Greenbelt Project 983

Achieve a 50% Reduction In Forklift Truck Related Incidents (Damage to Plates)

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Project 983 Summary

Target: - **50%** Reduction in FLT Incidents (Damage to plates)

Problem: - **168** recorded FLT incidents between Sept 06 – Sept 07

Resulting in: **9570** m2 scrapped plates

£15130 scrapped plates

£20000** other damage

** Figure is an estimate as not all incidents recorded

Scope: - Unwrapped plates between the end of the conveyor and the wrappers

Business Case: - To have a safe working environment and to minimise loss due to damage

Goal: - **50%** reduction – equates to **84** FLT incidents

Metrics: - Baseline **13.81** incidents/month

- Target **7** incidents/month

Background

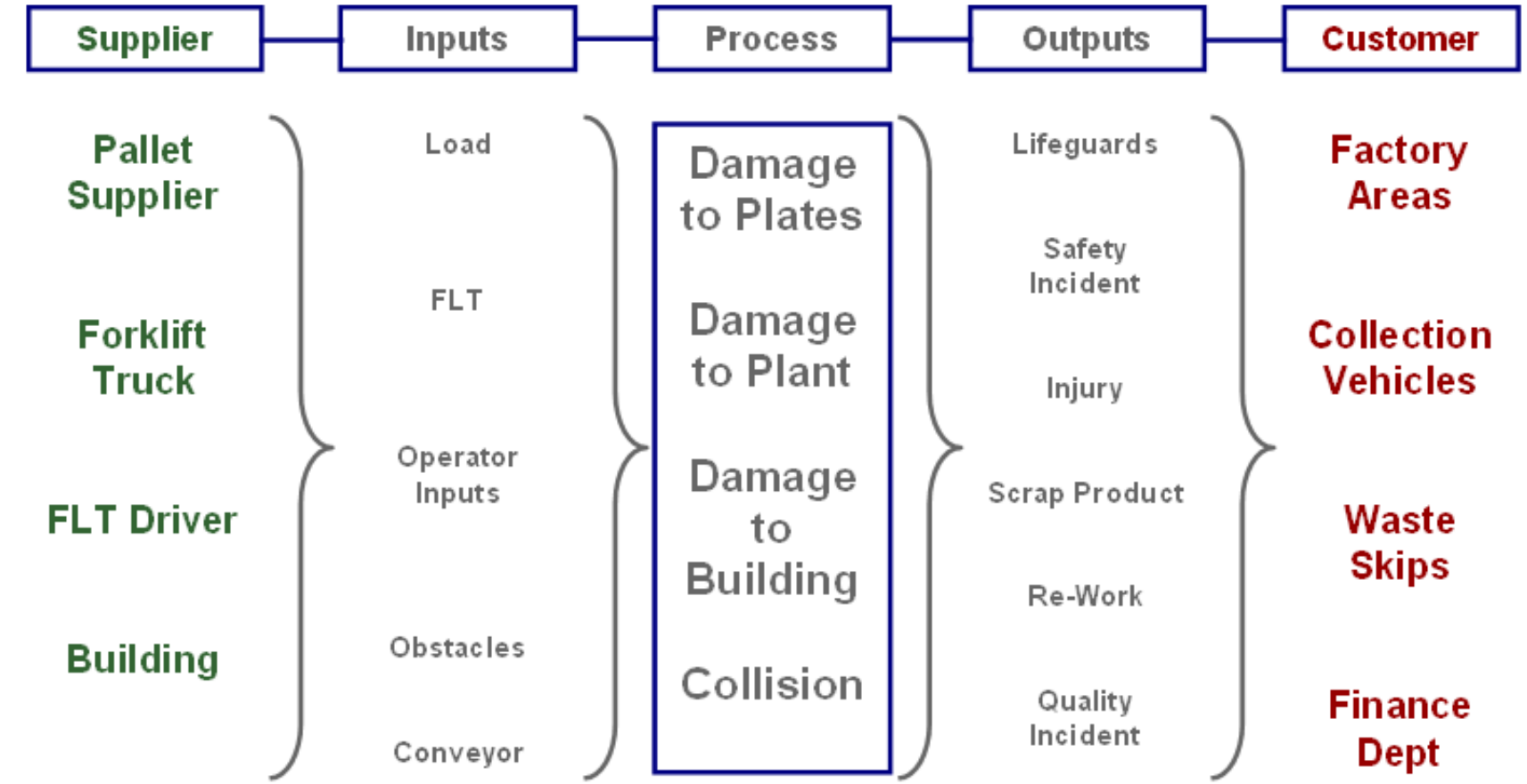
168 Forklift Truck (FLT) related incidents have been reported between Sept 06 – Sept 07. This figure is a minimum as not all incidents are reported or easily identifiable as FLT type damage.

The HSE believe that only around **46%** of all incidents are actually reported. (www.hse.gov.uk)

This means there have potentially been between **168** and approximately **365** incidents and therefore opportunities to cause injury or damage.

We need to greatly reduce the number of incidents in order to reduce the likelihood of injury to persons and damage to product.

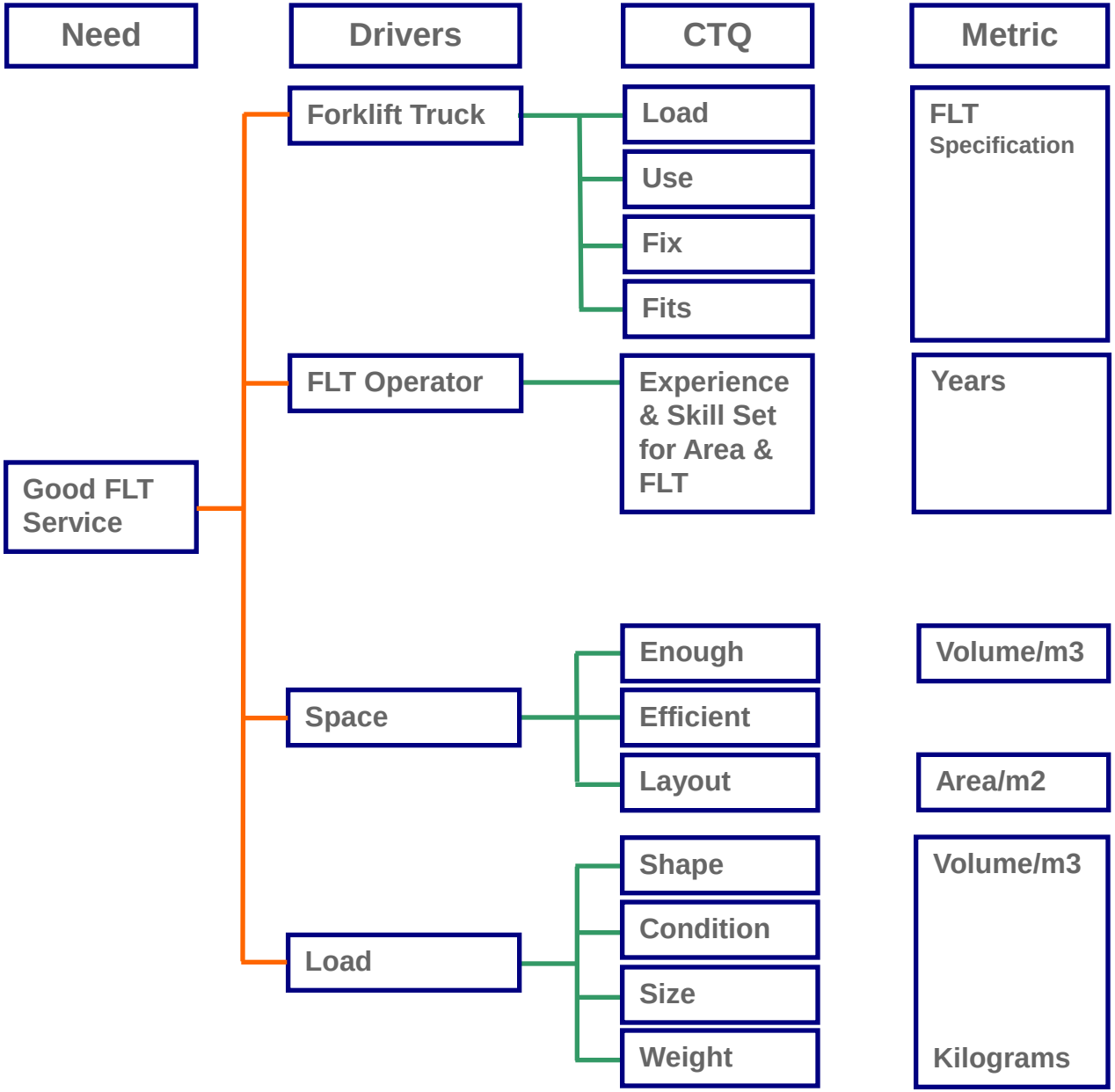
SIPOC Diagram



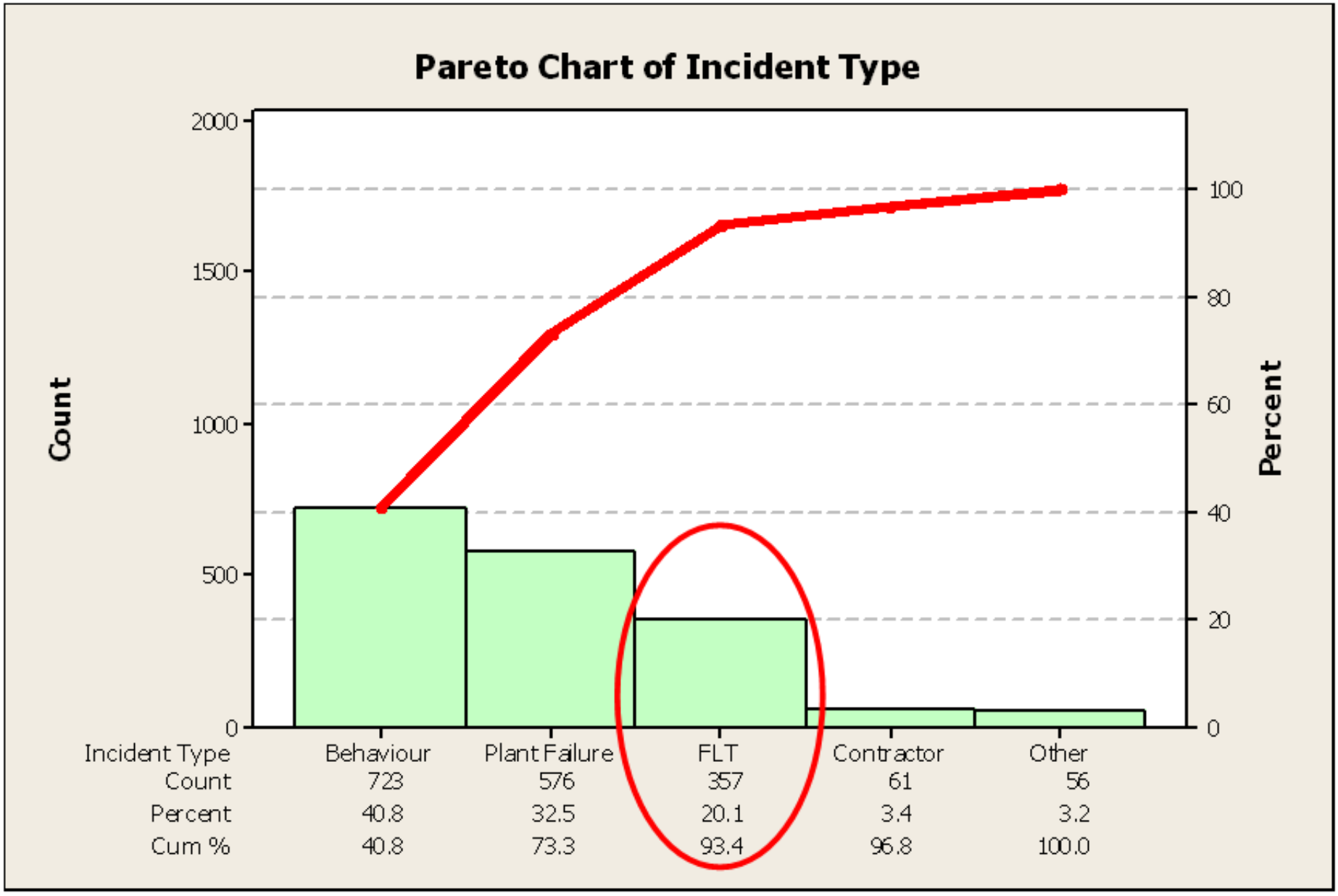
Process Steps:

Start → Collect Item → Identify Delivery Location → Deliver Item → Stop

Critical To Quality Diagram



All Incidents Pareto Chart



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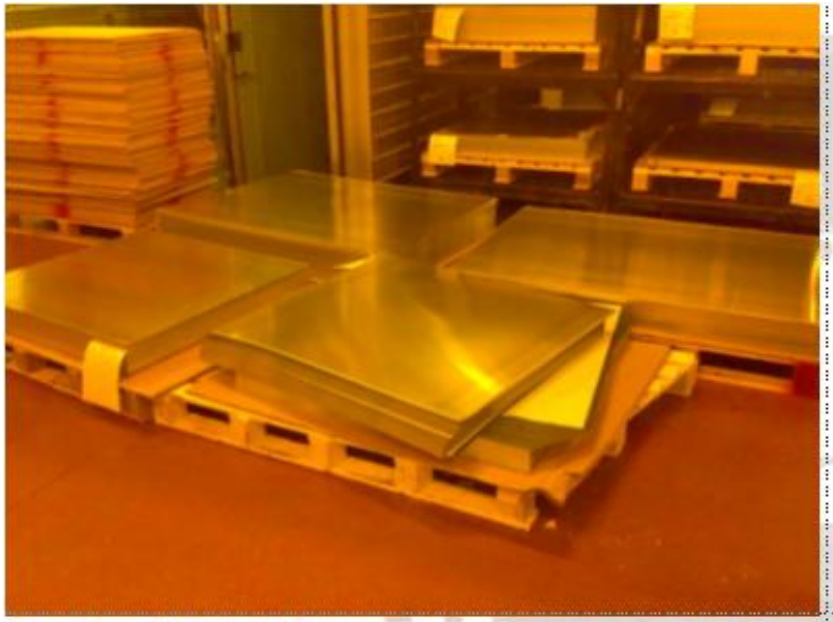
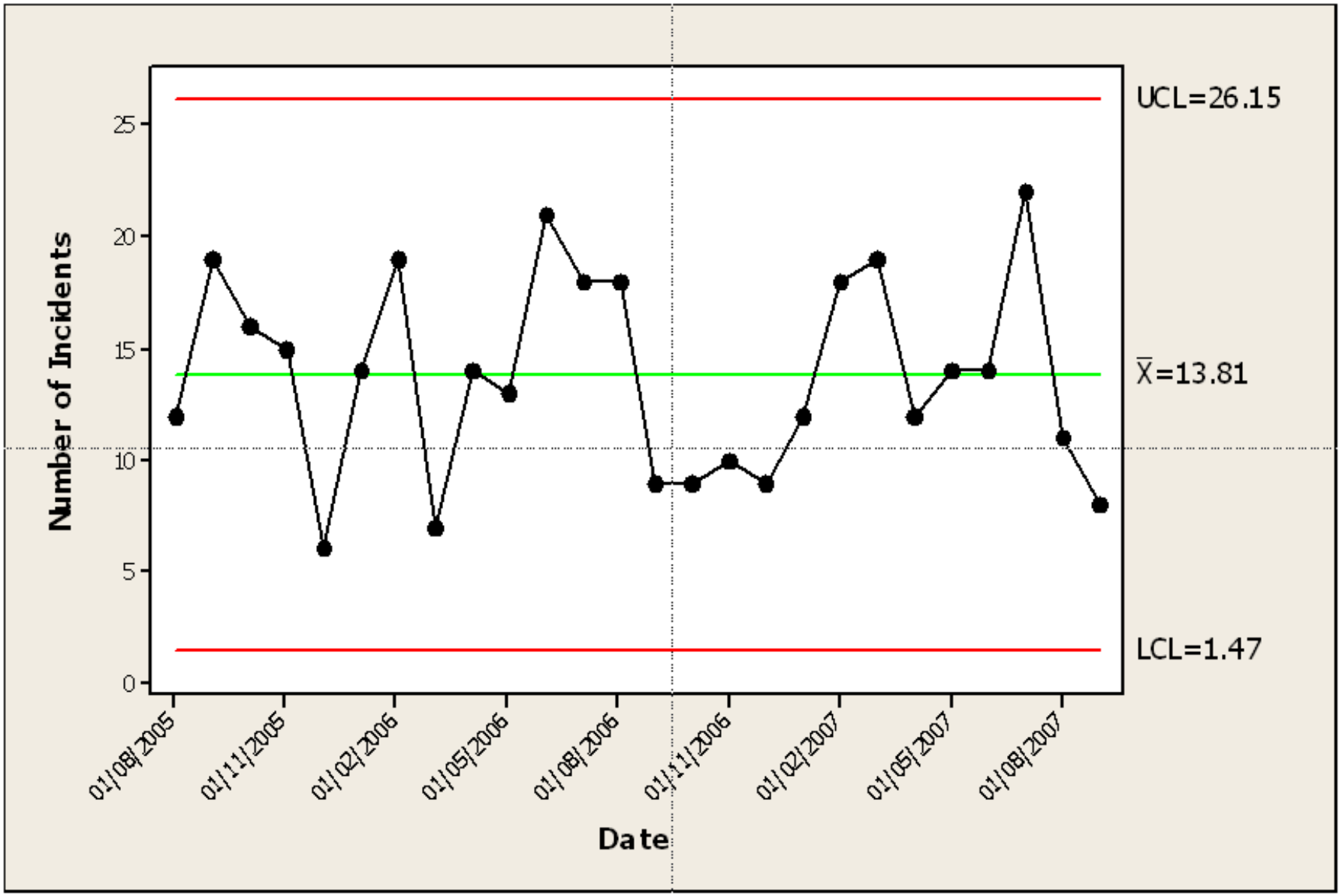
Examples of damage caused by Forklift Trucks



Examples of damage caused by Forklift Trucks

Incident I Chart – showing mean incident rate/month



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Measure Summary

- The initial scope of the project was to look at all incidents relating to FLT's, however it was determined that it needed to be more focussed on FLT damage to plates as this has the most direct affect on the customer

- The main area of focus for this project was from when the plates are taken off the CTL conveyor and until they reach the wrappers

Therefore the following were discounted from the scope of the project:

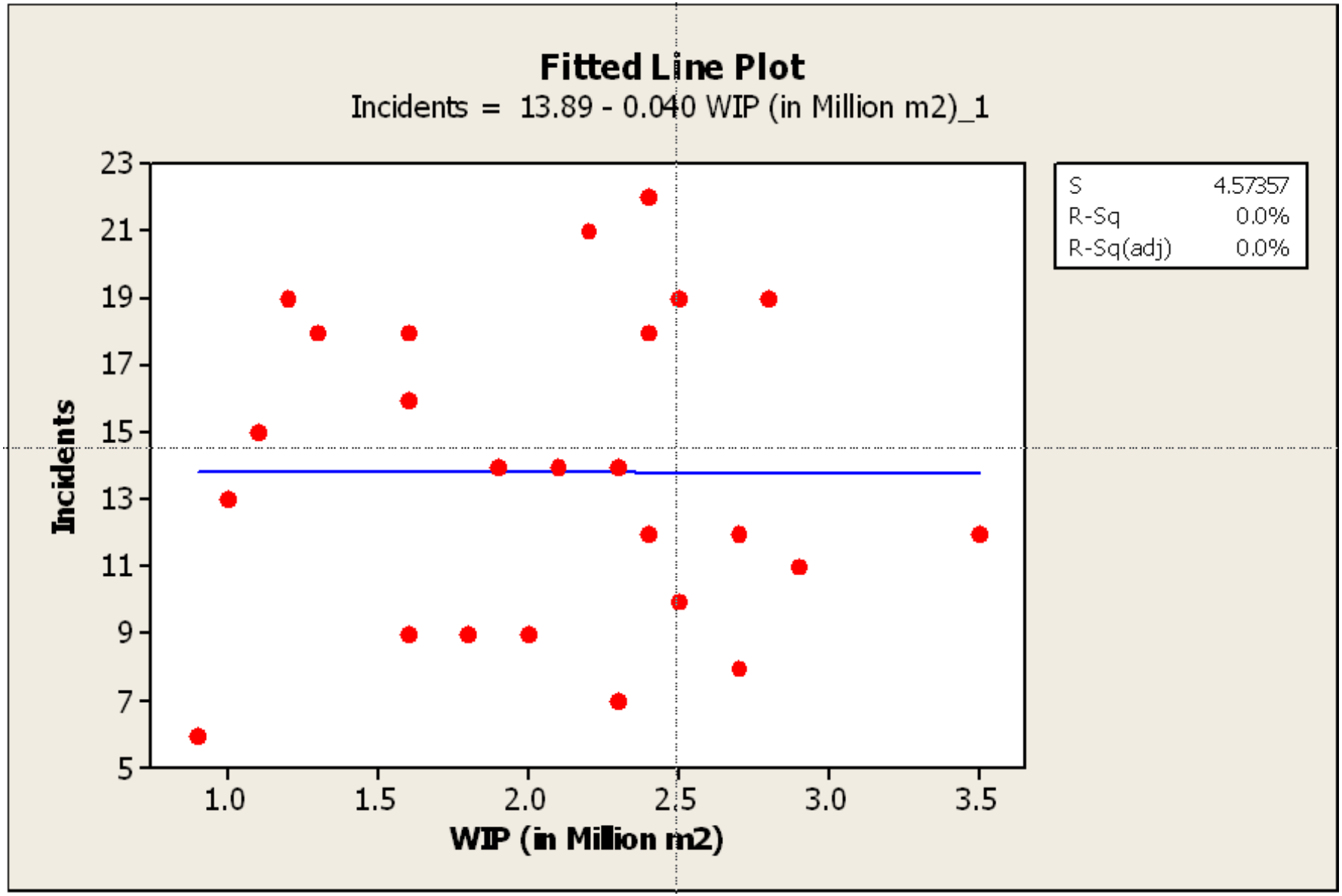
- FLT damage to anything other than plates
- Damage occurring within the coil line areas – not enough reported incidents
- Damage occurring in the warehouse area – most damage to plates occurs when they are unwrapped

Analyse Introduction

As part of the project drivers were involved in discussions as to the most likely causes of damage to plates caused by FLT's and the following theories were put forward:

1. The more Work In Progress (WIP) there is the more likely there is to be damage to plates?
2. Are there particular plate sizes that are more likely to be damaged? (Box sizes were used to group plate sizes together)
3. Damage is more likely to occur during night shifts
4. Are there differences between shifts?
5. What effect do the FLT drivers have?

Work In Progress vs. Incidents – checking for relationship



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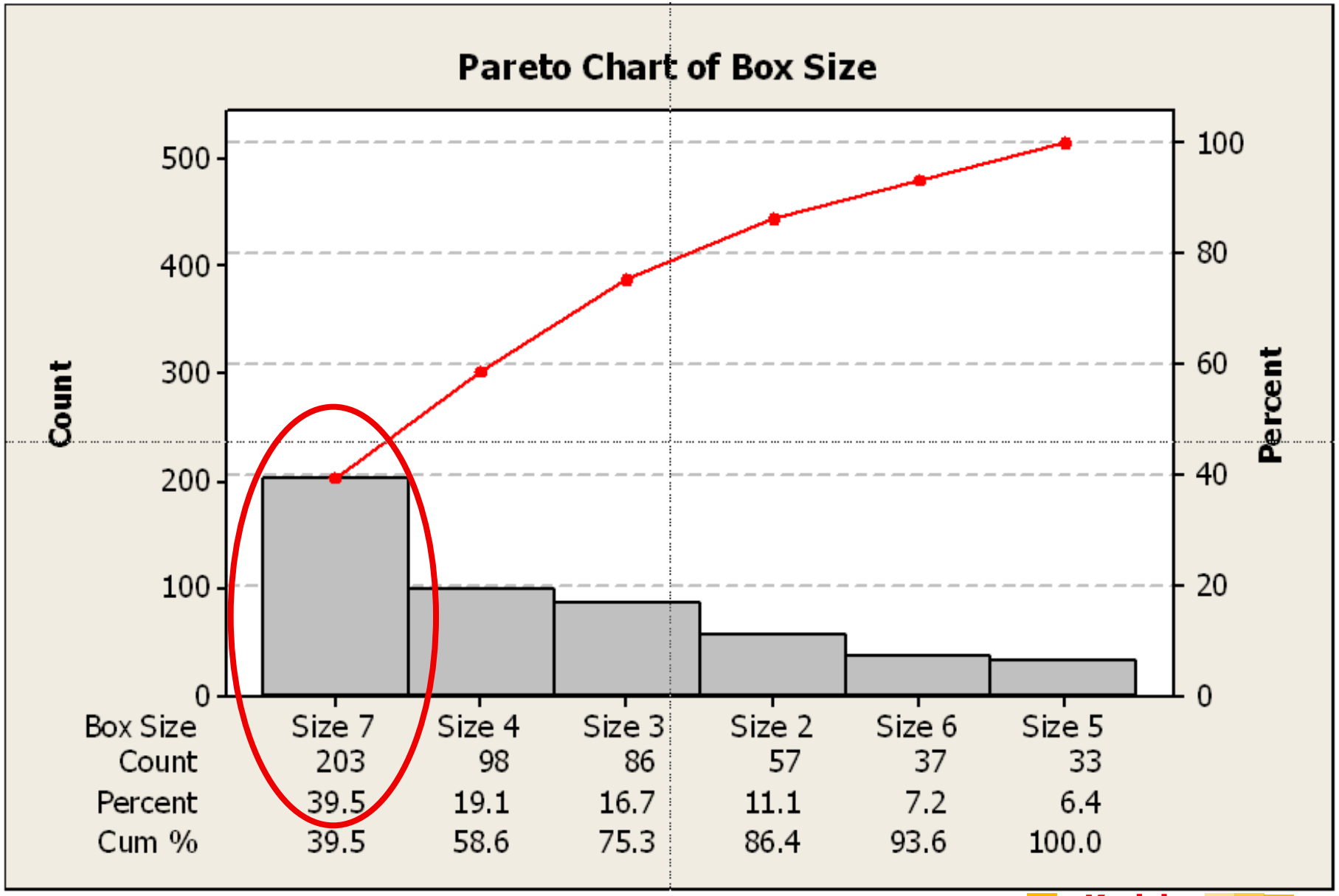
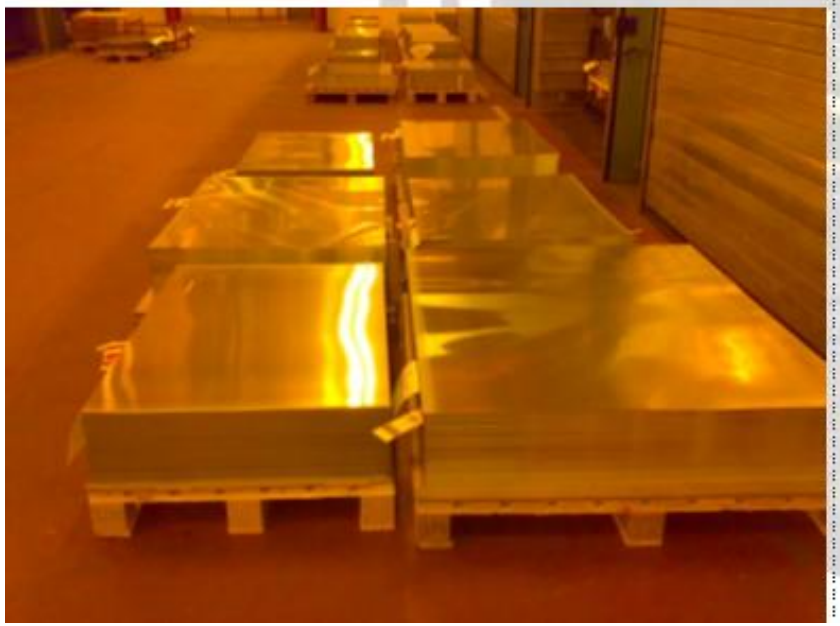
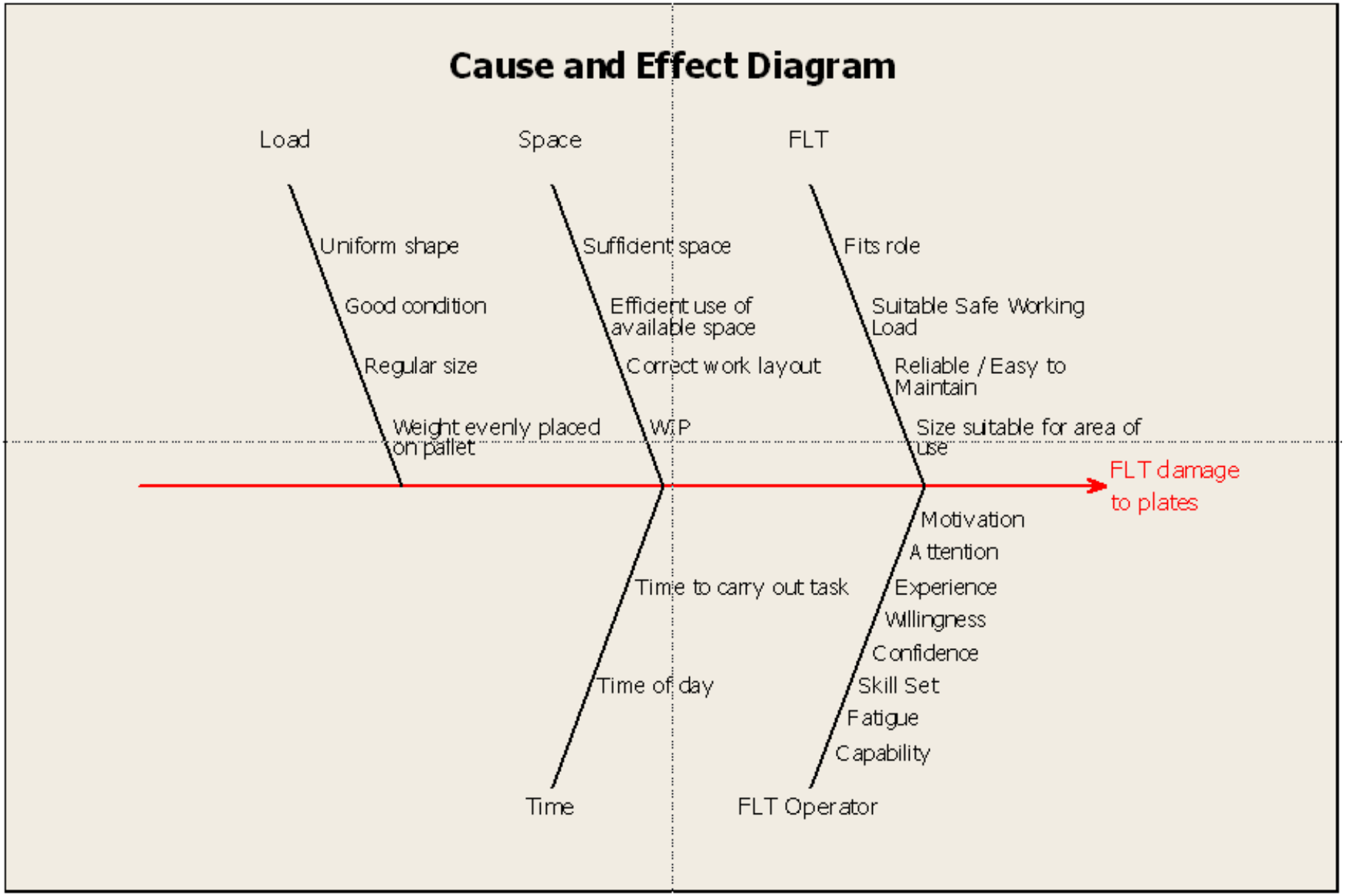
Pareto Chart of Normalised Data for Incidents / Million Plates



Opportunities for Forklift Truck damage to occur



FLT Damage Cause and Effect Diagram



Analyse Summary

From the information and statistical analysis gathered during the course of this project several points have come to light:

1. The amount of WIP on the shop floor does not affect the number of incidents recorded. More WIP does not equal more damage
2. The area where most damage occurs is between the end of the conveyor and the wrappers
3. Once the plates are wrapped there are very few FLT related incidents occurring
4. There was no significant difference between shifts
5. No statistical difference between day and night shifts
6. Size 7 plates are the most likely to be damaged

Sumo Glove Fork Tip Protector

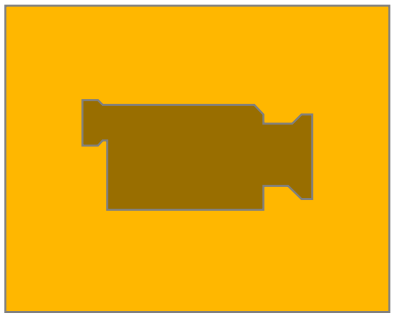
A new product designed to reduce impact damage caused by Fork tips

- Constructed of Polyurethane
- Fixed to Fork Tips by plastic weld type gluing process
- Initial trial begun with fitment to one Electra FLT and the Non-Standards FLT on Tuesday 26th August
- No Damage reported in areas where these FLT's operate since protectors were fitted

Sumo Glove Installation Process

Sumo Glove Fork Tip Protector

A Short Video Clip (Separate Video File)



Improve Summary

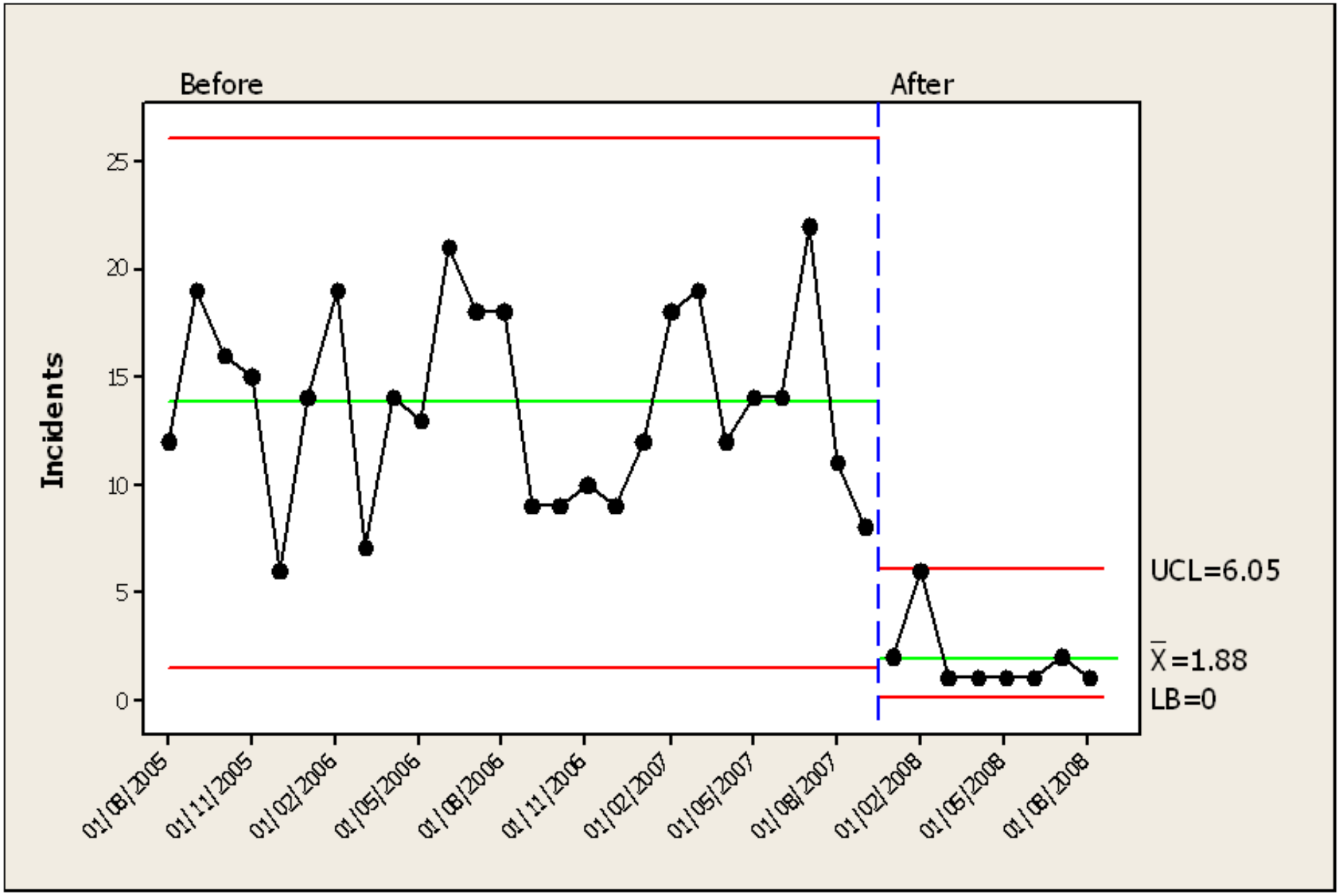
- Confirm effectiveness of Sumo Gloves – monitor safety and quality incident databases - no reported FLT damage to plates in Electra area caused by FLT's since 26th August – 20 weeks (to 13/01/09)

- Fit remaining suitable FLT's with SUMO gloves – 8 reach trucks – date to be confirmed

Control & Sustain

- Monitor incident rate
- Design site layouts with ideal routes
- Create checklist for operators to improve operating standards e.g. check load before lifting
- Ensure FLT operation remains a focus by including in Safetrack topics regularly, toolbox talks on expected standards of operation
- Produce guidance for non-FLT personnel to help detect and deal with poor operation
- Ensure reporting of FLT damage is completed with as much information as possible
- Post at regular intervals incident statistics and information

Incidents Rate Before and After Project Started



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Control & Sustain continued

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