How to Implement Safety-II: Building Resilient Health Care

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Desperately seeking solutions

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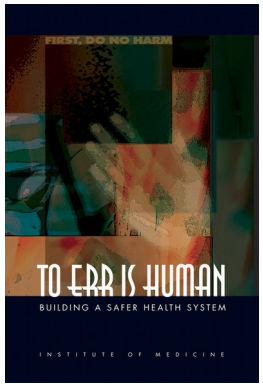
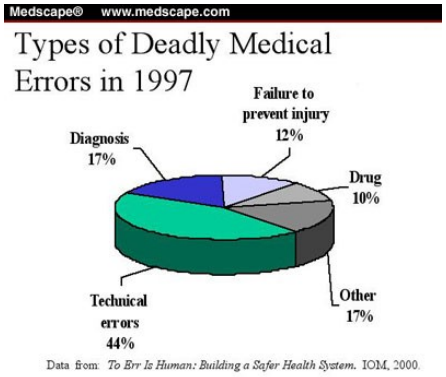
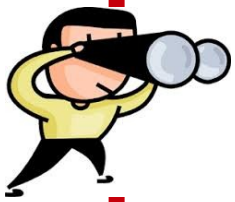
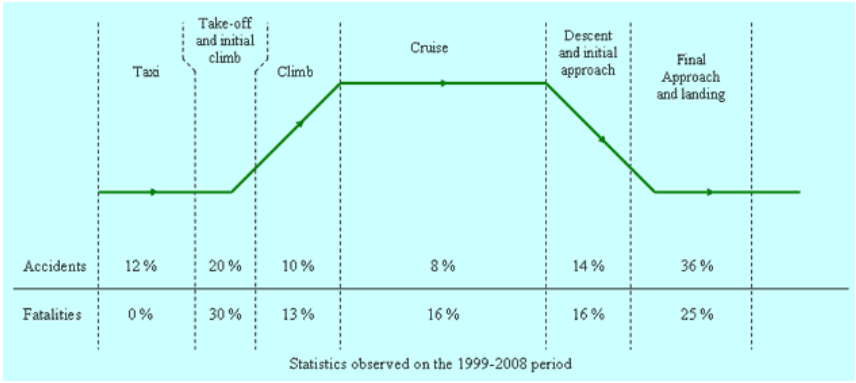
~1990 - 2010?

Patient safety becomes a legitimate area of activity in healthcare at large and in the broader society.









In civil aviation there is one death per 7 million flights.

Motorola tolerates 3.4 defects per million manufacturing processes.

Maintaining quality throughout the production process is vital to ensuring finished products of the highest quality.

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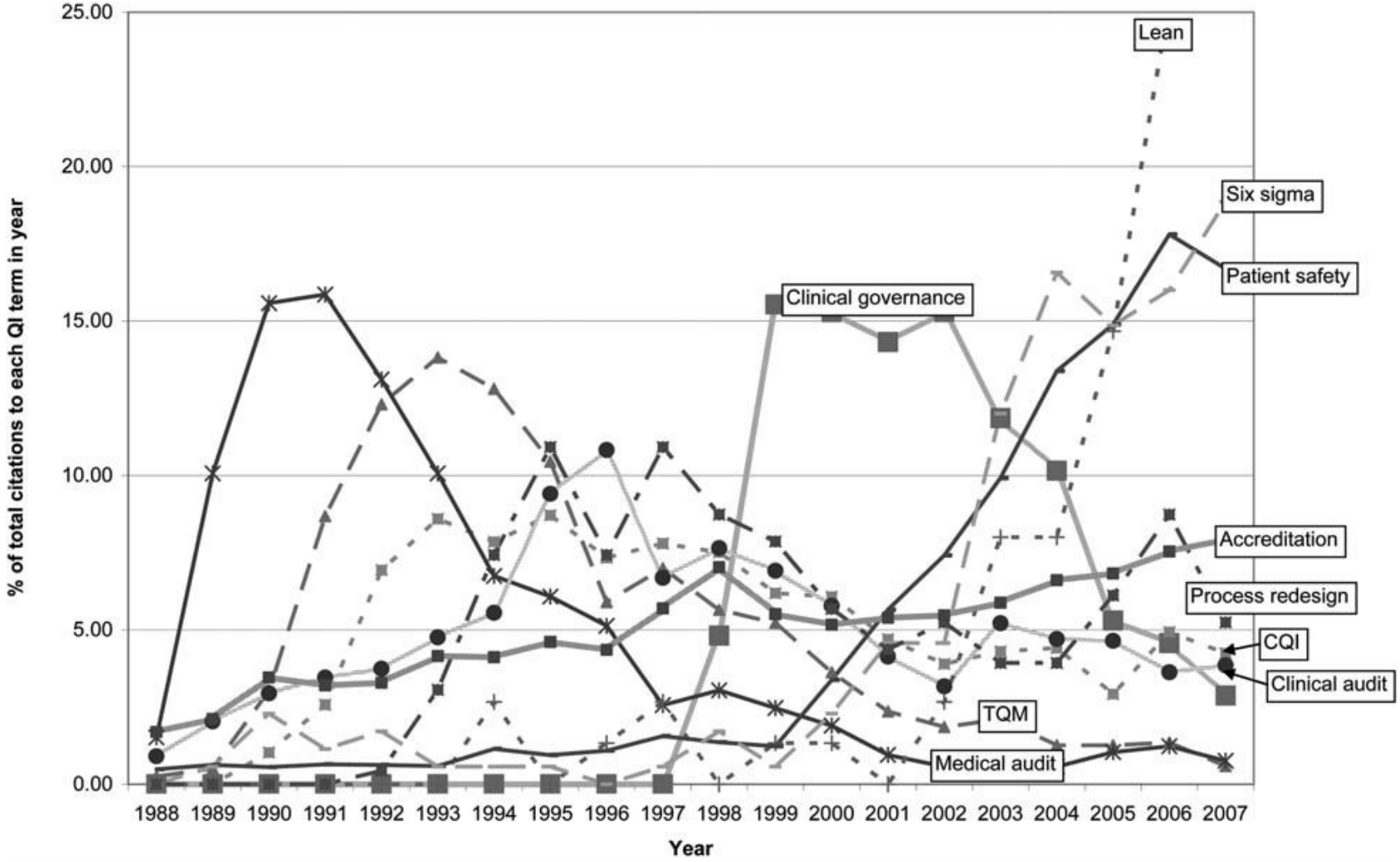
Changing priorities in health care



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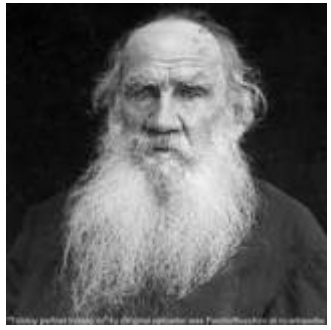
Man’s mind cannot grasp the causes of events in their completeness, but the desire to find those causes is implanted in man’s soul. And without considering the multiplicity and complexity of the conditions any one of which taken separately may seem to be the cause, he snatches at the first approximation to a cause that seems to him intelligible and says: “This is the cause!”



Leo Tolstoy: War and Peace (1869).

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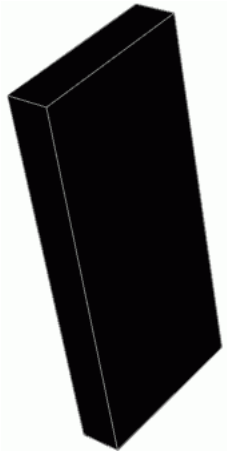
Preference for monolithic explanations

Humans prefer monolithic explanations that rely on a single concept or factor. As social constructs, monolithic explanations are efficient (easily found and accepted) but lack in thoroughness and precision.

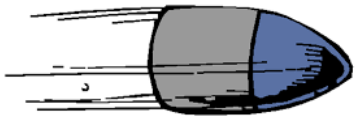
Monolithic explanations reinforce a linear, causal understanding of the world.



Captain Hindsight

Monolithic causes:
- Technology
- Human error
- Lack of (X)
- Deviations
- Variability
- ...

Monolithic solutions:
- Improve design, materials, maintenance ...
- Train, automate, redesign
- Provide (X) [SA; Safety Culture]
- Compliance
- Standardisation
- ...



The Silver Bullet

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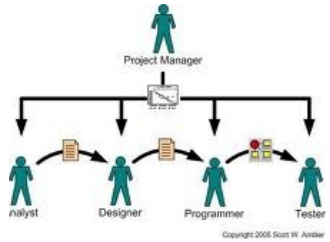
Looking for silver bullets

Since the 1970s health care has imported solutions such as quality assurance, root cause analysis, 'lean', standardised guidelines, teamwork, check-lists, accreditation, and above all IT in various forms.



Solutions typically presume predictability, inherent linearity, and proportionality of causes and effects – which is nowhere to be found in the real world of care delivery.

> "… prevailing strategies rely largely on outmoded theories of control and standardization of work." (Berwick, 2003).

It is generally assumed that problems will be solved with a few more resources, a little more effort, another set of recommendations, better data about the amount and rate of harm, more precise measurements, tightened practices, or a new IT system.

"It is widely believed that, when designed and used appropriately, health IT can help create an ecosystem of safer care …" (IOM, 2012).

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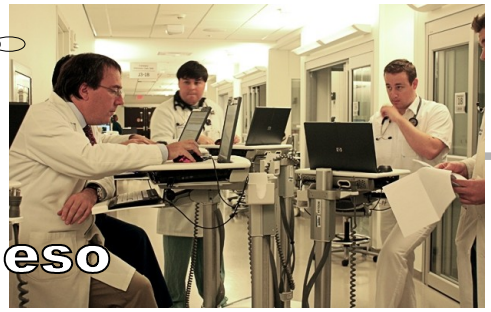
Different ideas about solutions

This will solve your problems

Macro

Will this solve our problems?



Meso

This doesn't solve our problems

Micro

Why are there different ideas about what actually goes on?

And how can they be reconciled?

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"Work-as-imagined" and "work-as-done"

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Design (tools, roles, environment)

Work-As-Imagined

Work & production planning ("lean" - optimisation)

Work-As-Imagined

Safety management, investigations & auditing

Work-As-Imagined

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Managing work-as-imagined

Procedures

The systems and processes involved in the transfusion pathway are very complex. Organisations should focus on simplifying procedures and concentrate on key steps, especially patient identification

Audits

Full and complete documentation, governed by local policies and guidelines, is required at every stage of the blood transfusion process to provide an assured and unambiguous audit trail. All organisations involved in the issue and administration of anti-D Ig must ensure that their systems are robust with respect to issue, receipt and recording, and should audit their systems with a view to increasing the safety and security of the process

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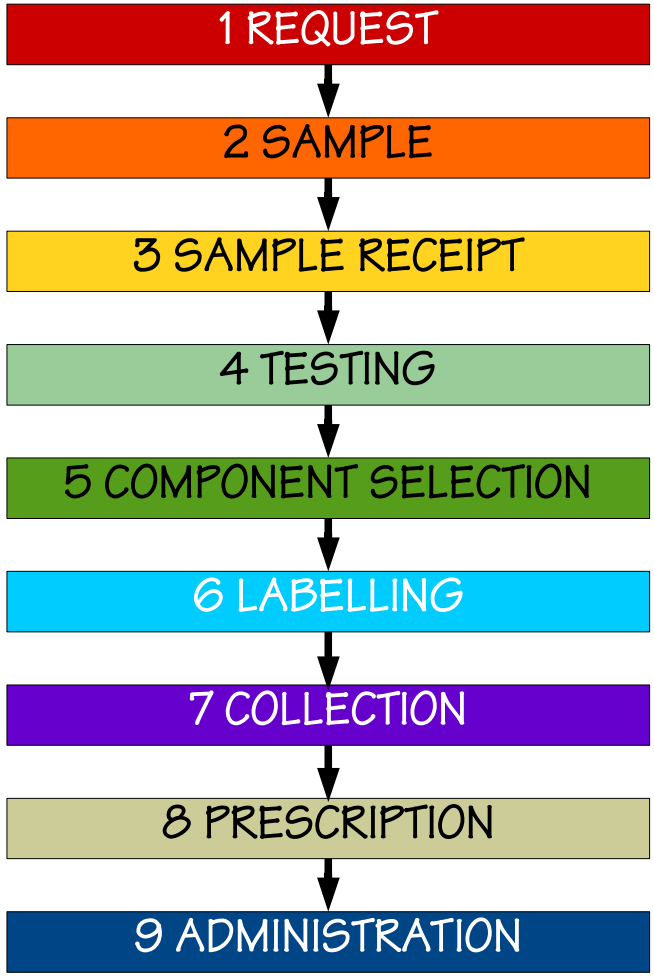
Comparing WAI and WAD



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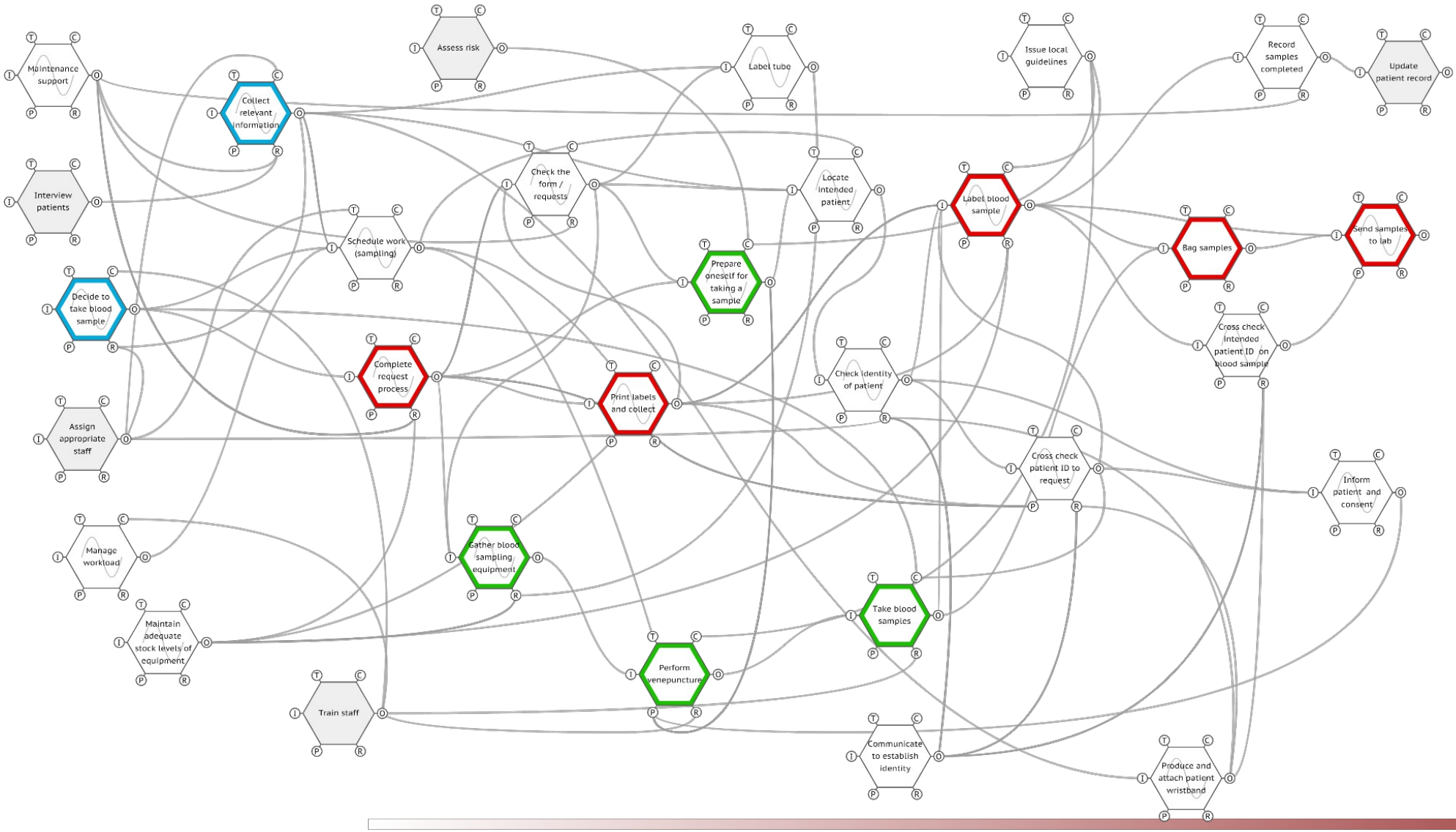
Comparing WAI and WAD



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The happy marriage?

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Is it possible to understand what a happy marriage is by analysing and learning from divorces alone?

*

Analogy suggested by Marit de Vos

Is it possible to understand what safety is by analysing and learning from accidents and incidents alone?

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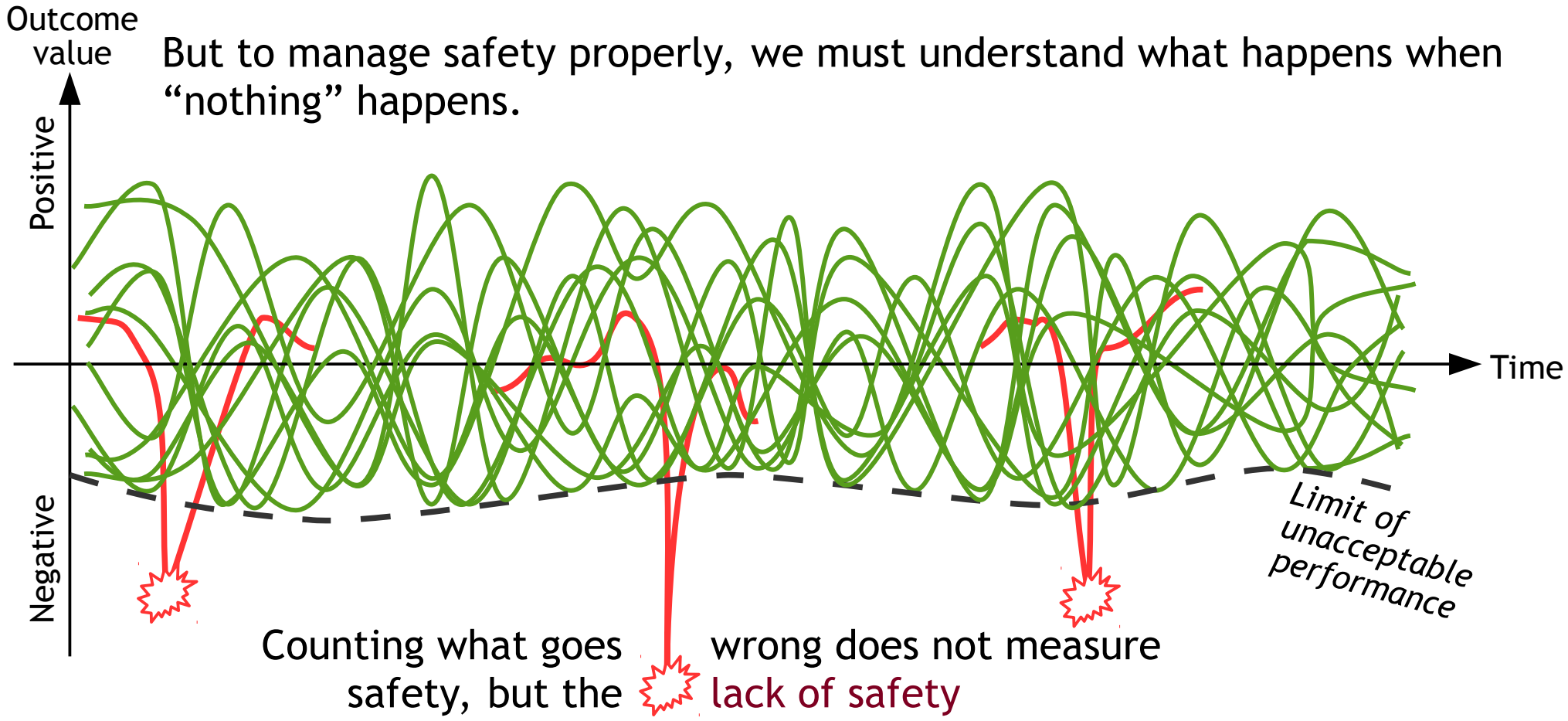
Do we really know why things go well?

The result of Safety-I is that we know something about what goes wrong, but almost nothing about what goes right!

But to manage safety properly, we must understand what happens when "nothing" happens.



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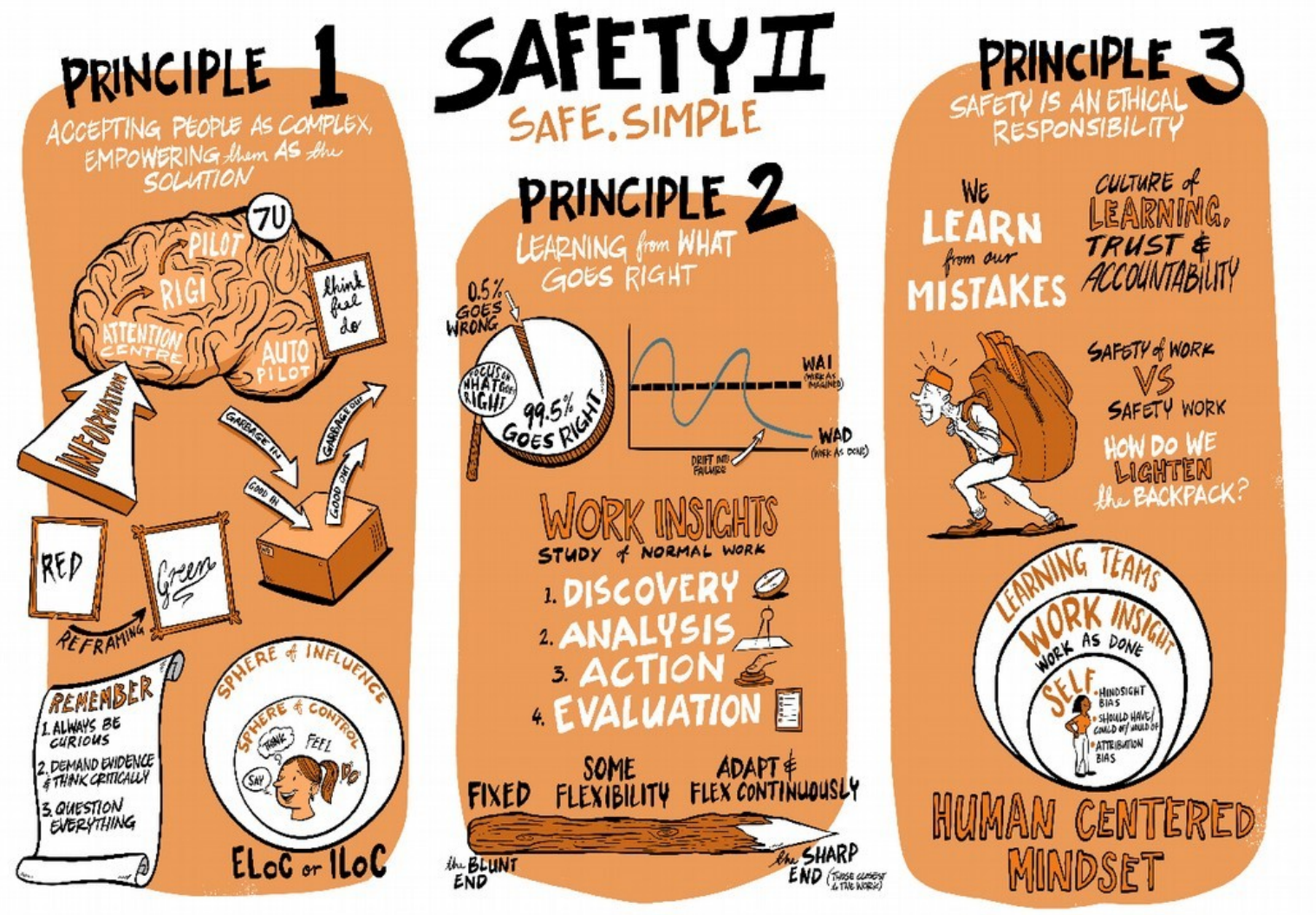
Queensland Urban Utilities



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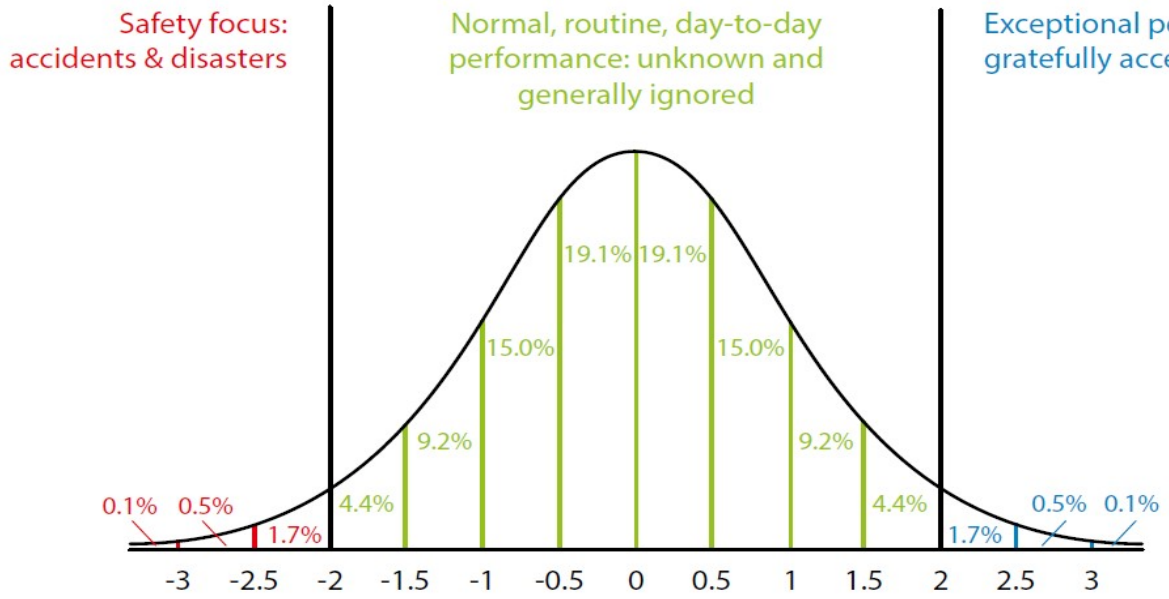
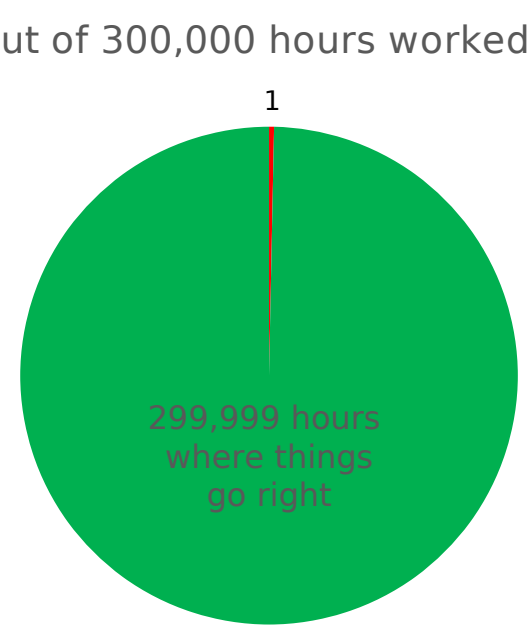
Manage safety in a positive way





In the Group, one significant undesirable event occurs for every 300,000 hours worked. This means that over this period, 299,999 hours go right. In view of this, understanding why operations run right is much more beneficial than searching for the causes of incidents.

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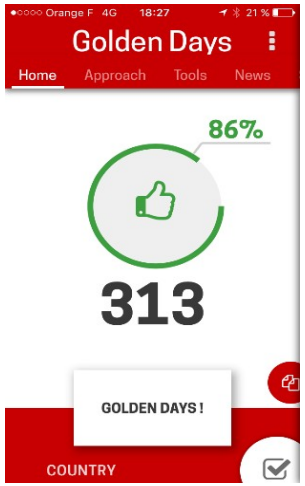
Bottom-up day-to-day evaluation

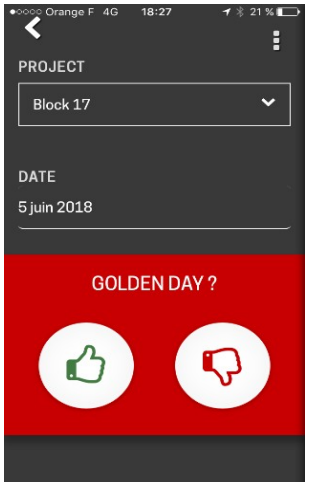
A Golden Day is a day when things go right – when we meet our inseparable threefold target on Safety, Quality and Productivity.

Individual team leaders are responsible for determining whether or not each day has been a Golden Day within their team – a decision taken collectively with the team at the day-end debriefing.

Using our mobile app, our teams can record every Golden Day and follow their progress

Managers are also required to track statistics within their remit, understand the reasons behind any drop in performance, and come up with appropriate solutions





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- A day when everything has gone right, at 3 major levels:
  - **Safety**: no LTI & RWC, absence of an event with a major risk…
  - **Quality**: "doing it right first time"
  - **Productivity**: compliance with daily commitments

- A day that fosters team collaboration and encourages everyone to grow and take major responsibilities

- A day that strengthens Safety leadership and team management

- A day that should be assessed at team level, on a daily basis…

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Resilient Performance Enhancement Toolkit

The purpose of the RPET is to make it easier for an organisation to learn from work that goes well and use this to do even better. The RPET aims to ensure that:

- Learning takes place when work takes place and preferably be a natural part of work.
- Learning takes place where work takes place – from the "coalface" to the boardroom. Learning should be immersed in the work environment and not happen off-site.
- Learning is by and for the people who do the work. Learning should be based on what they know and remember from the work situation, not what they discover when others ask about it.

Learning can be guided by questions such as these:

- Situations where something surprising or unexpected happened.
- Mismatches between demands (work pressure) and resources.
- Obvious variability or change in routines, either by yourself or by others.
- Situations that somehow felt different from the usual.
- Situations where the preparations / plans had to be revised or adjusted

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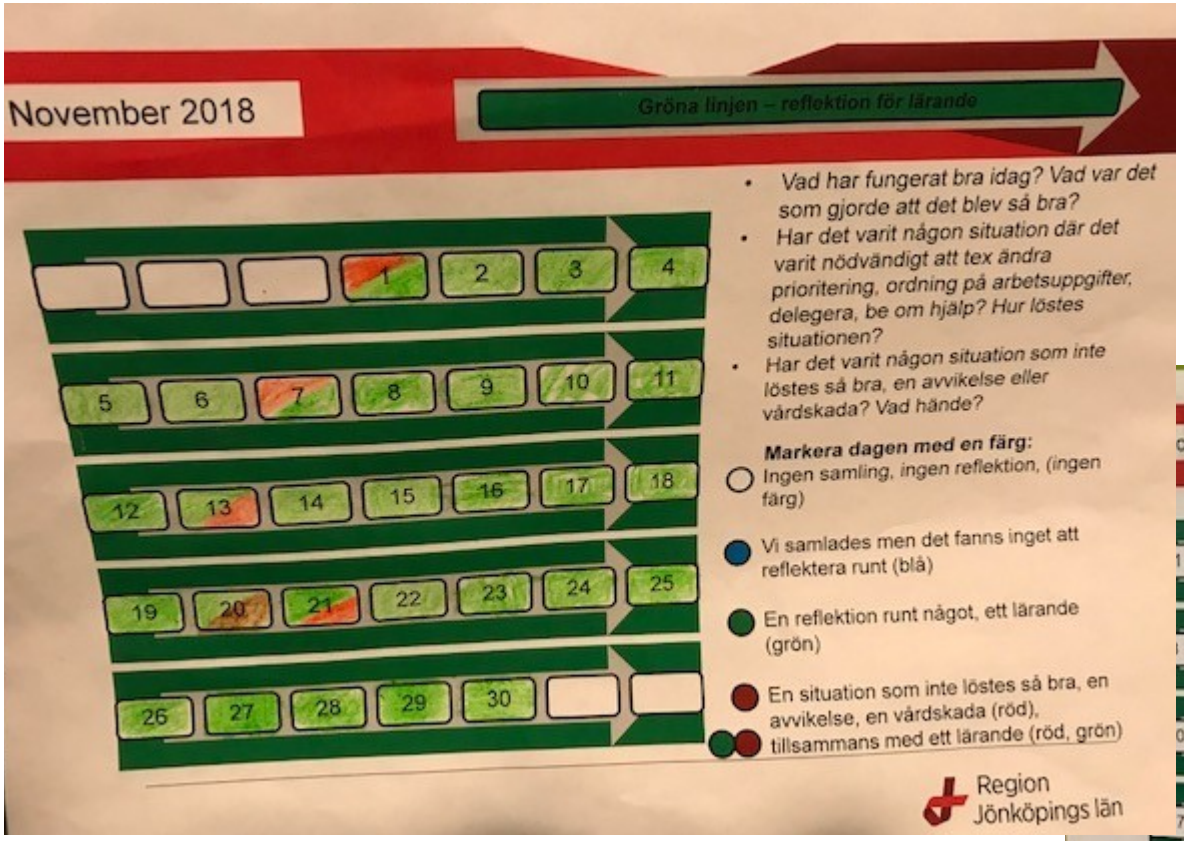
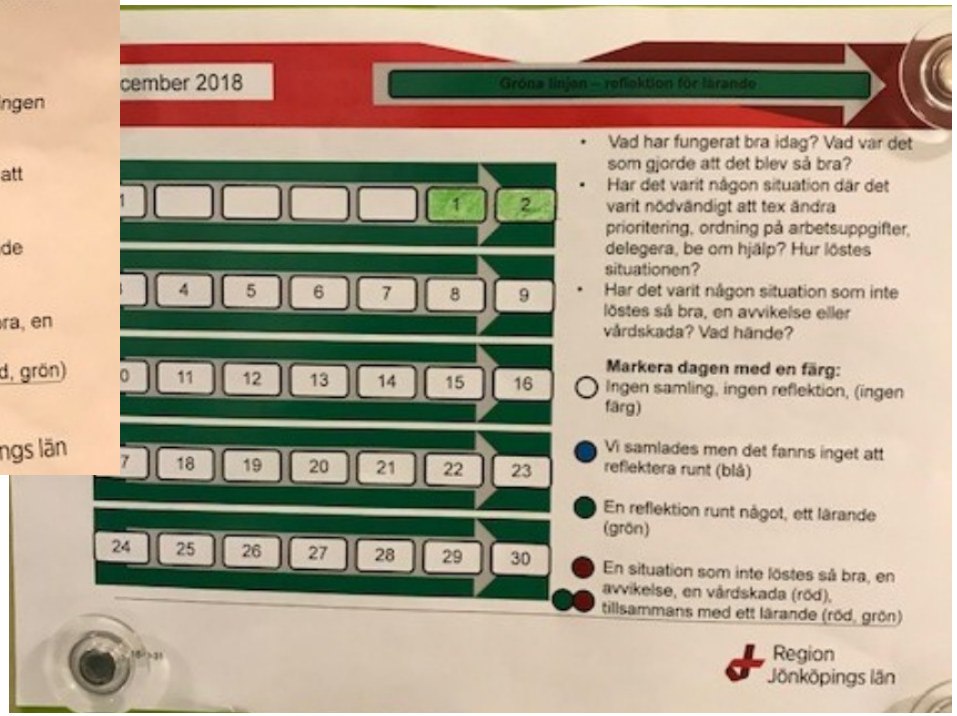
RPET Pilot Application



What worked well today? And why? Were there situations where you had to change priorities, change the order of planned work, ask for help? How were these situations handled?



Were there situations which did not go well, or led to a reportable event? What happened?

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Learning from Work-as-Done in NZ logging crews

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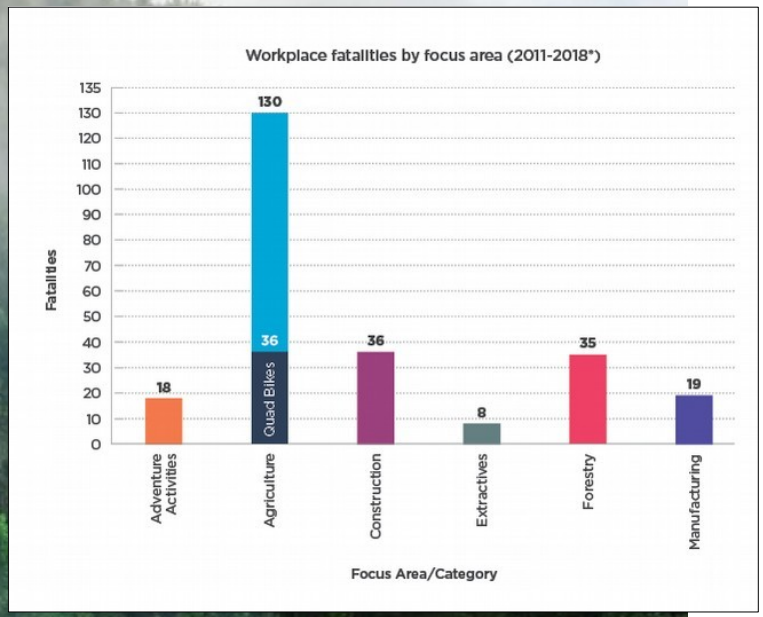
Response To Fatalities: Fix the failures

- **Independent Forestry Review**
- **Increase mechanisation**
- **Increase regulation**
- **Increase certification**
- **Improve access to information: SafeTree**



Dr. Hillary Bennett

Leading Safety

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Everyday Work Learning Teams

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Objective: To describe, and gain an understanding of, everyday work or work-as-done, as opposed to work-as-imagined

Guiding principle: There is as much value learning from 'what goes right' as from 'what goes wrong'

Process. Four facilitated Everyday Work Learning Teams with harvesting crews. The discussions focused on:

Good practices: Things that support good work

Dependencies: Things you've got to have to get the work done

Sensitivities: Things that make work easy or difficult

Findings (no surprises). Working well is dependent on:

Having experienced, knowledgeable people

Access to fit for purpose and well-maintained gear

Open, honest communication within the crews and across the operations,, e.g. trucking, engineering (both at tailgate meetings and during the day)

Good planning

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Lessons from the Learning Teams

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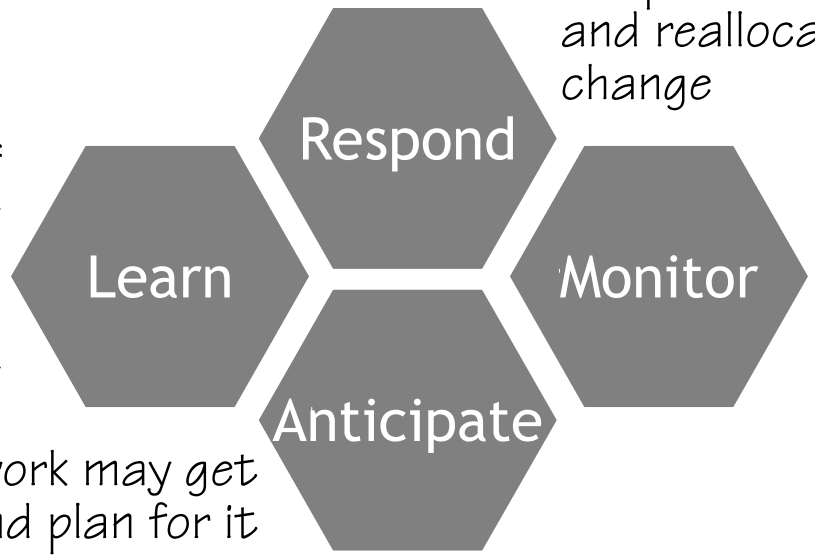
Emerging Themes

Inclusive, visible and approachable leadership
Trust, respect and confidence
Teamwork, common goal and collaboration
Cross functional knowledge and skills
Work practices

Stop to assess the risk, adapt the plan and reallocate the crew, when conditions change

Review work at the end of each day, to identify anything that needs to be dealt with in preparation for the next day



Monitor the cut wood to ensure there is a buffer of three days' supply of wood cut at any stage

Anticipate when the work may get difficult and plan for it

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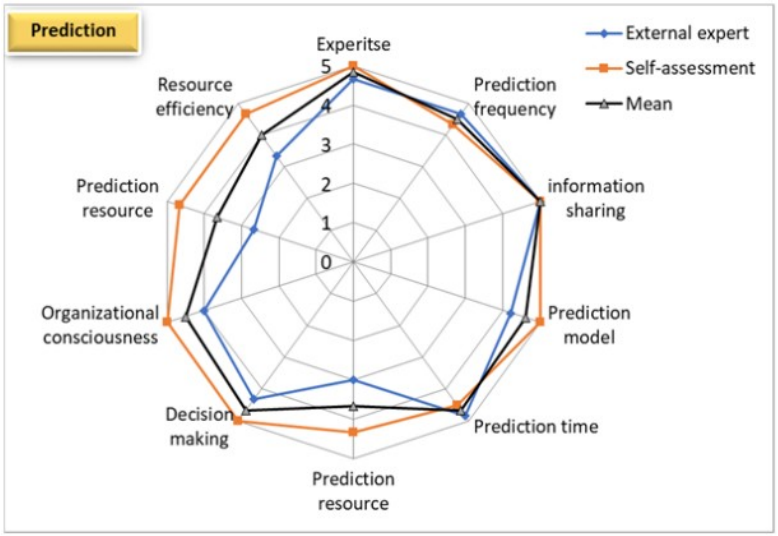
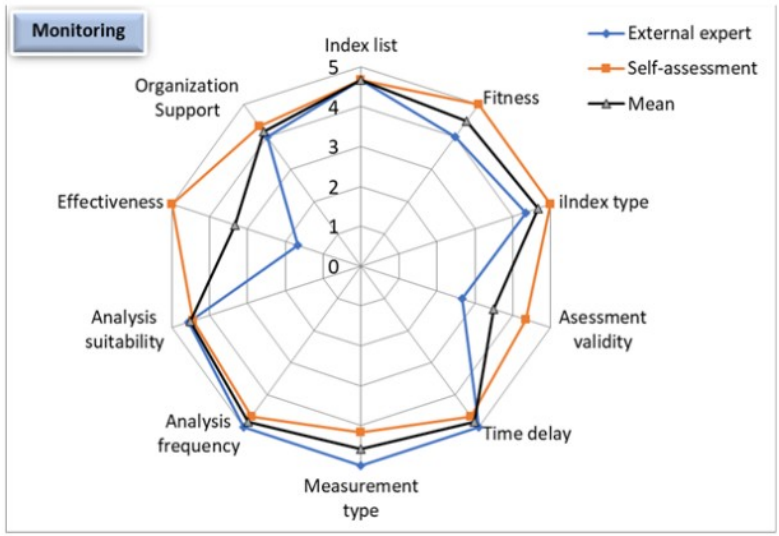
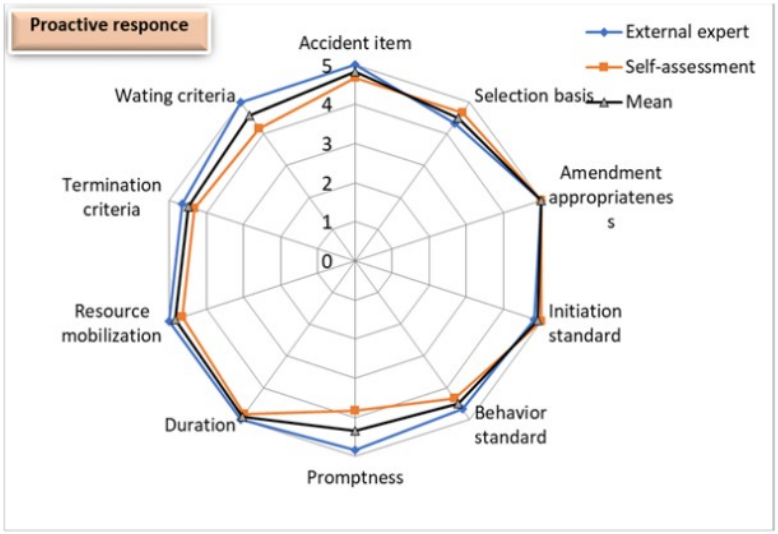
Resilience Assessment Grid

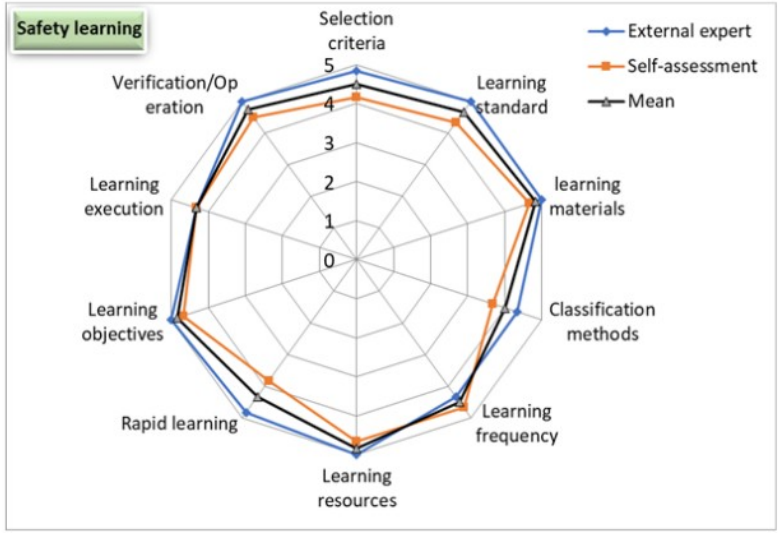
RAG: Resilience Assessment Grid

How well is an organisation able to Respond, Monitor, Learn and Anticipate?









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Which way ahead?

Safety Synthesis

Which of these policies should guide work in your area?

1. We should focus on what goes wrong, because we know how things work when they go well.

2. We need to analyse accidents and system failures. We can avoid risks through a combination of rules and compliance.

3. We should look for the barely noticeable traits of everyday safe and productive work.

4. We should study how the system can sustain performance under expected and unexpected conditions alike by continuously adjusting how work is done.

Which of these policies do guide work in your area?

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