9. QUALITY IN PROJECTS

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9.3 Embedding quality

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Methodologies: a way to embed quality

In a project management context, a methodology is:

- a collection of inter-connected tools and techniques
- **a distillation of accumulated experience and wisdom**
- a mechanism for ensuring consistency in approach and delivery
- **a source of competitive advantage**

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Methodologies: a way to embed quality

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Is a methodology always right?

FOR	AGAINST
Sets out clear procedures	Requires extra bureaucracy
Clarifies requirements	**Slows down decision making**
Gives consistency of approach between projects	Does not directly improve the quality of the actual output
Maintains consistent terminology	**May not suit the working style of all customers**
Enables documents and records to be traced	May upset key project managers
Embeds standard ways of working	**May increase project duration and cost**
Adds to the organisation's credibility	A group must be in place to own and develop the methodology

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Customers' quality requirements have evolved

What was acceptable in the 1960s is not acceptable today.

We can expect quality expectations to become more demanding into the future.

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The Toyota revolution

Quality in how something is produced…..

- Planning the task thoroughly
- **Doing it once**
- Doing it with the minimum possible waste of time, money, materials or resources
- **Doing it properly and completely**
- Ensuring a seamless connection with the following task or tasks
- **Keeping full records of task activity and output condition**
- Applying continuous improvement principles throughout

… leads to quality in **what is produced**

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Total Quality Management

TOTAL QUALITY

- Everyone involved
- **Quality is central to the culture**
- Focus on customer needs
- **Everything is part of a process which aids quality**
- Continuous process improvement

Better performance at lower cost

More work, stronger relationships

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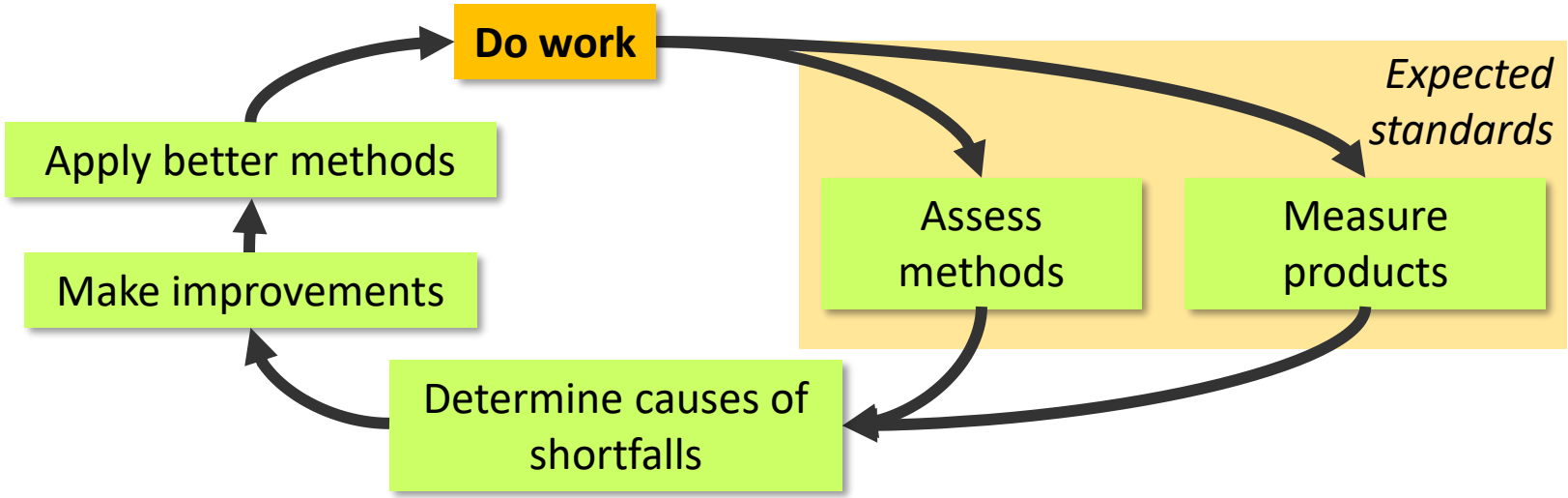
Continuous improvement

Continuous process improvement
- Use scientific methods
- Base decisions on facts and data
- See perfection as the goal

KAIZEN: Better quality means higher productivity and less rework which leads to better results



Cutting waste may mean cutting staff which will create its own problems.

'Quality is free.' *Philip B. Crosby*

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The capability maturity model

A way to develop and refine an organisation's processes

	Name	Processes	Organisation	Performance
1	Initial	Ad hoc, little if any control	Individual efforts	Erratic, generally late and over budget
2	Repeatable	Basic processes, may vary by project	Limited project management	High risk of lateness and overspend
3	Defined	Set of standard processes	Manage to process	Consistent
4	Managed	Quantified quality goals	Precise control, using statistical techniques	Predictable
5	Optimised	Continuous improvement	Addressing process variation	Ever improving

Developed by Carnegie-Mellon University's Software Engineering Institute in the mid-1980s

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Getting the right level of quality

A well-developed quality system can cost a firm barely **2%** of turnover. An organisation with a poor quality system, might waste **20%** of turnover.

***BUT** - beware of the perils of perfectionism. An over-elaborate system will add unnecessary cost.*

The client for a nuclear reactor expects to pay more for quality than the client for a wooden shed. Project suppliers must match their quality capabilities with what their market requires.

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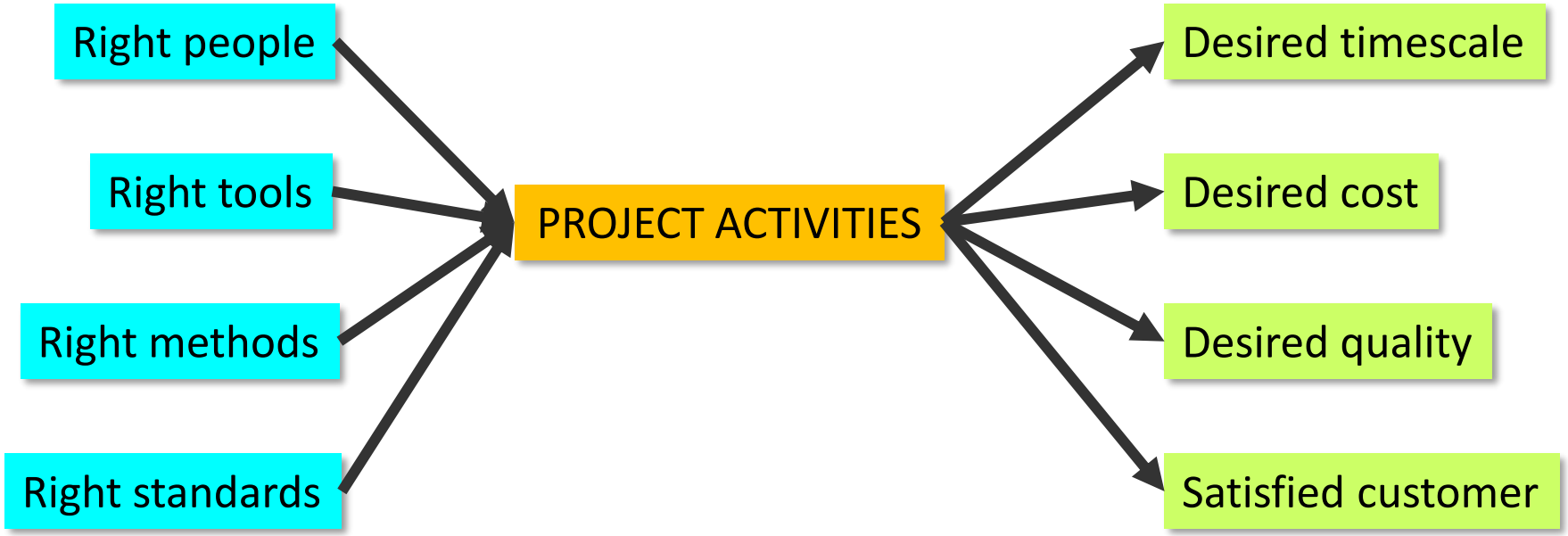
Quality in, quality out



Quality is ultimately about customer satisfaction. That means excellent products and services; the right equipment and methods to produce them; prompt and polite attention; well-trained, well-motivated and empowered people; and a total commitment to quality from the top management.

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