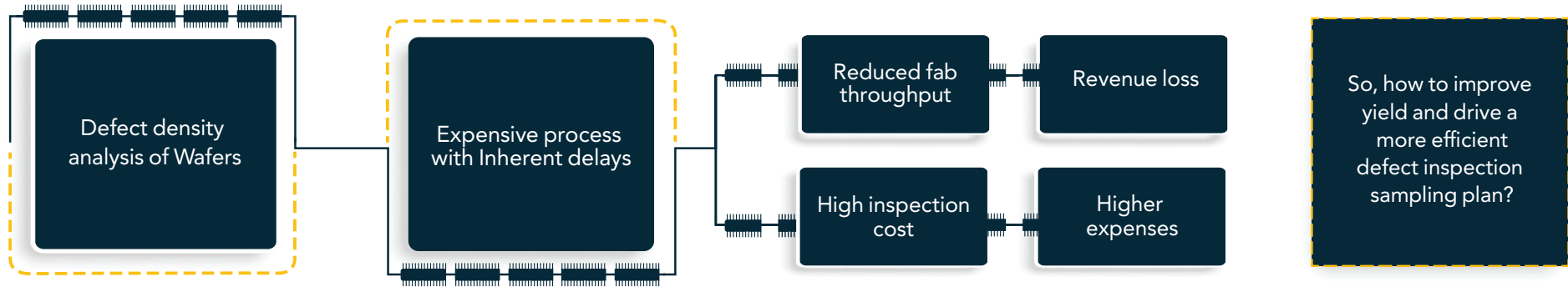


How Falconry Enables Yield Improvement



Yield loss from defect density is very critical for Wafer manufacturing companies.

Wafers are etched and cleaned on the assembly line.

The defect density parametric test is almost always performed in the wafer probe lab.

Defect inspection process for Wafers is expensive and also causes risk to work in progress (WIP) wafers due to inspection queuing delay.

Falconry's advanced anomaly detection helps customers understand which wafers are likely to have a high defect density.

Those wafers can be preferentially sampled thereby decreasing total inspection sampling rate and cost while maintaining low risk of missed defect excursions.

Falconry's Time Series AI discovered and learned to identify correlations between sensor levels and defects. These correlations help provide a better sampling plan, lower inspection costs and reduced yield loss.

How?

Falconry performed unsupervised modeling using ~75 signals and found correlations between cluster groups and defect density. Example signals given below:

- Bias/clamp voltage
- Coolant flow
- Current
- Gas flow
- Pressure
- Temperature
- Throttle valve position
- Pump speed
- Ring position

