WORK HEALTH AND SAFETY RESEARCH HORIZON SCAN, SCOPING REVIEW AND EVIDENCE GAP MAPPING PROJECT

Technical overview report

A report prepared for Safe Work Australia

ACADEMY OF THE SOCIAL SCIENCES IN AUSTRALIA

ATSE

About this project

This project was commissioned by Safe Work Australia, and it maps the existing landscape of work health and safety and workers' compensation research across the five Safe Work Australia *Research and Evaluation Strategy* initial priority areas to provide a data driven understanding of the current evidence base, gaps, and emerging research areas.

This report was developed with guidance from an Expert Working Group of experts from across work health and safety research and related areas. The Academy of the Social Sciences in Australia and the Australian Academy of Technological Sciences and Engineering gratefully acknowledges the Expert Working Group for their contributions.

Expert Working Group Members
Professor Peng Bi FASSA
Professor Alex Collie
Professor Maureen Dollard FASSA
Professor Andrew Neal FASSA
Professor Sharon Parker FASSA
Professor Michelle Tuckey
Professor Mark Wooden FASSA

Report prepared by Dr Harry Rolf, Dr Honae Cuffe, Nicola Smillie and Olivia Allen

Date of publication
April 2026

Publisher
Academy of the Social Sciences in Australia
3/95 Northbourne Ave
Turner ACT 2612
Australia
www.socialsciences.org.au

Citation
Academy of the Social Sciences in Australia. (2026). *Work health and safety research horizon scan, scoping review and evidence gap mapping project: Technical overview report.*
https://doi.org/10.60651/HG9W-T447

Table of Contents

Introduction

This report provides an executive summary of the Horizon Scanning and Evidence Gap Mapping Project, conducted by the Academy of the Social Sciences in Australia in partnership with Safe Work Australia (SWA) between August 2025 and March 2026 and with support from the Australian Academy of Technological Science and Engineering (ATSE).

The project establishes, for the first time, a systematic baseline of Australian work health and safety (WHS) and workers' compensation research across SWA's five research priority areas, as defined in the Research and Evaluation Strategy.[1] It examines how research conducted by Australian researchers, or focused on the Australian context, aligns with these priorities and assesses the extent to which the existing evidence base addresses a selection of drivers of change case studies likely to shape WHS over the next decade.

To achieve this, the project strategically integrates three complementary methods:

- A taxonomy-led scoping literature review to identify and classify the breadth and distribution of WHS research in Australia.
- Horizon scanning, using case studies to test the visibility of drivers of change within the evidence base.
- An evidence gap mapping process to identify differences between research activity, research priority areas, and drivers of change expected to impact WHS in Australia over the next decade.

To support the horizon scanning component of the project, each priority area is paired with a case study that represents a known or emerging driver of change for WHS in Australia. These case studies provide a practical lens for examining how research evidence aligns with risks, technologies, workforce trends, and policy challenges on the horizon. Together, the priority areas and case studies provide a structured framework for mapping the Australian WHS evidence base and identifying where gaps emerge. Detailed findings and interpretation for each research priority area and case study are presented in five separate corresponding Horizon Scanning and Scoping Literature Review and Gap Mapping reports, the subject of these reports are listed in the table below.

Research Priority Area	Case Study
P1: Psychosocial harm prevention and recovery	C1: Psychological injury and increasing time off work
P2: Advances in technology	C2: GenAI and work design
P3: Shifting mindsets around WHS fundamentals	C3: Respect@Work
P4: Effectiveness of systems and frameworks	C4: Electrification and emerging hazards
P5: Changing nature of work	C5: Algorithmic management in gig platforms

[1] *Safe Work Australia "Research and Evaluation Strategy" last modified June 11, 2025, https://www.safeworkaustralia.gov.au/doc/research-and-evaluation-strategy.*

The purpose of this report is to document how a sample of the Australian work health and safety (WHS) and workers' compensation evidence base was identified, screened, tagged, and prepared for analysis. It presents the approach in three parts:

First, the report sets out the sampling approach. This includes the development and refinement of the search strategy in Dimensions.ai[2]; record identification and export; eligibility screening using a multi-model large language model (LLM) panel to assess WHS relevance; and the consolidation and cleaning of records into a unified sample suitable for scoping review, horizon scanning, and evidence gap mapping.

Second, the report describes the operationalisation of the taxonomy through a tagging analysis. It outlines how records were tagged against SWA's five research priority areas using a combination of rule-based keyword matching, and how tagging results were validated and analysed. This section provides an account of how terms were applied consistently across the sample to enable comparison between priority areas and case studies.

Third, the report presents the bibliometric analysis and descriptive profile of the sample. This includes publication volume and trends over time; distribution of publication types; leading journals and contributing organisations; research domains; and high-level conceptual structure derived from bibliometric and concept co-occurrence analysis. These descriptive statistics provides insight into where WHS research is published, which disciplines contribute most strongly to the evidence base, and how key concepts cluster across the literature.

Sampling approach

This section presents the method and approach followed to gather data from Dimensions.ai and creation of a sample of Australian WHS and workers' compensation research for analysis. The method and approach involved three stages:

1. **Search:** Using Dimensions.ai we identified Australian WHS research by applying the query containing evidence-backed WHS terms limited to title and abstract for precision.
2. **Screening:** Using a panel of four LLMs we first screened results for WHS relevance and a screened second time to narrow results for priority area and case study analysis.
3. **Tagging:** We operationalised a taxonomy of terms for each research priority area to tag records using natural-language processing.

Search

To build a sample of Australian WHS research, three queries were run in Dimensaions.ai during November 2025, the queries are listed in Appendix 1.

Queries One and Two were designed following the horizon scan and scoping literature review methodology using terms from the associated taxonomy (for the priority area of "effectiveness of systems and frameworks" and case study on "electrification and emerging hazards"). However, the two queries returned the same results, a total of 8,467 records each.

This outcome can be explained by the order in which query elements were provided to Dimensions.ai, the broader subject anchor "work health and safety" OR "occupational health and

[2] *Dimensions.ai is a is a comprehensive, AI-powered research information platform that hosts the largest collection of interconnected global research data, including journal publications, conference proceedings, grants, clinical trials, patents, and policy documents.*

safety" at the start sets the scope, subsequent or following elements then did not add any new results. We experimented with re-ordering elements, however this produced either too many, or too few results, that while related to the search terms used, were often unrelated to the field of WHS research.

The search results highlight the heterogeneity of WHS research, and the cross-cutting nature of SWA's five research priority areas and associated taxonomy. WHS research spans a wide range of disciplines, including epidemiology, occupational medicine, safety science, systems engineering, psychology, ergonomics, law, public policy, and sector-specific applied research.

As a result, knowledge is distributed across diverse publication outlets, and relevant studies may not explicitly reference "work health and safety," "occupational health and safety," or related concepts in their titles or abstracts. Many publications instead describe WHS-relevant issues indirectly through references to workers, workplaces, work environments, exposures, injuries, organisational arrangements, and risk factors.

Following this outcome, the search strategy was adjusted. We developed a third query (Query Three) to capture the breadth of WHS research about Australia or by Australian researchers drawing on established approaches used in occupational health research.[3] Researchers in this field have shown that searching for work-related health evidence requires a careful balance: searches need to be broad enough to capture relevant studies, but focused enough to avoid retrieving large amounts of unrelated material.[4]

Following advice for the project's Expert Working Group, we combined terms that describe work or employment settings (such as workplace, industry, or occupation) with terms that describe hazards, injuries, diseases, and work-related health outcomes.[5] This approach of linking work-related terms with health or exposure terms has been tested and refined in previous research.[6] It has also been used to improve the identification of studies on occupational disease, occupational health interventions, and sector-specific worker health issues.[7,8] By drawing on these existing approaches, the query was designed to capture relevant Australian WHS research while maintaining clarity and relevance to Safe Work Australia's research priorities.

Query Three returned 16,398 results from Dimensions.ai. The total records returned by the three queries was 32,265, 16,671 were removed as duplicates, leaving 15,595 records for screening and analysis (see the PRISMA Flow Diagram at Figure 1).

---

[3] F. van Dijk and Y. Caraballo-Arias, "Where to Find Evidence-Based Information on Occupational Safety and Health?" Annals of Global Health 87, no. 1 (2021): 6, https://doi.org/10.5334/aogh.3131.

[4] Saumu Shabani et al., "The Prevalence of Occupational Injuries and Associated Risk Factors among Workers in Iron and Steel Industries: A Systematic Review and Meta-Analysis," BMC Public Health 24, no. 1 (2024): 2602.

[5] Frederieke Schaafsma et al., "Developing Search Strategies in Medline on the Occupational Origin of Diseases," American Journal of Industrial Medicine 49, no. 2 (2006): 127–137.

[6] Stefano Mattioli et al., "Search Strings for the Study of Putative Occupational Determinants of Disease," Occupational and Environmental Medicine 67, no. 7 (2010): 436–443.

[7] J. Verbeek et al., "A Search Strategy for Occupational Health Intervention Studies," Occupational and Environmental Medicine 62, no. 10 (2005): 682–687.

[8] Stefano Mattioli et al., "PubMed Search Strings for the Study of Agricultural Workers' Diseases," American Journal of Industrial Medicine 56, no. 12 (2013): 1473–1481.

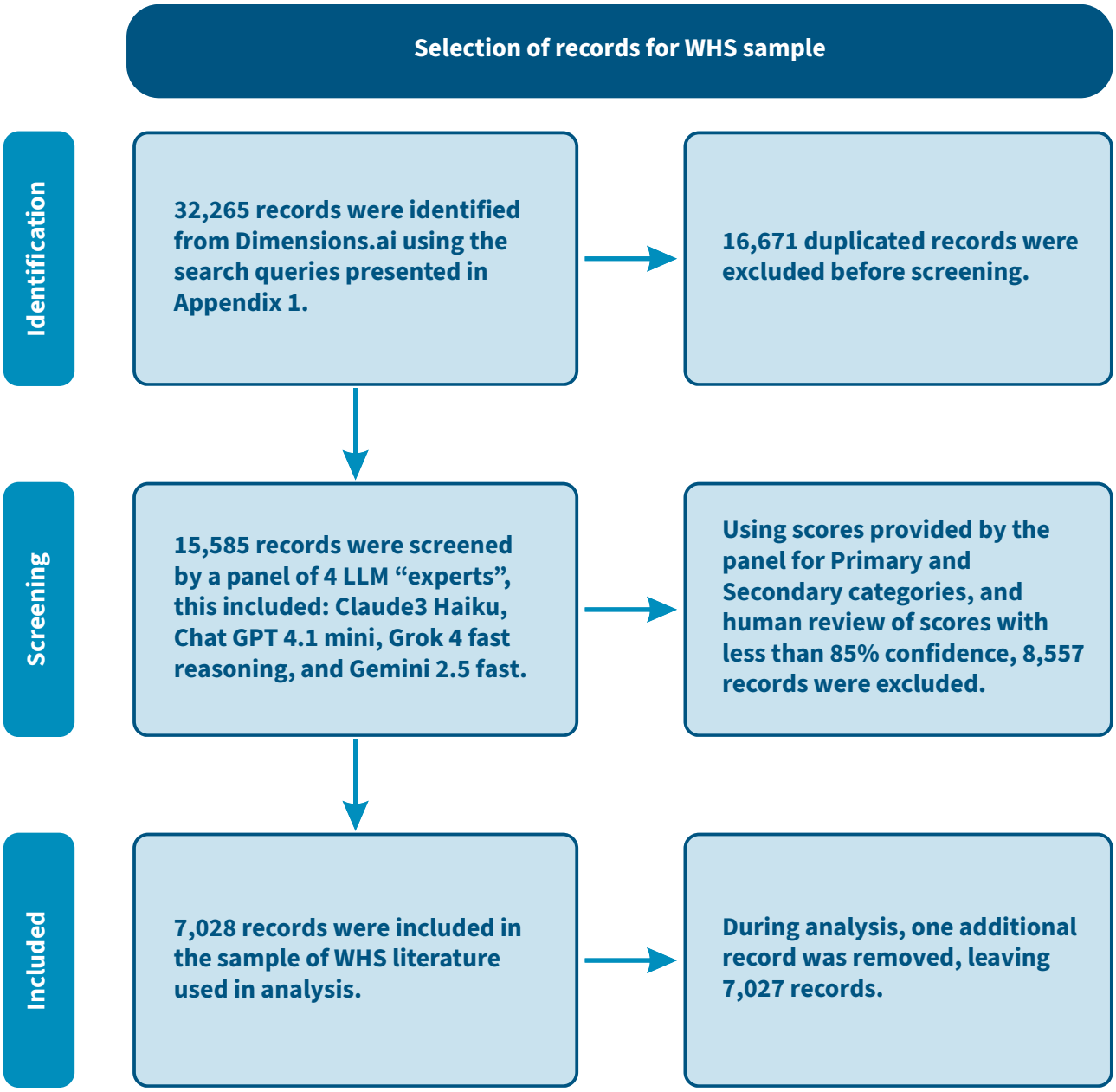

Figure 1: PRISMA flow diagram of screening decisions (https://www.prisma-statement.org/prisma-2020-flow-diagram)

Screening

The 15,595 results from Dimensions.ai were screened for WHS relevance using a panel of four large language models (LLMs). The screening approach applied recent work showing that the combination of LLM confidence and LLM diversity can provide a reliable indicator of the quality for automated classifications in qualitative coding tasks such as the categorisation of research publications.[9]
The method combines independent classifications generated by a panel of four or more LLMs with a consensus process that draws on model confidence, inter-model disagreement, and human oversight.

[9] *Zhilong Zhao and Yindi Liu, A Confidence–Diversity Framework for Calibrating AI Judgement in Accessible Qualitative Coding Tasks (Guangzhou: School of Journalism and Communication, South China University of Technology, 2025), https://doi.org/10.48550/arXiv.2508.02029.*

In our approach four models were asked to classify the title and abstract of each record into one of three researcher-defined categories (primary, secondary, or irrelevant) using the schema in Appendix 2. Models returned a full probability distribution across all categories, identified their preferred category based on that distribution, and provided a confidence score for the decision.

The models included in the panel were Chat GPT 4.1 Mini, Claude 3 Haiku, Gemini 2.5 Flash and Grok 4.1 Fast Reasoning. The four models were selected for their self-reported strength in classification tasks and to provide a diversity of publicly accessible frontier LLMs. These kinds of small models are widely recognised for providing a near-optimal balance between computational efficiency and accuracy in text classification tasks, often performing on par with larger flagship models despite their smaller scale.[10, 11]

For each record screened, panel outputs were aggregated to assess the level of agreement between models. This involved constructing a vote distribution from the preferred categories selected by each model, calculating the mean confidence across those decisions, and computing a diversity score that increases as models diverge in their choices. These outputs were combined into a single normalised risk score (R) ranging from 0 to 1, providing a continuous measure of the panel's collective judgement.

The risk score was used to sort records into three decision groups. Low-risk records ($R \leq 0.25$) were assigned to the green category and could be accepted without researcher review. Records with intermediate risk ($0.25 < R < 0.45$) were marked amber and required light-touch researcher review before acceptance (this involved checking the titles and abstracts). High-risk records ($R \geq 0.45$) exhibited low confidence or substantial disagreement between the models and were designated red, requiring full researcher review before inclusion (this involved checking the full publication text).

Panel results were used to select a final sample of 7,028 records for Horizon Scanning and Scoping Literature Review and Gap Mapping. Table 1 shows model categorisation frequencies and risk ratings, records rated green in the primary and secondary categories were selected for including and further analysis. Table 2 shows the inter-model agreement, it is interesting to note that ChatGPT and Claude tended to agree, as did Grok and Gemini, but the two groups often disagreed. This inter-model "discourse" demonstrates a level of robustness of the panel's decision making, with a variety of views being expressed.

[10] *Washington Cunha, Leonardo Rocha, and Marcos André Gonçalves, "A Thorough Benchmark of Automatic Text Classification: From Traditional Approaches to Large Language Models," arXiv preprint arXiv:2504.01930, April 2, 2025, https://arxiv.org/abs/2504.01930.*

[11] *Mohammad Amin et al., "Does Model Size Matter? A Comparison of Small and Large Language Models for Requirements Classification," arXiv preprint arXiv:2510.21443, October 24, 2025, https://arxiv.org/abs/2510.21443.*

	Green	Amber	Red
Primary	6657	1908	493
Secondary	371	1402	407
Irrelevant	650	2982	723

Table 1: Model ratings and risk matrix for the set of 15,595 records (Green – low risk, Amber – medium risk, Red – high risk).

	claude-3-haiku	gemini-2.5-flash	gpt-4.1-mini	grok-4-1-fast.
claude-3-haiku		0.584942	0.722824	0.523889
claude-3-haiku	0.584942		0.636888	0.805233
gpt-4.1-mini	0.722824	0.636888		0.596229
grok-4-1-fast-reasoning	0.523889	0.805233	0.596229	

Table 2: Model pairwise agreement when categorising the 15,595 records (between 0 - 1)

The 7,028 records were then further screened by the Panel for their relevance to each research priority area and case study following the same process. During this process, one additional record was removed leaving a total of 7,027 records (this is reflected in Figure 1). Table 3 provides a summary of the number of records screened for each priority area and case study by the Panel, these results are discussed in the Horizon Scan and Search Taxonomy Methodology and Scoping Literature Review reports.

The results of screening were also reviewed by human researchers for the purpose of audit and evaluation. Researchers reviewed the titles and abstracts of all screened records identified for inclusion in priority areas and case studies by the Panel. Researchers noted where they agreed or questioned the Panel's categorisation of a record. The results of this exercise are presented in Table 4. They show a high level of agreement (70% on average) between the Panel and the researchers, where there was disagreement (30% on average), perceived poor alignment or uncertainty about the relevance of a record to a particular category were the main issues. No screened records were excluded from analysis based on this review. The results serve as a mechanism for evaluating the effectiveness of the method and to enhance transparency around the use of automated screening in literature review.

Priority / Case study	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5
Records	1232	563	733	398	152	49	6	10	8	210

Table 3: Total screened records for priority areas P1 – P5 and case studies C1 – C5.

Priority / Case study	Agree		Questioned		Total
P1	900	73%	332	27%	1232
P2	494	88%	66	12%	560
P3	487	67%	244	33%	731
P4	235	59%	163	41%	398
P5	73	48%	80	52%	153
C1	120	57%	90	43%	210
C2	3	30%	7	70%	10
C3	36	72%	14	28%	50
C4	4	50%	4	50%	8
C5	4	67%	2	33%	6
Total	**2356**	**70% (mean)**	**1002**	**30% (mean)**	**3358**

Table 4: Results of researcher review, results for priority areas P1 – P5 and case studies C1 – C5 are organised in to Agreed where the research agreed with the Panel's decision or Questioned where the research was unsure about the Panel's decision.

Tagging

To identify how each publication related to each of the five research priorities and selected horizon scanning case studies, we operationalised the project's WHS taxonomy into a set of normalised tags and applied these to the titles and abstracts of all 7,027 screened publications in the sample. Each concept (primary terms) in the taxonomy (e.g., work-related stress, safety culture, battery hazards, regulatory enforcement) was represented as a tag, along with common alternative phrasings and synonyms (related terms). We also prepared "normalised" versions of multi-word concepts so that different wordings (such as "culture in the workplace" for workplace culture) could still be recognised, this led to a set of 304 terms listed In Appendix 3.

We used a natural language processing approach, implemented in Python, to scan publication titles and abstracts for the normalised set of terms. Python was chosen because it allows transparent, repeatable processing of large datasets. Two complementary techniques were used for the tagging:

- **Direct phrase matching**[12] where the Python script looks for the exact wording (or close variations) of each term in the title and abstract text. Phrases were looked for at the sentence level.
- **Meaning-based matching**[13] using the widely used open-source library spaCy[14], which helps recognise concepts even when the words are rearranged or expressed in different forms.

Together, these methods allowed us to reliably detect when a publication referred to a normalised term, even if the phrasing differed from the wording in our taxonomy. All tagging was run locally using Python scripts written by the researchers, ensuring a consistent and reproducible process across the sample.

When a concept was detected, the corresponding tag was marked for that publication. This produced a structured tag matrix indicating which WHS topics appear across the evidence base. Tagging results, showing the number of times that a tag appeared in the title or abstract of a screened or unscreened record, are reported in Appendix 3, detailed results for each priority and case study are presented and discussed in the Horizon Scan and Search Taxonomy Methodology and Scoping Literature Review reports.

In total, 170 or 56% of terms appeared in at least one record's title or abstract, while 134 or 44% of terms did not appear in the titles and abstracts of any records. The absence of terms can be attributed to a range of factors and should not be taken as a sign that research is not being conducted on these topics, rather it serves as a signal that the research is hard to identify. Titles and abstracts only represent a targeted snapshot of the research and so may not comprehensively represent topics found in a research paper's full text. The taxonomy was developed from a policy perspective and there may be differences in terminology and language used to describe the terms. Additionally, despite the comprehensive nature of the Dimensions.ai database – it does not cover all sources of WHS knowledge and our approach to sampling it may not have captured all available evidence.

The top ten terms account for a majority of the tags applied (47%), and are genuinely cross cutting, with all but one (monitoring) appearing in titles and abstracts of records screened across all five priority areas (See Figure 2). Table 5 shows a summary of the tagging results for all priority area terms (x axis) across the records screened into each priority area (y axis), the counts are the number of tags applied. Table 5 shows that terms associated with the priority area P1 were identified in the titles and abstracts of significantly more records than those in priority areas P2 – P5, they account for 61% (4330) of the 7043 unique tags applied. Again, tagging was cross-cutting, with terms from each priority area appearing on screened records in every priority area.

---

[12] *Daniel Jurafsky and James H. Martin, "Words and Tokens," in Speech and Language Processing, 3rd ed. draft (January 6, 2026), 19–30, https://web.stanford.edu/~jurafsky/slp3/.*

[13] *Daniel Jurafsky and James H. Martin, "Sequence Labeling for Parts of Speech and Named Entities," in Speech and Language Processing, 3rd ed. draft (January 6, 2026), 387–88, https://web.stanford.edu/~jurafsky/slp3/.*

[14] *Matthew Honnibal, Ines Montani, Sofie Van Landeghem, and Adriane Boyd, "spaCy: Industrial-strength Natural Language Processing in Python" (2020), https://doi.org/10.5281/zenodo.1212303.*

Screened record categories

Tags applied	P1	P2	P3	P4	P5	Unscreened	Multi***	Total**
P1	2079	140	625	183	138	1843	678	4330
P2	63	232	49	24	28	388	66	718
P3	68	40	77	41	19	183	58	370
P4	130	144	226	97	29	477	126	977
P5	150	37	55	26	45	406	71	648
Total*	2490	593	1032	371	259	3297	999	7043

Table 5: A matrix showing the number of tags applied to screened records across the 7,027 record sample. The Y-axis is priority area tags and X-axis is the screened record categories, e,g, cell P1/P1 shows the number of P1 tags applied to P1 screened records. The table also includes columns with the number of unscreened records that were tagged, the number of tags that were counted multiple times (Multi) and the total tags applied. Figures reflect total tag counts, tagging is not exclusive and a term might appear on records in each priority area category, records can also be screened into more than one priority area – hence tag counts are higher than the number of records in the sample.

** Total tags on P1, P2, P3 etc. records, **Total number of P1, P2, P3 tags on all records, this is without duplicates and is the unique tag count. ***The number of terms that are counted more than once.*

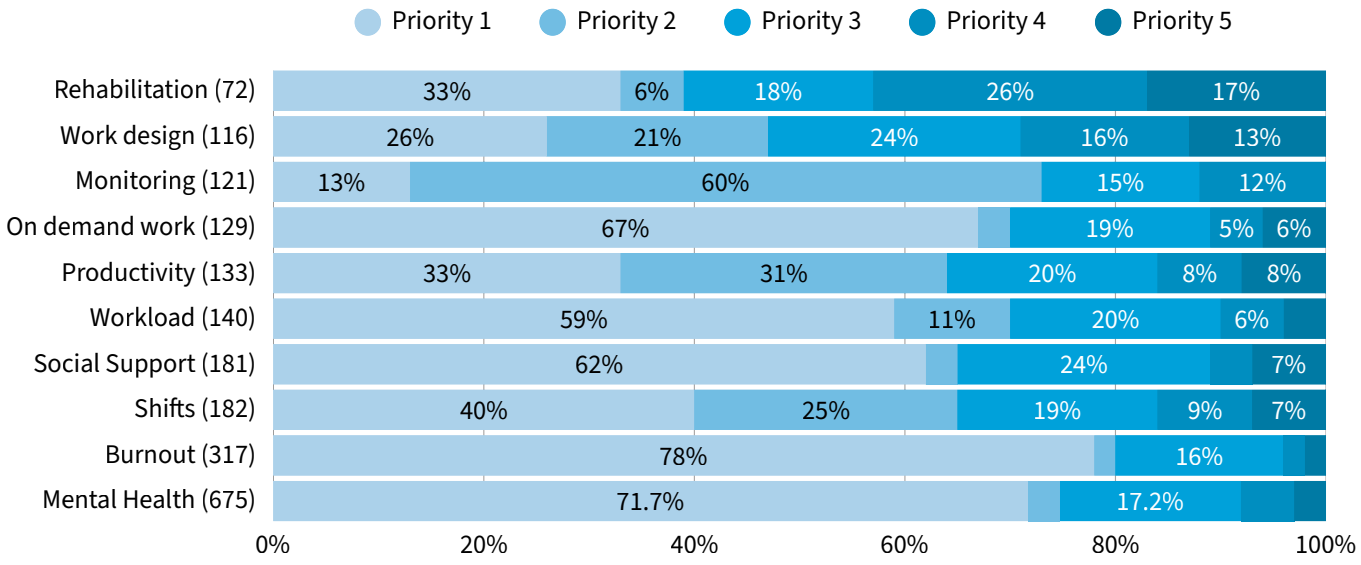

Figure 2: This stacked bar chart shows the proportion of terms associated with publications in each of the five priority areas, it shows that terms are cross-cutting and speaks to the multi-disciplinary nature of WHS research. Terms (y-axis) also have their frequency displayed (frequency) for reference. Priority 1 (P1): Psychosocial harm prevention and recovery, Priority 2 (P2): Advances in technology, Priority 3 (P3): Shifting mindsets around WHS fundamentals, Priority 4 (P4): Effectiveness of systems and frameworks, Priority 5 (P5): Changing nature of work.

Tagging analysis

To examine tagging patterns across the sample of 7,027 records, we conducted an analysis using Correspondence Analysis (CA)[15] and hierarchical clustering.[16] The purpose of this analysis was to better understand how terms are distributed across priority areas and among records that were tagged but not screened into a priority. Table 5 shows that a significant number (n=3297 or 40%) of unscreened records were tagged. This tells us that a substantial proportion of taxonomy terms were also identified in records that were not screened into SWA's five specific research priority area, warranting further investigation. The tagging analysis therefore provides insight not only into where research aligns with priorities, but also where relevant evidence sits outside the conceptual boundaries of the research priority areas.

Rather than examining tag counts in isolation, this approach enables a wholistic view of how terms relate to one another based on their tagging profiles. For example, some terms such as mental health and burnout are strongly concentrated in a single priority area, while others such as shifts or workload are spread more broadly across priorities and unscreened records (See Figure 2). CA summarises these patterns and represents them in a visual map, where terms that have similar tagging patterns appear close together and those with different patterns appear further apart. This allows us to see the overall structure of tagging behaviour, rather than focusing only on raw counts.

Hierarchical clustering is a method that groups items based on similarity, creating nested clusters that reflect shared characteristics among observations. After the Correspondence Analysis places terms in a common coordinate space based on their tagging profiles, hierarchical clustering was applied to group terms with similar patterns into clusters. The method starts by treating each term as its own group and then progressively merges those with the closest similarity, producing a hierarchical structure of clusters. This approach makes it easier to summarise broad thematic groupings and to interpret the major patterns in the tagging data.

The resulting CA map (see Figure 3) provides a visual summary of how tagged terms are distributed across priority areas and unscreened records. Each point represents a tagged term, positioned according to its pattern of distribution. Terms that appear close together share similar tagging distributions, while those further apart reflect different patterns of alignment across priorities. The map shows that tagging is not evenly distributed across the sample. Instead, it forms a clear pattern, with some terms concentrated within specific priority areas and others spread more broadly across the evidence base. Hierarchical clustering was applied to visually group terms with similar tagging patterns.

---

[15] *Correspondence Analysis (CA) is a method used to explore and visualise relationships in categorical data by projecting them into a reduced 2-dimensional space that highlights patterns and associations. It begins with a table of counts and produces a map where terms with similar distributions appear close together and those with different distribution patterns are further apart. CA helps to uncover the underlying structure in complex, multivariate categorical data without requiring predefined categories or hypotheses. See: Michael Greenacre, Correspondence Analysis in Practice, 3rd ed. (Boca Raton, FL: CRC Press, 2017), 9–15, https://doi.org/10.1201/9781315369983.*

[16] *Hierarchical clustering is a method used to group items according to their similarity. After Correspondence Analysis identified the main structural dimensions of tagging patterns, hierarchical clustering was applied to group terms that occupy similar positions in this space. The method progressively combines terms into clusters based on their similarity, producing groupings that reflect shared tagging behaviour. This allows broader thematic structures to be identified in a systematic and transparent way. See: Brian S. Everitt, Sabine Landau, Morven Leese, and Daniel Stahl, "Hierarchical Clustering," in Cluster Analysis, 5th ed. (Chichester, UK: John Wiley & Sons, 2011), 71–75, https://doi.org/10.1002/9780470977811.*

CA analysis resulted in five distinct clusters that describe the main thematic groupings within the tagging (the frequencies are presented in Table 6):

- **Cluster 1 – Employment and regulatory context terms (218 total tags)**, spanning multiple priorities and including a substantial proportion of unscreened tagging, reflecting cross-cutting labour and regulatory terms.
- **Cluster 2 – Governance and systems terms (913 total tags)**, primarily associated with P3 but distributed across other areas, representing organisational and system-level concepts within the evidence base.
- **Cluster 3 – Work design and work context terms (3,744 total tags)**, the largest cluster by overall tagging volume, capturing broad, cross-cutting concepts that underpin multiple priorities and include a high proportion of unscreened tagging.
- **Cluster 4 – Technical and automation terms (174 total tags)**, a smaller but highly concentrated grouping of terms closely aligned with P2.
- **Cluster 5 – Psychosocial terms (2,993 total tags)**, a high-volume cluster strongly aligned with P1.

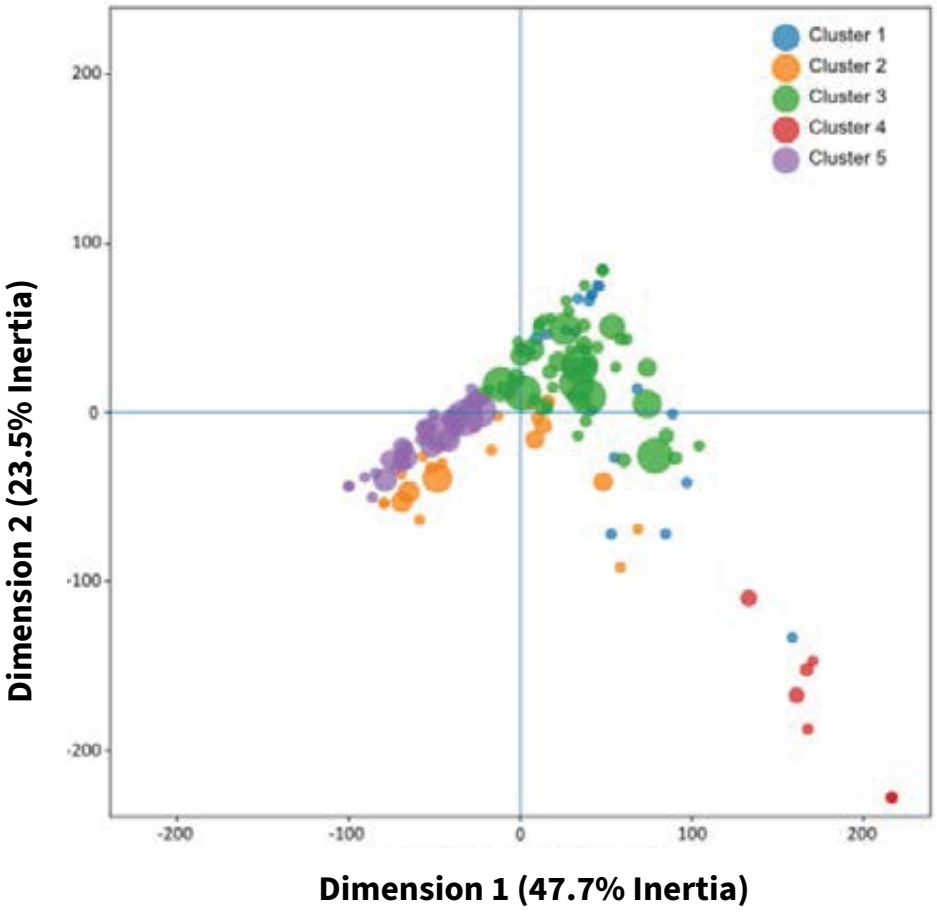

Figure 3: Correspondence Analysis Map of Tagged Terms Across Priority Areas. This map shows how terms are distributed across priority areas and unscreened records, with terms positioned according to their tagging patterns and grouped into five clusters that reflect distinct thematic structures within the evidence base.

Cluster	Total	Unscreened	P1	P2	P3	P4	P5
1	218	94 (43.1%)	21 (9.6%)	17 (7.8%)	12 (5.5%)	35 (16.1%)	39 (17.9%)
2	913	197 (21.6%)	247 (27.1%)	50 (5.5%)	346 (37.9%)	57 (6.2%)	16 (1.8%)
3	3,744	2,191 (58.5%)	580 (15.5%)	355 (9.5%)	303 (8.1%)	185 (4.9%)	130 (3.5%)
4	174	25 (14.4%)	9 (5.2%)	126 (72.4%)	3 (1.7%)	3 (1.7%)	8 (4.6%)
5	2,993	790 (26.4%)	1,633 (54.6%)	45 (1.5%)	368 (12.3%)	91 (3.0%)	66 (2.2%)

Table 6: A table of term distributions by cluster, showing a breakdown of their distribution by priority area and unscreened records.

Cluster 1: Employment and regulatory terms

Cluster 1 brings together terms related to employment arrangements and regulatory context. Table 7 shows that the most prominent terms in this cluster include migrant work (32 total tags), integrity (29), precarious work (23), regulatory review (17), and gig work (16).

These terms show a mixed distribution across priority areas and a substantial proportion of unscreened tagging. For example, migrant work and integrity each have nearly half of their tagging in unscreened records, while precarious work and gig work are spread across multiple priorities rather than concentrated in one. Representation across P4 and P5 is notable, but no single priority dominates the cluster overall.

Term	Total	Unscreened	P1	P2	P3	P4	P5
Migrant work	32	16	7	0	1	4	4
Integrity	29	15	0	2	5	3	4
Precarious work	23	11	4	0	1	1	6
Regulatory review	17	8	1	1	1	5	1
Gig work	16	2	1	2	2	3	6

Table 7: Top 5 terms by frequency for Cluster 1 showing a breakdown in their priority area and unscreened record distributions.

Cluster 2: Governance and systems terms

Cluster 2 brings together governance and organisational system concepts. Table 8 shows that the most prominent terms include safety climate (177 total tags), psychosocial climate (93), psychosocial safety climate (PSC) (85), safety management system (73), and accountability (68).

The frequency profile shows that this cluster is primarily aligned with P3, which accounts for the largest share of tagging within the group. For example, safety climate has 100 tags in P3, more than in any other area, while psychosocial climate and PSC also show strong P3 representation alongside P1. At the same time, there is moderate unscreened tagging across the cluster, and several terms (such as safety management system and accountability) are distributed across multiple priorities.

Term	Total	Unscreened	P1	P2	P3	P4	P5
Safety climate	177	23	46	3	100	4	1
Psychosocial climate	93	5	45	2	39	1	1
Psychosocial safety climate (PSC)	85	2	42	2	38	1	0
Safety management system	73	19	4	17	19	14	0
Accountability	68	18	12	7	18	9	4

Table 8: Top 5 terms by frequency for Cluster 2 showing a breakdown in their priority area and unscreened record distributions.

Cluster 3: Work design and context terms

Cluster 3 is the largest grouping, containing 70 terms and accounting for the highest overall tagging frequency. It also has the highest proportion of unscreened tagging, indicating that many of these terms are cross-cutting.

Table 9 shows that the most prominent terms in this cluster include shifts (523 total tags), productivity (308), workload (273), monitoring (255), and work design (247). A substantial share of tagging for these terms sits outside priority areas, for example, shifts has 341 unscreened tags and productivity has 175. While these terms do appear across P1–P5, they are not concentrated in any single priority.

Term	Total	Unscreened	P1	P2	P3	P4	P5
Shifts	523	341	73	46	34	16	13
Productivity	308	175	44	41	27	11	10
Workload	273	133	82	15	28	9	6
Monitoring	255	134	16	73	18	14	0
Work design	247	131	30	24	28	19	15

Table 9: Top 5 terms by frequency for Cluster 3 showing a breakdown in their priority area and unscreened record distributions.

Cluster 4: Technology and automation terms

Cluster 4 represents a clearly defined technical and automation-focused grouping of terms. It is the most concentrated cluster in the analysis, with most of the tagging aligned to P2 and very little tagging occurring outside the priority area.

Table 10 shows that the leading terms in this cluster include machine learning (50 total tags), wearables (46), robotics (34), nanomaterials (15), and VR training (15). For each of these terms, most tagging sits within P2, for example, wearables has 35 of its 46 tags in P2, and robotics has 25 of 34. Unscreened tagging is minimal across the cluster.

Term	Total	Unscreened	P1	P2	P3	P4	P5
Machine learning	50	12	4	29	0	1	4
Wearables	46	6	4	35	1	0	0
Robotics	34	4	1	25	0	0	4
Nanomaterials	15	3	0	11	0	1	0
VR training	15	0	0	12	2	1	0

Table 10: Top 5 terms by frequency for Cluster 4 showing a breakdown in their priority area and unscreened record distributions.

Cluster 5: Psychosocial terms

Cluster 5 represents a strongly defined psychosocial grouping within the tagging system. It is closely aligned with P1 and contains some of the highest-volume terms in the sample.

Table 11 shows that the most prominent terms include mental health (997 total tags), burnout (433), social support (279), job burnout (114), and emotional exhaustion (110). A large share of tagging for these terms sits within P1, for example, mental health has 478 tags in P1, and burnout has 247. While these terms also appear in other areas and in unscreened records, their primary concentration is clearly within the P1 priority area.

Term	Total	Unscreened	P1	P2	P3	P4	P5
Mental health	997	322	478	22	116	36	23
Burnout	433	116	247	6	52	5	7
Social support	279	98	112	6	43	7	13
Job burnout	114	38	59	2	12	1	2
Emotional exhaustion	110	25	63	2	18	1	1

Table 11: Top 5 terms by frequency for Cluster 5 showing a breakdown in their priority area and unscreened record distributions.

The analysis suggests that some research priority areas may align more closely with established research domains than others. For example, P1 (Psychosocial harm prevention and recovery) and P2 (Advances in technology) correspond with distinct groupings of terms and screened publications in our sample. In these areas, both screened publications and tagged terms tend to cluster together rather than appearing broadly across multiple priorities.

In contrast, other priority areas appear more distributed. Terms associated with the changing nature of work, shifting mindsets around WHS fundamentals, and effectiveness of systems and frameworks are more likely to appear across multiple priorities or in unscreened records. This suggests that while research relevant to these priorities exists, it is more cross-cutting in nature and not organised into a single, clearly bounded research domain.

Bibliometric analysis

This section provides a descriptive overview of the 7,027 record sample's characteristics, including publication outlets, disciplinary classifications, contributing authors, and conceptual structure.

The bibliometric profile of the sample shows a large and mature body of Australian WHS-related research, predominantly disseminated through peer-reviewed journal articles. Nearly nine in ten records are journal publications, with smaller contributions from book chapters, conference proceedings, and preprints, suggesting that the evidence base largely reflects established scholarly channels. The volume and continuity of publications have increased steadily over time, with a marked expansion in annual output over the past fifteen years, although it has stabilised in more recent years. Overall, analysis indicates sustained research attention to work health and safety-related issues.

Publication activity is distributed across a wide range of outlets, with close to two thousand unique sources represented. However, a relatively small number of established occupational and environmental health journals account for a substantial proportion of publications, reflecting stable disciplinary homes for WHS research. These outlets span occupational medicine, environmental health, public health, and applied ergonomics, reinforcing the multidisciplinary nature of the field while also indicating concentration around familiar publication venues.

Analysis of Fields of Research classifications shows that the evidence base is anchored primarily in the health sciences, including biomedical, clinical, and health services research, with significant contributions from psychology, engineering, management, and human society disciplines. This distribution highlights the breadth of perspectives brought to WHS research, while also underscoring the central role of health-oriented approaches. Concept co-occurrence analysis further indicates that highly connected concepts cluster around workers, workplaces, work environments, mental health, and health outcomes, alongside methodological and epidemiological terms. Together, these bibliometric patterns provide a descriptive backdrop for the more detailed scoping, horizon scanning, and gap mapping analyses.

Summary of the sample

The sample of 7,027 records is predominantly composed of peer-reviewed journal articles (6,240; 88.8%), with smaller proportions of book chapters (359; 5.1%) and conference proceedings (211; 3.0%). Preprints account for 182 records (2.6%), while monographs and edited books together constitute fewer than 1% of total outputs. This distribution indicates that the sample primarily reflects published scholarly literature, complemented by a smaller amount of book-based and early-stage research.

The sample contained publications drawn from a wide range of journals and outlets. After excluding entries without source metadata, a total of 1,979 unique publication sources were identified. Publications in the sample were drawn from outlets across occupational health, environmental health, science, applied ergonomics, and medical journals. Table 12 presents the five most frequently occurring sources. These outlets together represent a significant portion of the sample and reflect primary dissemination channels for occupational and environmental health research.

Rank	Source Title	Publications
1	*Occupational and Environmental Medicine*	249
2	*International Journal of Environmental Research and Public Health*	159
3	*PLOS ONE*	94
4	*Occupational Medicine*	88
5	*WORK: A Journal of Prevention, Assessment & Rehabilitation*	84

Table 12: Top five publication sources by number of publications.

Publications Over Time

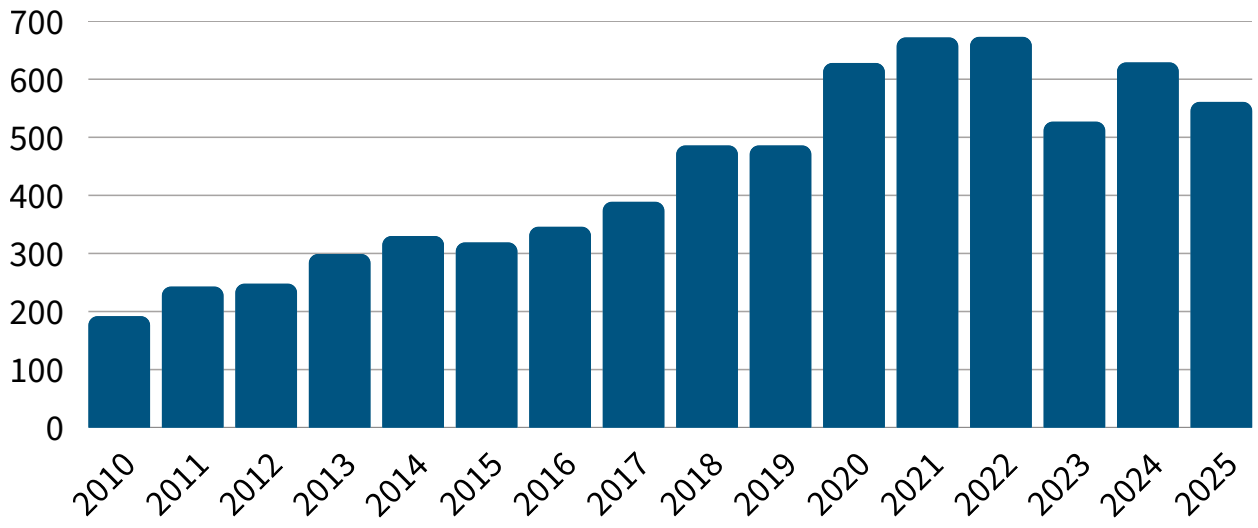

Figure 4: Frequency of publications over time

The histogram at Figure 4 charts the number of publications present in the sample per year, it shows a clear expansion of WHS-related research over the past fifteen years. Annual publication counts increased steadily from around 200 items in 2010 to more than 600 per year after 2020.

Analysis of ANZSRC 2020 Fields of Research (FoR)[17] codes assigned to each record by Dimensions.ai show that the sample spans a breadth of research domains. Health Sciences is the most prominent, followed by Biomedical and Clinical Sciences, Health Services and Systems, and Human Resources and Industrial Relations. Substantial contributions also originate from Engineering, Psychology, Human Society, and Built Environment and Design. The five most frequent FoR categories are shown in Table 13.

Rank	Field of Research Category	Count
1	42 Health Sciences	3,624
2	32 Biomedical and Clinical Sciences	1,885
3	4203 Health Services and Systems	1,721
4	35 Commerce, Management, Tourism and Services	1,419
5	3202 Clinical Sciences	1,262

Table 13: Top five FoR categories represented in the sample by frequency of occurrence (publications can have multiple FoRs assigned).

A concept co-occurrence network was generated using Dimensions.ai to identify the structure and central concepts across the sample. Degree (the number of times each concept appears together) was calculated to identify the most connected concepts. Table 14 lists the five concepts with the highest degree. The concept network also contained five clusters identified by Dimensions.ai using hierarchical clustering analysis, which shows how concepts are related to one another across the sample. Table 15 presents the number of concepts in each cluster, and the top five highest-degree concepts within them.

[17] *Australian Bureau of Statistics. Australian and New Zealand Standard Research Classification (ANZSRC), 2020: Fields of Research (FoR). Cat. no. 1297.0. Canberra: ABS, 2020. https://www.abs.gov.au/statistics/classifications/austra-lian-and-new-zealand-standard-research-classification-anzsrc/latest-release.*

Rank	Concept	Cluster	Degree
1	workers	**Ergonomics & Work Design**	248
2	workplace	**Ergonomics & Work Design**	243
3	mental health	**Psychosocial Cluster**	242
4	work environment	**Ergonomics & Work Design**	238
5	health	**Psychosocial**	238

Table 14: Top five concepts with the highest degree (co-occurrence with other concepts)

Cluster	Size	Description	Top Concepts (with degrees)
1	74	Health Systems & Workforce	healthcare (221), nurses (220), services (218), care (215), well-being (234)
2	63	Epidemiology & Exposure Science	risk factors (236), intervention (227), outcomes (217), participants (232), risk (221)
3	49	Ergonomics & Work Design	workers (248), workplace (243), work environment (238), working hours (189), employees (182)
4	38	Methods	cross-sectional study (212), regression analysis (199), prevalence (199), regression models (192), people (190)
5	26	Psychosocial	mental health (242), health (238), health outcomes (216), psychological distress (200), depression (191)

Table 15: Concept clusters and top five associated terms by degree

The concept map in Figure 5 at the end of this section was created using VOSviewer,[18] it provides an overview of how key concepts co-occur across the WHS evidence base and how research activity is structured thematically. The map is characterised by several large, densely connected clusters organised primarily around health outcomes, occupational groups, and research methods. Highly central concepts include health, mental health, workers, employees, healthcare workers, and workplace, reflecting a strong orientation toward worker health and wellbeing as the core organising focus of the literature. These central nodes connect across multiple clusters, indicating that health-related outcomes serve as a common reference point across otherwise diverse strands of WHS research.

[18] *Nees Jan van Eck and Ludo Waltman, "Software Survey: VOSviewer, a Computer Program for Bibliometric Mapping," Scientometrics 84, no. 2 (2010): 523–538, https://doi.org/10.1007/s11192-009-0146-3.*

Several prominent clusters align closely with established disciplinary and sectoral domains. One cluster is strongly oriented toward healthcare settings and professions, with frequent co-occurrence of concepts such as nurses, healthcare workers, patient safety, hospital, and care settings, reflecting the concentration of WHS research within health services contexts. Another cluster centres on construction and industrial settings, linking concepts such as construction, industry, occupational safety, accidents, and injury. These clusters mirror the concentration of publications within a relatively small number of established occupational health and safety journals and the co-authorship patterns observed among researchers working within specific sectoral or disciplinary communities.

Methodological concepts also form a distinct and well-connected component of the network. Terms such as cross-sectional study, cohort study, meta-analysis, logistic regression, intervention, and survey appear frequently and are closely linked to health outcome concepts. This reflects a strong emphasis on observational and epidemiological study designs, with interventions and evaluation commonly framed in relation to measurable health effects. The prominence of these methodological concepts is consistent with the bibliometric profile of the sample, which shows a predominance of peer-reviewed journal articles and health science research.

Publication patterns within the concept map suggest responsiveness to major external events, most notably through the prominence of COVID-19 and COVID-19 pandemic as highly connected and relatively recent concepts. These terms link across healthcare, mental health, and occupational exposure clusters, indicating that the pandemic has acted as a unifying context within which multiple WHS-related issues have been examined. Overall, the concept map depicts an evidence base that is cohesive, health-outcome oriented, and structured around established sectors, populations, and methodological approaches, providing a descriptive foundation for subsequent analytical work focused on taxonomy coverage, horizon scanning, and evidence gaps.

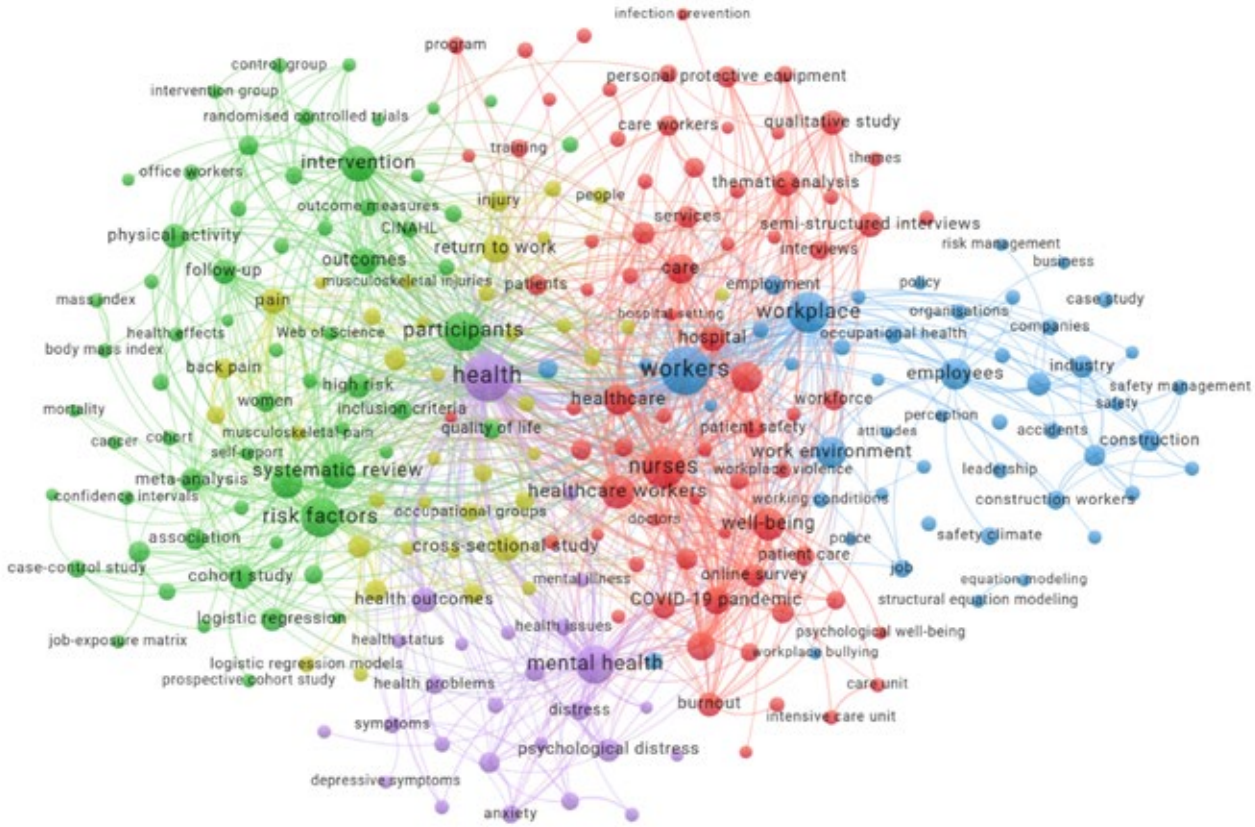

Figure 5: Network graph displaying 250 concepts linked by their co-occurrences, produced via VOSviewer. Concept node size reflects frequency in titles and abstracts. Colours identified five clusters: Cluster 1: Health Systems & Workforce (Red), Cluster 2: Epidemiology & Exposure Science (Green), Cluster 3: Ergonomics & Work Design (Blue), Cluster 4: Methods (Yellow), Cluster 5: Psychosocial (Purple).

Appendix 1: Search queries

This appendix presents the search queries designed and applied to identify Australian WHS research.

Query 1: Priority area search

#	Query part	Query text	Query design
1	**Taxonomy terms**	("Continuous improvement" OR "Cross-jurisdictional coordination" OR "Digital systems" OR "Due diligence and governance" OR "Economic dimension" OR "Evaluation of regulatory effectiveness" OR "Integration with business systems" OR "Intervention" OR "Learning from incidents" OR "Occupational hygiene & exposure science" OR "Performance measurement and indicators" OR "Precautionary principle" OR "Regulatory compliance systems" OR "Responsive regulation" OR "Risk management approach" OR "Risk perception & communication" OR "Risk frameworks" OR "Supply chain" OR "Assurance" OR "System innovation" OR "Governance" OR "Audits" OR "Chain of responsibility" OR "Compliance management" OR "Cost of injury" OR "ESG alignment" OR "Flexible regulation" OR "Harmonisation" OR "ICAM" OR "Integrated reporting" OR "Legal frameworks" OR "Legal registers" OR "Monitoring and evaluation" OR "Participatory evaluation" OR "Performance-based regulation" OR "Regulatory improvement" OR "Regulatory innovation" OR "Regulatory review" OR "Regulatory consistency" OR "Safety apps" OR "Safety climate" OR "Safety management system" OR "Worker-centred evaluation" OR "Agile regulation" OR "Business case" OR "Conservative controls" OR "Digital reporting" OR "Effectiveness indicators" OR "Exposure standards" OR "Incident analysis" OR "Monitoring" OR "Officer duties" OR "Procurement standards" OR "Risk tolerance" OR "Uncertainty communication")	A set of taxonomy terms from the effectiveness of systems and frameworks taxonomy.
	Subject anchor	("work health and safety" OR "occupational health and safety")	Ensures results are framed within WHS research and practice.
	Geographic filter	(Australia OR Australian)	Limits the scope to the Australian context.
	Date range	(2010 - 2025)	Timeframe is from 2010, to make the search size manageable.
2	**Adjectives and descriptors**	("policy" OR "regulation" OR "legislation" OR "system" OR "framework" OR "effectiveness" OR "system effectiveness" OR "policy effectiveness" OR "regulatory impact" OR "policy impact" OR "performance assessment" OR "system performance")	Targets literature related to the priority area.

#	Query part	Query text	Query design
3	**Hazards and risks**	No hazards were included for this focus area.	No hazards are directly relevant.
4	**Vulnerable contexts**	("high-risk industries" OR "high-risk occupations" OR "high-risk professions" OR "construction" Or "mining" OR "agriculture" OR "healthcare" Or "emergency services" OR "social assistance" OR "small business" OR "micro-enterprises" OR "insecure work" OR "non-standard work" OR multi-jurisdictional worksites" OR "multi-party worksites")	Ensures retrieval of literature concerning high-risk groups in different contexts.
5	**Workers' compensation terms**	("scheme design" Or "scheme effectiveness" OR "harmonisation" OR "regulatory alignment" OR "administrative efficiency" OR "economic sustainability" OR "cost of claims" OR "claim premiums" OR "long-term injury management" OR "scheme viability" OR "scheme integration")	Adds a system perspective, capturing impacts on workers' compensation and recovery arrangements.

Query 2: Case study search

#	Query part	Query text	Query design
1	**Taxonomy terms**	(electrification technologies OR "industrial electrification" OR "electrification of transport" OR "battery energy storage systems" OR "battery energy storage system" OR "lithium-ion batteries" OR "lithium-ion battery systems" OR "Li-ion battery systems" OR "battery manufacturing" OR "battery production" OR "battery recycling" OR "battery disassembly" OR "battery end-of-life" OR "new battery chemistries" OR "solid-state batteries" OR "high-voltage systems" OR "high-voltage electrical systems" OR "charging infrastructure" OR "EV charging infrastructure" OR "electric vehicle charging" OR "DC fast charging" OR "wireless power transfer" OR "inductive charging" OR "EMF exposure systems" OR "EMF monitoring" OR "5G workplace exposure" OR "6G workplace exposure" OR "cyber-physical systems" OR "digital-electrical systems" OR "autonomous electrified machinery" OR "electrified robotics" OR "distributed energy systems" OR "distributed energy resources" OR "microgrids" OR "grid interdependence" OR "grid resilience" OR "exposure monitoring technologies" OR "thermal monitoring systems" OR "safety standards for electrification" OR "battery safety standards" OR "electrical safety standards" OR "emergency response protocols" OR "EV fire response" OR "electrical risk governance" OR "regulatory frameworks for electrification" OR "safety management system" OR "safety management systems" OR "risk management systems" OR "assurance systems" OR "incident analysis systems")	A set of taxonomy terms from across the five priority areas for searching the case study topic of electrification and emerging hazards.
	Subject anchor	("work health and safety" OR "occupational health and safety") / ("occupation" OR "work" AND "health" OR "safety")	Ensures results are framed within WHS research and practice.

#	Query part	Query text	Query design
	Geographic filter	(Australia OR Australian)	Limits the scope to the Australian context.
		(2010 - 2025)	Timeframe is from 2010, to make the search size manageable.
2	**Adjectives**	("policy" OR "regulation" OR "legislation" OR "system" OR "framework" OR "effectiveness" OR "system effectiveness" OR "policy effectiveness" OR "regulatory impact" OR "policy impact" OR "performance assessment" OR "system performance")	Targets literature related to the priority area.

Query 3: Full scope WHS search

#	Query part	Query text	Query design
1	**Occupational context**	(worker OR workers OR employee OR employees OR occupational OR "work-related" OR "at work" OR workplace OR workplaces OR job OR jobs OR "work environment")	Captures studies involving workers, workplaces, occupations, or work-related settings.
2	**Hazard / Injury / Exposure context**	(safety OR injury OR injuries OR accident* OR incident* OR hazard* OR risk* OR exposure* OR "occupational disease" OR "work disability" OR "sickness absence" OR "return to work" OR psychosocial OR ergonomic* OR musculoskeletal OR "occupational injury" OR "work injury" OR "work accident" OR "occupational exposure")	Captures WHS-relevant content related to injuries, hazards, exposures, risks, and work-related health outcomes.
3	**Date range**	(2010-2025)	Timeframe is from 2010, to make the search size manageable.
4	**Australian Context**	(“Australia” OR “Australian”) OR Country/Territory: Australia	Limits the scope to the Australian context and Australian researchers.

Appendix 2: Search queries

This appendix presents the instructions provided to large language model (LLM) panel members when reviewing records for WHS relevance, and the specific categorisation scheme that was used.

Instructions
You are a researcher conducting a scoping literature review and horizon scan in work health and safety (WHS) and must classify research publications into one or more schemes. Scheme A deals with work health and safety relevance, Scheme P deals with scoping review topics, and scheme C deals with horizon scan case studies. Each scheme has a set of mutually exclusive labels that form a probability distribution. Classify strictly based on the TITLE and ABSTRACT provided, without external lookup. Please avoid inferring beyond the given text in this assessment. For each record, you must output a probability distribution over the labels for each scheme. For each scheme: All label probabilities must be numerical, between 0 and 1, and sum to 1 (within normal rounding tolerance). Do NOT output natural-language explanations or justifications. Return ONLY JSON, following the specified schema.

Scheme A	Work health and safety (WHS) relevance
Description	This priority area covers the effectiveness of changed systems, legislative frameworks and other policy settings. The research priority area focuses on better understanding the effects and impacts of changes to the legislative frameworks (e.g. where harmonisation could be strengthened, gaps between expectations and reality, determining optimal models for injury management, bridging gaps in compensation policy evidence).
Primary category	The primary focus is on work health and safety, occupational safety, occupational health, workers in vulnerable contexts, workers' compensation, or closely related concepts clearly situated in the context of work, workers, and workplaces.
Secondary category	The publication is not explicitly about WHS, but it is plausibly relevant to work health and safety or occupational health and safety. This includes research on safety, hazards, risks, exposures, dangerous environments, injury mechanisms, human factors, ergonomics, materials or technologies used in work or workplaces, or emerging technologies that may create new WHS risks, even if the workplace context is not explicitly stated. It also includes research on systems, frameworks, governance, regulation, organisational processes, or policies that influence safety or risk in workplaces, even if these are discussed in general terms.
Irrelevant category	There is no meaningful connection to WHS, safety, hazards, risks, exposures, work environments, technologies/equipment, systems or frameworks that could reasonably apply to work, workers or workplaces. General health/clinical/biomedical research with no plausible link to WHS is A3.

Appendix 3: Taxonomy tagging

This appendix lists the normalised taxonomy terms, ordered by total tags applied. Columns list the priority area that a term was assigned to (in the taxonomy each term is assigned to one priority area), the normalised term, and the tagging counts for unscreened records, priority areas (P1 – P5), case studies (C1 – C5) and the total tags applied to all records in the sample. In total 170 tags appeared at least once, while 134 were not found in record titles and abstracts.

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
1	P1	mental health	322	478	22	116	36	23	1	0	1	0	102	1101
2	P1	shifts	341	73	46	34	16	13	4	0	1	0	7	535
3	P1	burnout	116	247	6	52	5	7	1	0	0	0	31	465
4	P2	productivity	175	44	41	27	11	10	0	0	4	0	11	323
5	P1	social support	98	112	6	43	7	13	0	0	1	0	16	296
6	P1	workload	133	82	15	28	9	6	0	2	0	0	8	283
7	P4	monitoring	134	16	73	18	14	0	1	0	0	0	1	257
8	P5	on demand work	116	86	5	24	6	8	0	2	0	0	9	256
9	P4	work design	131	30	24	28	19	15	0	0	0	0	6	253
10	P1	rehabilitation	137	24	4	13	19	12	0	0	0	0	16	225
11	P4	safety climate	23	46	3	100	4	1	0	0	0	0	2	179
12	P2	ergonomics	112	2	35	12	2	2	0	0	0	0	0	165
13	P1	harassment	9	76	1	10	8	3	35	0	0	0	4	146
14	P1	surveillance	101	4	10	2	8	5	0	1	2	0	1	134
15	P1	job burnout	38	59	2	12	1	2	0	0	0	0	10	124
16	P1	workplace bullying	2	73	0	25	6	1	1	0	0	0	10	118
17	P1	emotional exhaustion	25	63	2	18	1	1	0	0	0	0	3	113
18	P1	recovery at work	57	22	1	8	10	3	0	0	0	0	12	113
19	P1	mental well being	27	54	3	17	2	1	0	0	0	0	7	111
20	P1	sexual harassment	5	56	0	4	5	1	35	0	0	0	2	108
21	P1	PTSD	19	51	0	5	3	1	1	0	0	0	26	106

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
22	P1	peer support	31	42	0	20	1	2	1	0	0	0	6	103
23	P1	psychosocial climate	5	45	2	39	1	1	0	0	0	0	1	94
24	P1	trauma exposure	13	53	0	5	1	0	0	0	0	0	21	93
25	P1	discrimination	48	26	1	3	4	4	2	0	0	0	3	91
26	P1	psychosocial safety climate PSC	2	42	2	38	1	0	0	0	0	0	1	86
27	P1	flexibility	46	9	6	9	4	8	0	0	0	0	0	82
28	P3	consultation	41	13	4	5	10	3	0	0	0	0	3	79
29	P4	safety management system	19	4	17	19	14	0	0	0	0	0	1	74
30	P1	job strain	29	29	1	7	2	1	0	0	0	0	4	73
31	P3	accountability	18	12	7	18	9	4	1	1	3	0	0	73
32	P1	job insecurity	23	31	1	4	2	5	0	0	1	0	0	67
33	P5	heat stress	48	0	11	1	3	2	0	0	0	0	0	65
34	P4	incident analysis	23	10	6	14	5	1	2	0	0	1	3	65
35	P5	remote work	25	11	5	12	1	8	0	0	0	0	1	63
36	P1	work pressure	28	13	1	10	2	3	0	1	0	0	1	59
37	P3	representation	27	8	7	5	6	2	0	1	1	0	1	58
38	P4	cost of injury	33	3	3	5	6	4	0	0	0	0	1	55
39	P1	occupational violence	15	30	2	1	2	0	3	0	0	0	2	55
40	P1	fatigue and burnout	9	36	0	5	1	0	0	0	0	0	4	55
41	P2	machine learning	12	4	29	0	1	4	0	0	0	0	1	51
42	P3	duty of care	19	14	1	7	5	2	2	0	0	0	1	51
43	P4	Audits	27	2	4	6	6	2	0	1	1	0	0	49
44	P2	privacy	26	2	12	1	1	1	0	0	4	0	1	48
45	P1	bullying and harassment	1	30	0	7	6	1	2	0	0	0	1	48

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
46	P2	wearables	6	4	35	1	0	0	0	0	0	0	1	47
47	P1	low job control	8	28	0	1	1	3	0	0	0	0	0	41
48	P5	rural work	23	10	0	3	2	1	0	0	0	0	2	41
49	P1	empowerment	14	11	0	9	2	1	2	0	0	0	2	41
50	P1	time pressure	22	6	2	6	2	2	0	0	0	0	0	40
51	P4	Risk management approach	18	5	3	9	3	1	0	0	0	0	0	39
52	P2	usability	15	4	9	4	3	1	0	0	0	0	0	36
53	P3	task design	20	1	11	2	1	0	0	0	0	0	0	35
54	P2	robotics	4	1	25	0	0	4	0	0	0	0	0	34
55	P1	stay at work	22	1	1	3	3	3	0	0	0	0	0	33
56	P5	migrant work	16	7	0	1	4	4	1	0	0	0	0	33
57	P1	workplace support and culture	6	14	0	9	1	1	1	0	0	0	1	33
58	P5	regional work	23	7	0	0	0	0	0	0	0	0	1	31
59	P2	control loss	22	0	3	1	4	1	0	0	0	0	0	31
60	P1	organisational climate	5	8	0	16	0	0	0	0	0	0	1	30
61	P3	integrity	15	0	2	5	3	4	0	0	0	0	0	29
62	P1	organisational change	10	9	0	7	2	1	0	0	0	0	0	29
63	P4	certification	17	1	2	2	3	1	0	0	0	0	1	27
64	P4	compliance management	9	3	2	8	4	1	0	0	0	0	0	27
65	P5	end user	13	4	4	3	0	1	0	0	0	1	1	27
66	P1	resilience training	3	16	0	6	0	0	1	0	0	0	1	27
67	P5	circadian disruption	22	1	3	0	0	0	0	0	0	0	0	26
68	P1	moral injury	6	15	0	4	0	0	0	0	0	0	1	26
69	P1	job demands	8	10	0	7	0	0	0	0	0	0	1	26

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
70	P1	workplace aggression	1	19	0	2	1	0	0	0	0	0	2	25
71	P5	domestic work	12	6	2	1	0	2	1	0	0	0	0	24
72	P5	shift work and fatigue	18	4	0	1	0	0	0	0	0	0	0	23
73	P1	precarious work	11	4	0	1	1	6	0	0	0	0	0	23
74	P1	vicarious trauma	1	18	0	1	0	0	0	0	0	0	3	23
75	P3	corporate responsibility	8	2	1	6	0	2	0	0	0	0	0	19
76	P4	Regulatory review	8	1	1	1	5	1	0	1	1	0	0	19
77	P1	critical incident stress	2	9	0	1	1	1	0	0	0	0	5	19
78	P5	gig work	2	1	2	2	3	6	0	3	0	0	0	19
79	P5	gender safety	12	1	1	2	0	0	2	0	0	0	0	18
80	P4	accreditation	6	2	0	5	3	1	1	0	0	0	0	18
81	P1	emotional labour	5	10	0	2	0	0	0	0	0	0	0	17
82	P3	total worker health	10	3	1	0	1	1	0	0	0	0	1	17
83	P4	business case	4	4	1	5	1	0	0	0	0	0	2	17
84	P2	nanomaterials	3	0	11	0	1	0	0	0	0	0	0	15
85	P3	participatory design	8	3	1	3	0	0	0	0	0	0	0	15
86	P5	extreme weather	13	1	0	0	0	0	0	0	0	0	1	15
87	P2	vr training	0	0	12	2	1	0	0	0	0	0	0	15
88	P1	work job depression	6	6	0	1	0	0	0	0	0	0	2	15
89	P3	openness	4	5	0	4	1	0	0	0	0	0	0	14
90	P5	casual work	10	1	0	1	1	1	0	0	0	0	0	14
91	P5	temporary work	10	0	0	0	2	2	0	0	0	0	0	14
92	P3	incident learning	2	1	5	5	1	0	0	0	0	0	0	14
93	P3	health and safety leadership	3	2	0	6	2	0	0	0	0	0	0	13

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
94	P5	migrant labour	8	1	0	0	0	2	1	0	0	0	0	12
95	P1	work job anxiety	5	2	1	2	1	0	0	0	0	0	0	11
96	P1	workplace violence and aggression	1	7	0	2	1	0	0	0	0	0	0	11
97	P4	harmonisation	6	0	0	0	4	0	0	0	0	0	0	10
98	P5	fifo work	4	3	0	2	0	1	0	0	0	0	0	10
99	P4	risk tolerance	3	0	0	5	1	0	0	0	0	0	0	9
100	P1	work related stress	3	2	1	0	2	1	0	0	0	0	0	9
101	P1	cognitive load	6	0	1	1	0	0	0	0	0	0	0	8
102	P1	lack of autonomy	2	4	0	1	0	1	0	0	0	0	0	8
103	P5	Isolated work	5	2	0	0	0	1	0	0	0	0	0	8
104	P5	underemployment	6	1	0	0	0	0	0	0	0	0	0	7
105	P1	stigma and disclosure	1	4	0	2	0	0	0	0	0	0	0	7
106	P1	procedural justice	0	4	0	2	1	0	0	0	0	0	0	7
107	P2	responsible AI	2	0	1	0	0	1	0	1	2	0	0	7
108	P3	resilience engineering	3	0	0	3	0	0	0	0	0	0	0	6
109	P5	outsourcing	3	0	0	1	1	1	0	0	0	0	0	6
110	P5	roster design	4	0	2	0	0	0	0	0	0	0	0	6
111	P4	uncertainty management	3	1	1	1	0	0	0	0	0	0	0	6
112	P4	exposure standards	2	0	1	0	3	0	0	0	0	0	0	6
113	P3	leadership commitment	1	1	0	3	0	0	0	0	0	0	1	6
114	P2	industrial automation	0	0	4	0	0	2	0	0	0	0	0	6
115	P2	algorithmic management	1	1	2	0	0	1	0	1	0	0	0	6
116	P5	digital platform work	0	0	1	1	1	2	0	1	0	0	0	6
117	P5	modern slavery	3	0	0	0	2	0	0	0	0	0	0	5

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
118	P1	ethical distress	3	1	0	0	0	0	0	0	0	0	1	5
119	P1	concealment	3	1	0	0	0	0	0	0	0	0	1	5
120	P1	uncertainty stress	1	2	0	1	0	1	0	0	0	0	0	5
121	P1	lone work	3	1	0	0	0	0	0	0	0	0	0	4
122	P2	virtual and augmented reality	0	0	4	0	0	0	0	0	0	0	0	4
123	P5	bushfire smoke	4	0	0	0	0	0	0	0	0	0	0	4
124	P4	uncertainty communication	4	0	0	0	0	0	0	0	0	0	0	4
125	P3	fair process	1	1	0	0	1	1	0	0	0	0	0	4
126	P4	participatory evaluation	2	1	0	0	0	0	0	0	0	0	1	4
127	P1	distributive justice	0	2	0	1	1	0	0	0	0	0	0	4
128	P1	customer aggression	1	2	0	0	0	0	0	0	0	0	0	3
129	P1	moral conflict	1	1	0	1	0	0	0	0	0	0	0	3
130	P2	predictive maintenance	1	0	1	1	0	0	0	0	0	0	0	3
131	P3	new view of safety	0	0	0	3	0	0	0	0	0	0	0	3
132	P5	demographic change in workforce	2	0	0	0	0	1	0	0	0	0	0	3
133	P4	economic dimension of WHS	3	0	0	0	0	0	0	0	0	0	0	3
134	P1	emotional demands	0	2	0	1	0	0	0	0	0	0	0	3
135	P2	algorithmic bias	2	0	0	0	0	0	0	0	1	0	0	3
136	P5	telework	0	1	1	0	0	1	0	0	0	0	0	3
137	P4	chain of responsibility	0	0	1	0	1	1	0	0	0	0	0	3
138	P2	collaborative robots cobots	0	0	2	0	0	0	0	0	0	0	0	2
139	P2	artificial intelligence in work	2	0	0	0	0	0	0	0	0	0	0	2
140	P3	beyond compliance	1	0	0	0	1	0	0	0	0	0	0	2
141	P3	professional standards	0	1	0	1	0	0	0	0	0	0	0	2

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
142	P5	sleep debt	2	0	0	0	0	0	0	0	0	0	0	2
143	P2	digital fatigue	0	1	0	0	0	1	0	0	0	0	0	2
144	P3	Just culture and learning	0	1	0	1	0	0	0	0	0	0	0	2
145	P5	always on culture	0	1	0	0	0	1	0	0	0	0	0	2
146	P1	inclusive workplaces	1	0	0	0	0	0	0	0	0	0	0	1
147	P1	unstable work	1	0	0	0	0	0	0	0	0	0	0	1
148	P1	participation in organisational change	1	0	0	0	0	0	0	0	0	0	0	1
149	P2	platform surveillance	1	0	0	0	0	0	0	0	0	0	0	1
150	P2	wearable technologies	0	0	1	0	0	0	0	0	0	0	0	1
151	P2	smart ppe	0	0	1	0	0	0	0	0	0	0	0	1
152	P2	gps tracking	1	0	0	0	0	0	0	0	0	0	0	1
153	P2	telematics	0	0	1	0	0	0	0	0	0	0	0	1
154	P2	CCTV	0	0	1	0	0	0	0	0	0	0	0	1
155	P2	additive manufacturing	0	0	1	0	0	0	0	0	0	0	0	1
156	P2	engineered nanoparticles	0	0	1	0	0	0	0	0	0	0	0	1
157	P2	digitalisation of work	1	0	0	0	0	0	0	0	0	0	0	1
158	P2	cognitive overload	1	0	0	0	0	0	0	0	0	0	0	1
159	P2	automation bias	1	0	0	0	0	0	0	0	0	0	0	1
160	P3	participatory ergonomics	1	0	0	0	0	0	0	0	0	0	0	1
161	P3	trust and transparency	1	0	0	0	0	0	0	0	0	0	0	1
162	P5	sharing economy	1	0	0	0	0	0	0	0	0	0	0	1
163	P5	temporary agency work	1	0	0	0	0	0	0	0	0	0	0	1
164	P5	casual and temporary employment	0	1	0	0	0	0	0	0	0	0	0	1
165	P4	regulatory consistency	1	0	0	0	0	0	0	0	0	0	0	1

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
166	P4	whs software	0	0	1	0	0	0	0	0	0	0	0	1
167	P4	safety apps	0	0	1	0	0	0	0	0	0	0	0	1
168	P4	digital reporting	0	1	0	0	0	0	0	0	0	0	0	1
169	P4	risk perception communication	1	0	0	0	0	0	0	0	0	0	0	1
170	P4	precautionary principle	0	0	0	0	1	0	0	0	0	0	0	1
171	P1	work rosters	0	0	0	0	0	0	0	0	0	0	0	0
172	P1	limited decision latitude	0	0	0	0	0	0	0	0	0	0	0	0
173	P1	poor organisational justice	0	0	0	0	0	0	0	0	0	0	0	0
174	P1	organisational fairness	0	0	0	0	0	0	0	0	0	0	0	0
175	P1	remote and isolated work psychosocial	0	0	0	0	0	0	0	0	0	0	0	0
176	P1	FIFO work rosters	0	0	0	0	0	0	0	0	0	0	0	0
177	P1	roster design and shift scheduling	0	0	0	0	0	0	0	0	0	0	0	0
178	P1	return to work programs	0	0	0	0	0	0	0	0	0	0	0	0
179	P1	marginalised workforce	0	0	0	0	0	0	0	0	0	0	0	0
180	P1	organisational change as a hazard	0	0	0	0	0	0	0	0	0	0	0	0
181	P1	psychological first aid secondary prevention	0	0	0	0	0	0	0	0	0	0	0	0
182	P1	organisational stress interventions	0	0	0	0	0	0	0	0	0	0	0	0
183	P2	Automation and robotics	0	0	0	0	0	0	0	0	0	0	0	0
184	P2	predictive analytics	0	0	0	0	0	0	0	0	0	0	0	0
185	P2	AI assisted safety systems	0	0	0	0	0	0	0	0	0	0	0	0
186	P2	people analytics	0	0	0	0	0	0	0	0	0	0	0	0
187	P2	AI ethics and bias	0	0	0	0	0	0	0	0	0	0	0	0
188	P2	biometric monitoring	0	0	0	0	0	0	0	0	0	0	0	0
189	P2	Exoskeletons	0	0	0	0	0	0	0	0	0	0	0	0

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
190	P2	Powered suits	0	0	0	0	0	0	0	0	0	0	0	0
191	P2	industrial exosuits	0	0	0	0	0	0	0	0	0	0	0	0
192	P2	AR assisted work	0	0	0	0	0	0	0	0	0	0	0	0
193	P2	Remote monitoring and surveillance	0	0	0	0	0	0	0	0	0	0	0	0
194	P2	3D printing	0	0	0	0	0	0	0	0	0	0	0	0
195	P2	rapid prototyping	0	0	0	0	0	0	0	0	0	0	0	0
196	P2	Nanotechnology	0	0	0	0	0	0	0	0	0	0	0	0
197	P2	Biotechnology in workplaces	0	0	0	0	0	0	0	0	0	0	0	0
198	P2	Synthetic biology	0	0	0	0	0	0	0	0	0	0	0	0
199	P2	bio manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
200	P2	Digital twins and smart systems	0	0	0	0	0	0	0	0	0	0	0	0
201	P2	Smart factories	0	0	0	0	0	0	0	0	0	0	0	0
202	P2	Industry 4 0	0	0	0	0	0	0	0	0	0	0	0	0
203	P2	Drones and autonomous vehicles	0	0	0	0	0	0	0	0	0	0	0	0
204	P2	UAVs	0	0	0	0	0	0	0	0	0	0	0	0
205	P2	automated guided vehicles AGVs	0	0	0	0	0	0	0	0	0	0	0	0
206	P2	Cybersecurity and WHS	0	0	0	0	0	0	0	0	0	0	0	0
207	P2	Cyber physical risks	0	0	0	0	0	0	0	0	0	0	0	0
208	P2	critical infrastructure attacks	0	0	0	0	0	0	0	0	0	0	0	0
209	P2	Internet of Things IoT	0	0	0	0	0	0	0	0	0	0	0	0
210	P2	Hazard monitoring systems	0	0	0	0	0	0	0	0	0	0	0	0
211	P2	Technostress	0	0	0	0	0	0	0	0	0	0	0	0
212	P2	Human factors in technology	0	0	0	0	0	0	0	0	0	0	0	0
213	P2	Human machine interaction risks	0	0	0	0	0	0	0	0	0	0	0	0

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
214	P2	Ethical legal frameworks for tech	0	0	0	0	0	0	0	0	0	0	0	0
215	P2	Data sovereignty	0	0	0	0	0	0	0	0	0	0	0	0
216	P3	WHS as a value	0	0	0	0	0	0	0	0	0	0	0	0
217	P3	safety first mindset	0	0	0	0	0	0	0	0	0	0	0	0
218	P3	Health safety and wellbeing integration	0	0	0	0	0	0	0	0	0	0	0	0
219	P3	integrated safety and wellbeing	0	0	0	0	0	0	0	0	0	0	0	0
220	P3	Worker voice and participation	0	0	0	0	0	0	0	0	0	0	0	0
221	P3	HSR empowerment	0	0	0	0	0	0	0	0	0	0	0	0
222	P3	officer due diligence	0	0	0	0	0	0	0	0	0	0	0	0
223	P3	Learning organisations	0	0	0	0	0	0	0	0	0	0	0	0
224	P3	no blame culture	0	0	0	0	0	0	0	0	0	0	0	0
225	P3	Safety differently Safety II	0	0	0	0	0	0	0	0	0	0	0	0
226	P3	Integration with ESG	0	0	0	0	0	0	0	0	0	0	0	0
227	P3	sustainability reporting	0	0	0	0	0	0	0	0	0	0	0	0
228	P3	Worker centred design	0	0	0	0	0	0	0	0	0	0	0	0
229	P3	Human centred design	0	0	0	0	0	0	0	0	0	0	0	0
230	P3	Wellbeing metrics and reporting	0	0	0	0	0	0	0	0	0	0	0	0
231	P3	Psychosocial metrics	0	0	0	0	0	0	0	0	0	0	0	0
232	P3	safety climate surveys	0	0	0	0	0	0	0	0	0	0	0	0
233	P3	Safety climate vs culture	0	0	0	0	0	0	0	0	0	0	0	0
234	P3	culture audits	0	0	0	0	0	0	0	0	0	0	0	0
235	P3	Professional ethics in WHS	0	0	0	0	0	0	0	0	0	0	0	0
236	P3	Competency frameworks	0	0	0	0	0	0	0	0	0	0	0	0
237	P3	Systems of work design	0	0	0	0	0	0	0	0	0	0	0	0

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
238	P3	Valuing humanity	0	0	0	0	0	0	0	0	0	0	0	0
239	P5	crowd work	0	0	0	0	0	0	0	0	0	0	0	0
240	P5	app based labour	0	0	0	0	0	0	0	0	0	0	0	0
241	P5	Multiple job holding	0	0	0	0	0	0	0	0	0	0	0	0
242	P5	Moonlighting	0	0	0	0	0	0	0	0	0	0	0	0
243	P5	portfolio work	0	0	0	0	0	0	0	0	0	0	0	0
244	P5	side hustle	0	0	0	0	0	0	0	0	0	0	0	0
245	P5	Compressed work weeks	0	0	0	0	0	0	0	0	0	0	0	0
246	P5	Compressed schedules	0	0	0	0	0	0	0	0	0	0	0	0
247	P5	flexible hours	0	0	0	0	0	0	0	0	0	0	0	0
248	P5	Working from home WFH	0	0	0	0	0	0	0	0	0	0	0	0
249	P5	remote telecommuting	0	0	0	0	0	0	0	0	0	0	0	0
250	P5	Labour hire and subcontracting	0	0	0	0	0	0	0	0	0	0	0	0
251	P5	Outsourced labour	0	0	0	0	0	0	0	0	0	0	0	0
252	P5	employee like worker	0	0	0	0	0	0	0	0	0	0	0	0
253	P5	Complex supply chains	0	0	0	0	0	0	0	0	0	0	0	0
254	P5	global value chains	0	0	0	0	0	0	0	0	0	0	0	0
255	P5	Multi regulated sites	0	0	0	0	0	0	0	0	0	0	0	0
256	P5	Overlapping jurisdictions	0	0	0	0	0	0	0	0	0	0	0	0
257	P5	regulatory complexity	0	0	0	0	0	0	0	0	0	0	0	0
258	P5	fixed term contracts	0	0	0	0	0	0	0	0	0	0	0	0
259	P5	zero hours contracts	0	0	0	0	0	0	0	0	0	0	0	0
260	P5	shadow black economy	0	0	0	0	0	0	0	0	0	0	0	0
261	P5	Non standard employment contracts	0	0	0	0	0	0	0	0	0	0	0	0

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
262	P5	Short term contracts	0	0	0	0	0	0	0	0	0	0	0	0
263	P5	independent contractors	0	0	0	0	0	0	0	0	0	0	0	0
264	P5	Older workers	0	0	0	0	0	0	0	0	0	0	0	0
265	P5	Climate change environmental WHS risks	0	0	0	0	0	0	0	0	0	0	0	0
266	P5	Work life boundary blurring	0	0	0	0	0	0	0	0	0	0	0	0
267	P5	digital presenteeism	0	0	0	0	0	0	0	0	0	0	0	0
268	P5	Global mobility of work	0	0	0	0	0	0	0	0	0	0	0	0
269	P5	cross border telework	0	0	0	0	0	0	0	0	0	0	0	0
270	P4	Systematic WHS management	0	0	0	0	0	0	0	0	0	0	0	0
271	P4	OHSMS	0	0	0	0	0	0	0	0	0	0	0	0
272	P4	Due diligence and governance	0	0	0	0	0	0	0	0	0	0	0	0
273	P4	WHS governance	0	0	0	0	0	0	0	0	0	0	0	0
274	P4	officer duties	0	0	0	0	0	0	0	0	0	0	0	0
275	P4	hierarchy of controls	0	0	0	0	0	0	0	0	0	0	0	0
276	P4	Continuous improvement in WHS	0	0	0	0	0	0	0	0	0	0	0	0
277	P4	Plan Do Check Act	0	0	0	0	0	0	0	0	0	0	0	0
278	P4	WHS audits	0	0	0	0	0	0	0	0	0	0	0	0
279	P4	Performance measurement and indicators	0	0	0	0	0	0	0	0	0	0	0	0
280	P4	Lagging indicators	0	0	0	0	0	0	0	0	0	0	0	0
281	P4	leading indicators	0	0	0	0	0	0	0	0	0	0	0	0
282	P4	Integration with business systems	0	0	0	0	0	0	0	0	0	0	0	0
283	P4	Integrated management systems	0	0	0	0	0	0	0	0	0	0	0	0
284	P4	ESG alignment	0	0	0	0	0	0	0	0	0	0	0	0
285	P4	Third party certification and assurance	0	0	0	0	0	0	0	0	0	0	0	0

#	Priority	Term	Unscreened	P1	P2	P3	P4	P5	C1	C2	C3	C4	C5	Total
286	P4	Regulatory compliance systems	0	0	0	0	0	0	0	0	0	0	0	0
287	P4	legal registers	0	0	0	0	0	0	0	0	0	0	0	0
288	P4	Supply chain WHS assurance	0	0	0	0	0	0	0	0	0	0	0	0
289	P4	procurement standards	0	0	0	0	0	0	0	0	0	0	0	0
290	P4	Cross jurisdictional coordination	0	0	0	0	0	0	0	0	0	0	0	0
291	P4	Evaluation of regulatory effectiveness	0	0	0	0	0	0	0	0	0	0	0	0
292	P4	effectiveness indicators	0	0	0	0	0	0	0	0	0	0	0	0
293	P4	Digital WHS systems	0	0	0	0	0	0	0	0	0	0	0	0
294	P4	Worker centred evaluation	0	0	0	0	0	0	0	0	0	0	0	0
295	P4	lived experience metrics	0	0	0	0	0	0	0	0	0	0	0	0
296	P4	Responsive regulation	0	0	0	0	0	0	0	0	0	0	0	0
297	P4	Flexible regulation	0	0	0	0	0	0	0	0	0	0	0	0
298	P4	agile regulation	0	0	0	0	0	0	0	0	0	0	0	0
299	P4	Learning from incidents	0	0	0	0	0	0	0	0	0	0	0	0
300	P4	ICAM	0	0	0	0	0	0	0	0	0	0	0	0
301	P4	HFACS	0	0	0	0	0	0	0	0	0	0	0	0
302	P4	conservative controls	0	0	0	0	0	0	0	0	0	0	0	0
303	P4	Occupational hygiene exposure science	0	0	0	0	0	0	0	0	0	0	0	0
304	P4	Intervention	0	0	0	0	0	0	0	0	0	0	0	0