**Problem Statement Worksheet (Hypothesis Formation)**

**How can NSC reduce the failure rate below 5% by identifying the source of the failure rate increase by next?**

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Context

Nordic Sensing Co. introduced a new sensor technology. During the development & testing phase the expected failure rate was 1-2%, however, now it is 15%. They need to drop the failure rate below 5% by shutting down a manufacturer or stop buying parts from a supplier.

Constraints within solution space

* Limited data given the spreadsheet limit of 20K rows

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Criteria for success

* Reduce the failure rate below 5%
* identity which manufacturer and/or supplier needs to be shut down

Stakeholders to provide key insight

* James Hansk– CEO
* Otto Evans – InSense President
* Tony Abraham – InSense VP
* Shane Buchholz-Head Engineer
* Gary Neumont-Head of manufacturing
* Jessica Jones –QA/QC engineer3

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Key data sources

* Data from Singapore – contains the vendor codes for each part
* Data from Cert – contains which drives failed by the “STATUS” column and covers manufacturing dates going back two quarters with dated results for testing.

Scope of solution space

* Analyze the data by supplier and manufacturer
* Building the sensors by connecting the data from the supplier and manufacturer to identify which is failing or if it is a combination of both.

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