



Partnering and Collaborative Working

An Introduction

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How PI Works...

PI methodologies are adapted from the Toyota Production System:

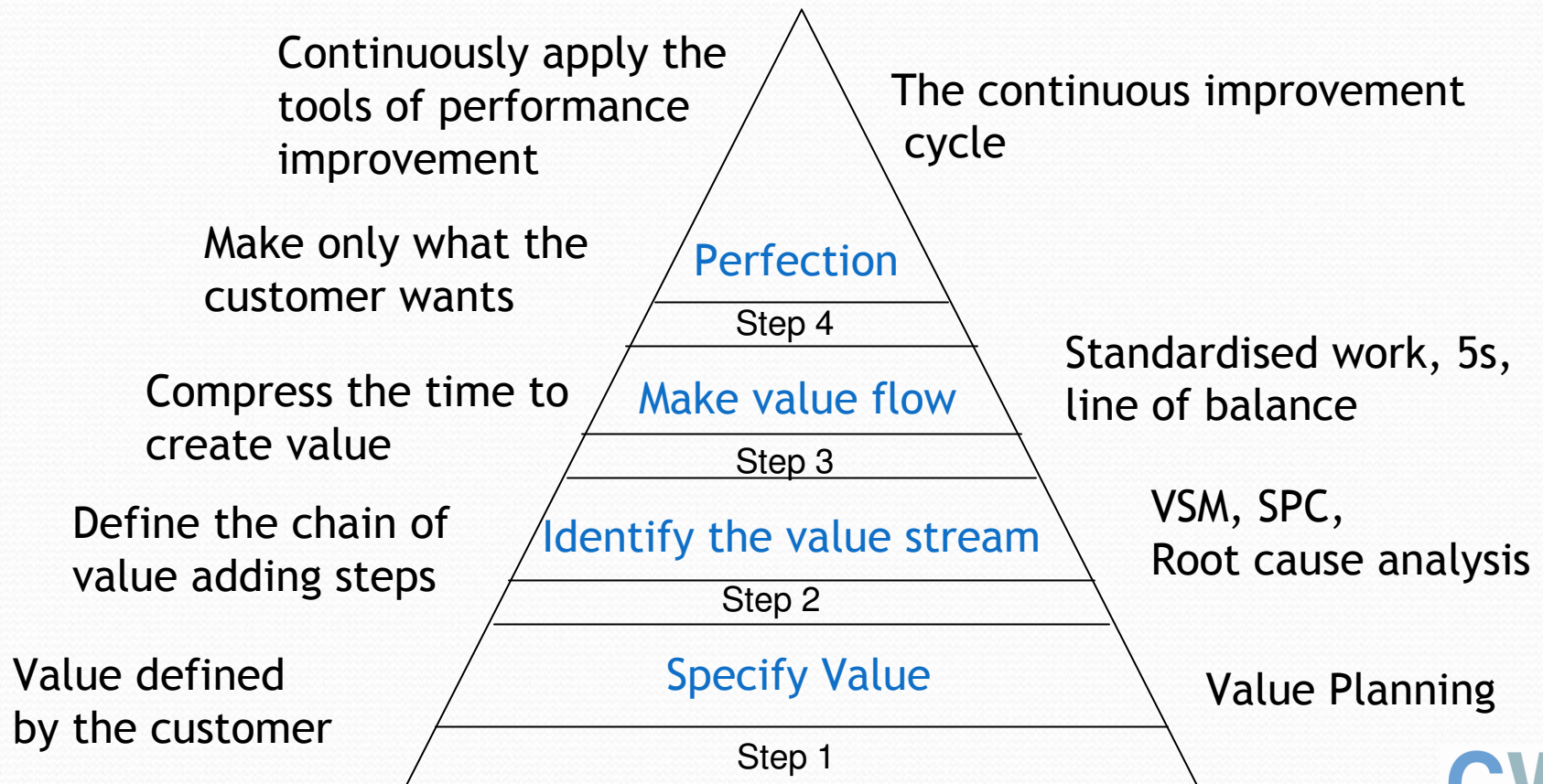
- **Demand Pulls** - Repairs are carried out in response to customer orders.
- **Understand the flow of the work through the whole organisation.**
complete understanding of work end-to-end.
- **Re-Design delivery processes to meet predictable demand.**
analyse variability. Processes optimised to deliver customer needs.
- **The best people to design and deliver improvements are the people carrying out the work.**
managers is to allow people and suppliers freedom to decide how best to do their job.

We all become suppliers and customers to each other

Improvement Process

OBJECTIVE

TOOLS



Steps

1. Specify Value

- Identify customer needs
- Analyse demand including variability

2. Identify the value stream

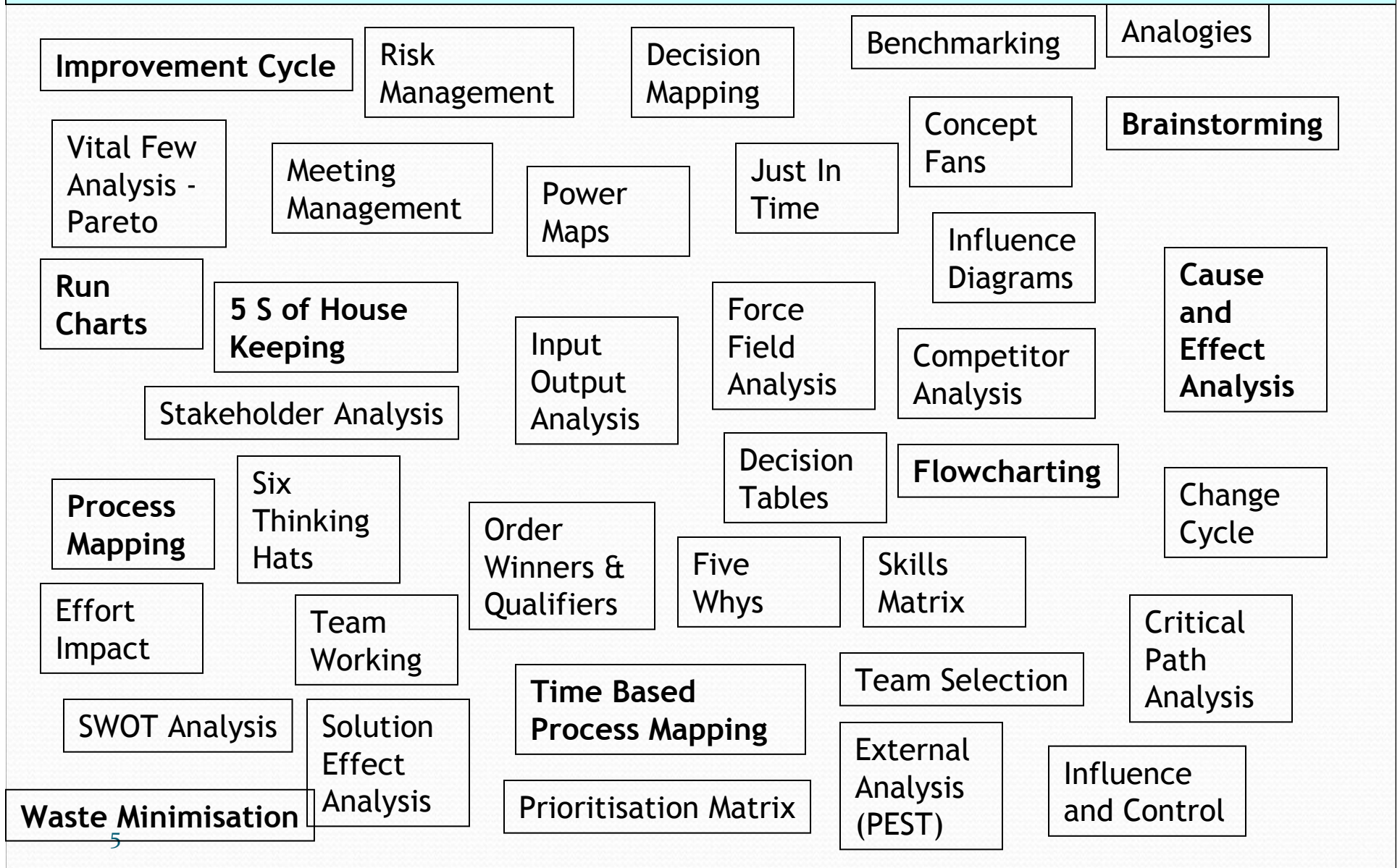
- Map current state – system and sub-processes
- Assess waste in current system – Ishikawa diagram – root cause analysis of all influences on a system
- Assess process variability

3. Make value flow

- Assess constraints to change - perceptions of staff and customer attitudes
- Reduce demand variability
- Remove waste – non value adding processes
- Develop change plan

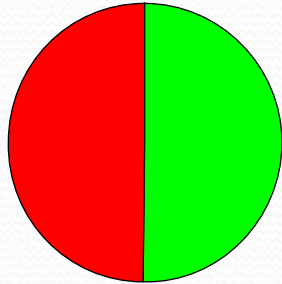
4. Implement continuous cycle

Tools and Techniques for Performance Improvement

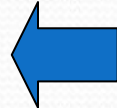
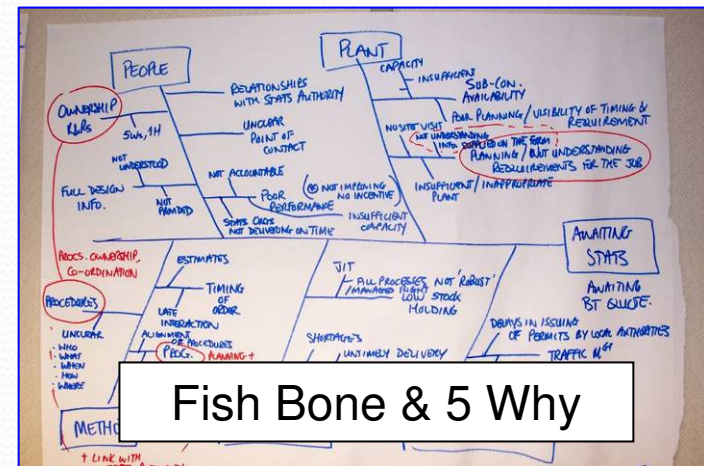
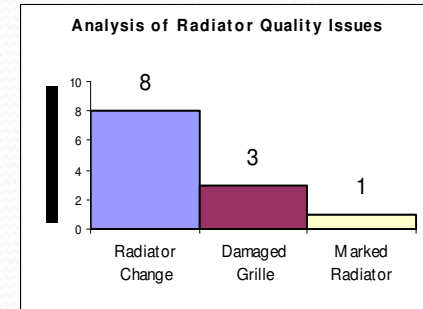
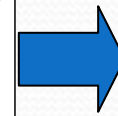
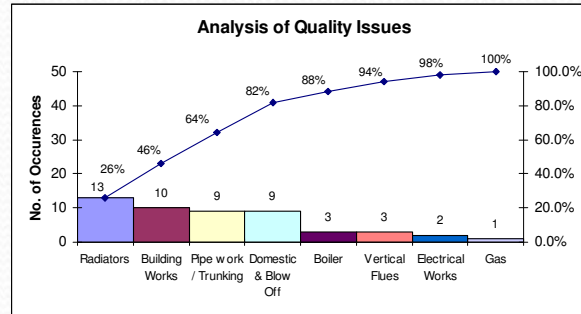
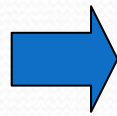


Lean Improvement

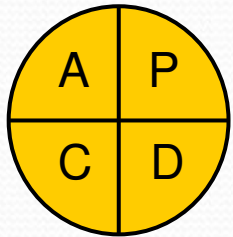
Problem Solving - Improving Quality Performance



■ No. Properties Snag Free ■ No. Properties with Snags



Improvement Action Plan



Structured approach to Improvement

Standardised Work

- Standardised work aims to achieve customer satisfaction every time through effective management of workplace methods.
- Standardised work defines the best method of safely combining process inputs in order to achieve Quality, Cost and Delivery every time.

Work Flow Balance

- Many clients are unable to balance the work load of operatives. All construction and maintenance will involve a process flow. If this process flow is not balanced then the poor work continuity will generate large amounts of waste in operative utilisation through waiting time etc.
- The work flow balance tool critically examines a process to determine the best distribution of work content between operators in order to meet customer demand with optimum efficiency.

Improving the Delivery Program

Phase 1 Improvement

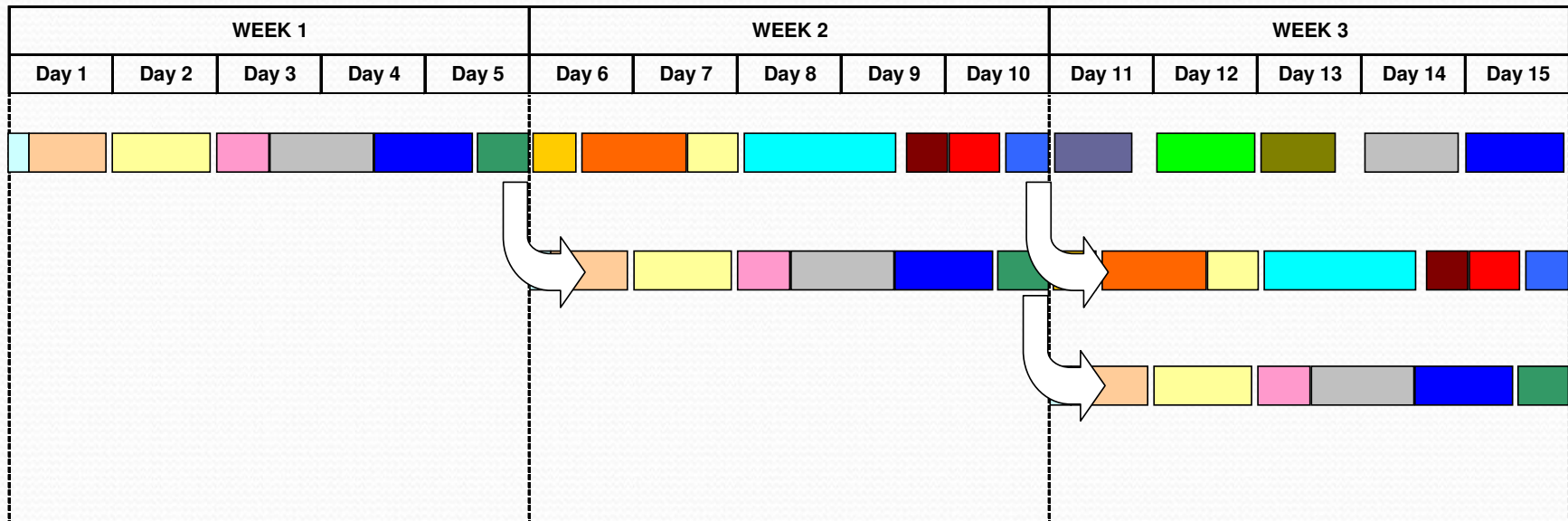
- Waste reduction, work package balance and improved interaction of trades
- VSM Activity
- Involvement of Client, Trade Foremen + Suppliers



The Foremen working together as a Team developed a refurbishment work plan within the target time of **24 days.**

Standardising Work Activity

Phase 1 – Even Flow Production

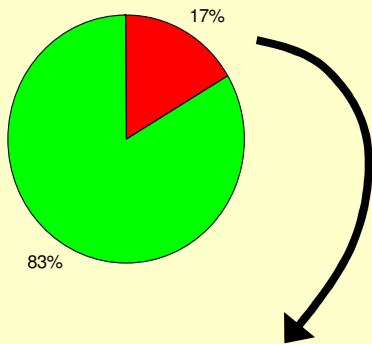


- Work activity pattern repeats
- Agreed improved interaction of trades
- Easier to plan, organise and control
- Productivity improvements also result

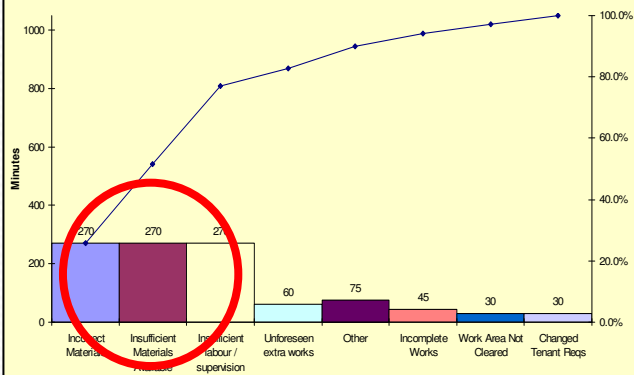
Process Level : 'Loss' Identification & Reduction

DIAGNOSTIC

Work Time Analysis - Carpentry



Carpentry - Downtime Pareto (29th April - 24th May)

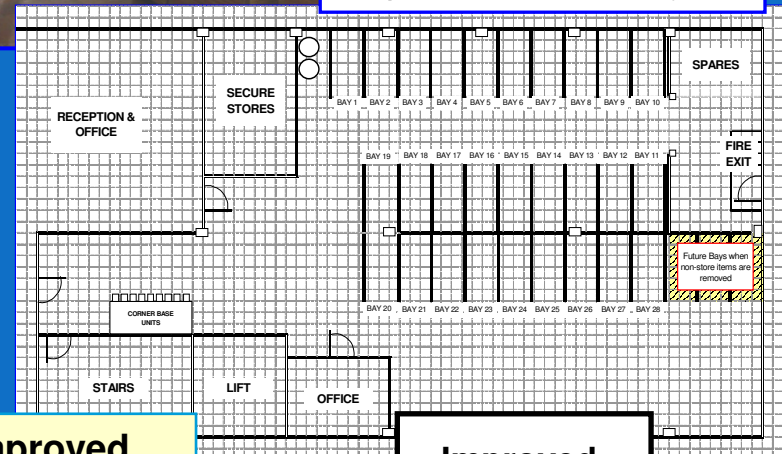


IMPROVEMENT



Improved Stores Layout

- * 5C / 5S Activity
- * 8W
- * Inventory Analysis
- * Central Inventory Buffer
- * Visual Management

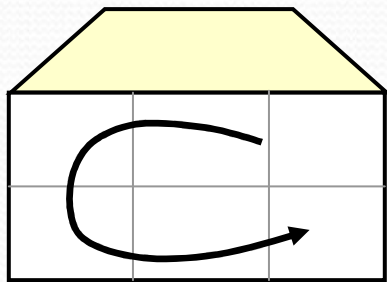


Improved Systems for Inventory Management

Improved Distribution

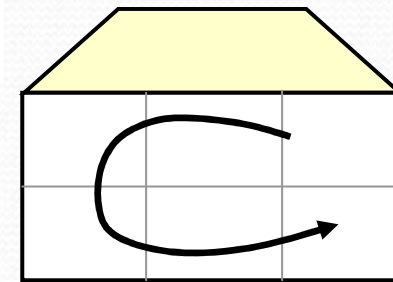
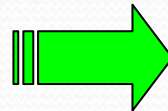


Maximising Value-Adding

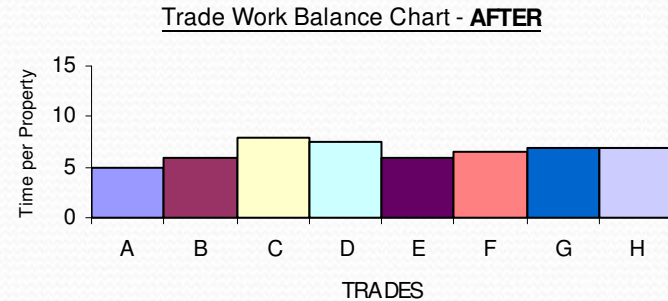
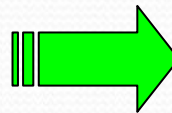
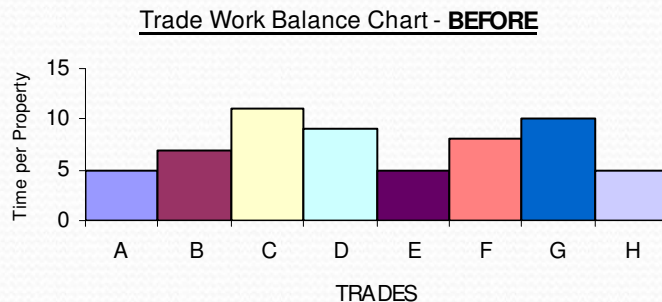


**FLOW VALUE-ADDING
ACTIVITY WITHIN
PROPERTIES**

**MINIMISE DELAYS BETWEEN
PROPERTIES**



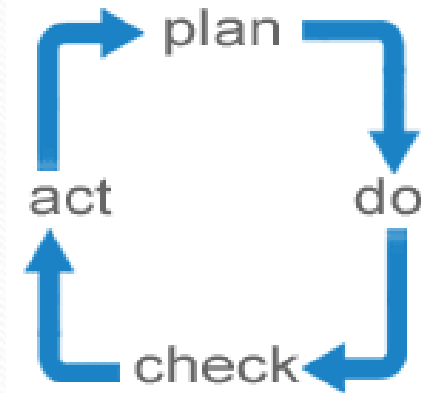
**FLOW VALUE-ADDING
ACTIVITY BETWEEN
PROPERTIES**



The PDCA Cycle

What is the customer need?
How does demand vary?
How capable are we now?
What are we aiming to do better?

Make the countermeasure permanent and cascade it.
If trial unsuccessful, identify next countermeasure.



Try it out on a small scale to test the plan.

Did we achieve the expected improvement?
If so what was the benefit? If not, why not?

The Plan, Do, Check, Act cycle is a continual process which aims to narrow the gap between current performance and customer expectation