Context:

Monalco, a large iron ore mining company, and demand for iron has been increasing around the world and market prices have ramped up significantly to $110 per ton of iron ore. To accommodate market demand, Monalco has invested heavily in operating technologies such as ore-crushers and has poured money into maintenance to maximize production of iron ore.

Criteria for a successful solution:

Utilise models and quantitative analysis to identify areas where Monalco is spending more money than necessary.

Scope of the solution space:

Monalco has provided a number of datasets from which we can then use to visualize the manufacturing process and identify areas that can be downsized.

Constraints within the solution space:

- Can only cut one maintenance event at every 50,000 tons of iron ore processed, so this has to be taken into account in the data analysis.
- Data analysis cannot identify some manufacturing factors/errors accurately,

Stakeholders involved:

- Chanel Adams – Reliability Engineer
- Jonas Richards – Asset Integrity Manager
- Bruce Banner – Maintenance SME
- Jane Steere - Principal Maintenance
- Fargo Williams – Change Manager
- Tara Starr - Maintenance SME

Data sources required:

- Data Historian
- Ellipse
- SAP
- T3000 DCS
- Ore Crusher System