



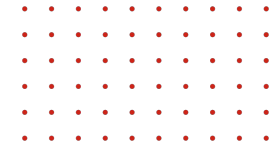
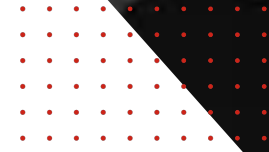
ABE
RISK SOLUTIONS

Presented BY

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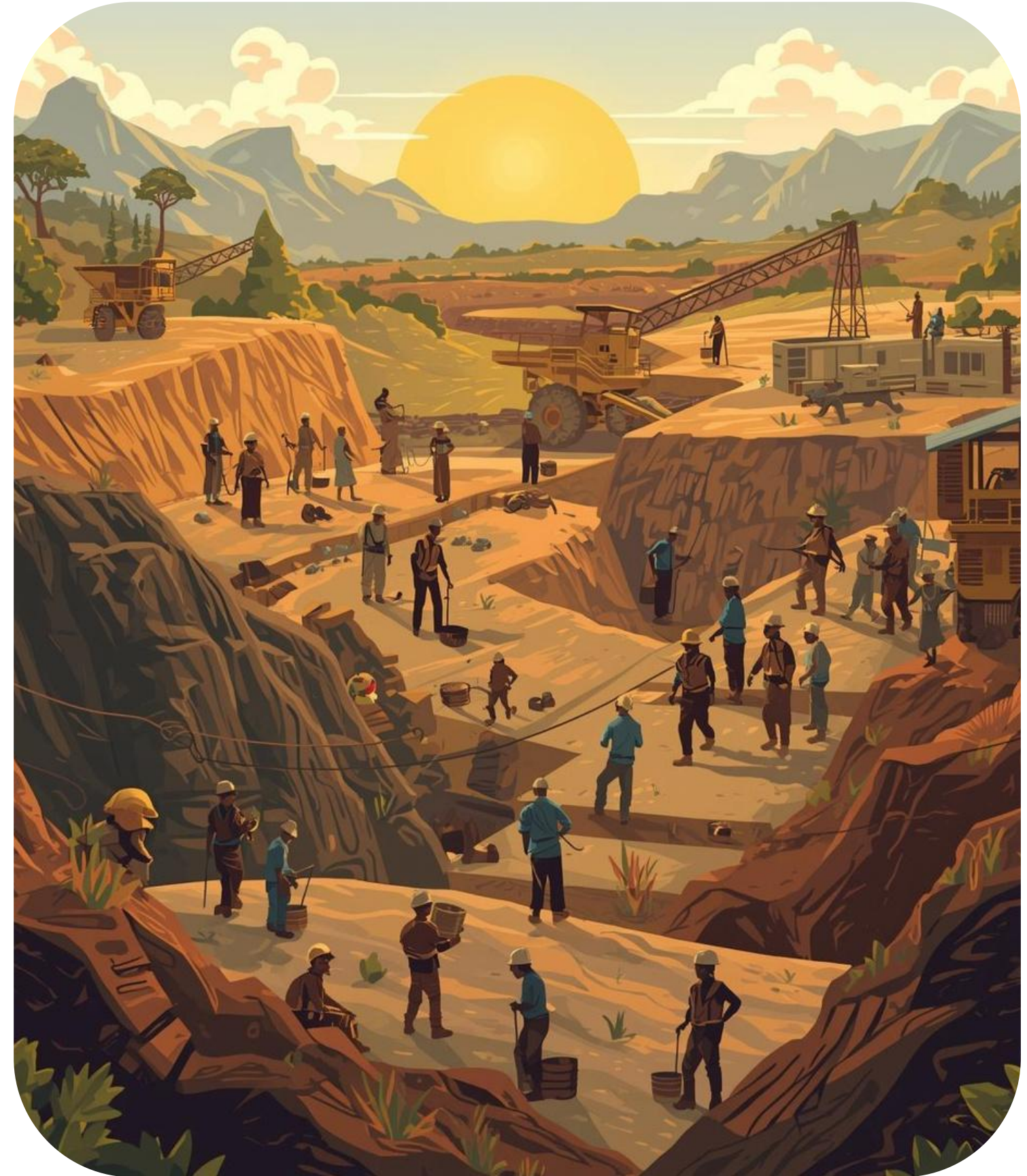
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Title

“Beyond Compliance: Addressing Psychosocial Risks in Southern African Mining – Integrating Ubuntu, Systems Thinking, and Innovative Practices for a Sustainable Workforce”



Context & Problem Statement

- Psychosocial risks remain under-managed despite physical safety improvements
- Fatigue, trauma, harassment, financial stress, job insecurity rising
- Material impact on productivity, ESG, and social licence



PSYCHOSOCIAL RISK LANDSCAPE IN SOUTH

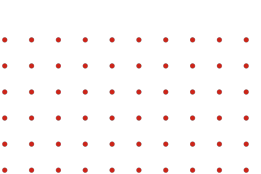


AFRICA

National Psychosocial Burden.

- **71% experience stress impairing coping capacity**
- **36% experience daily excessive stress much of it work-induced**
- **52% diagnosed with mental health condition, including anxiety, depression, and burnout**
- **75% cannot switch off after work**

Psychosocial harm now a strategic enterprise risk



MINING SECTOR PSYCHOSOCIAL DRIVERS

- High-pressure production environments.
 - Long rosters, fatigue, isolation
 - Exposure to trauma and conflict
 - Socio-economic strain & family dependency
 - Legacy migrant labour systems
- Mental health challenges do not wait at the gate; they walk into the shaft, plant, the smelter and the haul truck with us everyday.





Why This Matters Now

- Regulatory pressure increasing (ISO 45003, ICMM, global ESG standards)
- Intergenerational trauma and historical labour systems driving risk
- Shift needed from reactive wellness to strategic governance



Theoretical Foundations

- Karasek’s Job Demand–Control–Support Model (Karasek, 1979).
- Effort–Reward Imbalance Theory (Siegrist, 1996).
- Socio-Technical Systems Thinking (Reason’s 1997)
- Ubuntu as relational duty of care (Chigwada 2016)



Ubuntu as Operational Philosophy

- It encodes a duty of care that is collective, relational, and identity-forming.
- Building peer-support norms, storytelling, community integration. A shared obligation among workers, leaders, unions, and community structures.
- Leadership empathy, and shared recovery mechanisms into the way work is organised, supervised, and assured.

Taken together, these lenses position psychosocial harm as foreseeable, measurable and governable—not accidental, unpredictable, or private.

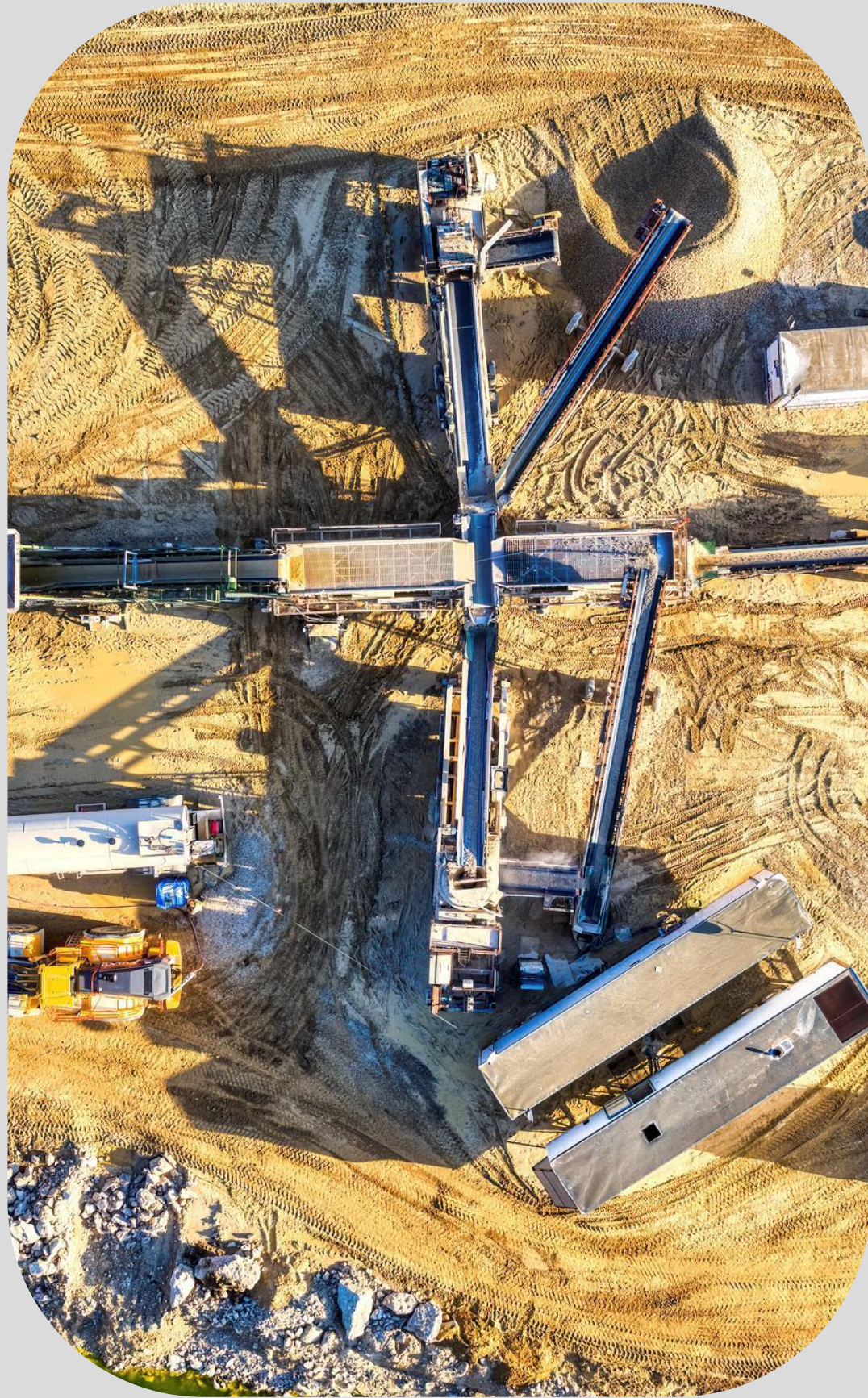
They provide the theoretical foundation for the framework advanced in this paper (ISO, 2021; International Council on Mining and Metals [ICMM], 2023; Safe Work Australia, 2023).

Ubuntu Philosophy: Cultural Foundations for Psychosocial Safety



Ubuntu frames identity as relational. The wellbeing of the individual is inseparable from the wellbeing of the team, the family, and the community. In mining, this counters the myth of the isolated, self-reliant worker and replaces it with an ethic of mutual obligation.

Collective accountability and relational wellbeing
Peer-support structures and community involvement
Leadership empathy embedded into performance systems



Research from platinum operations shows that about 70% of operational deviations are tied to stress-related cognitive lapses rather than technical failures



Systems Thinking: Psychosocial Risk as a Complex Adaptive Challenge

Mining workforces operate within complex systems where production pressure, supervision quality, living conditions, and financial stress interact, making psychosocial harm multicausal.

Fatigue may stem from overtime demands, isolation from long rosters, and anxiety from job insecurity.

Psychosocial harm functions as a latent condition—much like poor maintenance—aligning with Reason's Swiss Cheese Model, where weaknesses can combine to trigger incidents.

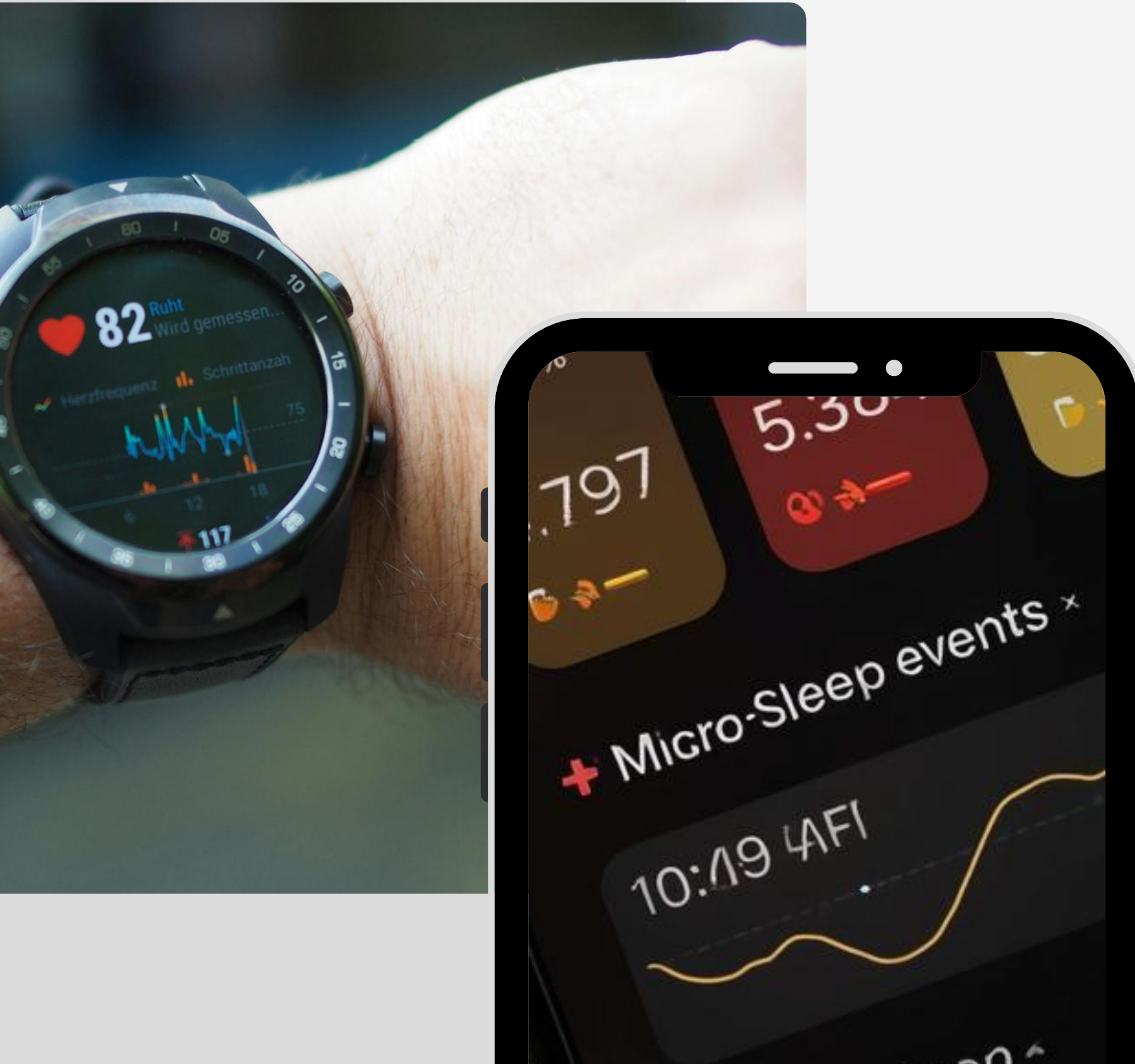
Cognitive overload, anger, exhaustion, and moral injury undermine hazard awareness and decision-making. psychosocial risk must be treated as an

Technology-Enabled Monitoring and Analytics

Historically, psychosocial harm has been difficult to quantify because it sits in the space between 'feelings' and 'performance'. Emerging approaches are closing that gap.

Leading practices now include:

- Wearables and fatigue monitoring: Biometric indicators (alertness, micro-sleep events, heart-rate variability).
- Integrated dashboards: Some operators now fuse absenteeism data, overtime exposure, crew conflict reports, and safety climate survey scores to flag at-risk departments in near real time.
- Anonymous digital counselling access: AI-enabled chat interfaces and telehealth escalation pathways (piloted in Southern African and West African gold operations) are widening access to psychosocial support while bypassing stigma



Psychosocial Risk Early Warning

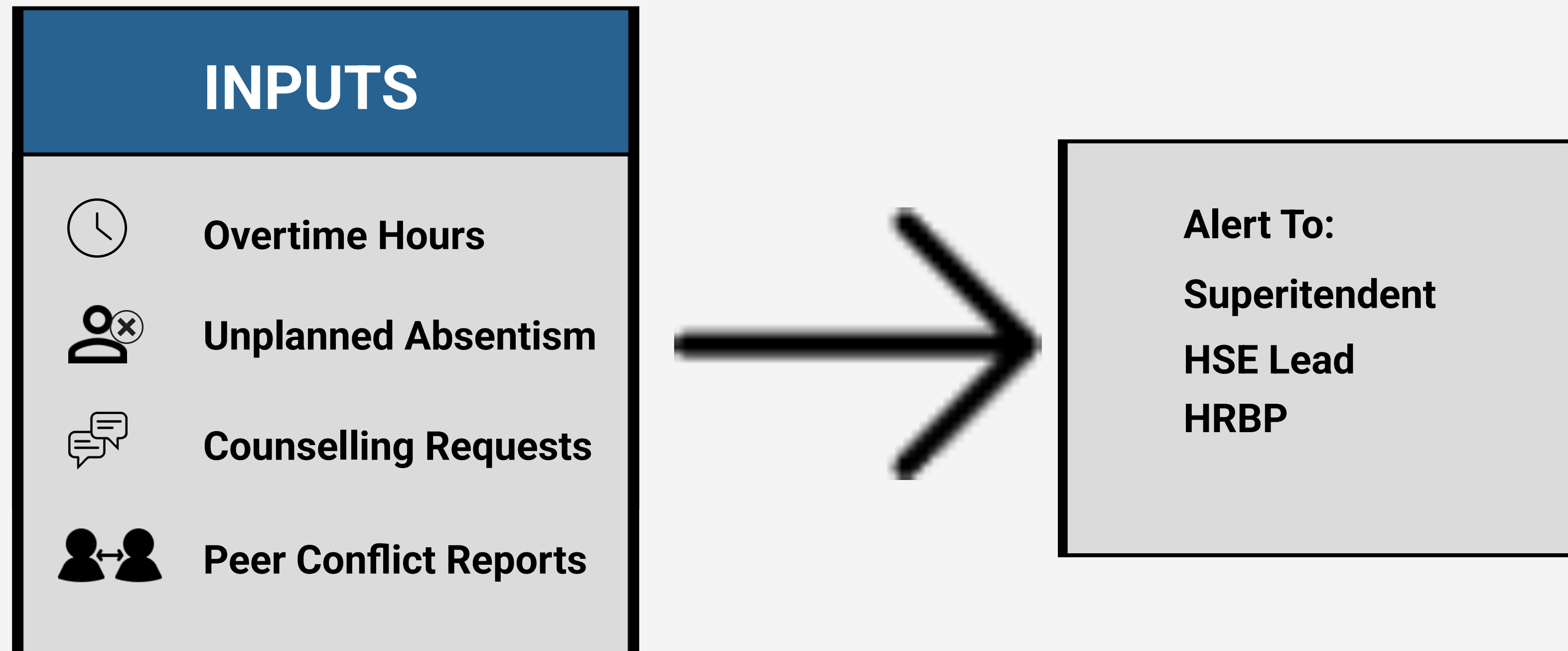


Figure 1 illustrates how a proactive psychosocial dashboard can operate as an early-warning system for both production leadership and health, safety and environment (HSE) governance.

Response: roster review, crew dialogue, supervisor coaching, escalation to wellbeing clinician.

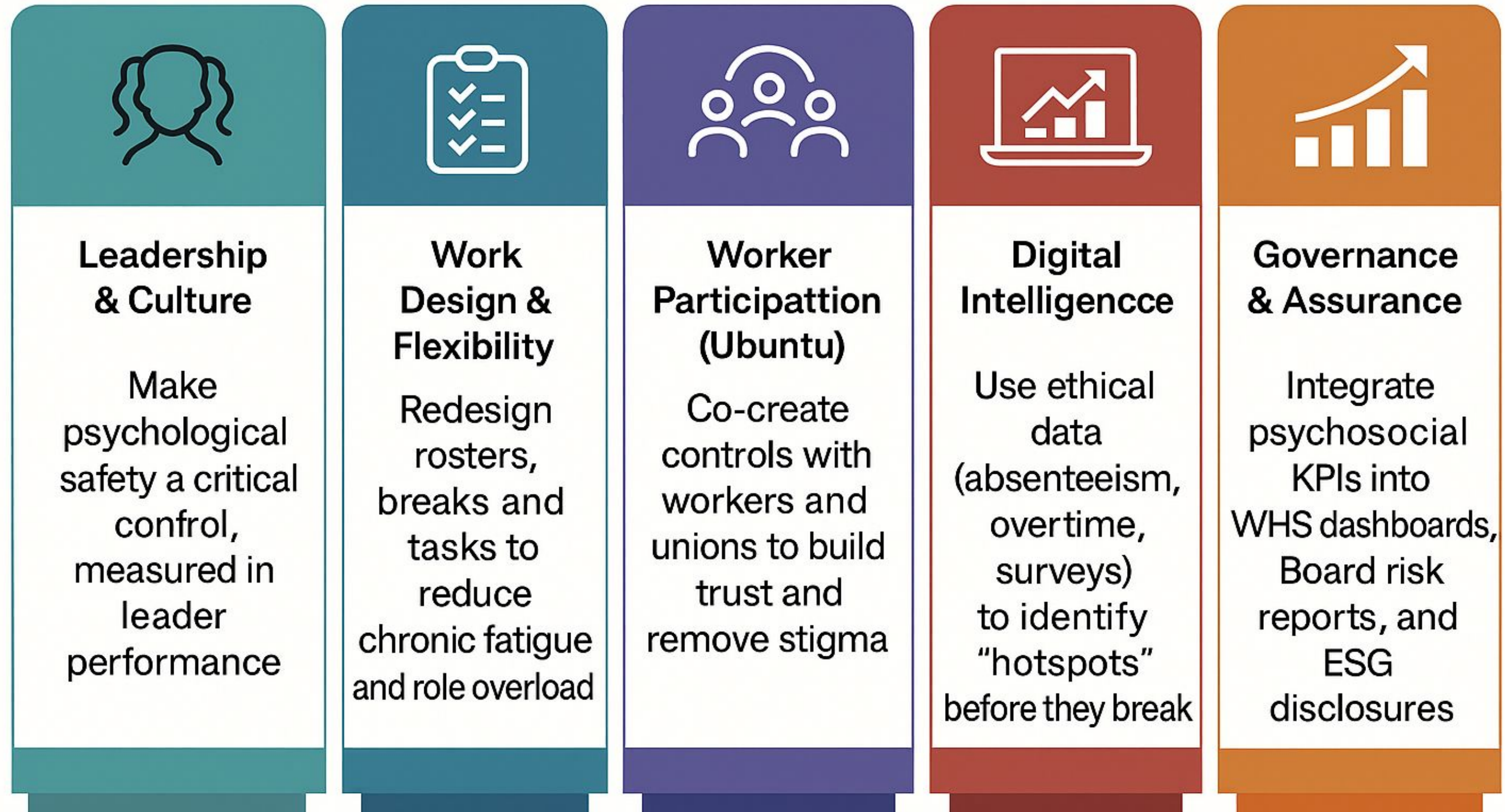


Socio-Economic Drivers

- Inequality, debt cycles, extended family pressures
- Legacy of migrant labour systems
- Marikana as systemic psychosocial risk example

A 5-Pillar Framework for Psychosocial Governance

An actionable model aligned with ISO 45001 and the new ISO 45003.



A call to action for moving from "wellness" to "governance."

Adopt ISO 45003:

Formally integrate psychological safety alongside physical safety management systems.

Train Leaders

Mandate training for supervisors on creating psychological safety, fairness, and empathetic

Integrate & Assure

Place psychosocial KPIs (fatigue, harassment, morale) on Board-level risk and ESG dashboards.

Leverage Ubuntu

Co-design peer-support and mental health programs with unions and community structures.



Evidence of Psychosocial Risk Integration in Mining Operations

Evidence (1): Zimplats, Zimbabwe

Intervention:

A culturally resonant wellbeing program built on the Ubuntu principle of shared responsibility (Don't Drop the Clay Pot')



Method:



Storytelling and peer-support systems

Measurable Outcomes:

↓ 25%

reduction in incident-related absenteeism



Measurable improvement in self-reported team cohesion and psychological safety

Evidence (2): Debswana & Anglo American

Debswana

Moved psychosocial risk from HR to the main Operational Risk Register



Result:

Treated fatigue and morale with the same urgency as equipment failure.
Safety climate scores improved by -20%

Anglo American

Deployed "WeCare" Program combining on-site, digital, and telehealth support



Result:

Reached over 10,000 individuals, normalising mental health dialogue and providing critical support post-incident

Comparative Global Perspectives



While this paper is rooted in Southern Africa, similar psychosocial dynamics exist globally.

Australia: Remote and FIFO (fly-in fly-out) operations face isolation, extreme roster compression (e.g., 2/1, 3/1), fatigue, and mental health stigma among predominantly male crews. In response, Australian regulators have moved toward explicitly regulating psychosocial hazards as workplace health and safety risks. The national Model Code of Practice for Managing Psychosocial Hazards (Safe Work Australia, 2023) treats psychosocial risk as enforceable, not optional, and requires employers to apply controls, not just awareness campaigns.

Canada: Arctic and sub-Arctic mining communities report similar isolation stressors and community disruption effects, especially where workers are flown in from distant provinces. Companies have begun embedding mental health and cultural support services into camp design and collective bargaining arrangements.



Proposed Governance Model



- Psychosocial risk integrated into WHS, ESG & Board reporting
- Critical control verification routines
- Cross-functional ownership (HSE, HR, Operations)

Conclusion



- Psychosocial stability is a production control
- Embedding Ubuntu strengthens culture & resilience
- Sustainable mining requires mind + body safety