



Kaizen Introduction

Welcome to the Kaizen workshop





Workshop Objectives

- Learn about Kaizen
- See how Kaizen fits into our business
- Learn about Process Mapping using a Ferag drum stitcher as the model.
- Use Process Mapping results to determine shop floor organisation required for Sheffield.





Why are we doing Kaizen?

- We are doing Kaizen because the circumstances require dramatic improvement.
We will
 - Achieve our business aims
 - Have a better way of working





British Productivity

- 1970-1994 Britain lost 3 million jobs
- 1994 Study showed the UK to have the most negative workforce in Europe
- 1970-1990 Japan **tripled** production
- 1970-1990 France **doubled** production
- 1970-1990 Britain was the only industrial power with no increase





Kaizen Definition

改

KAI = CHANGE

善

ZEN = FOR THE BETTER

改善

KAIZEN = CONTINUOUS IMPROVEMENT





Kaizen - What it is not

- Kaizan
- Kaisan
- Kaisen
- Falsification
- Break up
- Scabies





Kaizen definition

Continuous improvement through the
elimination of waste involving
everyone in the business

This can only be maintained by
self-discipline and standards





Kaizen – where are we now?

The starting point of KAIZEN is to recognize that whatever we are doing, can be improved.

Some people set the challenge by saying “We should regard how we currently do our job as the worst way to do it.”

In order to improve we must first perceive the need for change, then recognise the problems and work to solve them.





What is a Paradigm?

A paradigm is a set of rules and regulations (written or unwritten) that does two things:

- **It establishes or defines boundaries**
- **It tells you how to behave within these boundaries in order to be successful**

When we react to a situation in a stereotyped or usual way this is called a paradigm





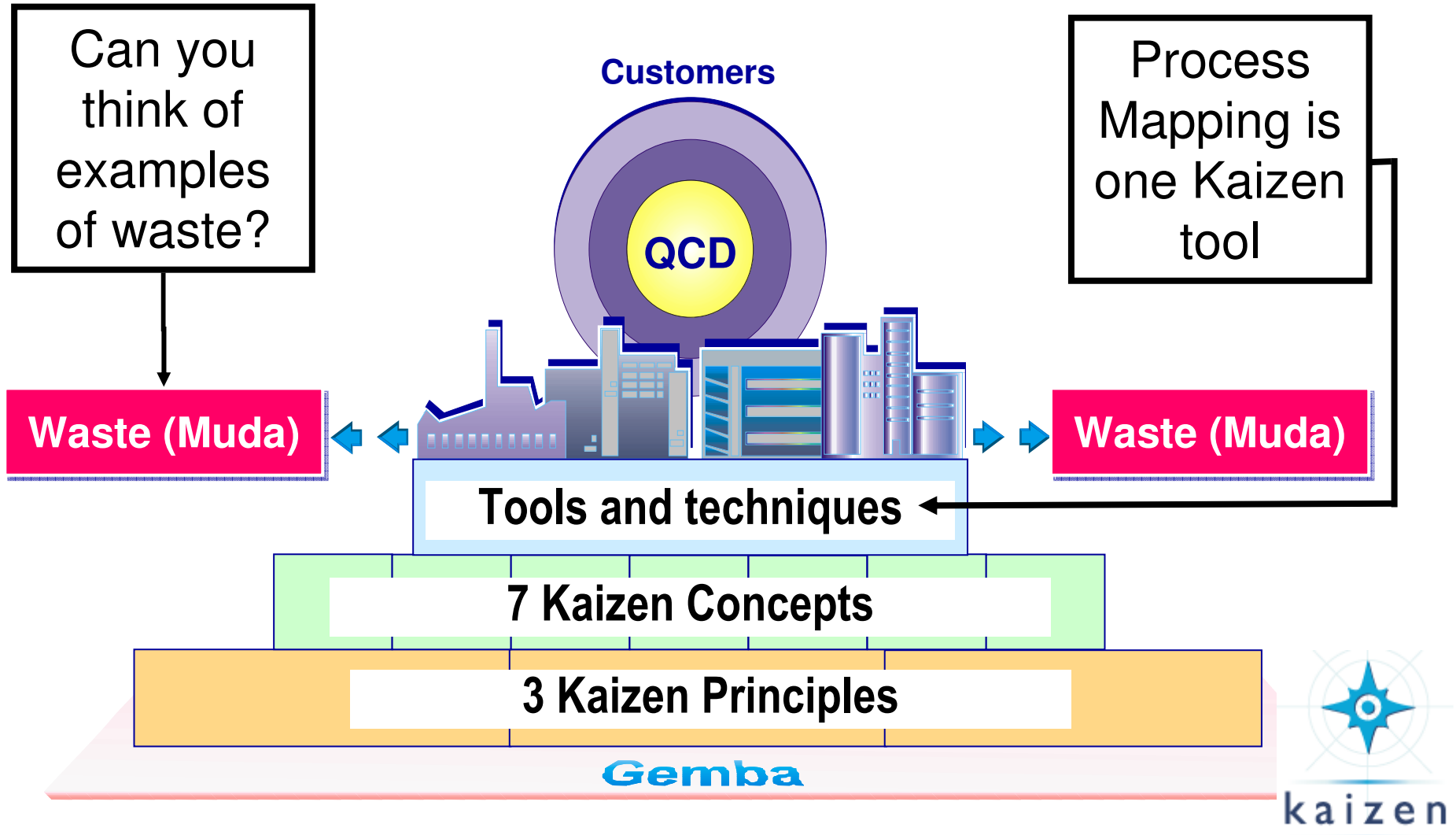
Paradigm Example

- Sony made research into laser disks until 1976 when research was shelved as it was deemed to be inappropriate as a medium for audio.
- In 1979 Phillips wanted to talk to Sony about setting new audio standard for audio disks
- Although Sony had shelved their project they invited Phillips over
- Sony assembled the team who had done their research to meet the Phillips representatives
- The Phillips representatives started by stating that they knew Sony were way ahead in terms of R&D. They then showed Sony a prototype CD a little larger than today's CD.
 - “We think this is about the right size”, they said
- Sony realised the paradigm that had made them shelve the project - they had made their disks the same size as a vinyl LP!
- Once they realised their paradigm the rest is history!





The Kaizen way of working





The 7 deadly wastes!

- Overproduction
- Inventory
- Transport
- Movement/motion
- Over-processing
- Waiting
- Defects

- The 8th Waste - Talent





7 deadly wastes: Over-production





7 deadly wastes: Over-production





7 deadly wastes: Inventory





7 deadly wastes: Inventory



Perfect Binder
spine glue.

1 container
needed per week.

1 months worth of
stock in place !

Each container
costs £500.



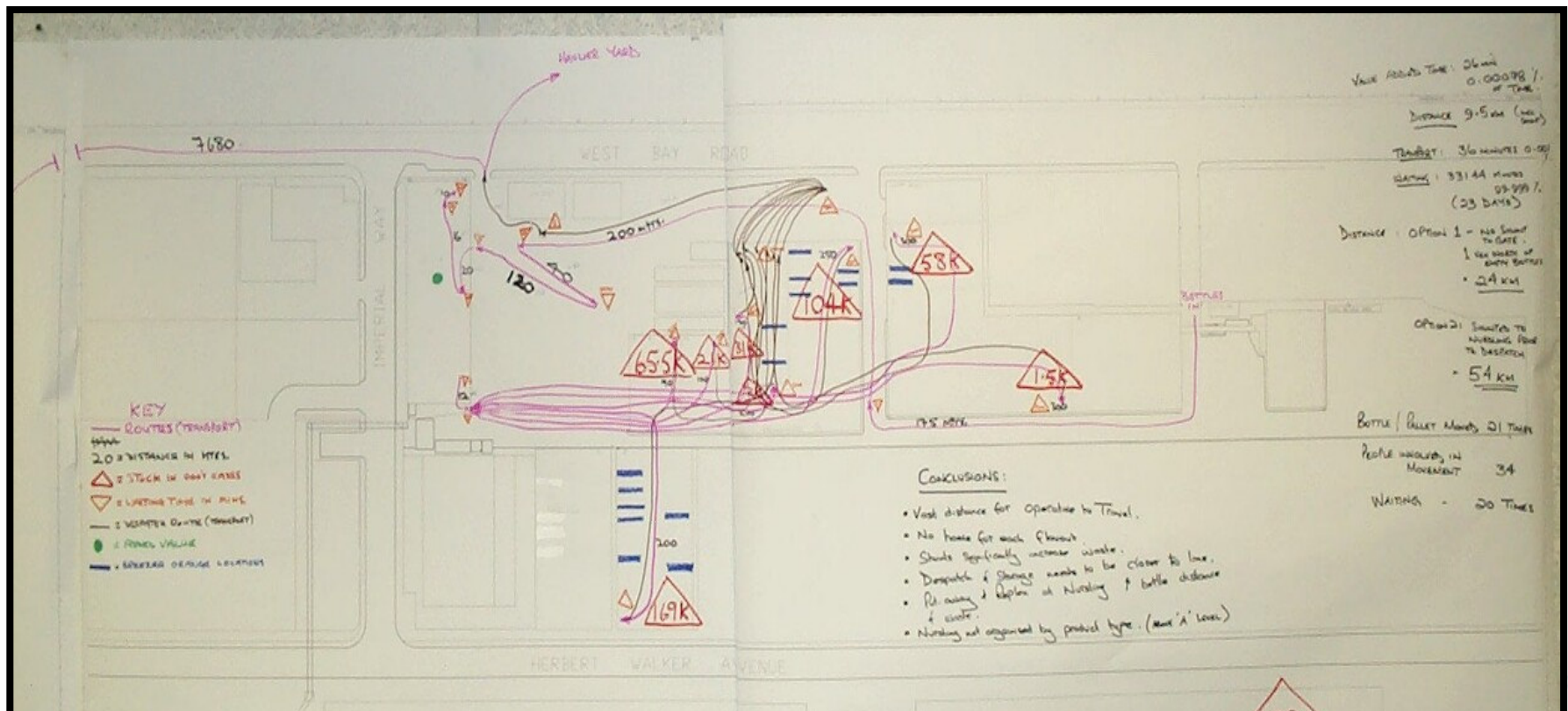


7 deadly wastes: Transport





7 deadly wastes: Transport

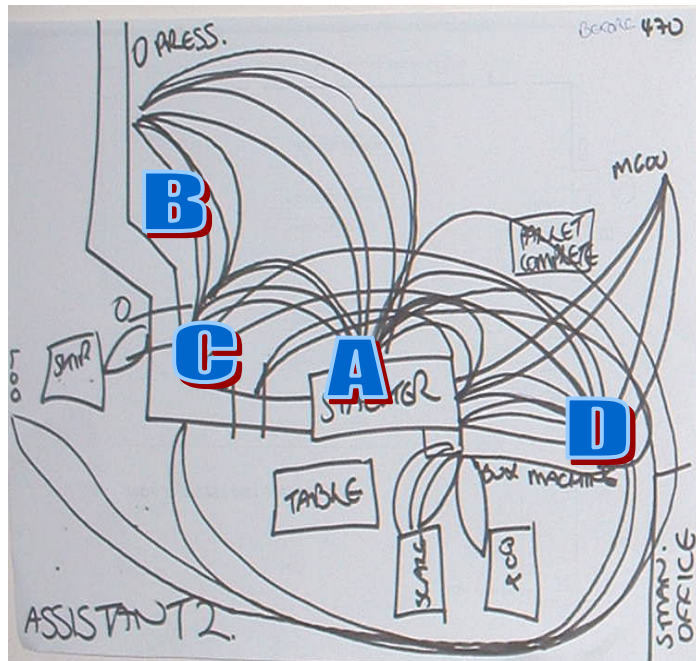


34 people. 24km - 54km to load one 40ft container



7 deadly wastes: Movement/Motion

Example



Where to-from	Distance (Yards)	Number of times	Total yards
A-B	30	6	180
A-C	20	4	80
A-D	25	5	125
B-C	15	3	45
C-D	20	2	40
		Total	470



7 deadly wastes: Movement/Motion

- Bending, stretching, reaching.
- Carrying heavy items.
- Stock too low or shelves too high





7 deadly wastes: Over-processing

Inserts are often received in boxes



When they could be bulk packed



Extra work

- remove sellotape
- open box
- take bundle out of box
- destroy box



7 deadly wastes: Over-processing



Manual sort of Homebase
10 times/year
1.9million run



7 deadly wastes: Waiting





7 deadly wastes: Defects



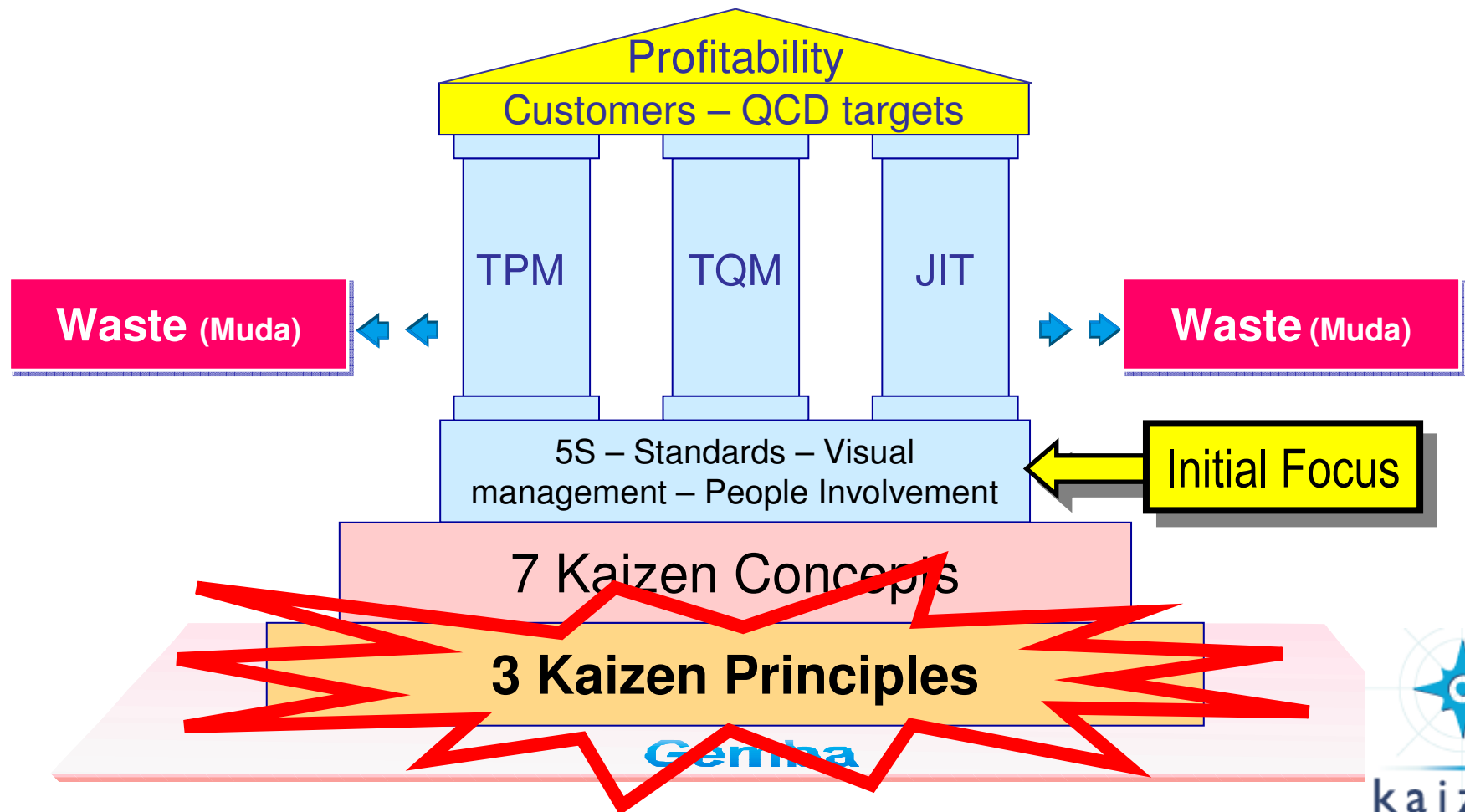


7 deadly wastes: Defects





Kaizen





Kaizen Principles

- Processes and results
- Total systems
- Non blaming/non judgemental





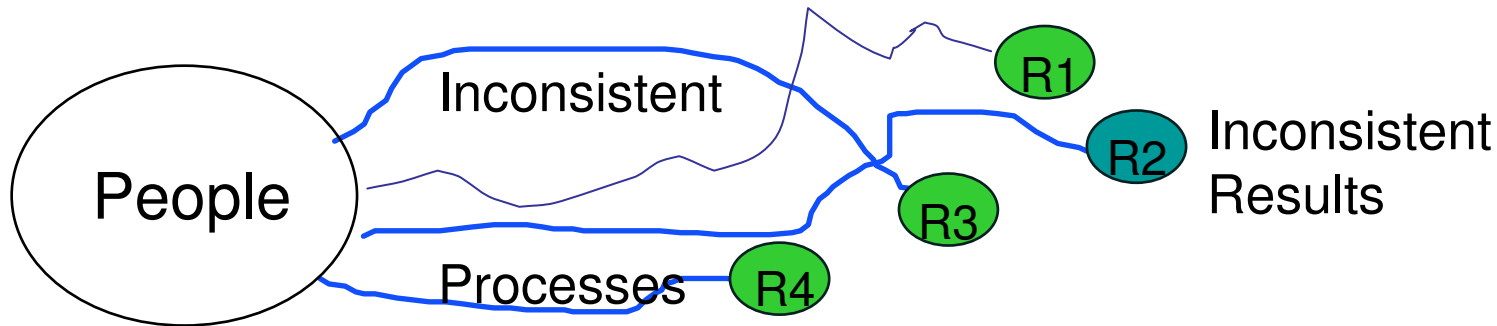
Process and results

***“I don’t care how you do it,
just give me the results!”***

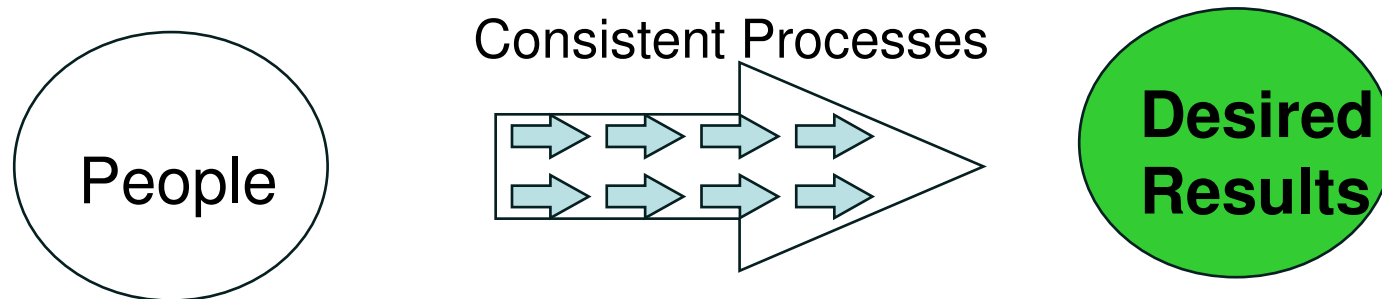




Process and results



TRADITIONAL = People doing what they can to get Results



KAIZEN = Using processes to get Results

Quality Processes Yield Quality Results





Non Blaming/non Judgemental

People and problems

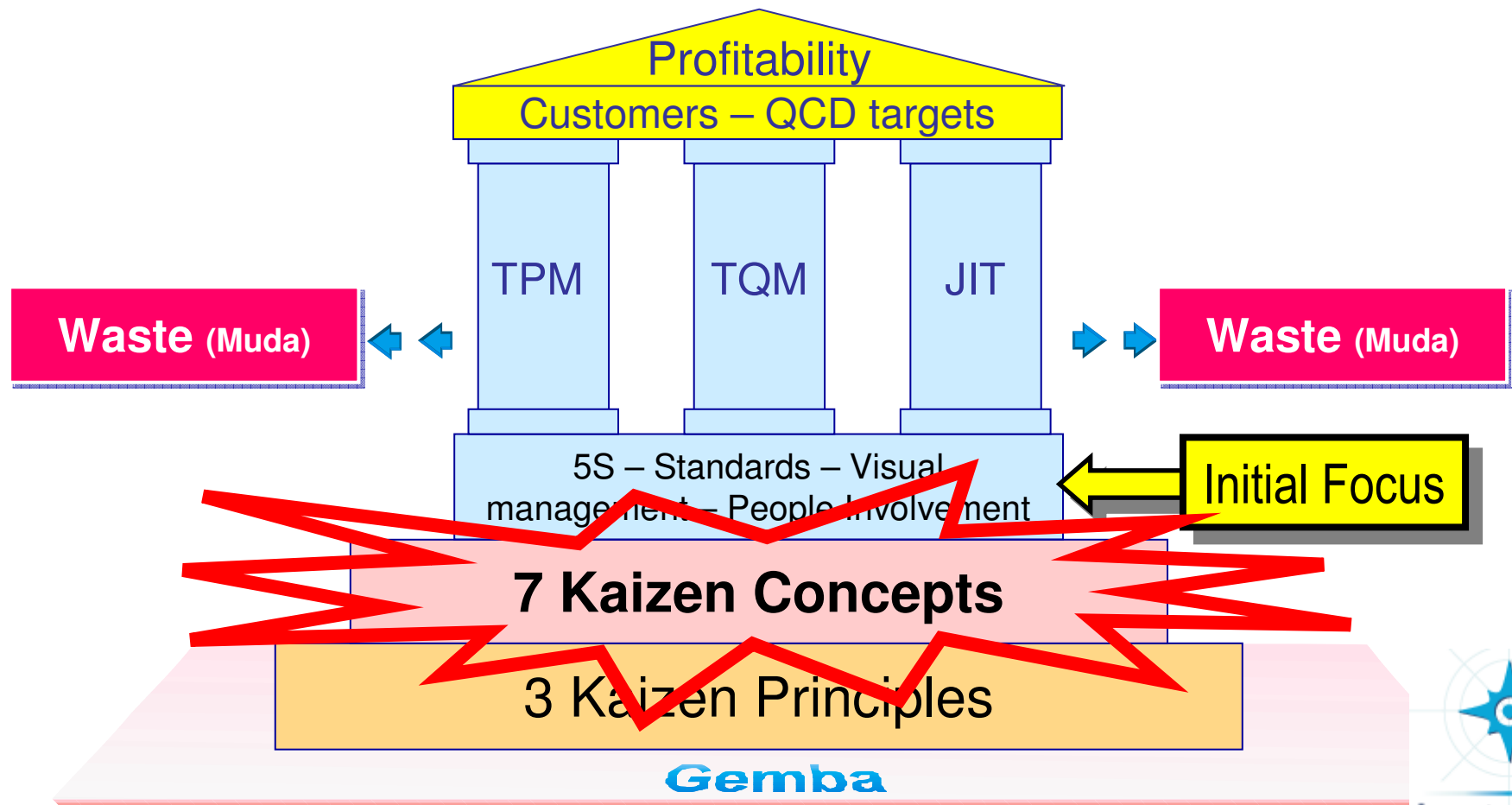
- People are not the problem
- Blaming people does not solve your problem
- The answer is to make people problem-solvers!

The 1st time management gets angry is the last time it will get good data about what's going on !





Kaizen





Kaizen concepts

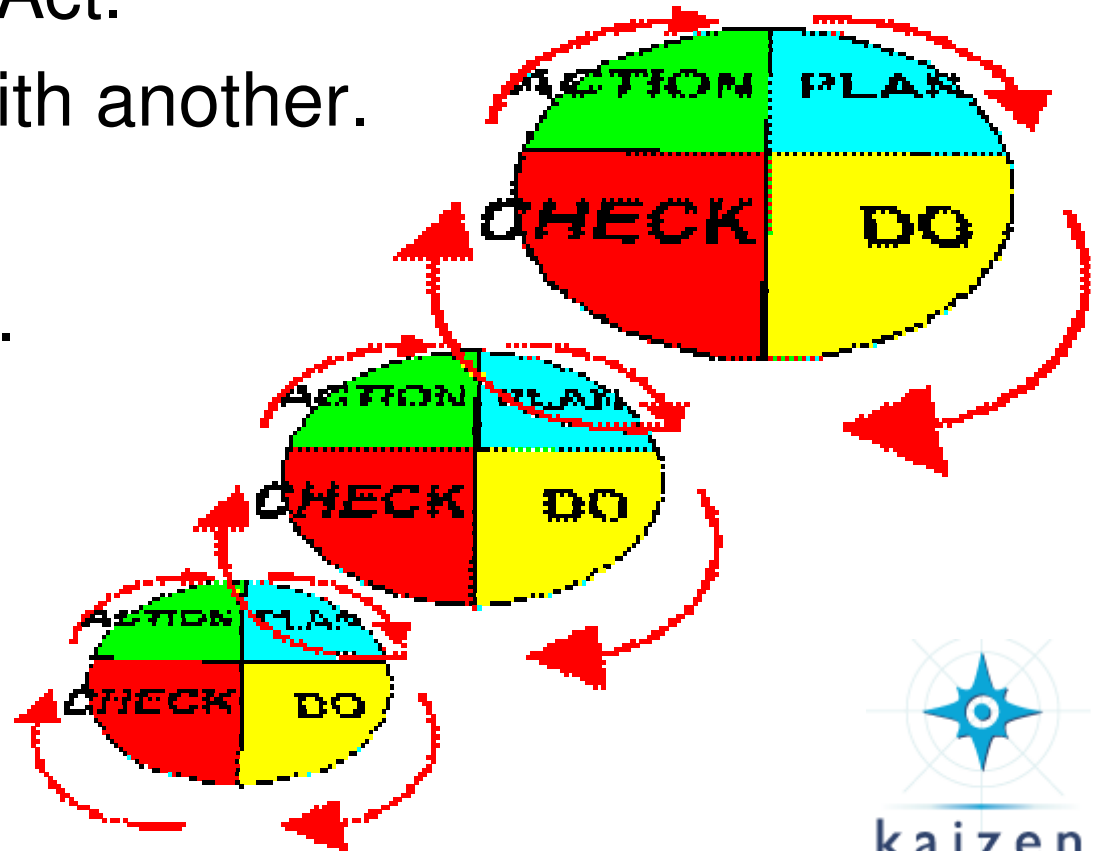
- SDCA to PDCA
- The next process is the customer
- Quality first
- Market-in
- Upstream management
- Speak with data
- Variability control and recurrence prevention (ask “why?” 5 times)





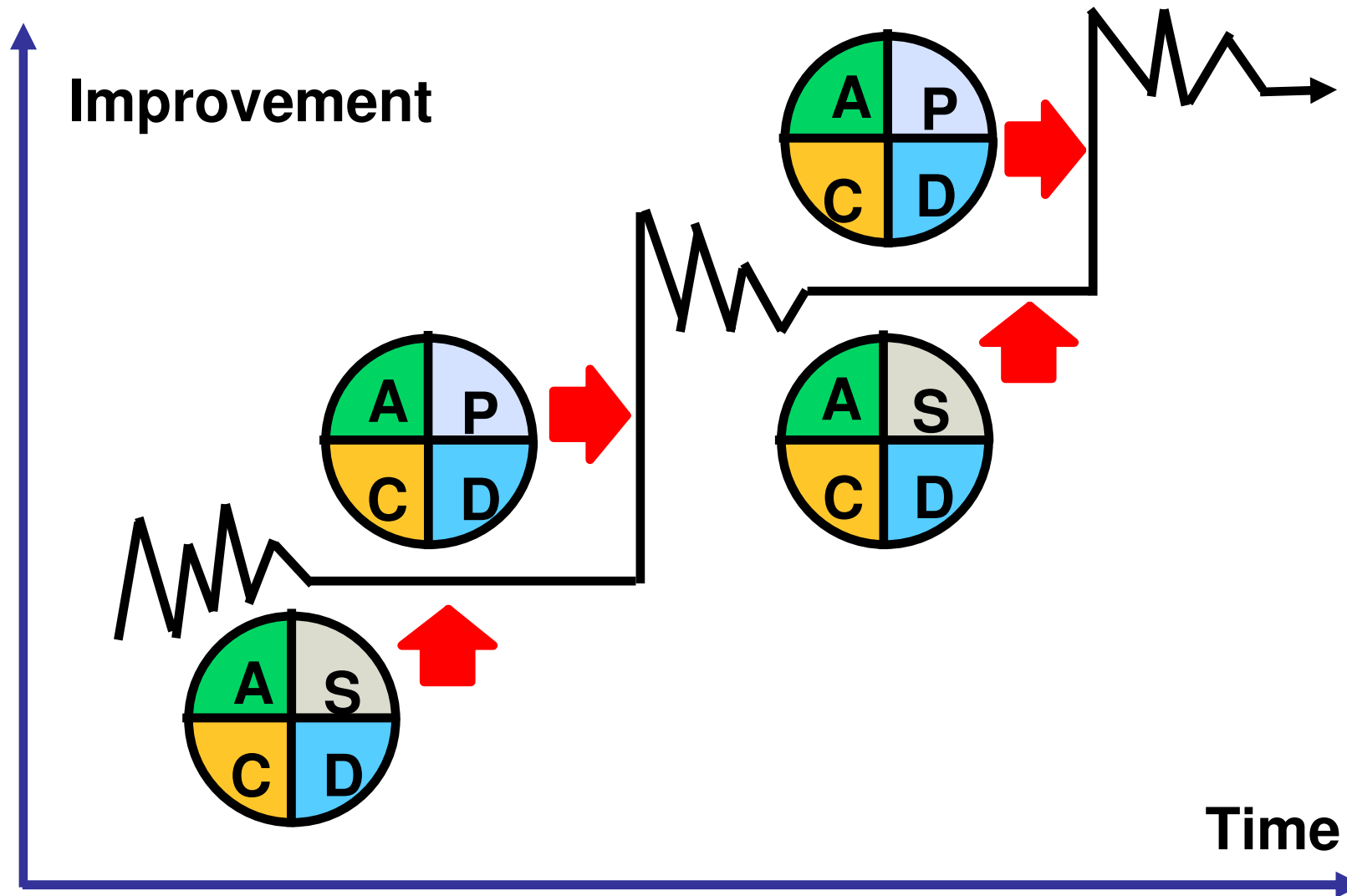
SDCA to PDCA

- PDCA cycle.
- Plan, Do, Check, Act.
- Finish one item with another.
- Never ending.
- Always improving.





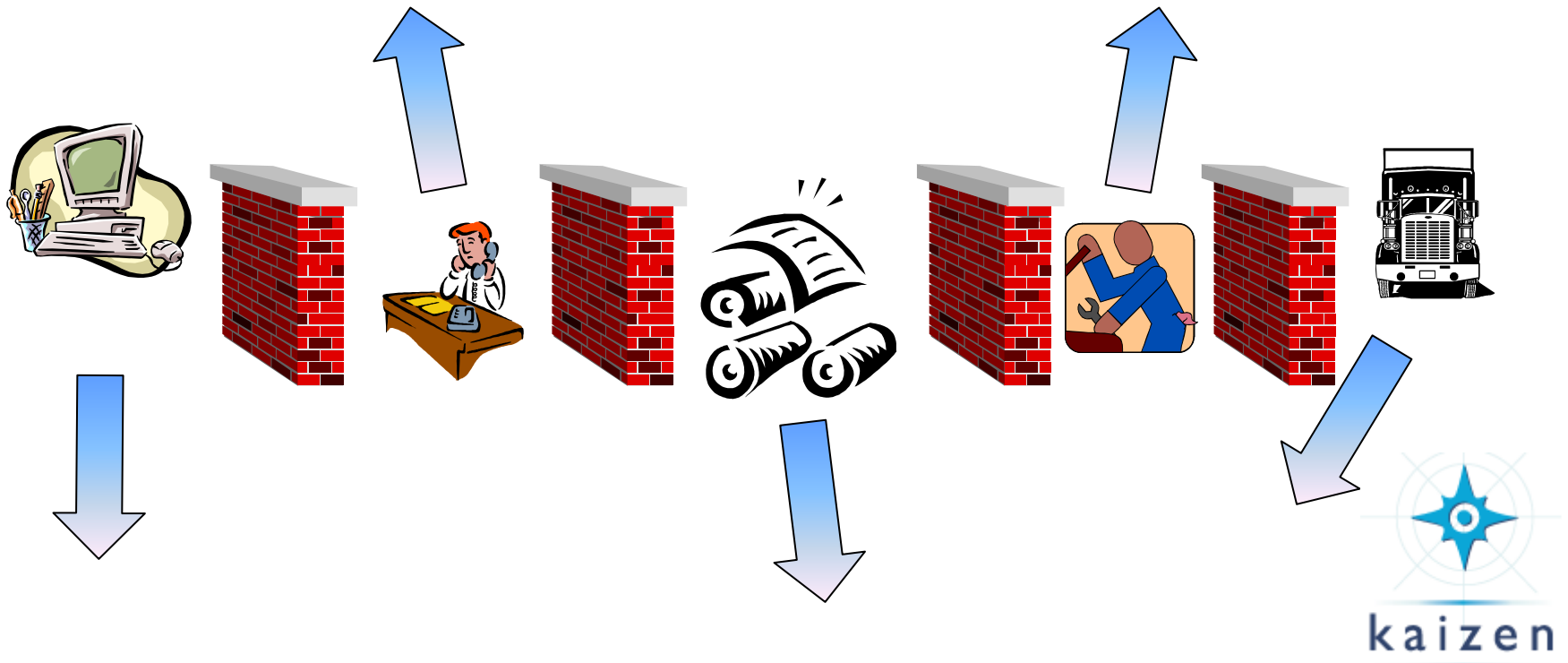
Using PDCA / SDCA





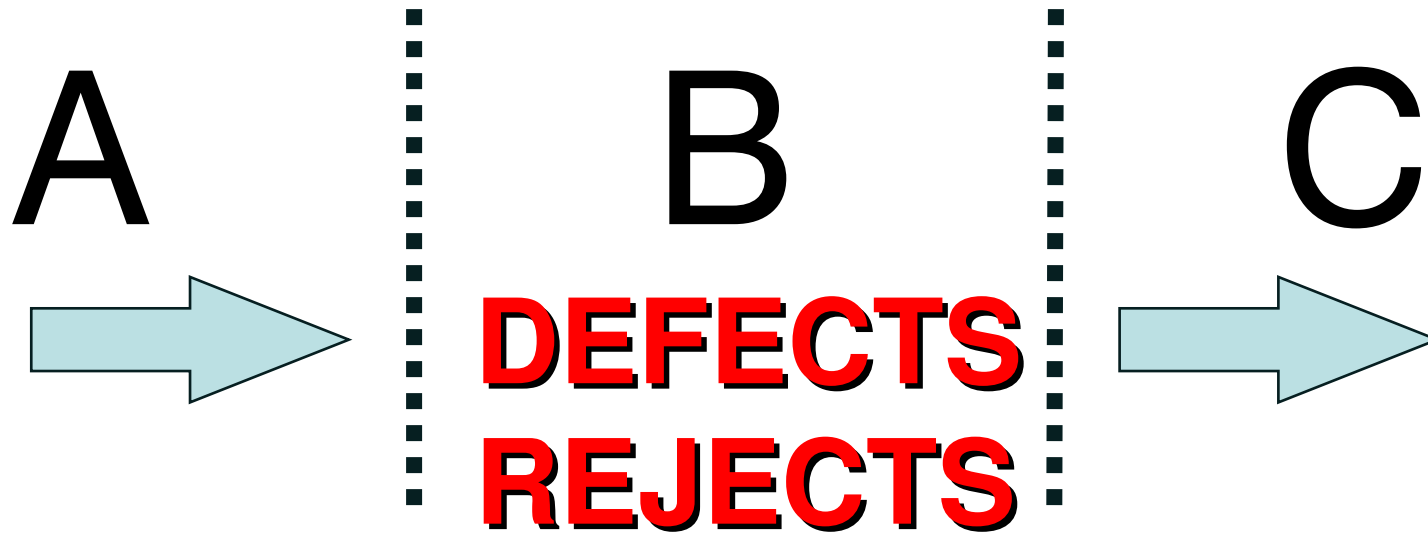
The Next Process is the Customer

- Customer/supplier chains
 - Each department should see the next in line as their customer
 - E.g. the press hall should see the bindery as their customer.





What is Quality First ?



Do Not Receive
Do Not Make
Do Not Pass On



Market-in :

- Conventional Model

$$\text{Cost} + \text{Profit} = \text{Selling Price}$$

Is a result of
cost + profit

- Market-in Model

Is determined
by the
customer

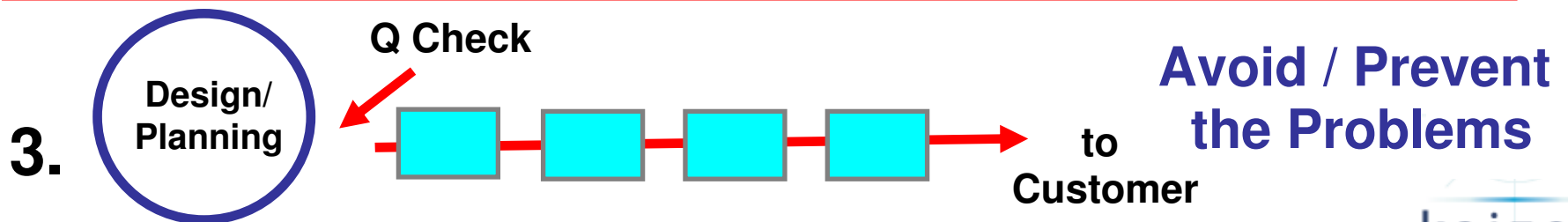
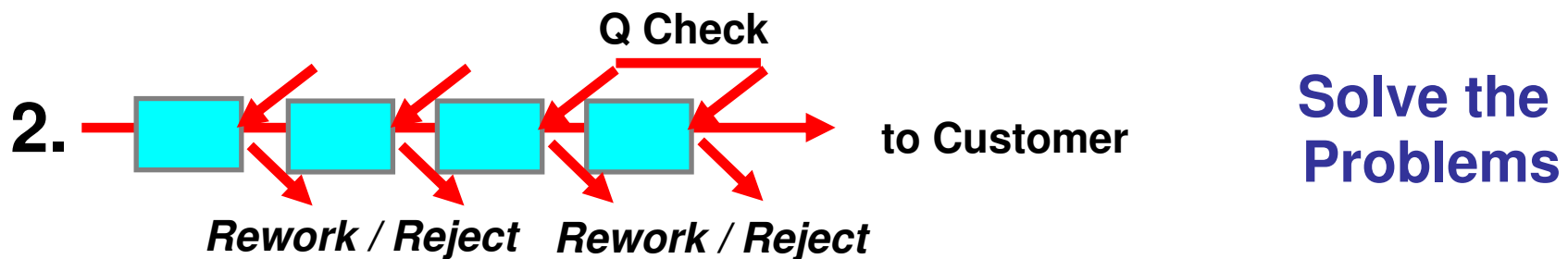
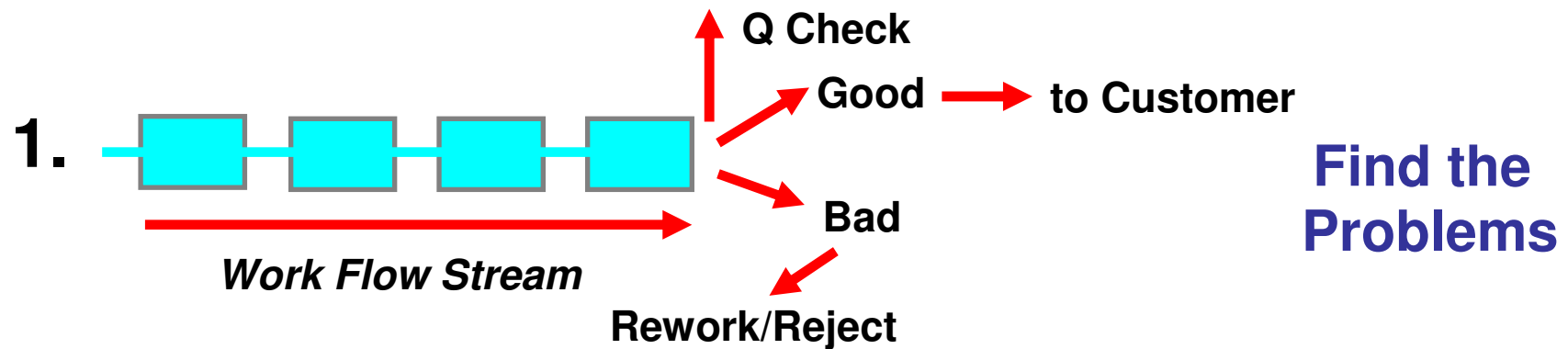
$$\text{Selling Price} - \text{Profit} = \text{Cost}$$

*Cost is decided by the market and the profit
needed by the company*





Upstream Management

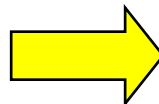
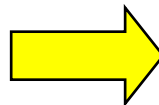
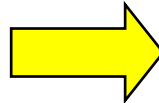




Only Speak With Data

No Longer Say ...

- The press is always breaking down
- We always waste a lot of material during make ready
- We have a lot of customer complaints



But Instead Say ...

- The press broke down 3 times this week, which represents 4 hours stoppage time
- We wasted 3500 copies during make ready
- We had three customer complaints regarding missing sections last month.



Variability Control and Recurrence Prevention



The 5 Whys