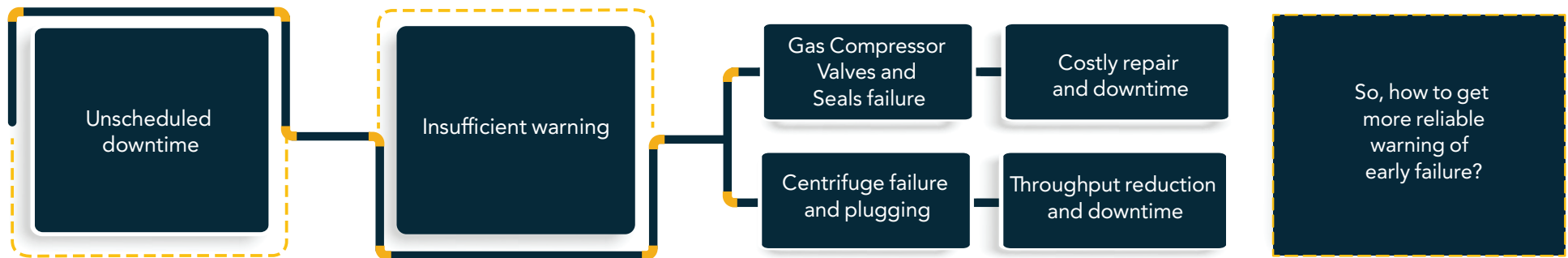


How Falconry helped anticipate failures and avoid downtime



Chemical manufacturers operate equipment that is exposed to harsh process conditions. Unexpected equipment degradation and failures cause throughput reduction and downtime in excess of \$285,000 per year.

Routine equipment inspections fail to uncover problems early enough. Methods like detection of "unusual noise" are already signs of impending equipment failure. Similarly, condition monitoring using vibration and torque sensors is used to detect events in which measurements are already out of range near the point of equipment failure.

If Gas Compressor valves and seals fail, the compressors will experience loss of capacity and eventually have to be taken out of service. Repairing or replacing faulty components takes time.

Centrifuges used to separate solids from liquids experience high loads or imbalance due to plugging of the solids outlet piping. Excessive mechanical loads and imbalance conditions result in unscheduled equipment shutdowns and early failure.

Falconry's AI discovered and learned to recognize patterns that **precede failures of Gas Compressors and Centrifuges.**

How?
Using Falconry, the customer was able to analyze process and condition data involving several assets at each production location to detect centrifuge failures 10 days in advance.

This enabled the maintenance engineers to prepare to service the equipment at the next scheduled maintenance period. Process engineers were able to determine what conditions in the process were causing the equipment to fail prematurely. This was used to make adjustments to improve reliability.

