

CHALLENGES YOU MIGHT FACE WITH ASSET INTEGRITY

Equipment failures cost the US refining industry over **\$4 billion** per year and **\$75 billion** in well integrity failures

[Scott 2016].

A strategic plan to optimize and continuously manage assets and asset systems will maximise performance and reduce risks and costs throughout your assets' lifecycle.

[Ramasamy and Yusof 2015].

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Understanding your assets

To optimize assets, reduce costs and ensure safe operation it is essential to have a comprehensive understanding of your assets. The RBI Approach provides a clear picture of cumulative risks, deterioration mechanisms, and historical data to optimize and improve asset management strategies.



Knowledge transfer

A reliable system for transferring knowledge between personnel within your organisation is critical to maintaining safe operations. The operating system should be interconnected to prevent loss of information and function cohesively [Kusumawardhani and Markeset, 2014].



Securing data

Data security is a growing concern as businesses rely increasingly on smart technology, networks and data that is transferred between internal and external users [Kusumawardhani and Markeset, 2014]. Integrated data systems need to ensure asset data and other information will deliver seamless information. The importance of data quality and reliability is also a growing issue. The quality of the data is highly dependant on the reliability and validity of data input.



Human Error

Studies show that **80% of significant scale accidents** stem from both **human and organizational error**, with only 20% involved in technicality [Lardner and Fleming (1999)]

Major causes of significant scale accidents

Human error stems from a variety of sources; from non-user friendly operational procedures to lack of experience [Bale and Edwards 2008], communication breakdown, lack of collaboration, and compliance [Rahim, Refsdal and Kenett 2010].

The attitude of personnel has a significant impact on asset integrity. Over confidence can lead to lack of awareness, equipment errors, organizational weakness, risk management issues with inspection and maintenance, and importantly in health and safety assessments which may lead to critical incidents [Kletz 1988].



Impact of Human Error and organizational Weakness on Plant Accidents.



Understanding the challenges and optimizing asset integrity management is beneficial for the long term success of your business.