Decluttering health and safety management activities in construction

Research report

RMIT UNIVERSITY | SHINe Safety and Health Innovation Network

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Executive summary

Safety clutter has become a widely used term. It is defined as an *"accumulation of rules, policies, safety procedures, documents, roles and activities that are performed in the name of safety but do not contribute to the safety of operational work"* (Rae et al., 2018, pp.195).

However, despite recognition that safety clutter exists within many routinely performed health and safety management activities, it is persistent and difficult to diagnose and remove (or reduce).

Our research examined the nature, sources and consequences of safety clutter experienced in the Australian construction industry. Initial interviews with multiple stakeholders revealed that safety clutter in the construction industry does not occur within a single organisation. Rather, it often occurs as the result of external pressures (e.g. perceived or real client and regulatory demands). These pressures result in organisational systems responses that ultimately shape the way that health and safety are managed within projects.

This means that the removal and/or reduction of safety clutter needs to consider the actions of different industry stakeholders who may play a role in its creation.

We used a process-mapping technique to create an in-depth understanding of how and why certain health and safety management activities are performed in the way that they currently are. The two activities studied were multi-level risk assessment and subcontractor onboarding. These were selected by our industry-based project team members as safety clutter prone activities.

Using an iterative interview and verification process, we developed detailed process maps (visual representations) of how these health and safety management activities are performed in practice. These maps were then used to prompt multi-stakeholder identification of safety clutter hotspots and conversations about opportunities for decluttering.

The suggestions made by industry participants provide potentially useful avenues for further decluttering discussion, agreement and action.

Importantly, to be effective, action in relation to decluttering health and safety management activities requires the involvement of more than one stakeholder. Within the construction industry, it would be very hard to effectively declutter from within the confines of a single organisation.

The process mapping method that we used in this research proved to be extremely useful in engaging relevant stakeholders in the identification of safety clutter hotpots and sources, and in facilitating conversations about its reduction or removal.

An accompanying tool to this report has been developed to assist construction industry bodies to engage in a similar process mapping exercise to the one that we used. We recommend this be undertaken by organisations in consultation with relevant stakeholders (subcontractors, clients, regulators, unions, etc.) to provide a systematic way to identify and address safety clutter in the sector in way that is supported by evidence and based upon effective consultative mechanisms.

Part 1: Introduction

Concerns that activities performed in the name of health and safety have become wasteful and ineffective are not necessarily new, as elements of the mainstream media have highlighted costs associated with excessive safety-related rules applied to all aspects of economic activity (Almond, 2009). There is growing evidence that some activities required in the management of workers' health and safety, consume time and energy while providing little direct benefit in protecting workers from harm (see, for example, Havinga et al., 2022; Hutchinson et al., 2024 for an analysis of Take5s/Start cards and audits respectively).

The term 'safety clutter' was coined to describe an *"accumulation of rules, policies, safety procedures, documents, roles and activities that are performed in the name of safety but do not contribute to the safety of operational work"* (Rae et al., 2018, pp.195). Examples of safety clutter are:

- rules that are created after incidents with no connection to law or regulation
- completing paperwork that is irrelevant or excessive, and
- 'dead end' activities where the output (e.g., a completed form) is never reviewed or used.

Not only does the persistence of safety clutter waste valuable resources that could be directed into more meaningful and impactful safety-related activities, but safety clutter can also:

- create job dissatisfaction among those affected by it
- stifle innovation, and
- negatively impact an organisation's health and safety performance (Dekker, 2014; Hale et al., 2015).

There is therefore a good reason for organisations to review their health and safety management activities to identify and remove (or at least reduce) safety clutter.

However, it is difficult to remove or reduce safety clutter without evidence because there may be different perspectives on what constitutes safety clutter, and these may not always be in alignment. For example, frontline workers may not fully appreciate the importance of activities that technical specialists recommend as necessary (Hopkins, 2011). The presence of different perspectives highlights the need for a collaborative approach to the identification and potential removal or reduction of safety clutter.

We argue that there is a need to better understand what is (and what isn't) safety clutter – from multiple perspectives – before deciding on appropriate ways to remove or reduce it. It is recommended that any attempt that seeks to determine where safety clutter exists in a health and safety management activity should take account of the perspectives of important industry stakeholder groups (e.g. unions, regulators, clients, construction companies, subcontractors, etc.).

The research presented in this report explored:

- how safety clutter can be identified in health and safety management activities routinely performed in the construction industry
- how multi-stakeholder consensus about what is (and what isn't) safety clutter can be achieved, and
- how agreement can be reached about the way in which activities identified as being characterised by safety clutter can be changed to remove or reduce the safety clutter.

The remainder of the report is structured as follows:

- Part 2 describes the research methods we deployed
- Part 3 describes the research findings
- Part 4 presents two case studies of our decluttering method applied to the activities of multi-level risk assessment and subcontractor onboarding, and
- Part 5 draws conclusions and recommendations from the research.

Part 2: Methods

Figure 1 provides an overview of the research design utilised in this project.

Literature review

A literature review was conducted to understand how safety clutter is defined and how it has been investigated by other researchers. The review identified some studies that have explored the extent to which certain health and safety management activities routinely performed in construction have little impact and/or draw resources away from activities that would have a positive impact on operational safety (see, for example, Havinga et al. 2022; Hutchinson et al., 2024).

However, there appeared to be no documented systematic method to:

- identify what aspects of health and safety management activities should be classed as safety clutter
- understand the sources of this clutter (which may reside outside the boundary of a single organisation), and
- identify practical ways in which diagnosed safety clutter can be removed or reduced.

The literature review also highlighted the importance of considering diverse opinions and engaging multiple stakeholders within the construction industry in the identification of safety clutter. This led to a second stage of work that involved interviewing a wide range of industry stakeholders on the subject of safety clutter.

Exploratory stakeholder interviews

Exploratory stakeholder interviews were conducted and thematically analysed to understand the attributes of safety clutter (i.e., what makes something clutter), its sources (i.e., where it comes from), and its consequences (i.e., why it matters).

A total of 32 semi-structured interviews were conducted with practitioners representing a range of stakeholder groups across the Australian and New Zealand construction industries. These interviews were undertaken in two stages, as outlined in Table 1.

In stage one, 24 Australian participants were interviewed. Participants included representatives of contractors, clients, unions, an employer association, consultants and legal practitioners with expertise in work health and safety, and state and federal health and safety regulatory bodies.

To evaluate the international applicability of the Australian interview findings, further interviews were conducted with eight New Zealand practitioners, including contractor representatives, service and work health and safety (WHS) management consultants.

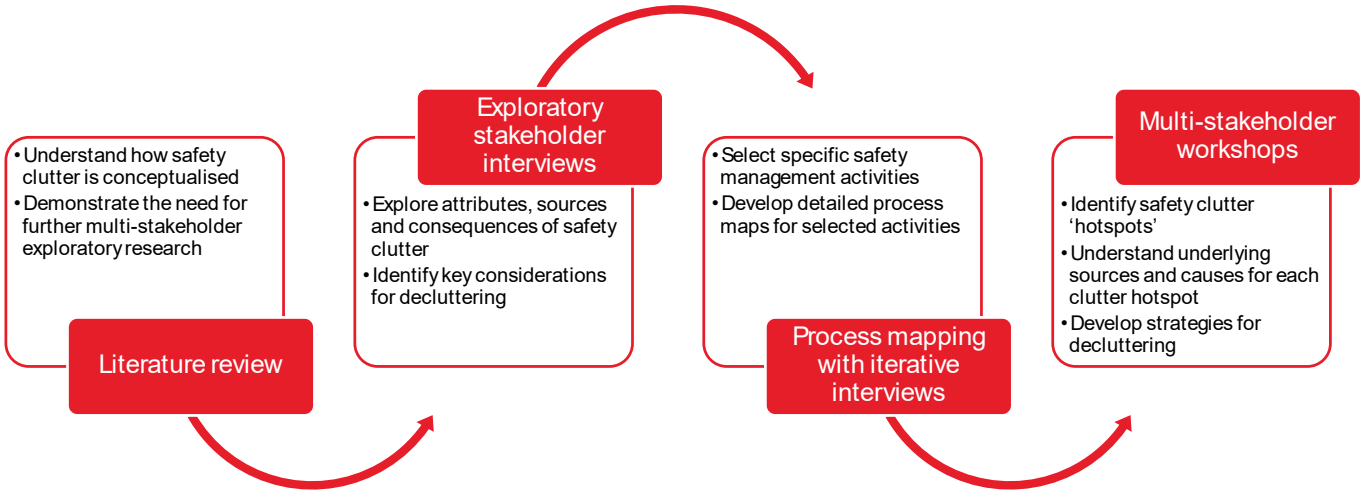

Figure 1: Overall research design

Table 1: Interview sample

Interview stages	Stakeholder group	Count
Stage 1: Interviews with Australian construction industry practitioners	Contractors	9
	Clients	2
	Worker and trade unions	3
	Employer association	1
	Consultants	2
	Legal practitioners	2
	State-based health and safety regulators	4
	Australian Government agency	1
	Stage 1 Total	***24***
Stage 2: Cross-national validation interviews with New Zealand construction industry practitioners	Contractors	6
	Service consultant	1
	WHS management consultant	1
	Stage 2 Total	***8***
Total		***32***

The stakeholder interviews revealed that addressing safety clutter requires coordinated action across stakeholder boundaries and that its causes are highly context-specific, depending on prevailing industry environments and regulatory frameworks. These findings will be discussed in detail in Part 3. The interviews informed two key considerations for the decluttering approach adopted in this project:

- the need for multi-stakeholder collaboration, and
- the need for context-specific diagnosis and solutions.

Process mapping

To understand how clutter emerges in an organisation's health and safety management activities, a process-mapping method was developed and used to explore the prevalence of safety clutter in two selected health and safety management activities: multi-level risk assessment and subcontractor onboarding. These two activities were selected by industry members of the project research team. The resulting process maps provided a detailed understanding of how the selected health and safety management activities are currently performed in practice.

A 'swimlane' process mapping technique was utilised to show the 'workflows' within each activity. This technique identifies a series of interrelated steps that follow a distinct path as work 'output' from one step is transformed into 'input' for the next step (Damelio, 2011). Figure 2 shows a generic example of a 'swimlane' diagram, in which each lane represents a stakeholder and arrows depict the chronological sequence of steps performed by different stakeholders engaged in an activity.

A similar process mapping technique was chosen as part of the decluttering approach in our study because it:

- converts a complex activity into a clear visual representation of steps, making the workflow of the health and safety activity easier to understand
- identifies relevant stakeholders and their specific steps, allowing each stakeholder to understand their role in the health and safety management activity
- shows how work flows between stakeholders, which is critical because clutter often accumulates at the interfaces between stakeholders when expectations are communicated and interpreted
- highlights stakeholder interaction, such as requirements, responses and approvals, and
- provides a shared reference point that enables cross-stakeholder discussion about where safety clutter emerges in a selected health and safety management activity and how to address it collaboratively.

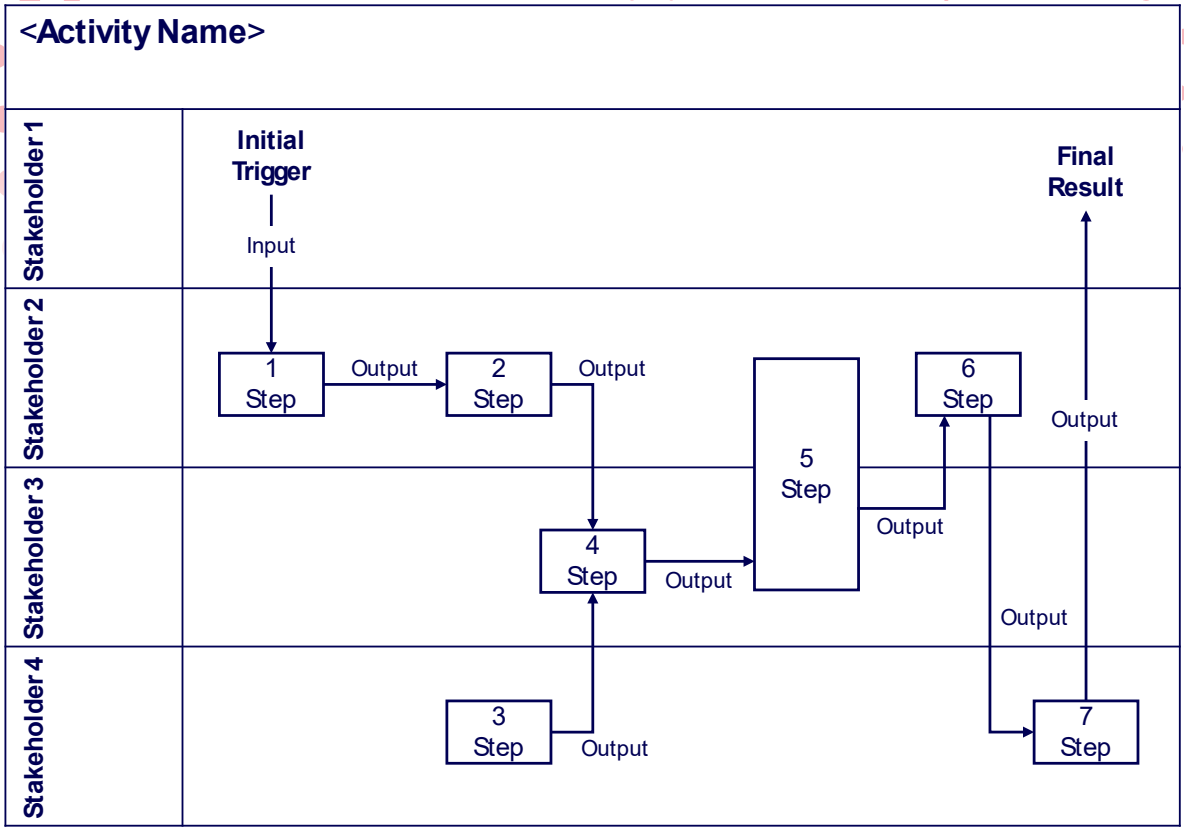

Figure 2: An example of a 'swimlane' process map (Adapted from Damelio, 2011, p. 85)

Industry members of the research project team identified two safety management activities to focus on. These were:

- multi-level risk assessment, and
- subcontractor onboarding.

For each of these two health and safety management activities, iterative interviews were conducted with relevant stakeholders to gather information needed to develop a full process map. Information collected focused on what actually happens in practice, not what is prescribed in formal safety-related policies or procedures.

The iterative interviews started with initial interviews with stakeholders to develop a draft map, which served as a 'live document' that was continually refined with more interviews conducted (Taylor et al., 2025). Once the draft map was completed, follow-up interviews were conducted with contributing stakeholders to verify and further refine the map, ensuring that the map accurately and completely represented how the health and safety management activity is carried out in practice.

Multi-stakeholder collaborative workshops

Once the process maps were fully developed, collaborative workshops were organised to engage multiple stakeholders to collectively:

- identify safety clutter hotspots, i.e., where multiple stakeholders experience or perceive there to be clutter problems
- examine each hotspot to understand what drives the safety clutter, i.e. its underlying sources and causes, and
- develop potential strategies to reduce safety clutter, while maintaining effective health and safety controls and regulatory compliance.

To ensure holistic perspectives, workshop participants included stakeholders involved in both requiring and performing the health and safety management activities. This is important because health and safety management activities need to be decluttered in a way that meets the needs and expectations of all stakeholders.

Part 3: Findings from exploratory stakeholder interviews

Attributes of safety clutter

The attributes of safety clutter identified from the stakeholder interviews closely align with the different types of safety clutter defined in the Safety Clutter Classification (SCC) Model developed by our research partner, the Construction Safety Research Alliance (CSRA, 2025). This model provides a useful guide for organisations to understand the types of safety clutter they may be experiencing. The similarity of findings collected across three geographies (Australia, New Zealand and the USA) suggest that the manifestation and forms that safety clutter takes may be generally applicable and not specific to a single regulatory environment or a local industry context.

However, our interview findings showed that, while clutter attributes may be similar across contexts, **the sources of clutter are likely to be highly context-specific**, varying significantly across industries, regulatory environments, and organisational processes. The sources of clutter can also differ between different project circumstances and in relation to different health and safety management activities. Understanding these context-specific sources is critical for effective decluttering.

Sources of safety clutter

The interview findings indicate that safety clutter does not arise from a single cause but that it emerges as a result of external pressures arising from the industry, regulatory and procurement environments, which prompt organisational system-level responses which, in turn, shape implementation practices with regard to the way that workers' health and safety is managed in construction projects and workplaces (see Figure 3).

Understanding the way these sources cascade down through the construction industry eco-system can help to explain why safety clutter is so resistant to change. It also reveals that it would be very difficult for a single organisation to seek to remove or reduce safety clutter in isolation, and identifies the need for a collaborative multi-stakeholder effort for effective decluttering.

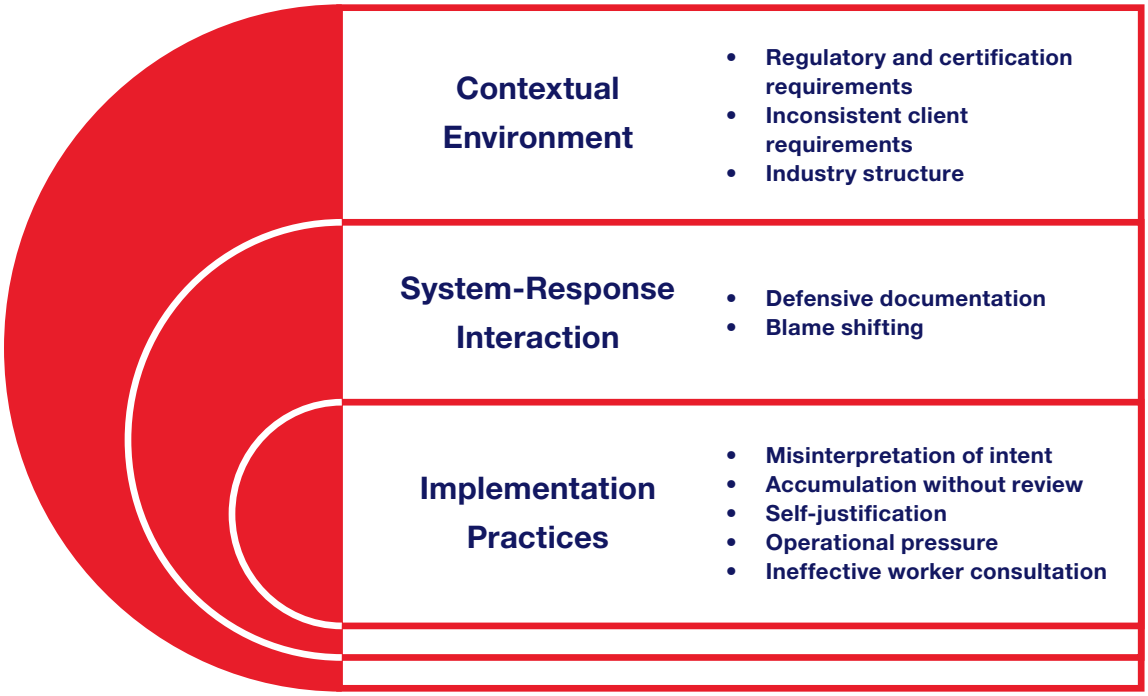

Figure 3: Sources of safety clutter

The interview findings revealed that safety clutter emerges from the three levels of sources:

1. **The contextual environment,** in which construction organisations operate by responding to various external pressures and influences, including:

    - *regulatory and certification requirements* across multiple jurisdictions creating overlapping and duplicative requirements for safety systems and documentation, as explained by a participant:

      "And then you've got the federal government agencies…they have slightly different requirements than our legislative framework…companies having to deal with both the Victorian legislative requirements and then the federal requirements to get registration" (Union representative 1).

    - *inconsistent client requirements*, with each demanding different documentation and formats in safety systems. For example, a participant noted different auditing requirements from clients:

      "There's also a number of scenarios over the past probably four to five years, just about every client now has an external auditor who audits your system. So at the moment, we're dealing with... four or five external auditors reviewing our system over a 12-month period. It's fair to say that everybody's got a different view of the world of what should be in your system. One auditor may think it's okay, another external auditor may have a different view of the world. So you're constantly changing, reviewing and updating your system to comply with an external body" (Contractor 4).

    - *the industry structure,* where the project-based organisations and multi-level subcontracting system create fragmentation, making it difficult to maintain consistent safety systems and increasing the likelihood of redundant or conflicting requirements. One participant highlighted the challenge that subcontractors face in meeting varying health and safety requirements across projects:

      "We work in a subcontractor workforce in Australia... In one week, they will potentially work for three separate contractors" (Contractor 5).

2. **System-response interactions** where organisations respond to external pressures through:

    - *defensive documentation*, created primarily for legal protection rather than enhancing operational safety, generating extensive paperwork disconnected from actual risk controls. This was explained by a participant:

      "People may have legacy policies and procedures that they haven't changed, for fear that if they do change and an incident happens, that they'll be held to account" (Regulator 1).

    - *blame shifting*, where safety documentation becomes a tool to redirect safety responsibility to individual workers, adding administrative burden without addressing the source of safety issues. One participant explained how safety responsibility was individualised:

      "It also tends to me that it's individualising the safety side of things. So if something goes wrong, oh well, you didn't sign this correctly, or this wasn't filled out correctly, or, to try to put the blame back on the individual, rather than the system of work which has allowed that error" (Union representative 1).

3. **Implementation practices** which are related to organisations' internal processes for developing, maintaining, and applying safety management systems, including:

    - *misinterpretation of intent,* where requirements are extended beyond their regulatory scope, creating unnecessary documentation and activities. This was explained by a participant using the example of safe work method statements (SWMSs):

      "Under our construction regulation, you only need a safe work method statement for high-risk work. You don't need the safe work method statement to go through parking your car on the side, walking from the carpark to the front gate..." (Union representative 1).

    - *accumulation without review,* as documents grow over time with content added but rarely removed, creating outdated and irrelevant material, as noted by a participant:

"Every time we start off with a small document and then every time there's an incident or a near miss people add to the document...But nobody ever takes anything out. So a few years down the track, you've got a 20 or a 30 or a 50 page SWMSs that we're trying to cover everything. But by trying to cover everything, we cover nothing" (Consultant).

- *self-justification,* where health and safety professionals and departments create complex systems to demonstrate their value rather than improving risk controls, as explained by a participant:

  "WHS/HR (work health and safety and human resource) departments just trying to justify their existence and produce these glossy procedures and protocols to show this is the work we're doing, this is our workload. This is why you pay for a WHS team" (Union representative 2).

- *operational pressure,* which drives workers under time constraints to circumvent burdensome processes, undermining the effectiveness of safety systems. One participant shared:

  "The people that are filling out the permit, they want to get the work done, they're under time pressure so they don't fill it out correctly or they don't fully understand the content" (Contractor 6).

- *ineffective worker consultation,* where safety process and procedures are developed without engaging those who perform the work, resulting in a disconnect between formal safety systems and operational reality, as stated by a participant:

  "It's something which regrettably is being prepared by company safety managers… not based on the engagement and consultation with workers and trying to capture their experience, their knowledge and their capacity" (Contractor 7).

These three sources of safety clutter do not operate in isolation; instead, they interact and reinforce each other across levels. For example, regulatory complexity at the industry level drives defensive documentation at the system-response level, which in turn leads to accumulation without review at the implementation level. Therefore, addressing safety clutter requires intervention at all three levels, with particular attention to the connections between them. For example, reducing documentation length and complexity within an organisation would not work if auditors regard short, simple documents to be inadequate evidence of compliance.

Consequences of safety clutter

Failing to address safety clutter leads to significant consequences. The interviews revealed that accumulated clutter creates far-reaching impacts extending beyond mere inefficiency. These consequences affect four key areas: operational effectiveness, worker engagement, business performance, and workplace culture.

1. **Operational consequences** – Safety clutter significantly impairs how safety is managed in day-to-day work through:

   - *resource misallocation,* which diverts safety professionals from field activities to administrative tasks, creating substantial resource burden and reducing time for direct safety oversight. One participant shared their experience:

     "I have to pull four safety people off site, sit them in a room and say, go and make this go away. I lose all the influence on the behaviours of people out on site, because I'm doing administrative controls" (Contractor 9).

   - *procedural ineffectiveness,* where excessive documentation consumes time while providing little practical value, resulting in a disconnect between paperwork and actual practice, as noted by a participant:

     "You lose sight of the actual implementation of the controls on site... the guys maybe just click yes, yes, yes, yes, yes but have they actually implemented it on site? Nine times out of 10, they're missing some of the controls" (Contractor 6).

   - *risk management degradation,* as clutter obscures critical safety information, and in some cases, creates new hazards and a false sense of security, as stated by a participant:

     "It clouds the focus and stops people from having a crystal-clear understanding of the things that could kill them or change their lives" (Contractor 1).

2. **Worker-related consequences** – Safety clutter undermines workers' engagement with safety and diminishes their role in safety management through:

   - *disengagement from safety processes*, as overwhelming or impractical safety systems lead workers to circumvent requirements or take shortcuts

to avoid burdensome processes, as explained by a participant:

"It creates people taking shortcuts… if I know I have to fill this form out, and I know it's going to take two days to get back to me… or if I just go flat out now and do it for half an hour, it'll be done, and if I don't get caught, I don't get caught" (Contractor 9).

- *psychological impacts,* including frustration and job dissatisfaction, which contribute to broader psychosocial hazards. For example, a participant shared:

  "Well I think if you look at the psychosocial hazards, the burden that's being placed on the individual worker, potentially, to do all this, and really, they haven't got much autonomy..." (Union representative 1).

- *disregard for worker expertise,* where documentation is prioritised over practical knowledge, failing to capture valuable field experience and limiting worker input in safety management, as noted by a participant:

  "I think what we don't do well at all is really use the expertise of the people actually doing the work by having them help design the system" (Contractor 7).

3. **Business consequences** – Safety clutter incurs financial costs and negatively affects organisational outcomes beyond its direct impact on safety performance through:

   - *financial impacts,* which arises from increased resource requirements, productivity losses, and program delays. This was explained by a participant:

     "It affects the program and, as you say, your production efficiency… you lose days in program because we haven't had the meeting with the contractor or they haven't completed this checklist, when in actual fact, from a site point of view, it's safe to proceed but because we haven't got the paperwork we haven't followed the procedures therefore it can't" (Contractor 6).

   - *safety reputation damage,* which diminishes safety's credibility, affects stakeholder relationships and undermines workers' confidence in safety management. One participant explained how safety clutter had a negative impact on the relationship between clients and contractors:

     "If the perception from the contractor is that what they're signing up to is unreasonable, unnecessary and not a value add and then client is holding you to account on that, 100% that clutter impacts that relationship" (Client 2).

   - *superficial compliance,* where excessive documentation shifts attention from genuine concern about safety to paperwork-driven compliance, as stated by one participant:

     "You end up with a bloated system, and an inefficient system. You get yourself into a mindset of safety is about compliance to the legislation, compliance to this or that, rather than safety being about actual safety" (Contractor 8).

4. **Workplace culture consequences** – Perhaps most significantly, safety clutter undermines workplace culture through:

   - *trust erosion,* as workers lose trust in management and become cynical about management's commitment to safety, as noted by a participant:

     "The biggest consequence in my opinion is the erosion of trust. It's basically saying to a group of workers and companies who are specialists often in what they do that we know better than you do" (Contractor 7).

   - *communication breakdown,* often caused by the complexity and volume of safety documentation, with language barriers further complicating matters. One participant shared an example:

     "For example, our working at height requirements, due to the fact that we repeat it across various documents, there's a legislative change or an internal change, you have to backdate and make 20 updates across all that thing, so then what would happen is you may miss one or two and then all of a sudden you've got conflicting messages which result in people doing work differently" (Contractor 5).

   - *distorted leadership and accountability,* where extensive safety clutter reduces organisations' ability to lead safety effectively and results in workers being blamed for system failures. For example, one participant commented:

     "When there's a serious incident, they will try to individualise and look at, rather than knock the system itself or what they did or didn't do, it will be trying to put the blame, which is a very human thing to do" (Union representative 1).

Part 4: Case studies of safety clutter diagnosis

4.1 Case study one: Multi-level risk assessment

Context

Construction projects in Australia involve multiple layers of risk assessment across different project phases and stakeholder levels. These risk assessments are required by industry and organisational health and safety management systems and undertaken at different stages in the project lifecycle, from the pre-construction expression of interest stage, right through to project completion and handover.

This case study illustrates the development of the process map for the activity of undertaking multi-level risk assessment, followed by a multi-stakeholder collaborative workshop in which:

- safety clutter relating to this activity and its underlying causes were identified, and
- potential strategies for reducing or removing safety clutter in project risk assessments were proposed.

Process map development

Iterative interviews were conducted with three representatives from principal contractor organisations to develop the process map for multi-level risk assessment. Principal contractors were targeted because they are the key stakeholder group required to perform project risk assessments.

A draft map was developed identifying eleven stakeholders and five project lifecycle phases of relevance. The outline of the map is shown in Figure 4. The draft map also showed the sequence of steps undertaken by stakeholders across the five project lifecycle phases.

The draft map was subsequently refined through follow-up interviews with the participants, ensuring that the information presented on the map accurately reflected how risk assessments are required and undertaken in construction projects. Figure 5 illustrates an example section of the final process map.

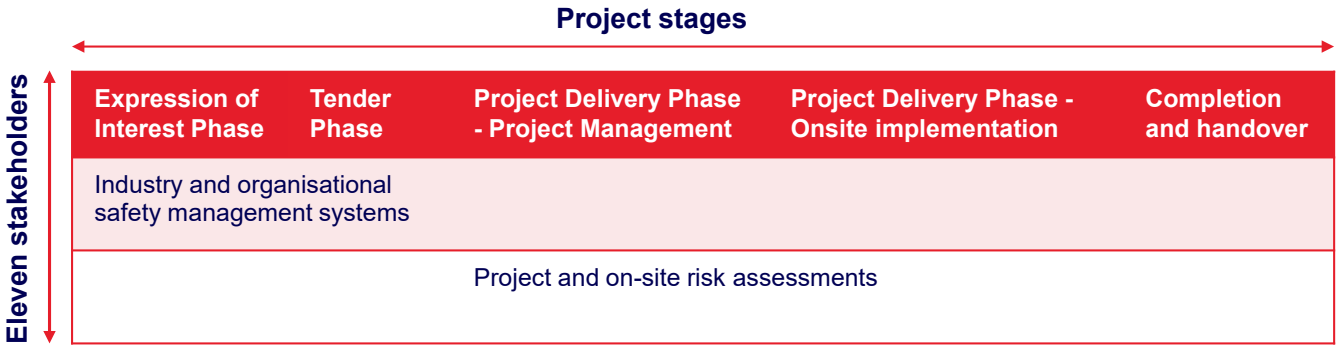

Figure 4: Outline of the process map for multi-level risk assessment

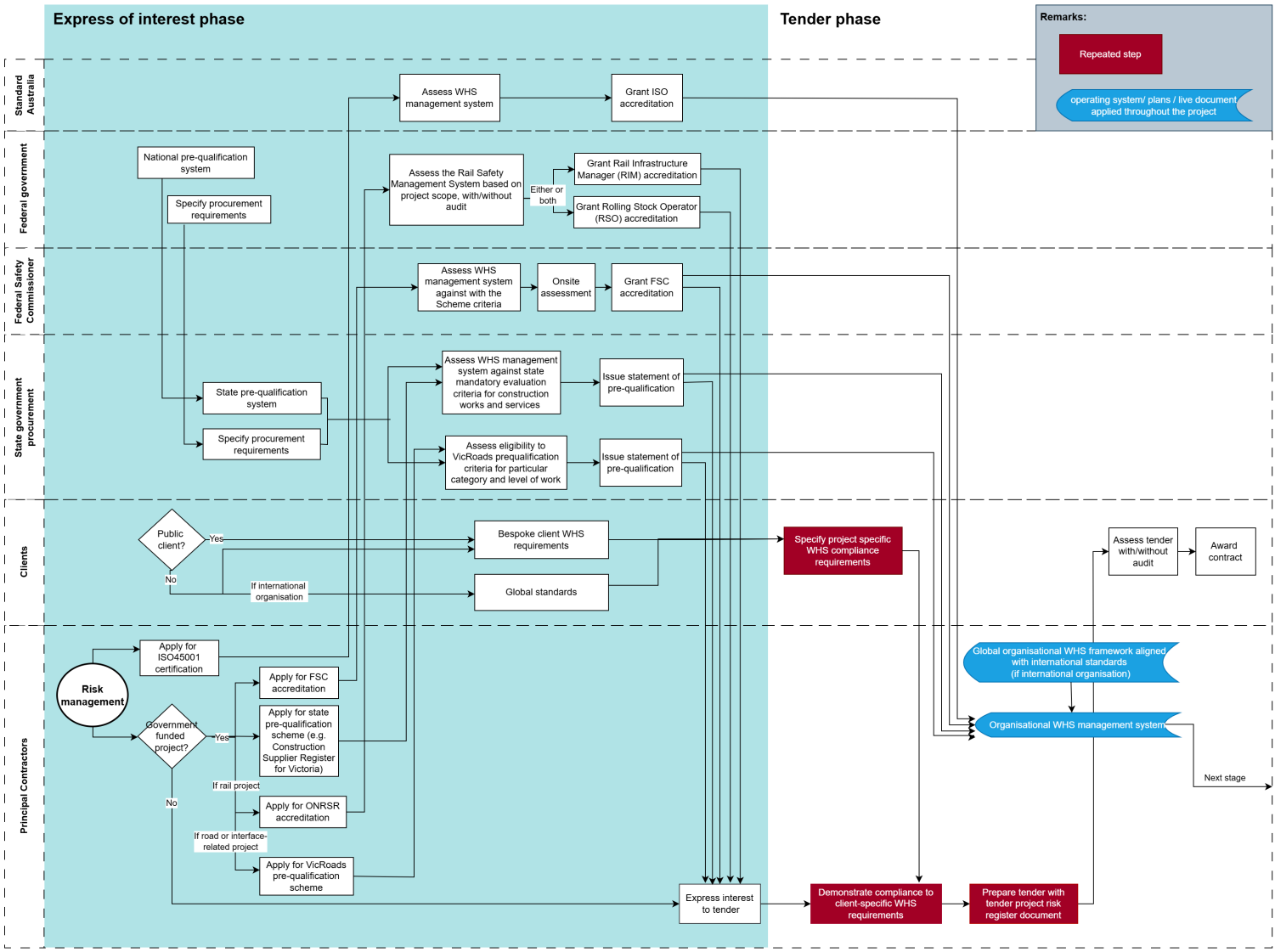

Figure 5: Example section of the process map for multi-level risk assessment

Multi-stakeholder collaborative workshop

In August 2025, a workshop was conducted with two health and safety representatives from principal contractor organisations and one representative from a client organisation. Workshop participants were requested to identify steps on the process map where they had experienced safety clutter through a colour-dot exercise (i.e., using red dots that were physically stuck on the map to denote points in the process where clutter is present). This resulted in the identification of safety clutter 'hotspots' on the process map.

Through facilitated discussion, participants then collaboratively examined each hotspot by considering:

- why the steps identified as safety clutter are performed in the way that they are
- how safety clutter might be reduced, and
- who would need to be involved in implementing changes in relation to decluttering this activity.

Because the multi-level risk assessment activity involves stakeholders beyond those present in the workshop, further consultation with additional client and regulator representatives was subsequently undertaken to capture their perspectives on the identified hotspots and proposed decluttering strategies.

Where are safety clutter hotspots?

Participants placed red dot stickers on map areas where they experienced clutter, i.e. specifically they were asked to identify steps that did not contribute to effective hazard identification, risk assessment, or risk control decisions.

Participants were also asked to attach sticky notes next to the red dots explaining why those steps failed to contribute to effective management of health and safety risk.

The visual analysis of the resulting map showed that safety clutter concentrated in three project phases: Expression of Interest, Tendering, and Project Delivery (onsite implementation). Figure 6 shows that overall, hotspots emerged around four major areas on the process map:

- ISO 45001 certification and related audits
- multi-layered work health and safety compliance and audit requirements from Australian Government agencies, state government agencies and other client organisations
- development and implementation of Safe Work Methods Statements (SWMSs) and Job Safety and Environmental Assessments (JSEAs), and
- implementation of Start Cards and Take 5s.

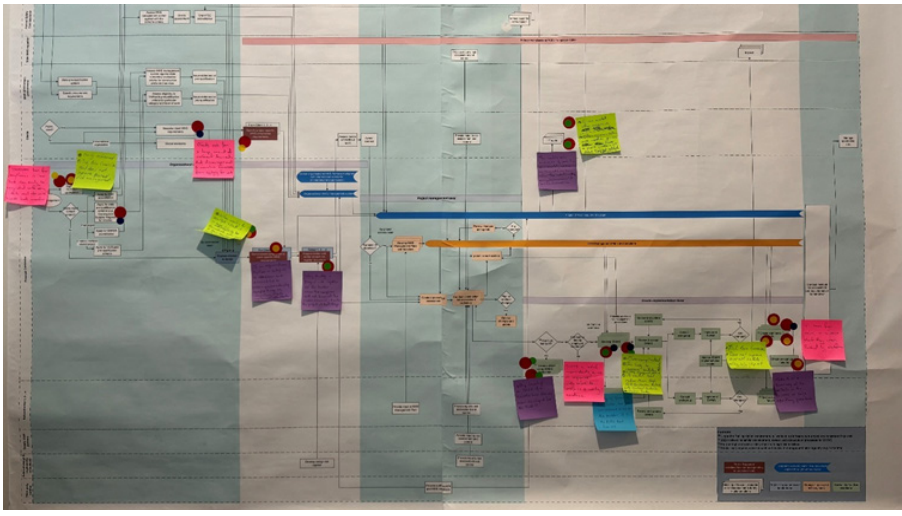

Figure 6: Identification of safety clutter hotspots in multi-level risk assessment

Why clutter exists?

Workshop participants then discussed why each hotspot represents clutter and why these steps are carried out in the current way. The following section provides a summary of the workshop discussion.

ISO 45001 certification and audit: While ISO 45001 certification is often contractually required, its implementation frequently imposes rigid documentation frameworks that overlook context-appropriate safety approaches, stifle innovation and create significant administrative burden. As one workshop participant noted, *"I spend so much time in an administrative capacity taking myself away from front-line stuff."*

In addition, the current ISO45001 auditing process often results in tick-box exercises with limited contribution to risk management, inconsistent audit quality across auditors, and a focus on excessive documentation that adds little practical value to safety.

Multi-layered work health and safety compliance and audit requirements from federal and state government agencies and other client organisations: Multiple government agencies and client organisations each require evidence of health and safety compliance, but the way these requirements are implemented drives contractors to duplicate documentation in different formats rather than meaningfully assessing their risk management capability. One participant captured the frustration: *"You tend to duplicate what you're doing... If you've got a federal body that's telling you, 'this is our expectations'... and you've got a state body that's telling you, 'well, this is our criteria' … For the life of me, I can't understand why you've got federal requirements and state…because it's the same risk."* Another participant questioned: *"If an organisation's system is certified to ISO45001 and accredited to OFSC requirements, why complicate things by integrating clients' requirements? It is a burden."*

The significant administrative burden is compounded by frequent audits from the government agencies and client organisations, with one noting: *"In 20 days we had nine audits"*, each requiring separate preparation despite covering similar content.

Development and implementation of SWMSs and JSEAs: SWMSs were initially well-intended to engage workers in understanding and managing risks associated with high-risk construction work, but the way they are now developed and implemented has disconnected the documentation from actual work practices. As one participant noted, SWMSs are often *"overly academic, doesn't connect with how workers actually do their jobs"*, while another participant described them as *"paper safe vs actually safe"*. Documents that should be one to two pages have morphed into more than 30 pages.

The administrative burden is substantial for both principal contractors and subcontractors. Principal contractors need to frequently review and accept "*SWMSs from different supply chain partners or subcontractors that might work 10 days on our project"*, while subcontractors need to meet requirements from different principal contractors who *"all expect things a little bit different"* and have different views about what should be in the SWMSs.

In addition, for work that does not involve high-risk activities, construction organisations often develop a JSEA but also use a SWMS template to do so. This dilutes the focus on critical risk controls, and creates significant confusion, as one participant explained, *"Ask 50 tradies to tell me the difference... no one that actually does the work cares"*. As a result, these risk assessment documents almost become meaningless to workers.

Implementation of Start Cards and Take 5s: Workshop participants noted that these risk assessment tools have been implemented in a way that they have become *"tick-box exercises"* with *"no basis for value or evidence that they work."* They duplicate SWMS content without adding safety value, and they are *"disliked by workforce"*. Participants also acknowledged that the use of these risk assessment tools is not legally required.

What are the potential strategies for decluttering?

Participants then collaboratively discussed potential strategies for reducing clutter and identified who would need to be involved in implementing these changes.

Enhancing auditor consistency and quality: Recognising that ISO 45001 certification and auditing will remain mandatory for many clients, participants explored improving auditor consistency and quality within existing frameworks as a practical strategy to reduce administrative burden while maintaining meaningful safety oversight. One participant highlighted the current inconsistency issue: *"it's all very dependent on the audit you get on the day... that inconsistency drives a lack of innovation. So, I think that's a fair call over there are good ones, but it's not good if a system is reliant on hopefully maybe getting a good one."* Implementing this strategy would require active involvement from certification bodies and from clients who mandate ISO 45001 certification.

Streamlining health and safety compliance and audit requirements: Participants suggested several strategies for reducing duplication and administrative burden arising from multi-layered compliance requirements from government agencies and client organisations. One suggestion was to *"process map differences between federal and state-based requirements so that both can be met with one online form"*, although participants acknowledged that this would be difficult to implement. Another participant proposed that *"Federal and state government develop one audit criteria and one accreditation qualification"*, which was similarly considered as challenging to implement. These strategies would require substantial coordination between federal and state government agencies. Participants also discussed the possibility of clients moving toward independent audits on a six-monthly basis instead of conducting auditing in short cycles (e.g. monthly). This strategy was considered as potentially easier to implement than the previous suggestions but would still require client involvement and commitment.

Returning SWMSs to original regulatory intent: Participants initially explored video-based SWMSs as a solution. However, they quickly questioned whether changing the format alone would be sufficient to address the issue, with one participant noting: *"We're still really self-censoring here, right? We're talking about turning a shitty document into a video version. Like, we're not thinking very big here, right?"* The discussion subsequently shifted toward restoring SWMSs to their original regulatory intent, i.e. creating simplified documentation focused on critical risk controls. Participants emphasised that achieving this would require regulators to clarify expectations and provide clear guidance.

Eliminating non-value-adding risk assessment tools: Participants unanimously discussed eliminating the risk assessment tools of Start Cards and Take 5s, describing them as *"tick-box exercises"* and a *"double up of SWMSs."* Despite this strong consensus, they also anticipated barriers to implement the elimination strategy, primarily due to internal organisational requirements. One participant noted: *"Corporate requirements... when it gets down to the project level, they've got to implement all the corporate requirements. Corporate saying, gotta do it, gotta do it."* Therefore, implementing this strategy would require corporate leadership to revise company policies and remove unnecessary requirements from their safety management systems.

Additional stakeholder consultations

Following the workshop, additional consultations were conducted with client and regulator representatives who had not participated in the workshop. We presented the identified safety clutter hotspots and workshop discussions and explored how the proposed strategies were viewed from their perspectives.

ISO 45001 certification and audit: Both stakeholders acknowledged problems with the current ISO 45001 certification and auditing process. The regulator representative noted *"just because you have an ISO accreditation does not necessarily mean you're a safe workplace"*, yet the client representative confirmed that the certification remained *"a condition of tender."* However, the client representative identified potential in improving audit quality through consistent auditor nomination within projects.

Multi-layered health and safety compliance and auditing requirements: The regulator representative discussed potential pathways forward, noting that *"It would need to be a state and national conversation between each of those bodies"* and suggesting *"a central framework with add-ons"* for project-specific requirements. Both client and regulator representatives expressed openness to greater audit coordination. The client representative explained: *"If someone says... 'we've got an FSC [Federal Safety Commissioner] audit coming... can we count that as our independent audit?' I think if anybody bothered to ask, we'd probably say, yeah."*. Similarly, the regulator representative noted: *"I tend to invite those people along at the same time... to free up more time and resources."*

Development and implementation of SWMSs and JSEAs: Both the client and regulator representatives supported format innovation for SWMSs, with the regulator representative stating: *"Our interpretation of SWMS documentation can be video documents... It can be electronic as well."* However, it is acknowledged that the use of innovative format requires further exploration to ensure regulatory compliance, in particular in relation to the need for SWMSs to be work and site-specific. The regulator committed to providing clearer guidance and identified incident investigations as opportunities to reinforce decluttering SWMSs: *"we regularly go out and say to duty holders, you don't need 30-page SWMSs."* The client representative further acknowledged shared responsibility for restoring SWMSs to their original regulatory intent, stating: *"It's a shared problem... We've all missed the boat here. Let's take a step back. But it does require the support of the regulator."*

Implementation of Start Cards and Take 5s: The regulator representative supported eliminating these risk assessment tools, stating *"Personally, I reckon get rid of them"*, and confirming *"There is no explicit legal requirement."* However, both representatives acknowledged these tools emerged as a compensatory measure because workers are so disengaged from SWMSs, serving as *"the last gatekeeper"* for worker engagement in assessing and understanding risks. This reinforced the need to enhance the effectiveness of SWMSs by restoring SWMSs to their original regulatory intent rather than relying on compensatory workarounds.

4.2 Case study two: Subcontractor onboarding

Context

Subcontractor onboarding involves interactions across multiple organisations and stages, from pre-qualification through worker mobilisation to project commencement. The process engages clients, principal contractors, subcontractors, workers, and technology platform providers, each with potentially different requirements or responsibilities that create substantial administrative burden. The burden is particularly intensified for subcontractors working across multiple projects, who need to navigate inconsistent requirements and redundant processes.

This case study describes the development of the process map for the health and safety management activity of subcontractor onboarding, and the multi-stakeholder workshop conducted to examine safety clutter present in this activity, how it has formed, and potential solutions to declutter.

Process map development

Initial interviews were conducted with six participants, including four from principal contractor organisations, one from a subcontractor organisation, and one independent consultant, to map how the onboarding activity actually unfolds in practice. Participants described the steps they undertake, the inputs required, the outputs produced, and the stakeholders they interact with throughout the process. Based on this information, we developed a draft process map, which was iteratively refined through follow-up interviews with three contributing participants.

The resulting map (shown for illustrative purposes in the Appendix to this report) identified five stakeholder group, i.e., clients, principal contractors, subcontractors, workers, and third-party suppliers. These stakeholders interact across six stages involved in subcontractor onboarding captured in the map, i.e., pre-qualification, tender, evaluation and due diligence, contractor company mobilisation, workers and plant/equipment mobilisation, and post-mobilisation.

Figure 7: Identification of safety clutter hotspots in subcontractor onboarding

Multi-stakeholder collaborative workshop

In September 2025, a workshop was conducted with seven representatives from various stakeholder groups, including two from client organisations, two from principal contractor organisations, one from a subcontractor company, one from a digital platform provider, and one independent consultant.

During the workshop, participants collectively identified clutter existing in the subcontractor onboarding activity and examined the underlying causes. They also discussed potential solutions to improve the efficiency and effectiveness of onboarding while ensuring the safety standards.

Where are safety clutter hotspots?

Using the 'colour-dot exercise' previously described, participants marked steps on the process map where they experience or perceive there to be safety clutter. They also added sticky notes to briefly explain why the way those steps are currently implemented contributes to safety clutter.

As illustrated in Figure 7, the analysis revealed that safety clutter hotspots emerged on the process map around four main areas:

- pre-qualification requirements
- vendor management platform proliferation
- delivery of project induction training, and
- plant and equipment mobilisation processes.

Why clutter exists?

Through facilitated discussions, workshop participants explored each hotspot, first examining why the steps are currently carried out that way, and then identifying potential improvements and necessary stakeholder involvement.

Pre-qualification requirements: While pre-qualification serves a legitimate purpose, its implementation is largely compliance-driven rather than genuinely assessing subcontractor competency. A client explained: *"It all stems from the PC [principal contractor] wanting to... show their compliance by... engaging safety competent contractors."* This creates a tick-box mentality where *"generic stuff... gets reviewed and ticked but it's not relevant to what they're actually going to do."* The economic burden of pre-qualification for subcontractors is significant, with one participant noting: *"I've paid contractors to tender... literally give them money to comply with all the 50 [requirements]."*

Vendor management platform proliferation: A client representative explained the paradox inherent in the way in which vendor management platforms are implemented: *"It's a bit like construction induction. Nice idea. If you put all information into this platform, you only have to do it once... But... all clients and principal contractors want certainly different things or they review it differently, so they actually don't save any time."* Competitive differentiation further drives platform proliferation: *"Everyone wants to create their own system... you can add anything... without talking to anyone... but when you want to take it out, you can't."*

Delivery of project induction training: While project induction training has clear safety intent, its ineffective delivery has produced unintended outcomes. Repetitive, generic, and compliance-driven induction training is believed to lead to a *'tick and flick'* exercise rather than meaningful learning or behavioural change. A principal contractor stated: *"more of just the... arse covering exercise... to say that they've done it, they're aware, but no one actually does it."*

Inconsistent training standards across different principal contractors further create confusion among subcontractors: *"How are we supposed to take your standards, our standards, everyone's standards?... they sit through hours of inductions and then go between sites... 'I don't know what I'm working to here.'"* A digital platform provider explained why this ineffective delivery persists: *"I don't think there's any builder that is game enough to actually take that out... because they don't want to have workers... where there's no documented evidence that I have onboarded them.".*

Plant and equipment mobilisation process: Ineffective plant and equipment mobilisation processes create substantial waste. Repetitive verification processes create duplication and a burden for subcontractors. A principal contractor described: *"This poor person has had to upload this machine four times and someone's... visually check that machine. Half an hour, an hour at a time."* In addition, inconsistent project-specific requirements can require expensive modifications by subcontractors: *"Each PC (principal contractor) has their own management system... if someone reversed back and hit something... 'I want 360 degree cameras on this machine'... they send it to another project. 'We don't accept that'... They're spending five grand on that machine."* Sometimes, client-imposed changes can even render entire fleets non-compliant overnight, with risk aversion driving redundant checking: *"We're very wedded to that... we've got to check it... We can't trust anything else."*

What are the potential strategies to declutter?

Industry pre-qualification standardisation: Participants discussed the potential for pre-qualification standardisation, drawing on successful models from other industries. A contractor representative noted: *"In the wind industry... if you get training created by the GWO (Global Wind Organisation), you can work in any wind farm across world."* Participants explored how a similar industry-wide standard could operate in construction, where organisations meet defined qualification levels, potentially organised by tiers, to tender for work. However, a consultant identified the core challenge: *"We've drifted away. Like what is the point of having certification and an industry specific induction everyone's meant to have. If we ignore them… everyone's done an induction... now do these six other ones."* This suggests the problem is not the absence of standards, but the proliferation of additional requirements on top of existing ones.

Workshop participants acknowledged that the implementation of the standardisation strategy would require coordinated action, including:

- clients establishing consistent requirements across projects
- principal contractors accepting common standards (e.g., ISO certification) and limiting project-specific requirements to post-award stages
- industry bodies developing industry-wide verification platforms, and
- regulators providing guidance that industry-recognised accreditation is sufficient evidence of capability at pre-qualification.

Vendor management platform data sharing: Participants explored the potential for data sharing across vendor management platforms but identified privacy concerns and system incompatibility as barriers, although a contractor noted worker willingness to share data between platforms: *"80 something percent of workers were happy to consent... to access that data."* A digital platform provider explained the technical challenge: *"Our system... is set up to mirror the principal contractor's management system. So when everybody's registration and induction process is a little bit different... all of that doesn't always line up."* They also observed that the current use of their platform focuses on compliance rather than genuine safety: *"this isn't necessarily stuff that they see as making people safer on site. It's to cover people."* While participants didn't identify a clear decluttering strategy, the discussion revealed important technical and privacy considerations that would need to be addressed through collaboration among principal contractors, technology providers, and clients in future efforts.

Training and induction reform: Participants called for fundamental reform of training and induction practices by reconsidering their purpose and delivery process. They explored role- targeted, task-focused approaches, with a client representative emphasising *"Quality rather than quantity."* A consultant similarly challenged information-heavy training: *"if I give you more information, I'm making a lot of assumptions that you're actually understanding it or when you need to call it, you're going to. That's wrong."* The workshop discussion considered differentiating training expectations for supervisors, who require comprehensive system knowledge, from those for workers, who need concise, task-specific information. Participants also discussed reallocating training responsibilities between principal contractors and subcontractors, though acknowledged coordination challenges and contractual constraints that lock in current practices.

Alternative training evidence collection: Participants challenged the assumption that documentary training evidence provides legal protection: *"Safety people think... if I had signed toolbox talks that provide legal cover... You won't cover it anyway."* Refocusing on the training intent of ensuring workers can perform tasks safely, they proposed competency-based verification as an alternative: *"Let's go and watch him and ask him, quiz him... about requirements."* A principal contractor representative noted some auditors already accept this approach: *"I waved it through in my FSC [Federal Safety Commissioner] audit."* However, participants acknowledged that current audit practices continue to reinforce documentation-based compliance. A contractor representative emphasised the need for regulatory leadership: *"The regulator needs to start driving that change cascading down"*, recognising individual organisations cannot shift away from documentation-based evidence while audit regimes continue to demand it.

More consistent plant and equipment mobilisation standards: Participants recognised the potential to achieve greater consistency in plant and equipment mobilisation standards but also identified significant barriers, including different management systems across major contractors and the absence of standardised compliance criteria. Each organisation develops its own interpretation of requirements, resulting in inconsistent mobilisation standards across clients

and principal contractors. However, participants acknowledged opportunities to initiate standardisation within major programs, then extend this approach industry-wide. A client described this approach: *"Hang on, you've got a plan inspection checklist. You've got one that's slightly different... Let's get that and let's agree at least for this program that that's one set that we agree with and... let's try and align it with help the industry a bit more broadly."* Participants emphasised that implementing this approach would require strong client leadership and coordinated action from principal contractors.

Client-led streamlining: Participants emphasised that clients should use their leadership and contractual authority to drive standardisation and decluttering. A client representative noted their role in setting expectations: *"early on to say this is an important part of our requirements. We want simplified expectations, reduced bureaucracy. We want to see consistency across all our PCs (principal contractors)."* Beyond contractual simplification, participants discussed the possibility of incentivising decluttering behaviours rather than simply enforcing compliance, with a client asking: *"How do you incentivise decluttering with the people you're hiring rather than you have to do it well."* The challenge lies in creating mechanisms that actively encourage reduction while maintaining effective safety and risk controls, rather than continually adding new requirements.

The discussions revealed that although opportunities exist to reduce clutter in subcontractor onboarding, their implementation depends heavily on coordination across organisational boundaries. Subcontractors alone cannot simplify processes when requirements are imposed by clients and principal contractors, and individual principal contractors cannot standardise practices without industry-wide alignment. The identified strategies would require collaboration between clients, principal contractors, technology platform providers, industry bodies, and regulators to achieve meaningful change.

Part 5: Conclusion and recommendations

The research presented in this report confirms the findings of previous research, that safety clutter is a problem for the construction industry. Our interviews suggest that safety clutter creates adverse effects for workers, businesses, managerial accountability and effectiveness in relation to health and safety.

However, it is difficult for a single organisation to remove or reduce safety clutter, which often forms in response to externally imposed demands or expectations. Our analysis also reveals that sometimes, these expectations are misconstrued. Consequently, in order to remove or reduce safety clutter there is a need to understand its sources and the reasons why certain health and safety management activities are performed in the way that they are.

In this research we utilised a systematic process-mapping approach to identify how selected health and safety activities are performed in practice in the Australian construction industry.

The selected activities (multi-level risk assessment and subcontractor onboarding) were unpacked in detail, through multiple interviews with relevant industry stakeholders. The mapping was iterative and involved verification to ensure the steps in the maps were accurate and complete.

The maps were then used to facilitate multi-stakeholder conversations about where safety clutter is present within the selected activities and how it can be removed or reduced.

The conversations revealed that safety clutter occurs as a result of interactions between stakeholders in the construction supply chain, including, clients, regulators, principal contractors, subcontractors, etc.

In order to effectively declutter, these parties need to agree on practical solutions that ensure that the needs of all parties are met. The multi-stakeholder workshops held in relation to the two issues of multi-level risk assessment and subcontractor onboarding identified a range of practical decluttering opportunities.

These should be taken forward and further explored for feasibility and implementation.

However, the process mapping method that we have developed in this project is also a useful tool that industry stakeholders can use themselves in order to understand:

- how health and safety management activities are undertaken in practice within their organisational contexts
- why activities are performed in this way
- where safety clutter exists in routinely performed health and safety management activities, and
- how this clutter can be removed or reduced.

Organisations looking for a systematic way to identify and address safety clutter in their operations can potentially utilise the Process Mapping Tool for Decluttering Construction Health and Safety Management Activities developed as an output from this research.

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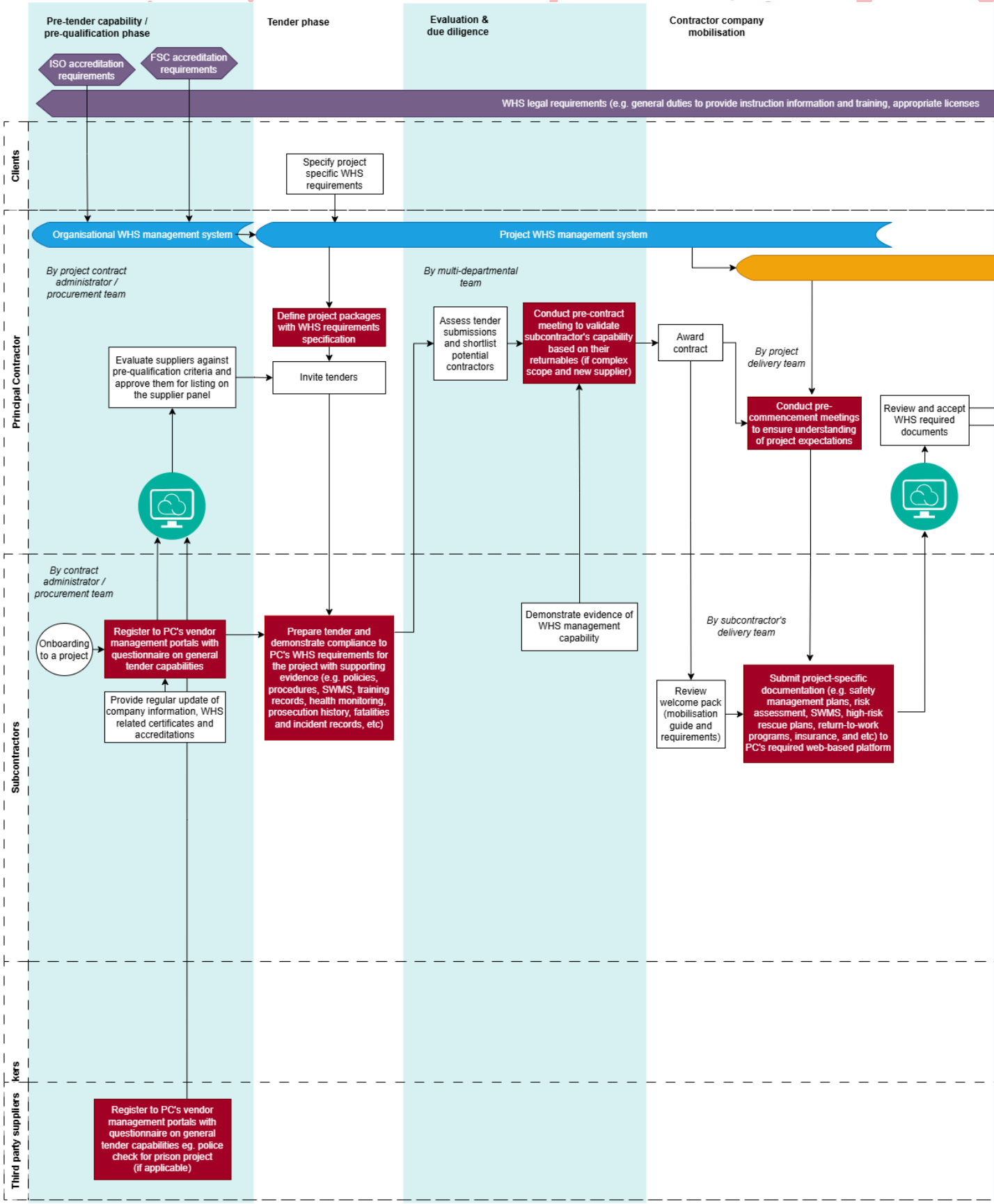
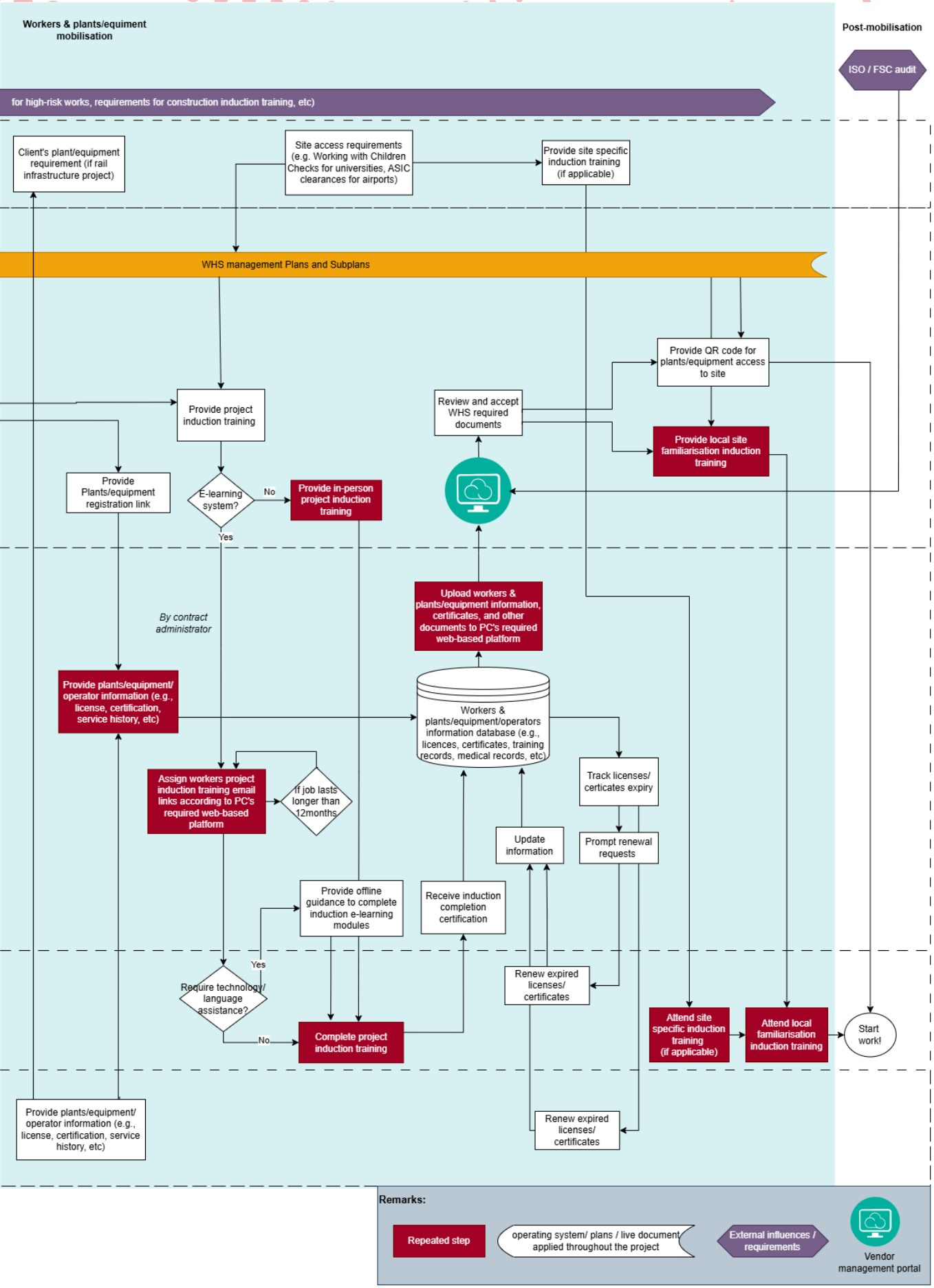
Appendix: Process map for subcontractor onboarding




Workers & plants/equiment mobilisation
Post-mobilisation
ISO / FSC audit
for high-risk works, requirements for construction induction training, etc)
Client's plant/equipment requirement (if rail infrastructure project)
Site access requirements (e.g. Working with Children Checks for universities, ASIC clearances for airports)
Provide site specific induction training (if applicable)
WHS management Plans and Subplans
Provide QR code for plants/equipment access to site
Provide project induction training
Review and accept WHS required documents
Provide local site familiarisation induction training
Provide Plants/equipment registration link
E-learning system?
No
Yes
Provide in-person project induction training
By contract administrator
Upload workers & plants/equipment information, certificates, and other documents to PC's required web-based platform
Provide plants/equipment/ operator information (e.g., license, certification, service history, etc)
Workers & plants/equipment/operators information database (e.g., licences, certificates, training records, medical records, etc)
Assign workers project induction training email links according to PC's required web-based platform
If job lasts longer than 12months
Track licenses/ certicates expiry
Update information
Prompt renewal requests
Provide offline guidance to complete induction e-learning modules
Receive induction completion certification
Yes
Require technology/ language assistance?
No
Renew expired licenses/ certificates
Attend site specific induction training (if applicable)
Attend local familiarisation induction training
Start work!
Complete project induction training
Provide plants/equipment/ operator information (e.g., license, certification, service history, etc)
Renew expired licenses/ certificates
Remarks:
Repeated step
operating system/ plans / live document applied throughout the project
External influences / requirements
Vendor management portal

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