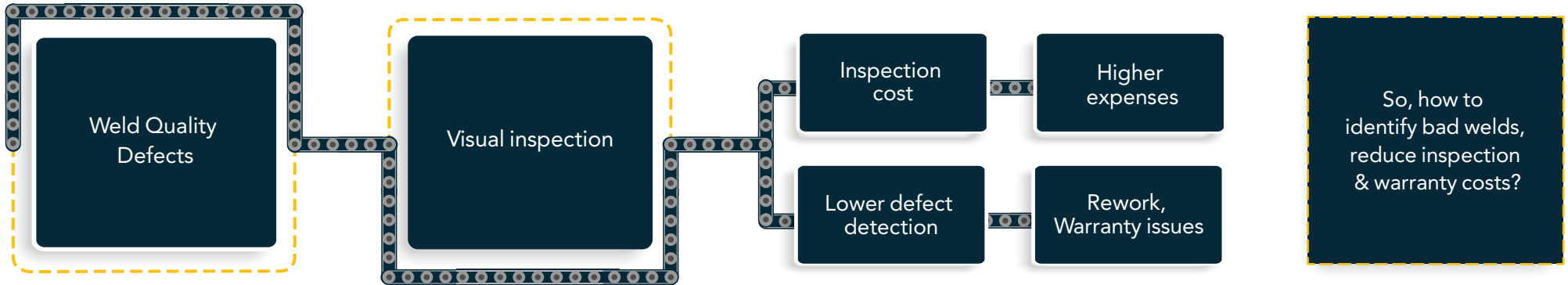


How Falconry Enabled Real Time Quality Assessment



The production of high quality, highly repeatable welds is a priority for automotive manufacturers.

Quality of machine welds varies over time resulting in expensive manual rework.

It is physically impossible to visually inspect each weld in real time. As a result

- Many bad welds may make their way into finished vehicles
- A weld may appear fine visually but have porosity issues, which reduces the joint strength.
- A weld may look bad and be sent for rework, but it may have been structurally sound.

Detecting and correcting bad welds during the welding process is far less expensive than discovering and reworking them further down the line.

Falconry software can analyze over **60,000 welds in less than 2 minutes** and enable the customer to eliminate manual inspections..

Using the software, the customer was able to classify the welds with a high degree as Good, Bad, Excellent and improve the quality management.

Falconry Operational AI software enabled the customer to **reduce by 96% the number of welds sent for visual inspection.**

How?

Data from the welding machines was collected at high sampling rates and included:

- Current
- Voltage
- Wire Diameter
- Welding Force
- Wire Speed
- Arc Time

Using this data, the client was able to build and deploy models that **classified the welds in real time with over 92% accuracy.**

