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Delivering Improvements

Case Study
Risk Based Maintenance

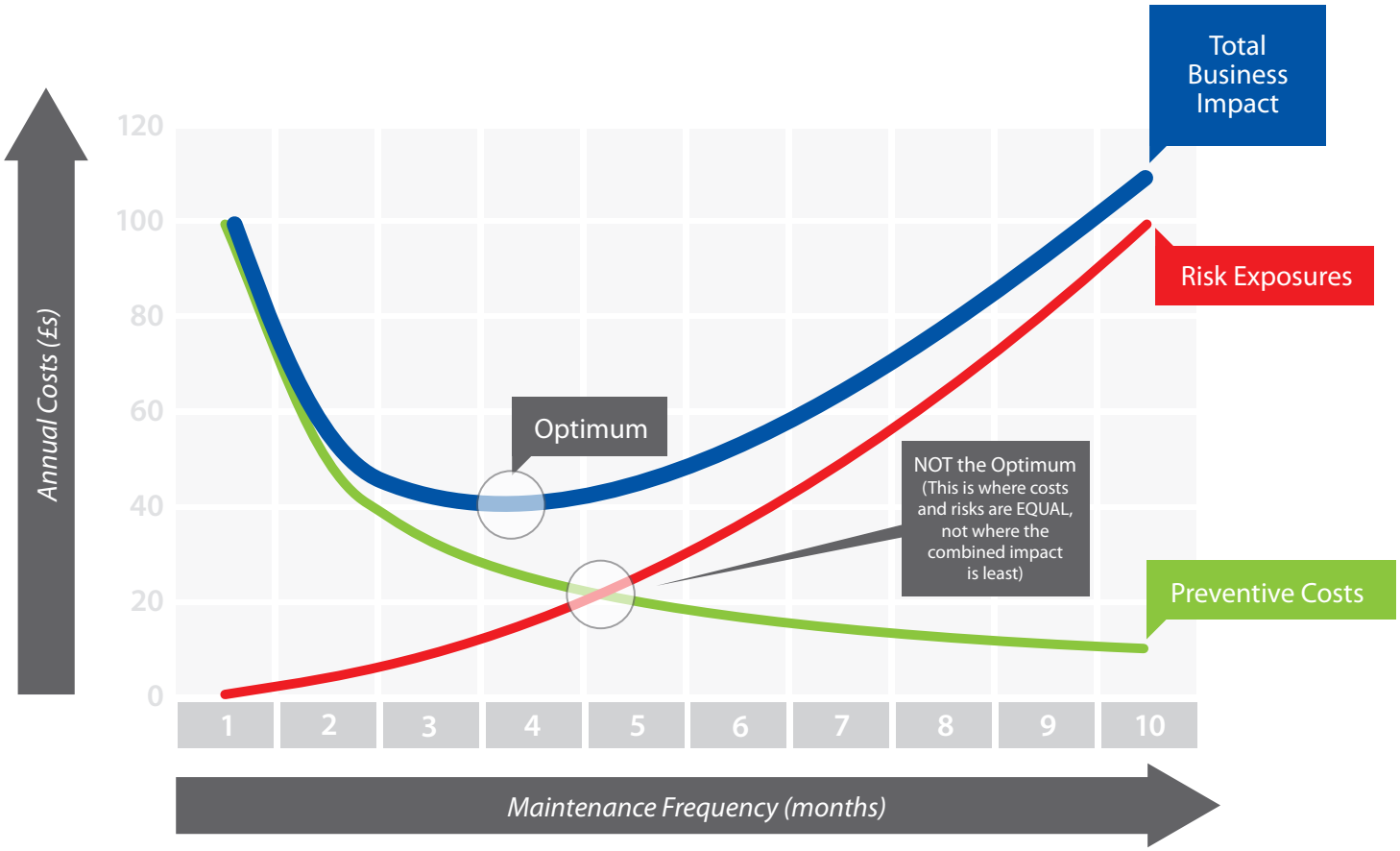
Client
various

"20% - 30% reduction in costs with no increase in risk"

Over the past 5 years, AMCL has been working with both UK Mainline and Light Rail operators to optimise their safety-critical signalling asset maintenance regimes. By evaluating asset failures, performance and risk we have been able to help the client develop and implement optimised maintenance regimes that are cost-effective and safe for their operating environment.

We use established Reliability-Centred and Risk-Based approaches, in combination with specialist software tools. There have been proven in a number of railway and other industry applications as effective in reducing overall resource requirements, whilst still delivering significant improvements in operational performance and reliability.

The Risk-Based Maintenance process was developed in order to take account of the differing financial and safety risks associated with assets in different operating environments, with specific targets to reduce maintenance and inspection resource requirements and to deliver consistent and sustained performance and reliability improvements.



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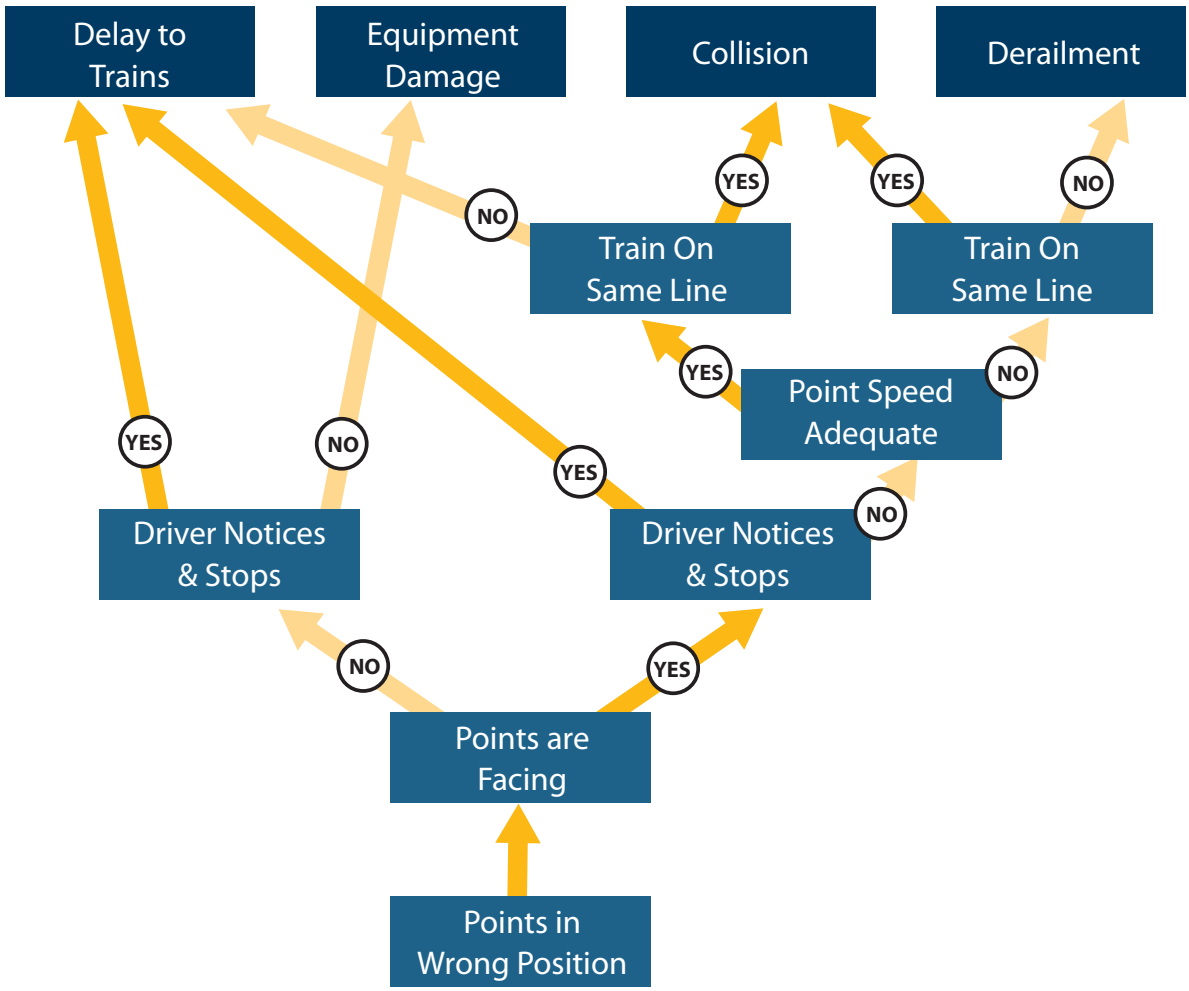
These approaches have been aligned with UK rail industry 'Yellow Book' engineering safety management guidance, and include specific analysis techniques such as:

- Failure Mode and Effects Analysis
- Hazard and Operability Studies
- Fault Tree Analysis
- Cause Consequence Diagramming



The results of the analysis allows organisations to better align its inspection and maintenance requirements to the assets that represent the highest risk. Benefits vary from client to client but typically organisations identify savings of 20% -30% of operating expenditure whilst improving performance and risk exposure

In addition to delivering maintenance and inspection productivity and asset performance improvements, the work also provided our clients with a better understanding of the exact nature of the impact of the operating environment on the deterioration of assets.

IET

Our risk-based approach to optimising the maintenance regimes for safety-critical assets was a finalist in the Asset Management category of the IET 2006 Innovation in Engineering Awards.

Further information can be obtained on our website or from our global office network

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