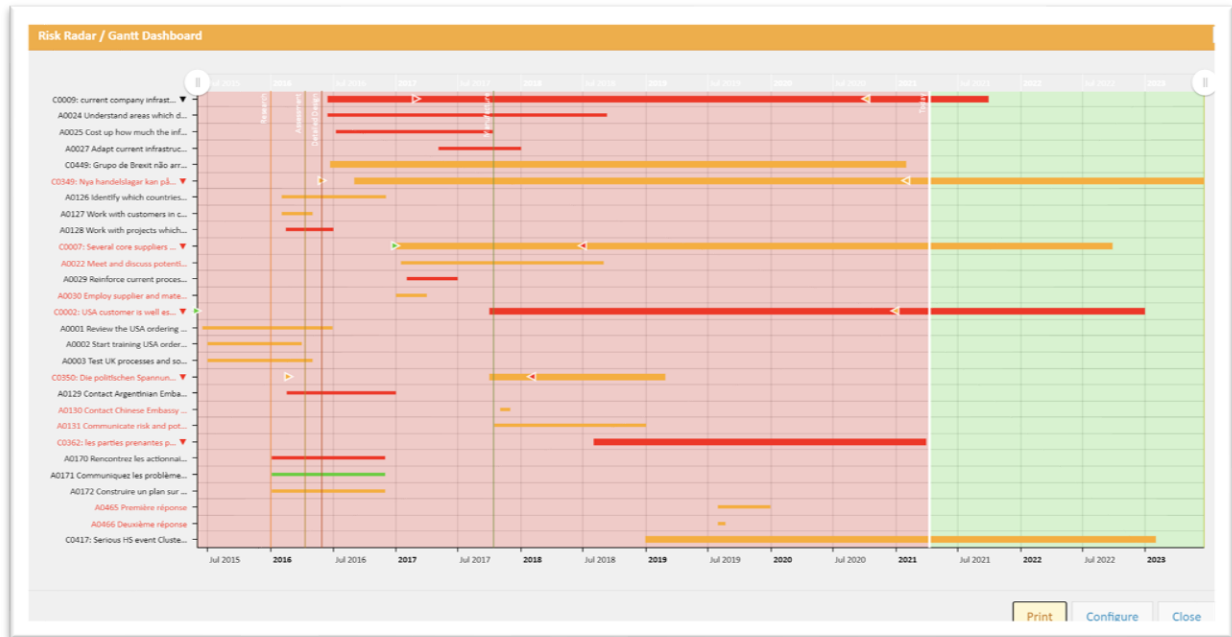
Risk Summary Dashboard

A graphical view of the profile of risk by status, scoring level and classification with lists of Top 'n' risks by fiscal impact and by closest proximity to being active. Can aggregate from node and descendant nodes.



Risk Radar Gantt Chart

Risks and their associated actions are displayed in gantt format on a timeline that includes project or business phases and milestones, showing graphically when risk exposure and mitigation planning is active. The chart is interactive and clickable to edit risk or action dates or assessment parameters. Can be built from a whole portfolio.



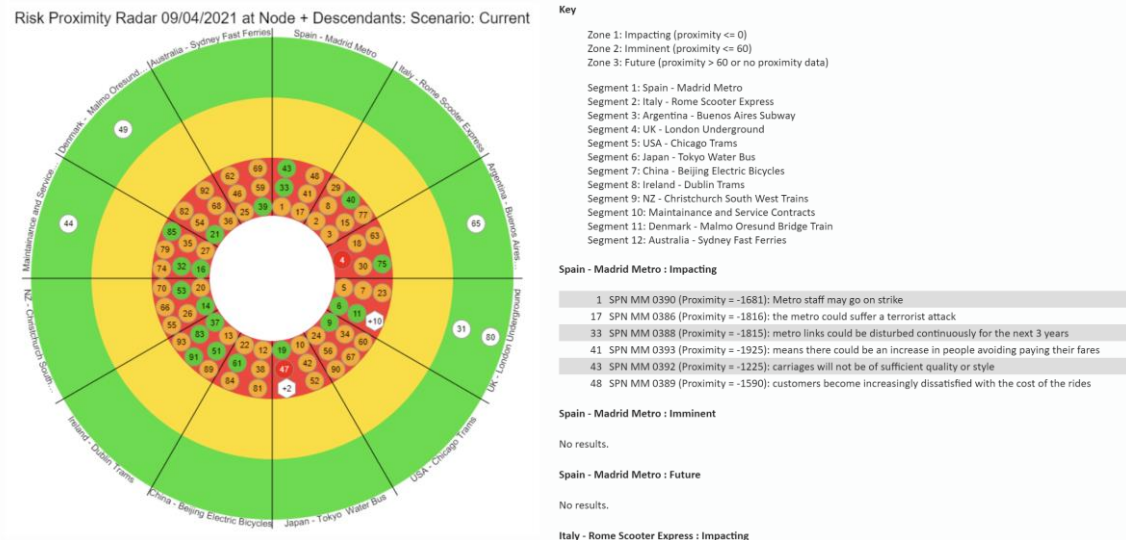
Risk Landscape Chart

Get a graphical view of your risk landscape that shows you which projects or nodes are risk hotspots and see how peer-level projects compare with each other. Select from up to six different risk measurement parameters.



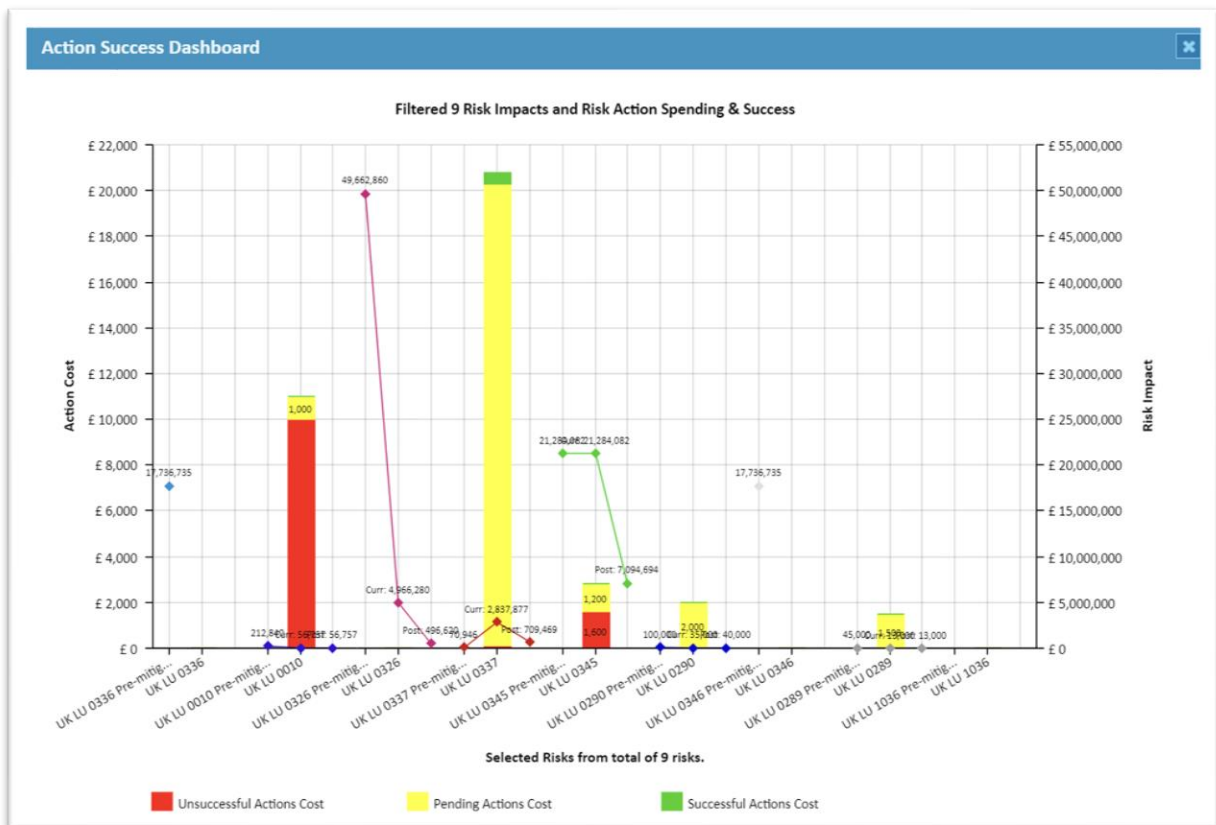
Risk Radar Radial Chart

Risks or project nodes displayed on a clickable radial 'bullseye' chart helps focus on the significant risks. Configurable using risk parameter selections.



Control Action Effectiveness Chart

Displays how much has been spent on actions that have been either successful or unsuccessful and indicates how much is left to spend on pending actions.

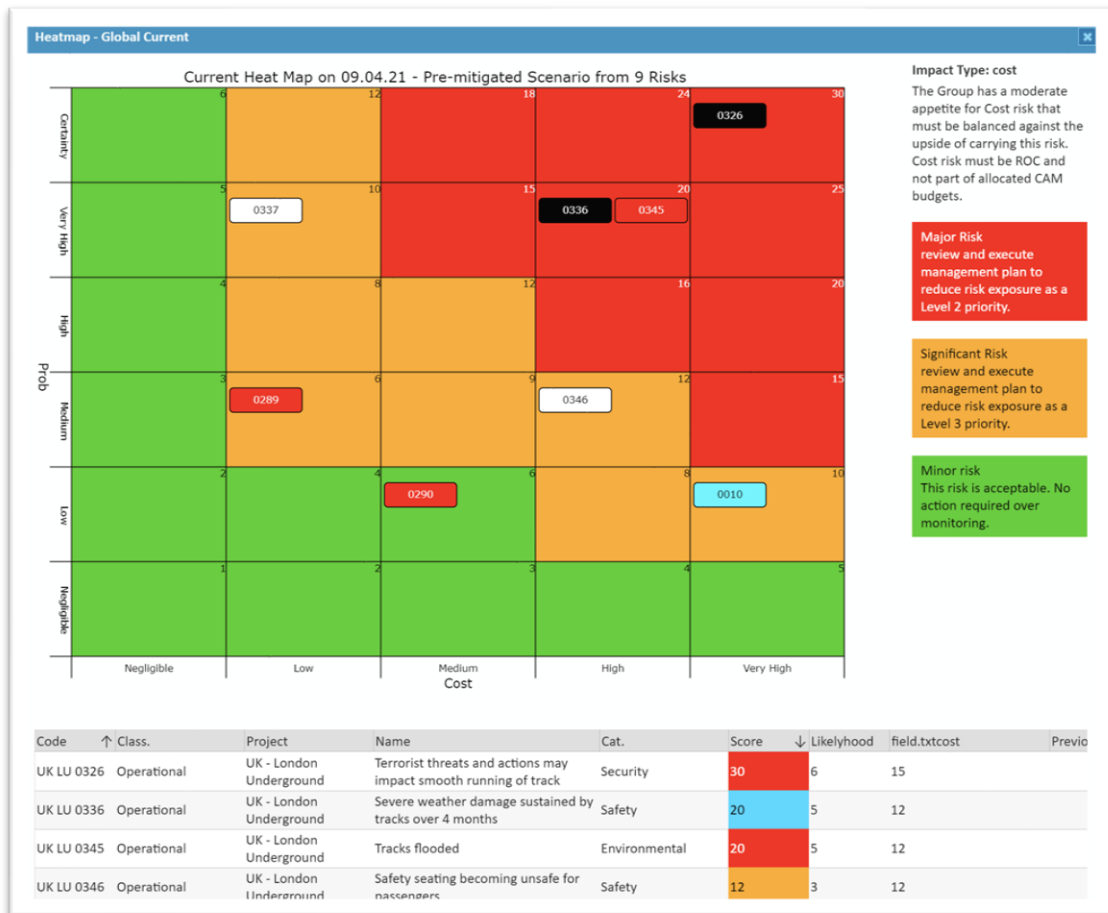


Risk Appetite Summary Heatmaps

Display all PID heatmaps with their independent appetite articulation colours and scoring and drill-down to each individual heatmap to access any perspective and any risk.

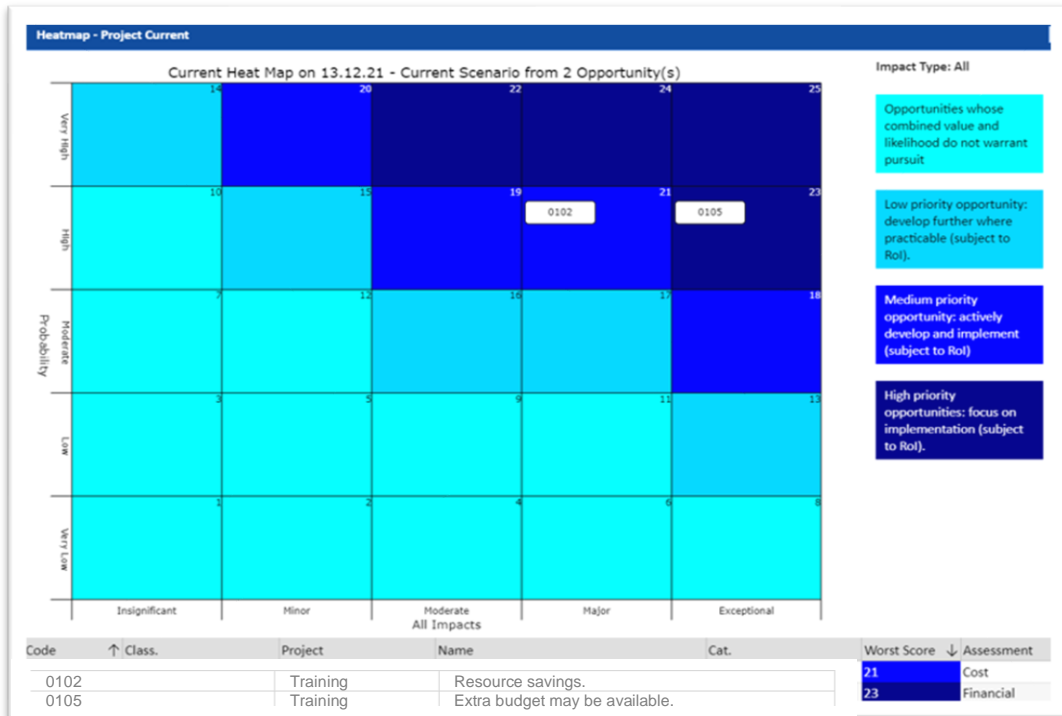


Click-through to generate familiar PID heatmaps for any scored impact type for any mitigation scenario. Another click-through takes you straight to the threat detail.

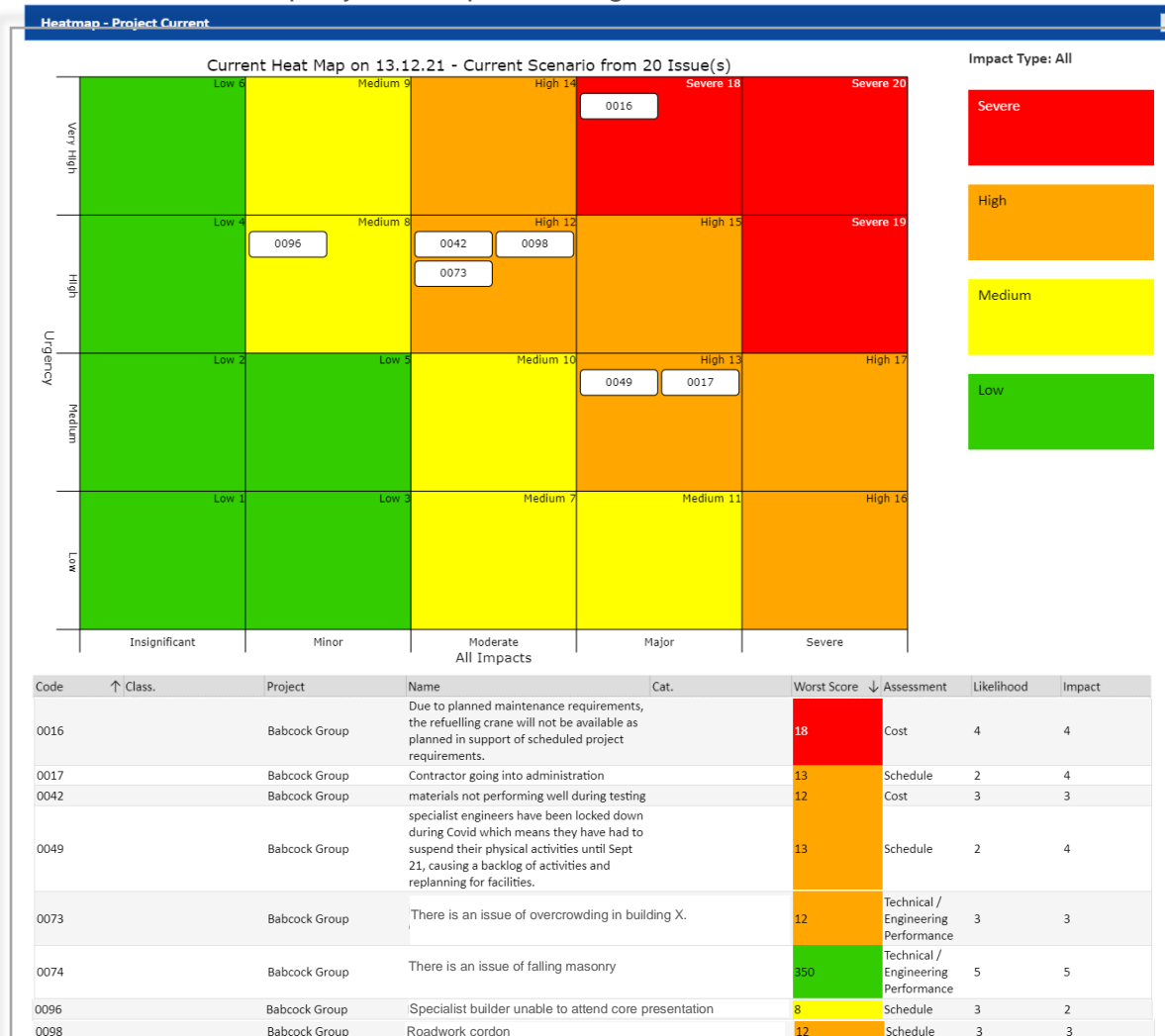


The heatmap can be configured to show the number of threats in each cell instead of threat references.

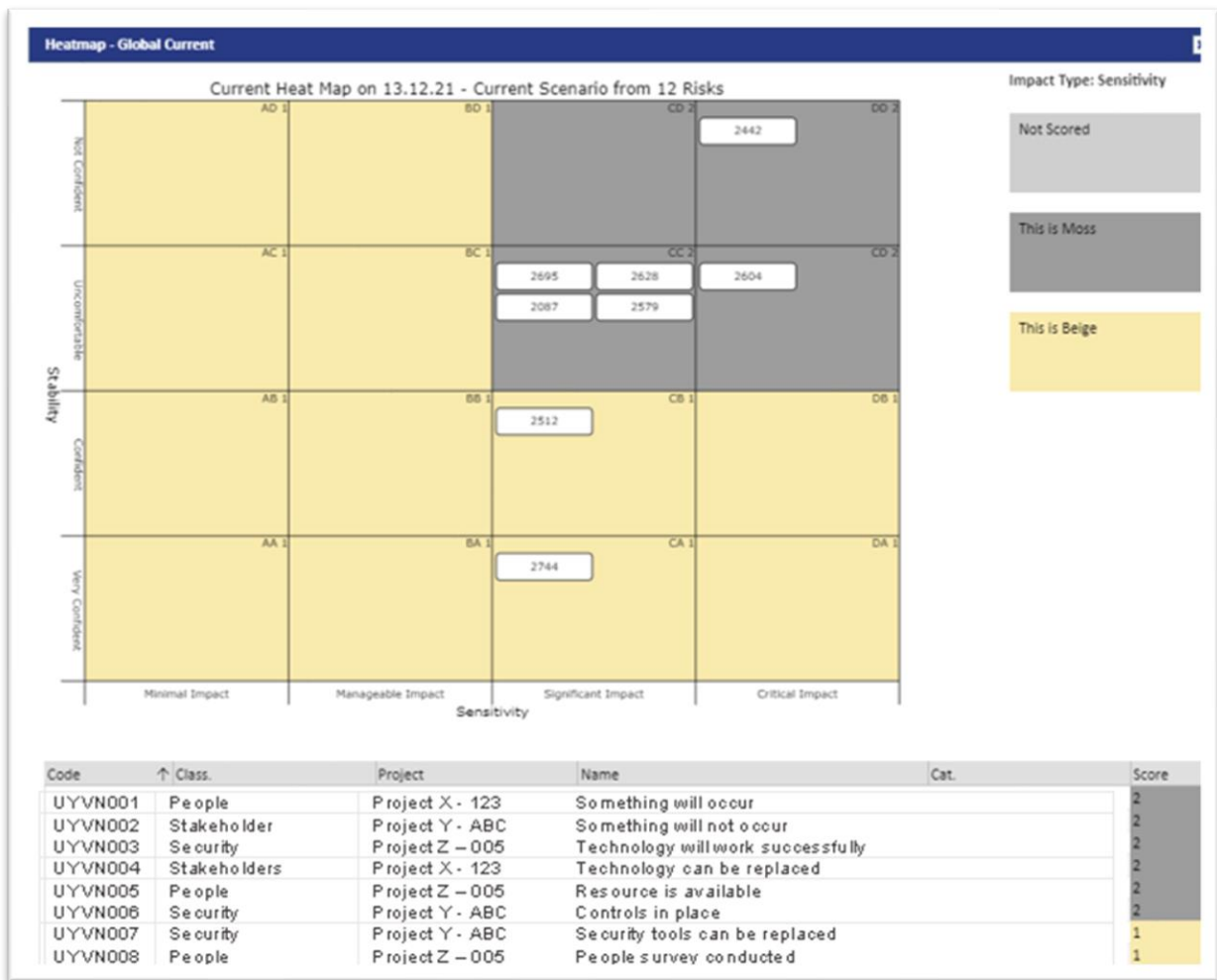
A heatmap can be generated for most records. Below is an Opportunities heatmap.



The heatmap colours adapt to relate to a threat, opportunity, issues or assumption. Equally heatmaps can be generated for Issues.



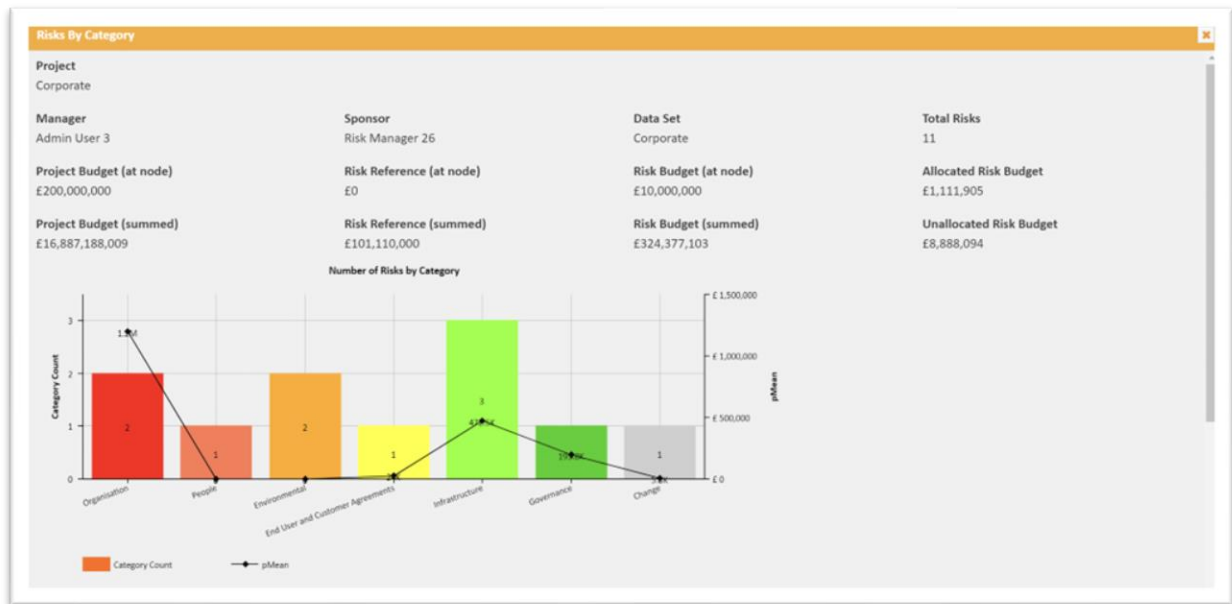
Or heatmaps can be produced for Assumptions.



As with the above, all heatmaps can be configured, in this case to a 4x4 matrix. Cell references, numbering and colours can be configured.

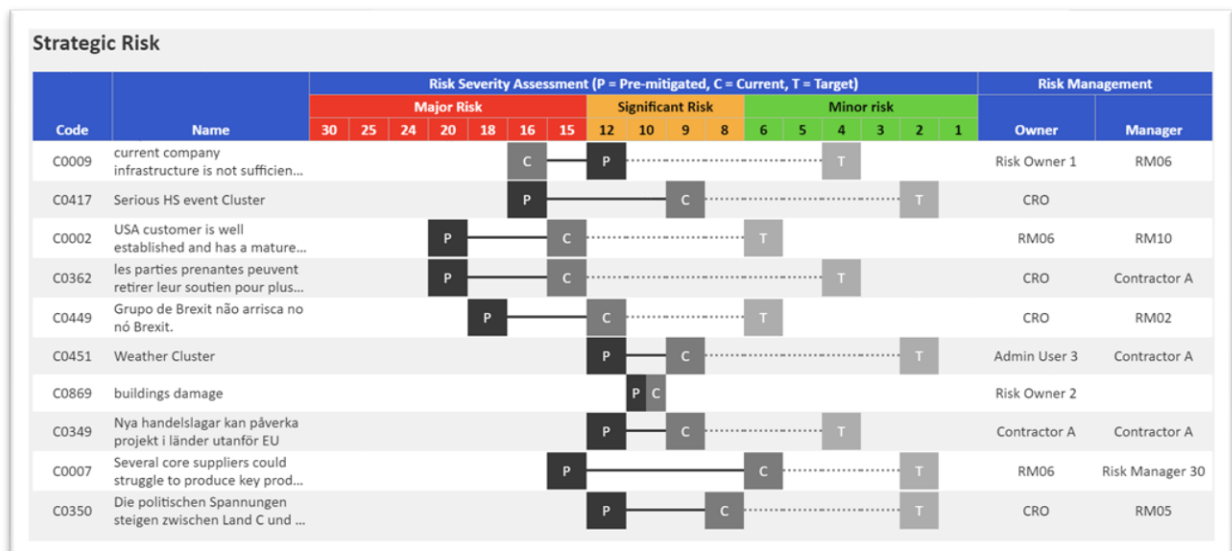
Risk Profile Chart

Understand the nature and distribution of risk types that your business is exposed to. This chart provides a summary of risks and a histogram of number of risks in each category plus the quantitative risk exposure for each category.



Risk Reliance Chart

Understanding the deltas between scenarios (e.g., Pre, Current and post) can help understand where the focus of effort needs to be applied to achieve target scores. The risks that have the biggest difference between the pre and post scores are the ones that are most reliant on the mitigation actions for effective risk management and those risks with the biggest deltas between current and post are where the most effort is needed.



RIC-ROC Chart

The UK MoD developed and uses a means of assessing and reporting fiscal risk which relies on the categorisation of risk being either inside or outside planned cost provision. Aside from the ability to improve risk allocation planning capability the balance of RIC (Risk Inside Cost) and ROC (Risk Outside Cost) is a good indicator of the degree of effectiveness of the overall risk management strategy and actions plan.

