**The context:**

The sensor manufacture is having trouble with a failure rate of 15%, where the normal rate is 1-2%. The initial Chi-squres testing could not identify the cause of the failure.

**The criteria for success:**

Lower the failure rate down below 5%.

**Scope of solution space:**

The cause of failure could be a combination of faulty parts and poor manufacturing. The focus of the problem is to identify the manufacturer to shut down or parts supplier in an effort to decrease the failure rate.

**Constraints within solution space:**

Cert system limits exports with only 20 thousand rows and dates covering back two quarters with dated results for testing.

**Stakeholders to provide key insight:**

Tony Abraham – InSense VP

Bernard Ong – CTO

Vince Maccano – Head of Data Science

Jane Smith – Data Scientist

Shane Buchholz – Head Engineer

Gary Neumont – Head of Manufacturing

Jessica Jones – QC/QA Engineer

**Key data sources:**

Data from Cert: vendor codes, status, dates, and dated results for testing.