



WORLD QUALITY WEEK 2022

Quality conscience:
doing the right thing

7 – 11 NOVEMBER 2022

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BE CELEBRATING #WQW22.

Selecting the Right Quality Tools & the Pitfalls of When you Don't

Selecting the Right Quality Tools & the Pitfalls of When you Don't

Paul Vaughan CQP, FCQI, FIIRSM, MICW

A Bit About the Presenter



- **Paul Vaughan** has over thirty-five years of experience working in quality related roles across a number of diverse industries. The last fifteen of which, have been spent in Rail and construction, where he has worked on prestigious projects such as Channel Tunnel Rail Link, Thameslink and Crossrail.
- He is a Chartered Quality Professional and In 2019 was extremely honoured to be awarded Fellowship status with the Chartered Quality Institute.
- Paul's quest for 'giving back' and promoting 'sensible' quality has led him to taking on a number of voluntary roles, such as 2018 International Quality Leadership Judge and Presenter, regular CQI webpage and Quality World article contributor, 2018 International Quality Team of the Year Finalist, Audit SIG Committee member, CQI Content Advisory Panelist, book author etc.
- His ethos is all about sensible quality and by that he means providing value adding and effective quality, opposed to just purely being about compliance. A lot of his recent work has focused on quality behaviours and motivation where experience (sometimes painful) has taught him that using persuasive anecdotal arguments on why something needs to be done and listening back is going to be far more conducive to just telling someone to do something.

Fellow of the CQI
Chartered Quality Professional
Fellow of the IIRSM
Member of the ICW
ISO 9001;2015 Lead Auditor
ISO 44001;2017 Auditor
ISO 27001:2013 Lead Auditor
RCA Practitioner
Mental Health First Aider
IEMA Environmental
Sustainability Skills for Mgrs.

The Quality Tool Selector



Other 'Quality Conscience' Contributions

OPINION



OWN YOUR SIGNATURE

Paul Vaughan FCQI, Head of Quality at Emico, says that only those who are truly responsible, accountable, consulted and informed should sign off documents

"The term 'signing your life away' is often said in jest, but what if we are being asked to sign to verify something is safe – maybe an electrical system? We could, in effect, be signing someone else's life away"

As a quality professional, I have been part of – and seen a good deal of – quality initiatives during my career. Many of them, which now probably reside in the 'Failed Initiatives' bin, can be thought of as experiences from which to learn.

A number of initiatives have really resonated, however, one of which was an 'Own Your Signature' campaign. This was part of engineering, construction, and project management company Bechtel's '5 Quality Absolutes', and was initially rolled out on the Crossrail project in London. Its appeal is that it has an obvious and simple message, and although it is primarily aimed at the quality professional, it is applicable to all walks of working life.

So what does it mean to 'own your signature'? An unsigned document or form is basically a piece of paper with statements of text on it. A signed document or form is still a written piece of paper, but now it has a personal commitment and responsibility from the signatory. It is, in essence, the culmination and reflection of the signatory's training, knowledge and experience.

For example, when a 'charming' double-glazing salesperson takes up residence on our sofas – holding the coffee we made in one hand and a pen in the other – and tells us that, by signing there and then, we will benefit from the most remarkable discounted deal ever, a good few of us will surrender and sign, just to get them out of the house. Thankfully, we now have a statutory cooling off period to protect us from pressurised sales such as these.

In the workplace, there may also be times when, as a signatory, you feel under pressure to sign a document or record – for example "Come on mate, the lorry's loaded up and waiting to go!"; or "We need to get the paperwork done now, so that we can get the invoice out today."

In the work environment, however, there

isn't a 'cooling off' period in which you can change your mind and 'undo' your signature. The ship, with its uncertain load, has already sailed.

Your signature is something far greater than the 'scribble' that others may see it as; it is a statement of your integrity and, ultimately, you are putting your reputation on the line.

The term 'signing your life away' is often said in jest, but what if we are being asked to sign to verify something is safe – maybe signing an electrical system? We could, in effect, be signing someone else's life away – and, rest assured, the Health and Safety Executive will put a huge emphasis on that 'little scribble'.

Obviously, the true root cause of a problem should not be because the quality professional signed a piece of paper. The old adage that 'you can't inspect quality into a product' holds true. The sad fact of life for a quality professional is that 999 times out of 1,000 nobody says "Well done Paul, you signed off a great piece of work." However, in that 0.1% scenario you can bet everyone's first question will be: "Who signed for this piece of work?" Or worse.

The point of 'who' signs is a key question, and the answer must be only those who are competent and authorised to do so. How do we know who these people are? Well, a good starting point would be from a responsible, accountable, consulted and informed (RACI) chart, job description or the 'Responsibilities' section of a process and/or procedure.

In summary, only ever sign or validate work when you are:

- satisfied that you have the right competences and authority; and
- certain of the quality and safety of the information provided and completion of the work done.

That's how you own your signature.

TO HAVE YOUR SAY ON
BURNING ISSUES, TWEET US
@QUALITYWORLD, EMAIL
SUBMISSIONS@QUALITY.ORG
OR POST IN OUR
LINKEDIN GROUP:
LINKEDIN.COM/GRUPL390853A

ETHICAL DILEMMA

Skipping the final quality assurance check

In our latest quality dilemma, we look at how a quality professional should handle a situation where a final quality assurance check has been missed in order to fulfil a last-minute delivery

Scenario

Software 'X' is a software testing house, providing software for safety control, emergency shutdowns and fire and gas systems for the oil and gas industry. It has been in business for more than 30 years, expanding to employ 300 staff.

A quality professional returned from leave to find an urgent software update had been carried out after a missed client input requirement came to light.

The code change was made by a junior software engineer, under the supervision of the software engineering lead. The latter has been with the company since its inception and is highly regarded by the senior management team.

The customer is a long-standing client, but has shown increasing dissatisfaction with Software 'X' due to delays to recent releases. They have indicated that they are considering their options.

Due to this, and the 11th-hour change required, the software engineering lead decided to sacrifice the independent and final quality assurance (QA) check for the sake of making the last-minute delivery.

The quality professional brought their findings to the managing director who told them that "although not ideal, sometimes these things have to happen." The managing director reminded the quality professional of the consequences if the issue was to be formally raised, citing:

1. The software engineering lead, and potentially the junior, would face disciplinary action, likely leading to dismissal.
2. The software would have to be recalled, resulting in operational downtime and loss of revenue for the customer.
3. This would undoubtedly be the last straw for the customer, resulting in the termination of the contract.
4. The customer is responsible for over 70% of the company's order book, so the company would have to make mass redundancies, including indirect staff such as the QA team.

The software engineering lead argued that they gave this piece of software an even more thorough review, in the knowledge that there wouldn't be a final QA check. They pleaded that there was absolutely nothing wrong with the software change.

As the quality professional, what would you do?

Response

First, it is important the facts are clearly established, including understanding the definition and details of the problem. By getting a factual timeline visualised – including highlighting key containment actions, disposition decisions and investigation output – a logical assessment can be made on what immediate and medium-term steps need to be taken and presented to internal leadership.

One would generally harness the support of a cross-functional team of subject matter experts to help resolve and present this information. That should then be recorded in the quality management system database, as that is the correct and proper thing to do as a quality professional.

It is imperative that the quality of the product or service is not impacted by implementing the software update to the customer. A decision should be encouraged in a timely manner to prevent the facts to the customer, and to work collaboratively to bring

the situation under control, as this will build mutual trust.

The managing director should then be encouraged to focus on the root causes of the problem and deal with them factually and in a timely manner, while being honest with the customer about the status. The attempt to discipline the junior software engineer and make tech decisions about mass redundancies is clearly demonstrating an inability to grasp the situation at hand, rather than focusing on the problem and bringing it under control – something the customer would want to see.

The managing director should be further encouraged to work with the teams to implement the solutions, building a culture of trust through leading by example, and to encourage the team to raise similar concerns without fear or prejudice. This will ensure leadership commitment to continual improvement and will, in turn, reduce defects, helping raise customer satisfaction levels and likely win new and repeated business opportunities.

Thank you to Paul Vaughan CQP FCQI and William Rankin CQP FCQI for their help with this.

What's your take? Share your thoughts on how to deal with this dilemma in practice or submission@quality.org. We also welcome any professional dilemmas (it can be published anonymously) that you may face or would like to be discussed.

How do we Know What **is** the Right Thing?

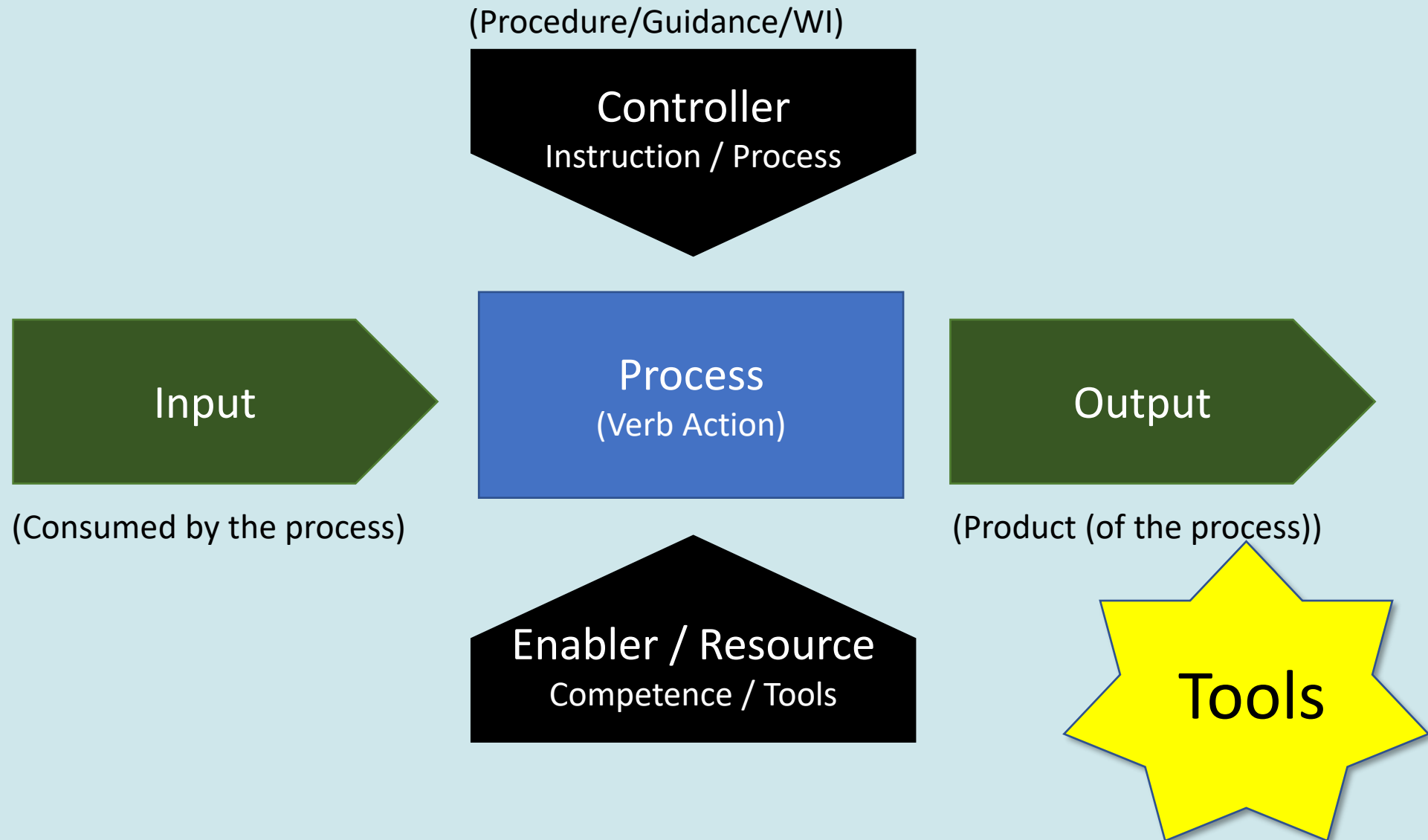
Are we doing the right things?

Are we doing the right things right?

Can we do them better?

Departmental Purpose Analysis (DPA) - TQM

Integral to the Process



Definition of a 'Quality' Tool

Tool

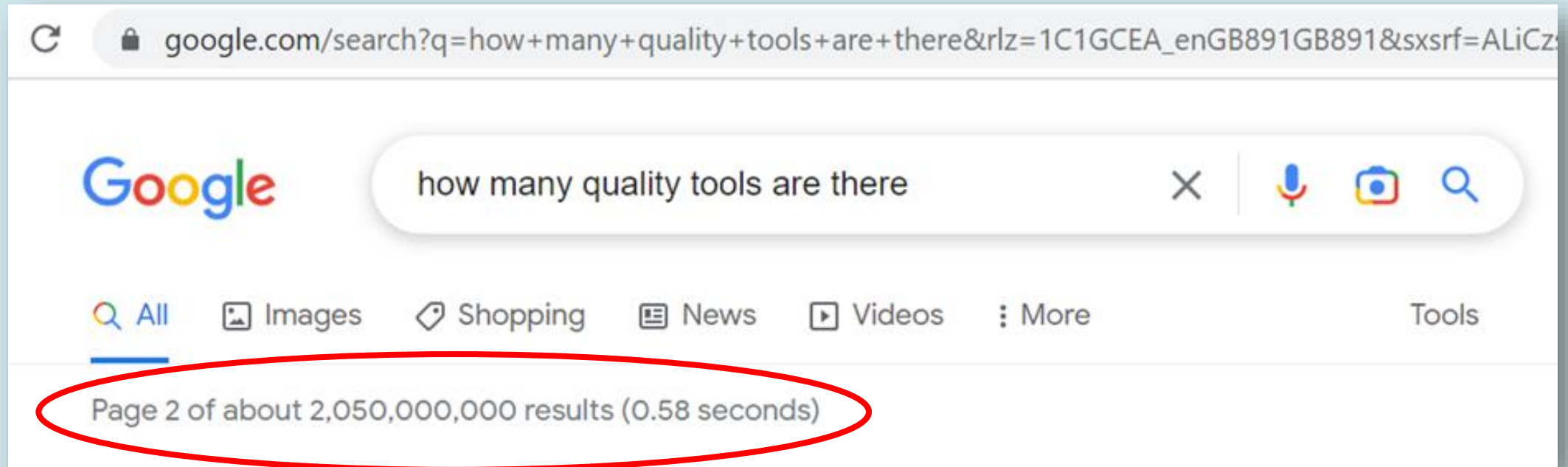
- *A device or implement, especially one held in the hand, used to carry out a particular function* - **Ref. Google**
- *"2a: something (such as an instrument or apparatus) used in performing an operation or necessary in the practice of a vocation or profession"* - **Ref. Merriam Webster**
- Ref. ISO 9000:2015 Quality management systems - Fundamentals and vocabulary – **Two** indirect references to 'tools'. But neither preceded by **"quality"**.

Quality Tool

- Any device, application or tool that is used to support and deliver the quality of all products, processes and services. It can take the shape of a chart, technique or strategy that can be used to ensure that quality objectives are achieved and maintained. – **Ref. Paul Vaughan's 'take' on quality.**

Factors for Choosing the Right Tool

'I Googled it!'



- **"7 basic tools" with 19 variations in the first 4 pages**

Factors for Choosing the Right Tool

Business Objectives Related

- The 'objective' of the tool **MUST** have correlation to achieving the organisation's objectives

Plan, Do, Check, Act (PDCA)

- PDCA is fundamental to the purpose of the tool and everything we do, whether its used for:
 - **Planning** an activity e.g. an audit programme app;
 - **Doing** the activity e.g. automated Go / No Go gauging;
 - **Checking** the activity e.g. control charts; or
 - **Acting** on the results of the activity e.g. lessons learned

Factors for Choosing the Right Tool

Top Management Buy-in

- If the implementation of the tool isn't supported by top management, it's a non-starter!

Agreed Budget Costing

- No surprises!
- No hidden costs!
- No excuse to discontinue with the tool.

Phase & Time (Constraints)

- Where in the lifecycle are you?
- How much time do you have for the tool to become effective?
i.e. full blown 8D 'v' abridged alternative?

Factors for Choosing the Right Tool

Competence

- Who's 'gonna' drive it?;
- In-house expertise 'v' external 2nd party support;
- Training considerations;

Measurement – Tool Performance

- Baseline (where we started from);
- Performance targets;

Digital Technology – Quality 4.0

- Embrace the technology, or get left behind!;
- Automated reporting, flagging, trend analysis etc.

The Pitfalls of Choosing the Wrong Tool



“To a man with a hammer,
everything looks like a nail”

Abraham Maslow

The Pitfalls of Choosing the Wrong Tool

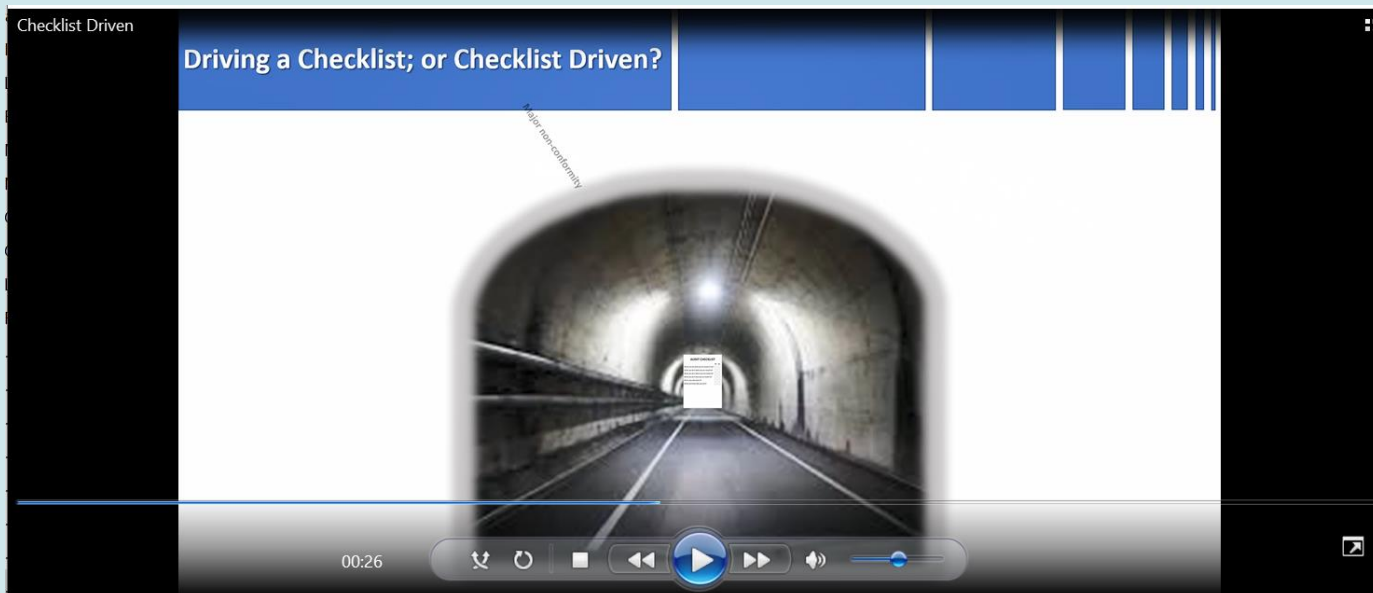


Don't Let the Tool Choose You!

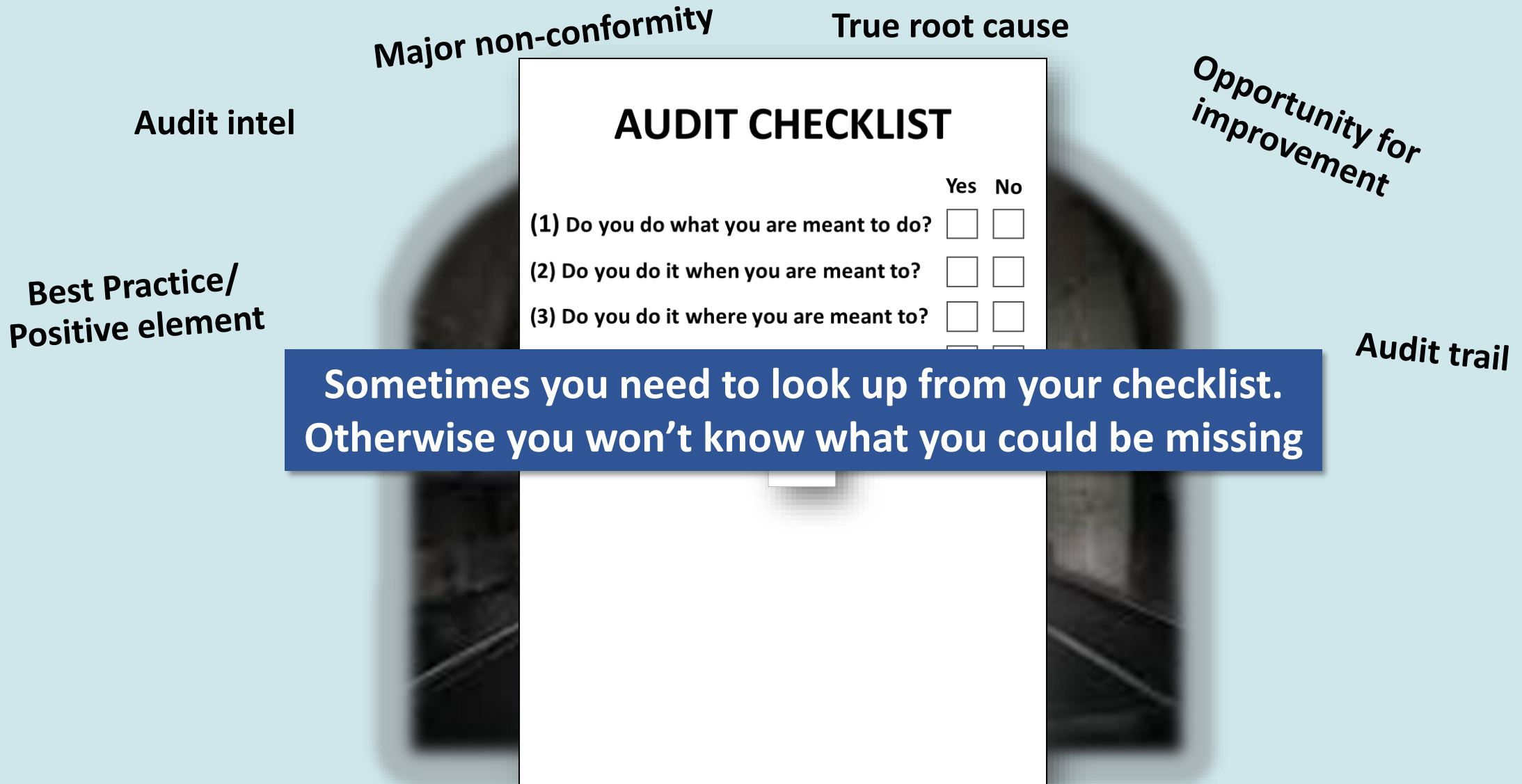
- The classic finance tool that suddenly becomes 'ideal' for goods inwards ... and then before we know it, we've had to change our proven quality processes, so we can put NCRs and audit reports on the tool

The Pitfalls of Choosing the Wrong Tool

Driving a Checklist or Checklist Driven?



The Pitfalls of Choosing the Wrong Tool



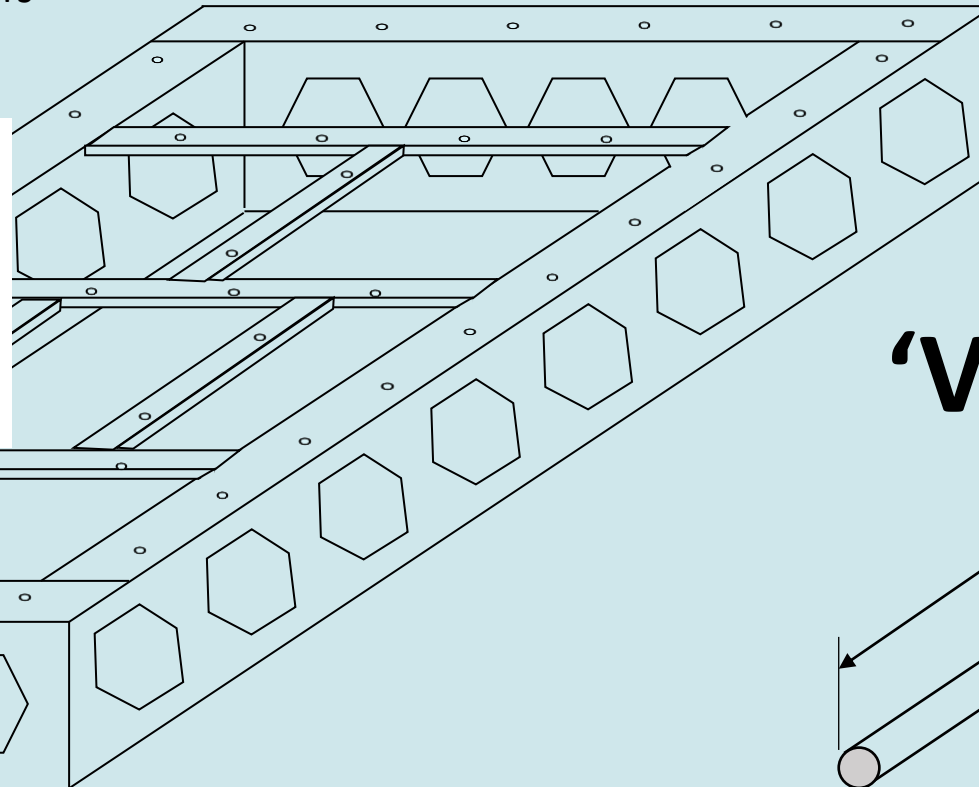
The Pitfalls of Choosing the Wrong Tool

Comparing Apples with Pears – Vendor Rating

Using an attribute 'P' chart for varying diameters
1 x Defect / 1 x NC = 100% (Vendor Rating) Reject Rate

However, using an Attribute 'U' Chart ...
expressed as a percentage defect rate
against the number of defect
opportunities:
 $1(x \text{ Defect}) / 2000 (\text{opportunities}) \times 100 =$
0.05% defect rate

Vendor A

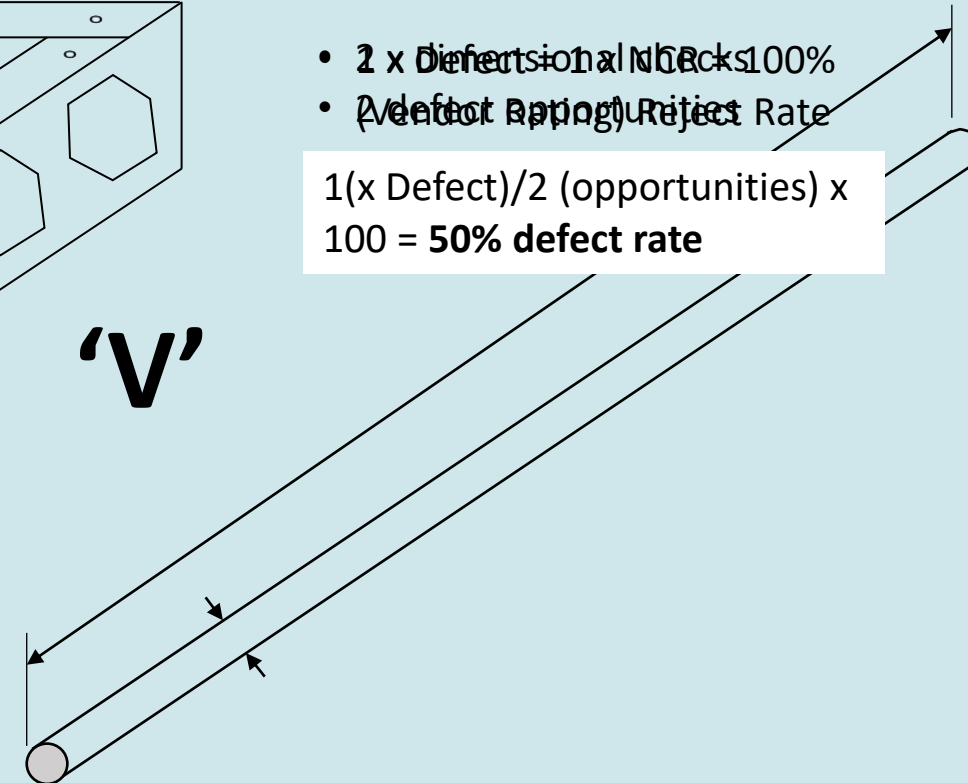


Vendor B

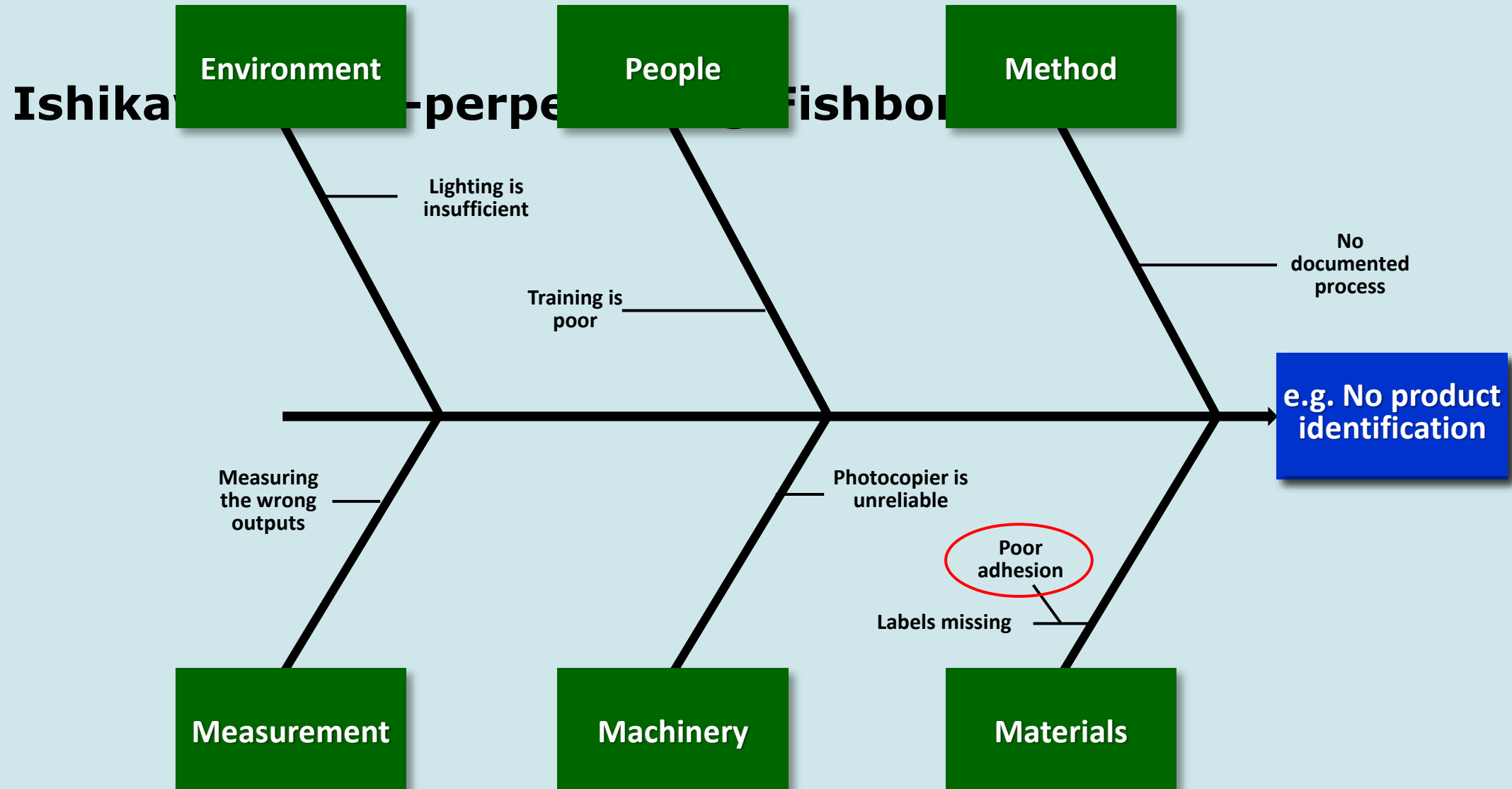
- 2 x Defects / 1 x NC = 100%
- 2 Defect Opportunities / 1 Defect Rate

$1(x \text{ Defect}) / 2 (\text{opportunities}) \times 100 =$
50% defect rate

'V'



Useful Pointers



Useful Pointers

Is One Tool Enough?

- Probably not e.g. Root cause analysis (RCA).
- RCA is not a single defined methodology. There are many different tools, processes, and philosophies for performing RCA.
- In most cases it will be appropriate to use more than one tool to establish the true root cause e.g. a combined Affinity Diagram, Five Why's and a Fault Tree analysis.

Yeah But ... What's the Actual Risk?

~~"People + skills"~~

"not having the appropriate competence to deliver projects as a result of losing or not having the right people and skills within the business."

~~"Material prices"~~

"Escalation of material prices putting additional financial burden on their procurement and subsequent loss of profit."

Useful Pointers

Don't Call it "Quality"

- Can be viewed as being right up there with wearing socks with sandals

"It's just another quality initiative!"

"You'll need to talk to Quality, as they own it"

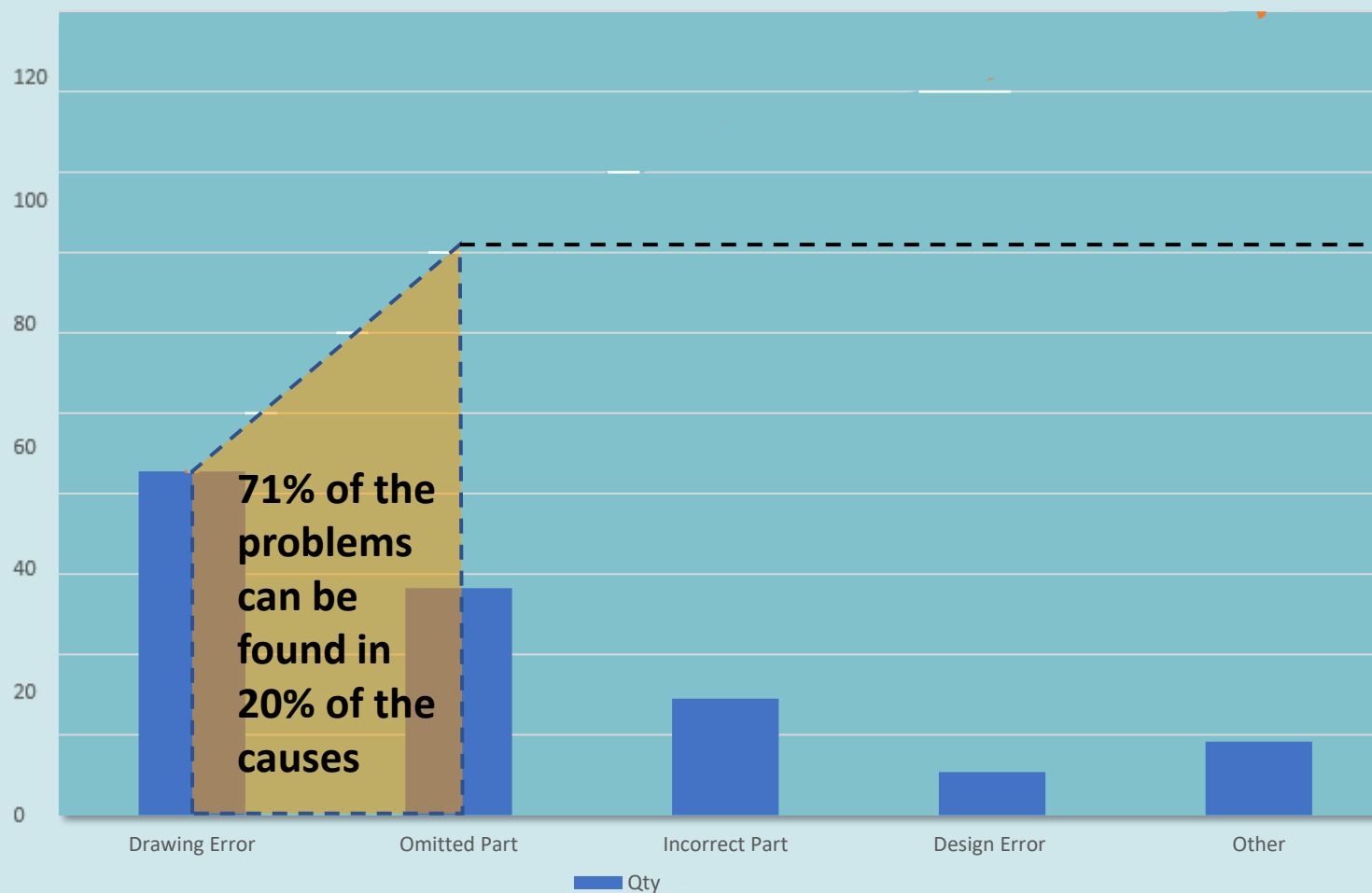
"Stop your day job guys. That Quality lot have come up with another tool"

"Obviously, the Quality team haven't got enough to do"



Useful Pointers

There's two "Y"s in Pareto



Useful Pointers

A Good Lesson to be Learned

What a
plonker!



I cant believe
he missed that
sitter!

Be brave!

Invite the supplier and Customer along to
the next Lessons Learned workshop



INTERNATIONAL

QUALITY

AWARDS 23

PART OF QUALITY LIVE

Entries open Monday 9 January

quality.org/IQA23