

wbs

WARWICK BUSINESS SCHOOL
THE UNIVERSITY OF WARWICK

**For the
Change
Makers**

QUALITY IMPROVEMENT



Process Improvement - The Preston plant

Case written by N. Burgess (2019)

Case Questions

1. What does Preston Plant do?
2. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?
3. How did they 'get their processes under control'?

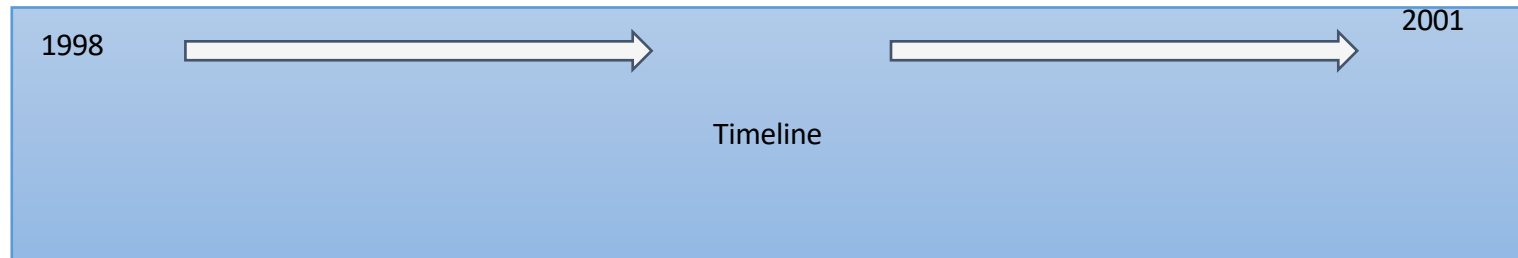
1 - What does Preston plant do?

- Company buys large rolls of paper applies a very precise coating of chemicals to the paper, then slits and shears paper into standard sizes;
- Key process is product coating - this is 'out of control' (in the SPC sense).
- During the case the plant is sold to Rendall Graphics Company
- As a loss making operation a decision is taken to close the plant
- However, over a period of time, Tom Branton, the Managing Director of the plant, takes a series of action that improve quality and reduce cost in the plant. Eventually, the closure decision is reversed.

2. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?

The curl
problem- (late
1998)

Q1. HP had not received any complaints - what does this tell you about the nature of HP as a customer?

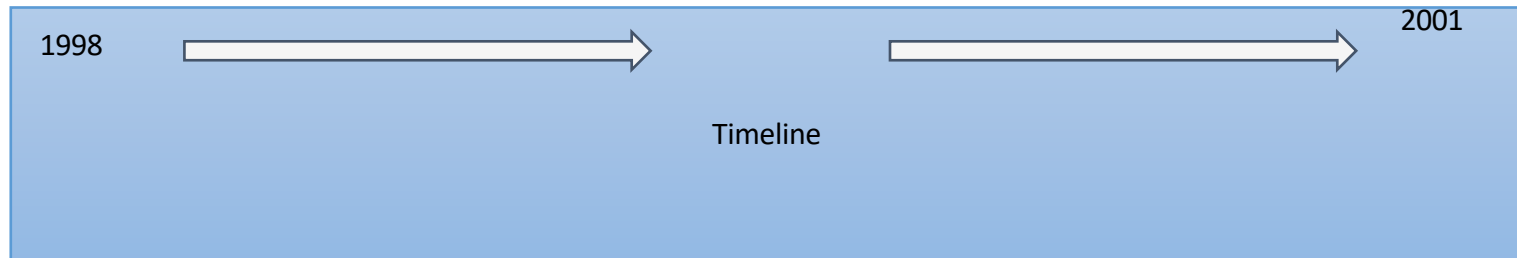


The curl
problem solved
(January 2000)

Q2. Why did it take so long to solve the curl problem?

2. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?

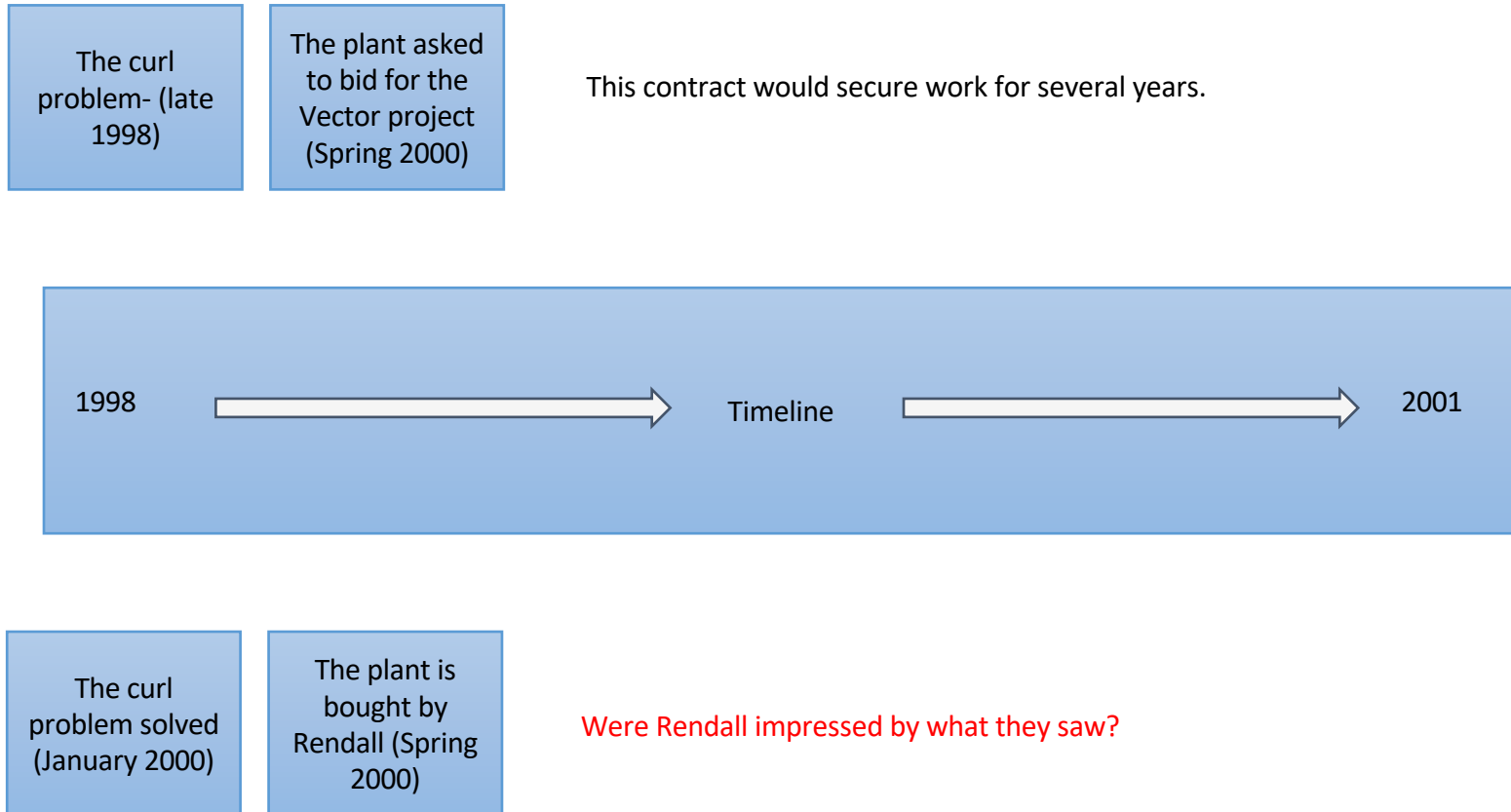
The curl problem- (late 1998)



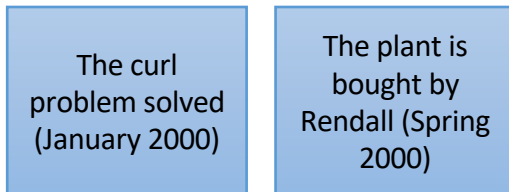
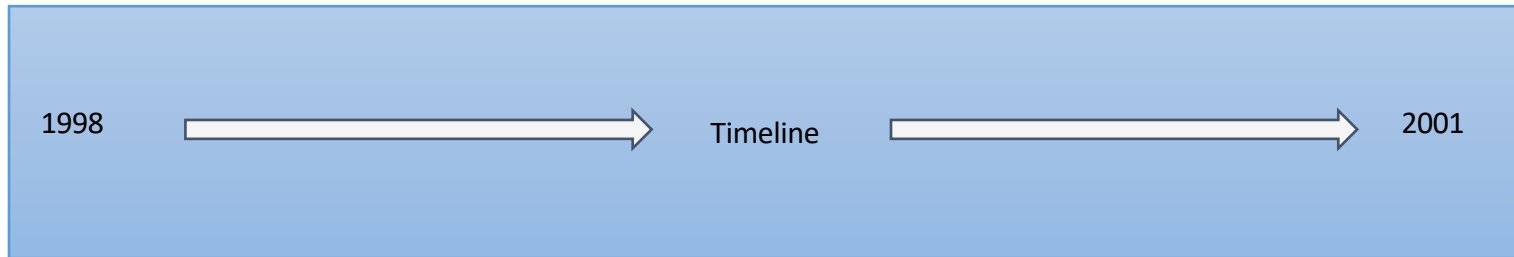
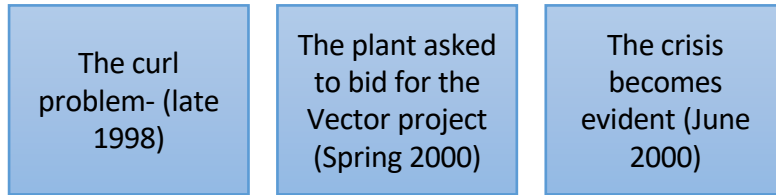
The curl problem solved (January 2000)

Q. Curl problem solved but company still not doing well, losing £2million per year. Productivity levels, scrap and rework were poor. What was Preston Plant's response to high levels of scrap and rework?

2. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?



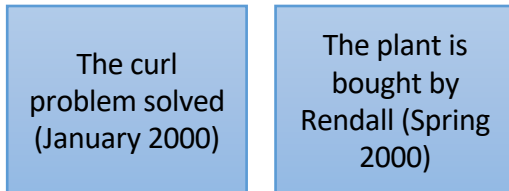
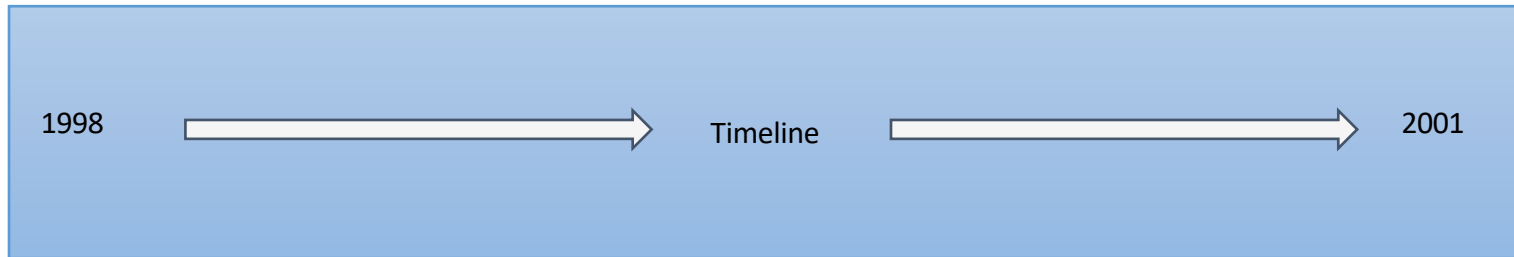
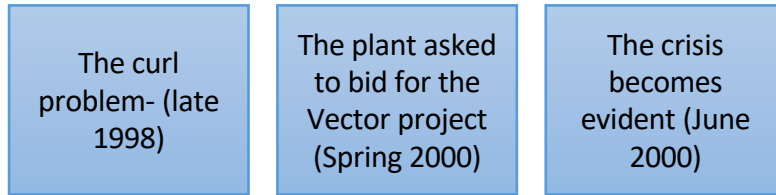
2. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?



“We think your processes are out of control, and we think you don’t even know” (HP Engineer)

Q. Why do you think this had such an impact on Tom Branton? What did he do then?

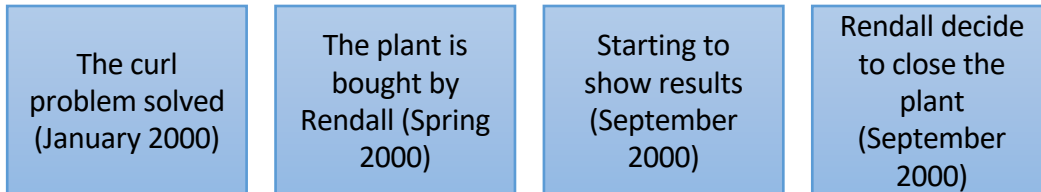
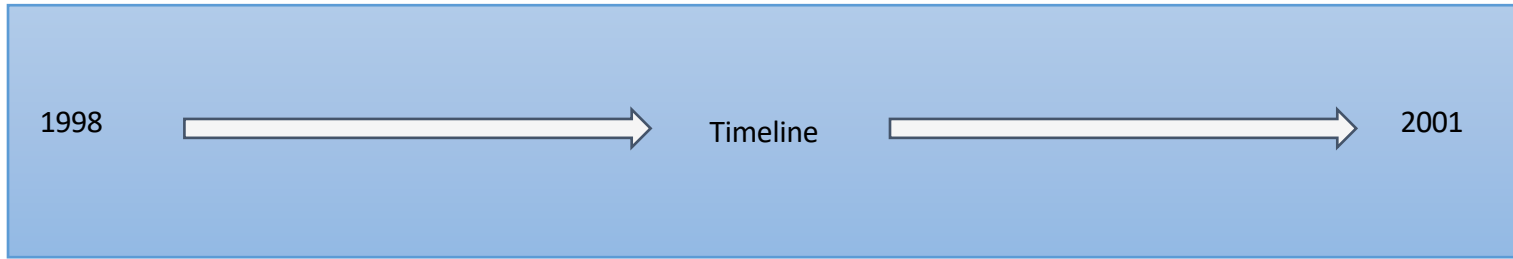
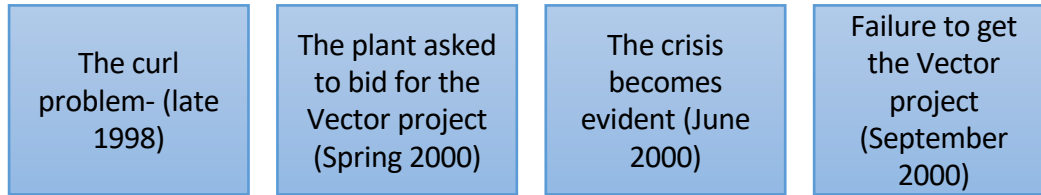
1. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?



Tom did the following:

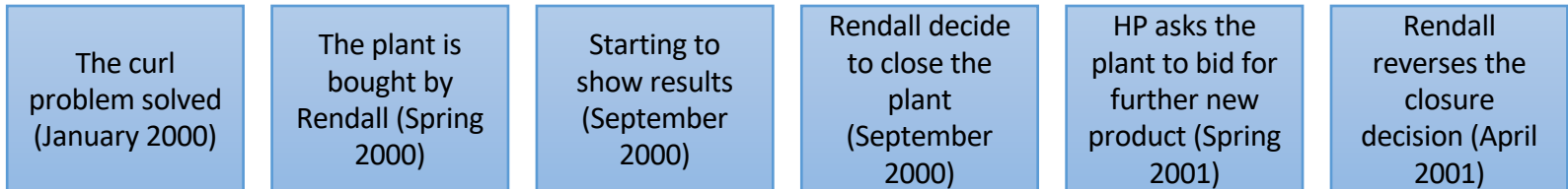
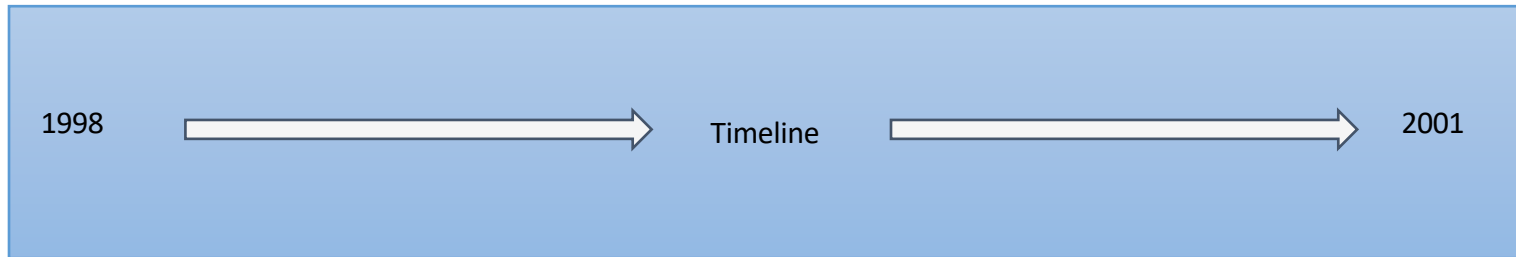
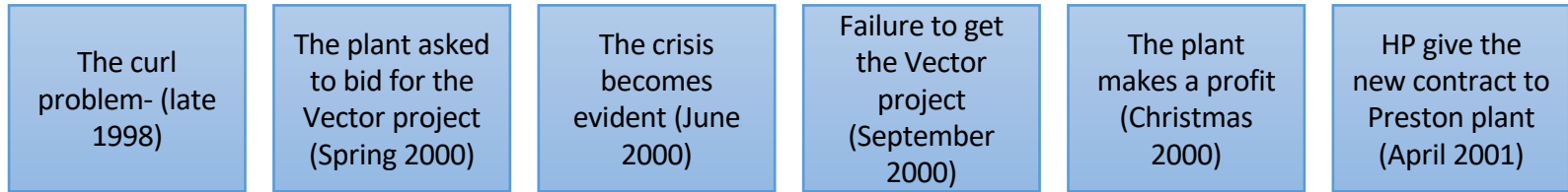
- 1) Develop shut down rules*
- 2) Each production team held daily reviews*
- 3) One day a month all shifts got together to discuss and learn from each other*

2. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?



Q. Why did Tom decide to continue the improvements?


2. What are the most significant events in the story of how the plant survived because of its adoption of quality based principles?



3. How did they 'get their processes under control'?

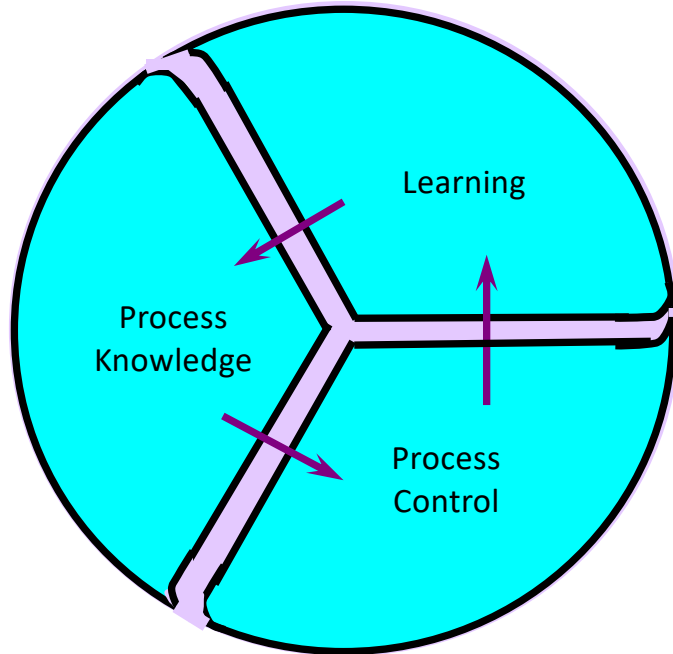
3. How did they 'get their processes under control'?

Learning

Stage	Term	Knowledge	Typical form of knowledge
1	Complete ignorance	None	Nowhere
2	Awareness		Tacit
3	Measurement		Written
4	Control of mean		Written and in hardware
5	Process capability		Hardware and operating manual
6	Process characterization		Empirical equations
7	Know why		Scientific models
8	Complete knowledge		Full

Bohn's scale of learning

Process control starts the learning that develops process knowledge



It isn't just a matter of being given the right resources

Operations with the same resources will not all give the same performance

What makes the difference? How they are able to learn

Adoption of quality based principles led to a number of strategic benefits:

- develops a lower costs base
- secures future demand
- enhances customer relationship skills
- enhances staff retention
- facilitates better in-house product development
- develops a firm basis for continuous improvement
- enhances the ability to form partnerships with suppliers

Gaining control of the process is a very operational issue, but the consequences are all very strategic

Thank you!

Questions?