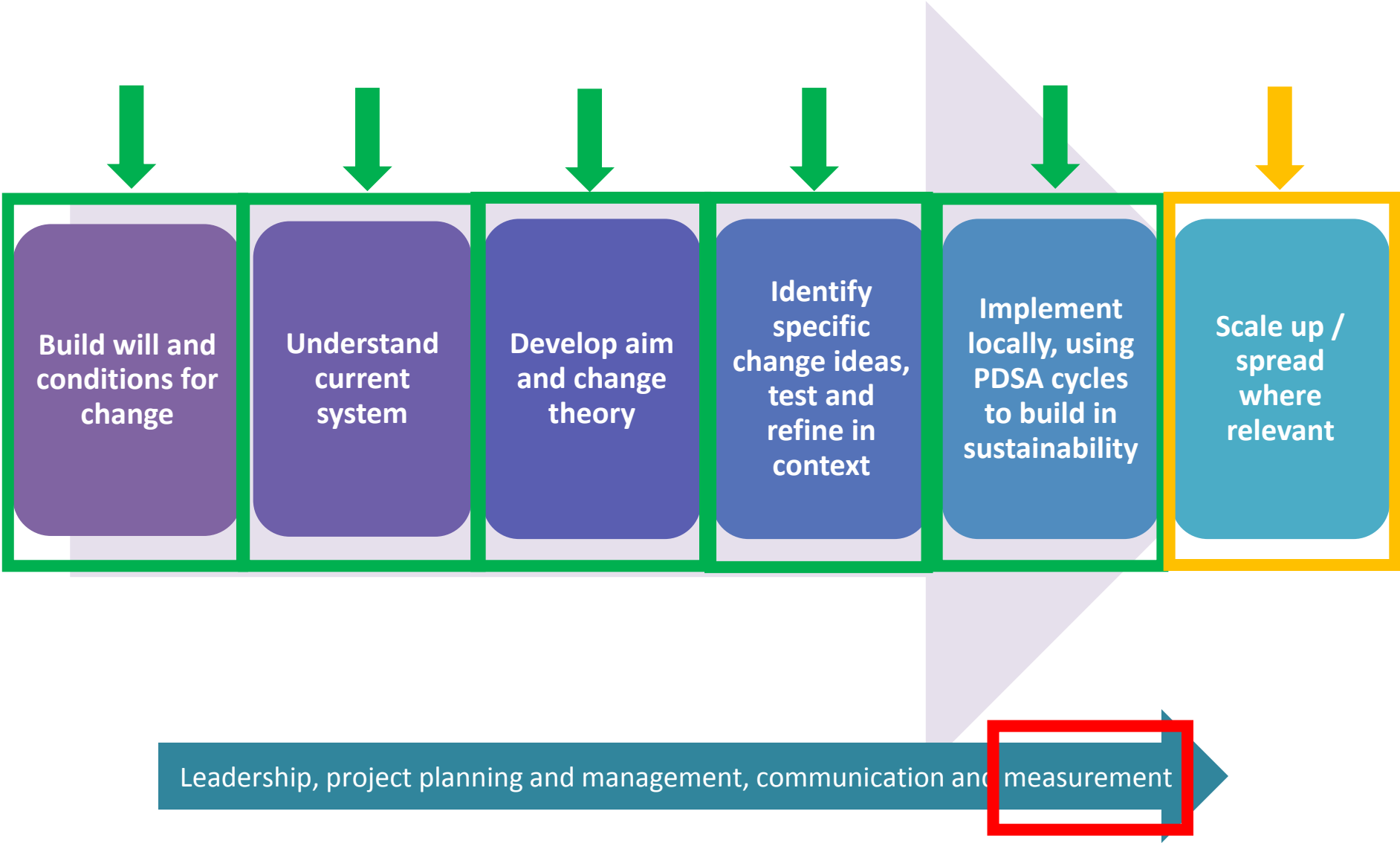


# Developing your Improvement Project indicators

Team Work Time

# The Scottish Improvement Journey



Without **DATA**  
**YOU** *are just*  
*another* person  
*with an* **OPINION**  
*Deming*

## Measurement: why?

- To make improvement visible
- To plan
- To monitor progress
- To tell an improvement story
- To use a shared language

Aspect	Improvement	Accountability	Research
<b><u>Aim</u></b>	Improvement of care (efficiency & effectiveness)	Comparison, choice, reassurance, motivation for change	New knowledge (efficacy)
<b><u>Methods:</u></b>			
• Test Observability	Test observable	No test, evaluate current performance	Test blinded or controlled
• Bias	Accept consistent bias	Measure and adjust to reduce bias	Design to eliminate bias
• Sample Size	“Just enough” data, small sequential samples	Obtain 100% of available, relevant data	“Just in case” data
• Flexibility of Hypothesis	Flexible hypotheses, changes as learning takes place	No hypothesis	Fixed hypothesis (null hypothesis)
• Testing Strategy	Sequential tests	No tests	One large test
• Determining if a change is an improvement	Run charts or Shewhart control charts (statistical process control)	No change focus (maybe compute a percent change or rank order the results)	Hypothesis, statistical tests (t-test, F-test, chi square), p-values
• Confidentiality of the data	Data used only by those involved with improvement	Data available for public consumption and review	Research subjects’ identities protected

Chart 1: % time spent on what matters

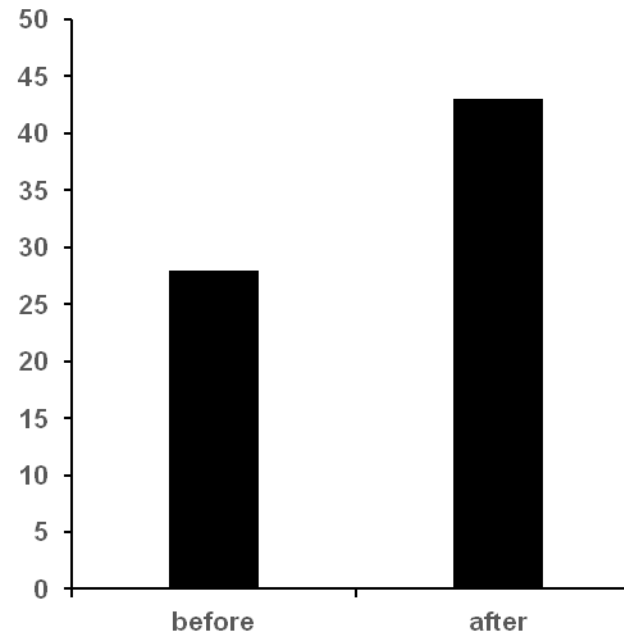


Chart 2: % time spent on what matters

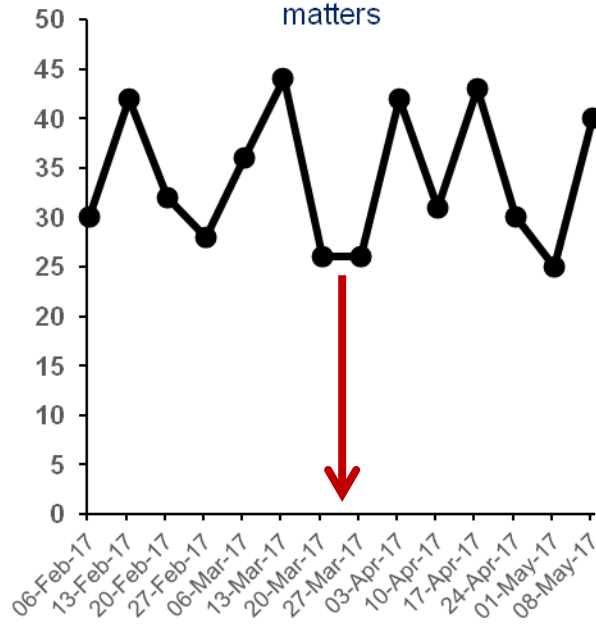


Chart 3: % time spent on what matters

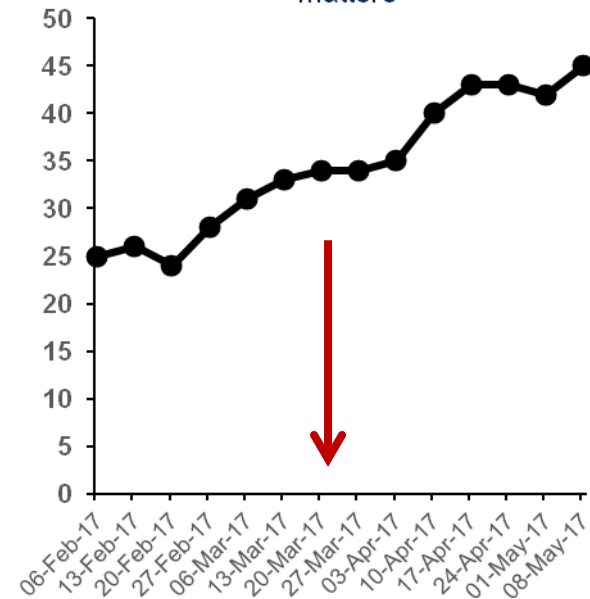


Chart 4: % time spent on what matters

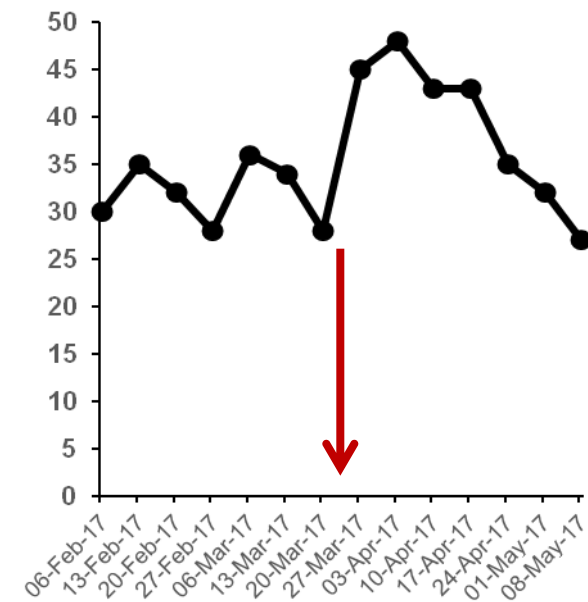


Chart 5: % time spent on what matters

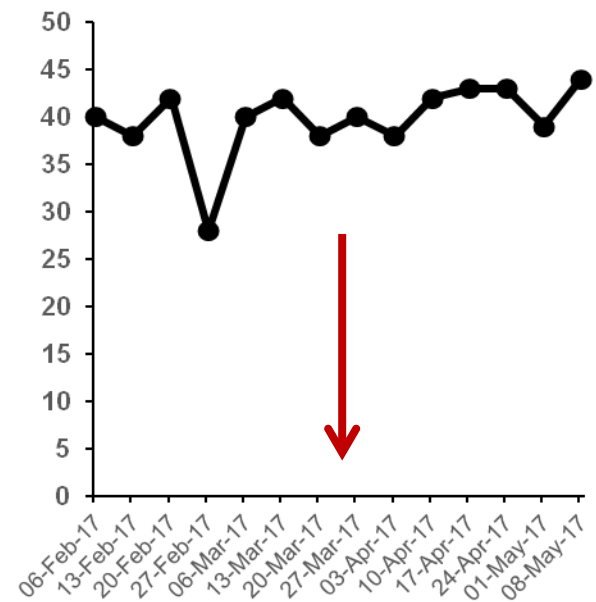
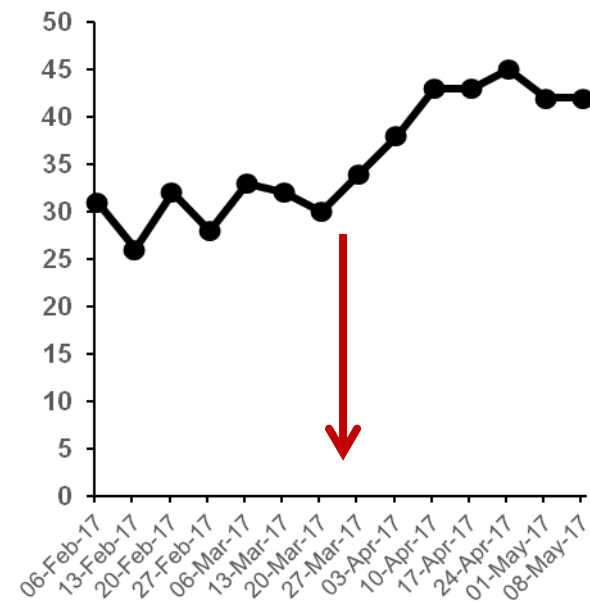


Chart 6: % time spent on what matters



# Three types of improvement measures

## Outcome

Tells a team whether the changes it is making are helping to achieve the stated aim

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Tells a team whether a specific process change is having the intended effect

## Balancing

Makes sure that changes to improve one part of the system are not causing problems in other parts of the system



# Driver Diagram: Service Example

