UC3. Asset Life Cycle Decision Support Tools

How do I manage the assets I have in terms of maintenance and renewals regimes?

The Institute of Asset Management

CHALLENGE

How can digital tools and analytics help in the specification and delivery of maintenance and renewals activities?

How do I know my regimes are risk-based, optimized and based on robust data?

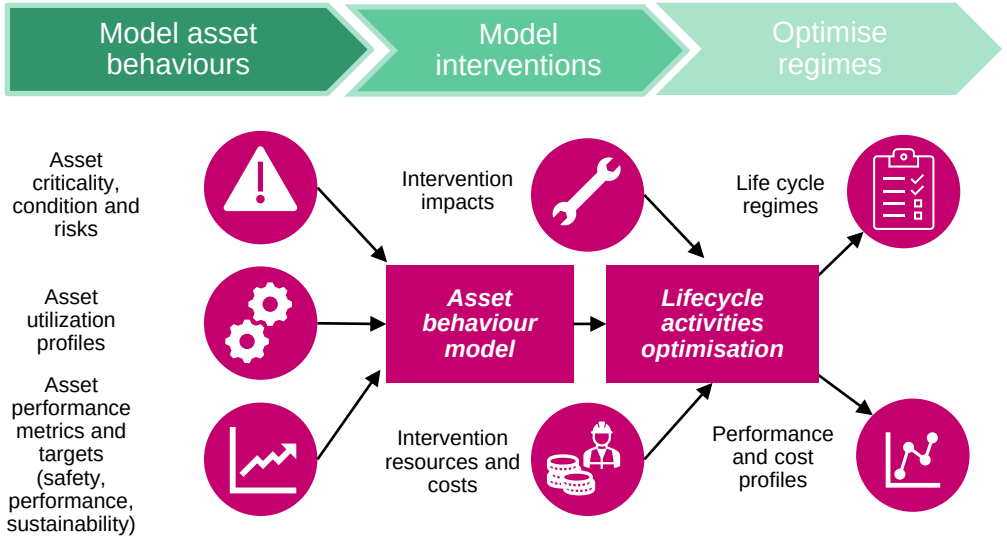
BENEFITS

- ✓ Improved buy-in from stakeholders
- ✓ Stronger business cases that prioritize investments and de-risk cost-benefit analysis
- ✓ Better outcomes from internal/external reviews due to robust, auditable, evidence-based plans

SOLUTION

An integrated suite of decision support tools that model asset behaviors and the expected impact of interventions over the life cycle.

By understanding the trade-offs between performance, risk and costs, organizations can justify (and optimize) their asset life cycle strategies, asset maintenance and replacement regimes.



FOUNDATIONAL

- Understanding of asset performance, condition, risks and interventions (impacts and resources required), including metrics
- Current / OEM specifications for interventions

NO REGRETS

- Codification / capture of risks
- Evaluate interventions (costs vs. impacts)
- Simple **asset life cycle models** (spreadsheet or basic simulation) of different regimes

GAME CHANGERS

- Feedback outcomes from using advanced analytics (e.g. **AI/ML**) to understand 'best intervention options'

! Establishing key metrics for decisions; Defining appropriate level of granularity; Eliciting knowledge from engineers / others

! Common currency for risks and interventions; Accessibility to data and a repository of info

! How will you engage engineers in designing and training the asset models and incorporate feedback to update them?