

PRINCIPLES OF GOOD WORK DESIGN (Part 2)

WHY IS GOOD WORK DESIGN IMPORTANT?

Principle 6

Good work design is applied along the supply chain and across the operational lifecycle.

- Good work design should be applied along the supply chain in the design, manufacture, distribution, use and disposal of goods and the supply of services.
- Work design is relevant at all stages of the operational life cycle, from start-up, routine operations, maintenance, downsizing and cessation of business operations.
- New initiatives, technologies and change in organisations have implications for work design and should be considered.

Supply chains are often made up of complex commercial or business relationships and contracts designed to provide goods or services. These are often designed to provide goods or services to a large, dominant business in a supply chain. The human and operational costs of poor design by a business can be passed up or down the supply chain.

Businesses in the supply chain can have significant influence over their supply chain partners' work health and safety through the way they design the work. Businesses may create risks and so they need to be active in working with their supply chains and networks to solve work health and safety problems and share practical solutions for example, for common design and manufacturing problems.

Health and safety risks can be created at any point along the supply chain, for example, loading and unloading causing time pressure for the transport business.

There can be a flow-on effect where the health and safety and business 'costs' of poor design may be passed down the supply chain. These can be prevented if businesses work with their supply chain partners to understand how contractual arrangements affect health and safety.

Procurement and contract officers can also positively influence their own organization and others work health and safety throughout the supply chain by the good design of contracts.

When designing contractual arrangements businesses could consider ways to support good work design safety outcomes by:

- Setting clear health and safety expectations for their supply chain partners, for example through the use of codes of conduct or quality standards
- Conducting walk through inspections, monitoring and comprehensive auditing of supply chain partners to check adherence to these codes and standards
- building the capability of their own procurement staff to understand the impacts of contractual arrangements on their suppliers, and
- consulting with their supply chain partners on the design of good work practices.

The road transport industry is an example of the application of how this principle can help improve drivers' health and safety and address issues arising from supply chain arrangements.

The design of products will strongly impact on both health and safety and business productivity throughout their lifecycles. At every stage there are opportunities to eliminate or minimise risks through good work design. The common product lifecycle stages are illustrated in Figure 3 below.



The good work design principles are also relevant at all stages of the business life cycle. Some of these stages present particularly serious and complex work health and safety challenges such as during the rapid expansion or contraction of businesses. Systematic application of good work design principles during these times can achieve positive work health and safety outcomes.

New technology is often a key driver of change in work design. It has the potential to improve the quality of outputs, efficiency and safety of workers, however introducing new technology could also introduce new hazards and unforeseen risks. Good work design considers the impact of the new initiatives and technologies before they are introduced into the workplace and monitors their impact over time.

When designing a machine for safe use, how the maintenance will be undertaken in the future should be considered.

In most workplaces the information and communication technology (ICT) systems are an integral part of all business operations. In practice these are often the main drivers of work changes but are commonly overlooked as sources of workplace risks. Opportunities to improve health and safety should always be considered when new ICT systems are planned and introduced.

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How is good work design achieved?

Principle 7

Engage decision makers and leaders

- Work design or redesign is most effective when there is a high level of visible commitment, practical support and engagement by decision makers.
- Demonstrating the long-term benefits of investing in good work design helps engage decision makers and leaders.
- Practical support for good work design includes allocation of appropriate time and resources to undertake effective work design or redesign processes.

Leaders are the key decision makers or those who influence the key decision makers. Leaders can be the owners of a business, directors of boards and senior executives.

Leaders can support good work design by ensuring the principles are appropriately included or applied, for example in:

- Key organisational policies and procedures
- proposals and contracts for workplace change or design
- managers' responsibilities and as key performance indicators
- business management systems and audit reports
- organisational communications such as a standing item on leadership meeting agendas, and
- the provision of sufficient human and financial resources.

Good work design, especially for complex issues will require adequate time and resources to consider and appropriately manage organisational and/or technological change. Like all business change, research shows leader commitment to upfront planning helps ensure better outcomes.

Managers and work health and safety advisors can help this process by providing their leaders with appropriate and timely information. This could include for example:

- identifying design options which support both business outcomes and work health and safety objectives
- assessing the risks and providing short and long term cost-benefit analysis of the recommended controls to manage these risks, and
- identifying what decisions need to be taken, when and by whom to effectively design and implement the agreed changes.

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Principle 8**Actively involve the people who do the work, including those in the supply chain and networks**

- Persons conducting a business or undertaking (PCBUs) must consult with their workers and others likely to be affected by work in accordance with the work health and safety laws.
- Supply chain stakeholders should be consulted as they have local expertise about the work and can help improve work design for upstream and downstream participants.
- Consultation should promote the sharing of relevant information and provide opportunities for workers to express their views, raise issues and contribute to decision making where possible.

Effective consultation and co-operation of all involved with open lines of communication, will ultimately give the best outcomes. Consulting with those who do the work not only makes good sense but it should be required under the law..

Designing-out problems before they arise is generally cheaper than making changes after the resulting event, for example by avoiding expensive retrofitting of workplace controls.

Workers have knowledge about their own job and often have suggestions on how to solve a specific problem. Discussing design options with them will help promote their ownership of the changes.

Businesses that operate as part of a supply chain should consider whether the work design and changes to the work design might negatively impact on upstream or downstream businesses. The supply chain partners will often have solutions to logistics problems which can benefit all parties.

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Principle 9**Identify hazards, assess and control risks, and seek continuous improvement**

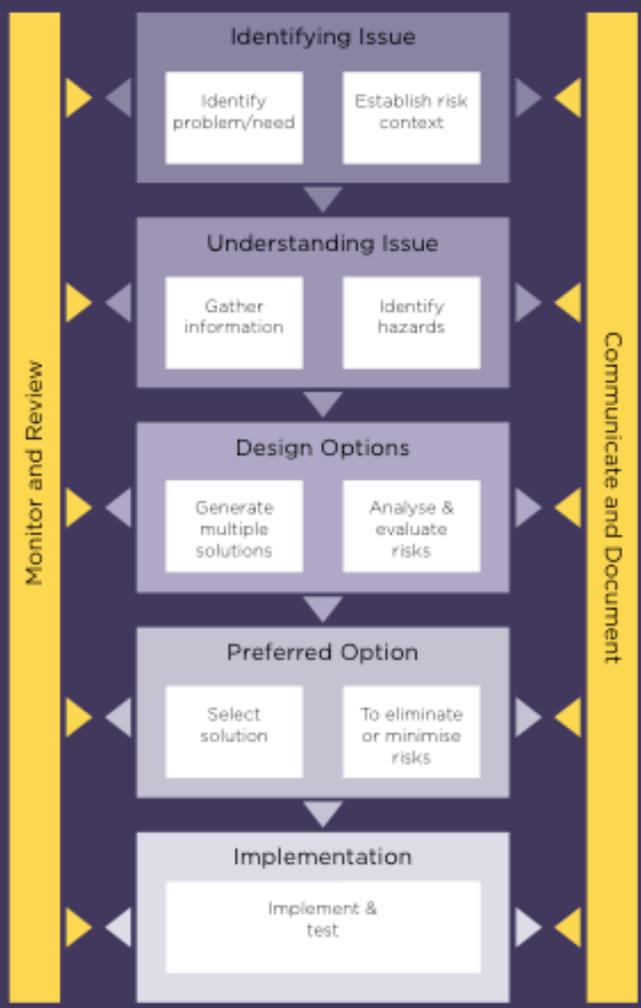
- A systematic risk management approach should be applied in every workplace.
- Designing good work is part of the business processes and not a one-off event.
- Sustainability in the long-term requires that designs or redesigns are continually monitored and adjusted to adapt to changes in the workplace so as to ensure feedback is provided and that new information is used to improve design.

Good work design should systematically apply the risk management approach to the workplace hazards and risks. See Principle 4 for more details.

Typically good work design will involve ongoing discussions with all stakeholders to keep refining the design options. Each stage in the good work design process should have decision points for review of options and to consult further if these are not acceptable. This allows for flexibility to quickly respond to unanticipated and adverse outcomes.

Figure 5 outlines how the risk management steps can be applied in the design process. Continuous improvements in work health and safety can in part be achieved if the good work design principles are applied at business start-up and whenever major organizational changes are contemplated. To be most effective, consideration of health and safety issues should be integrated into normal business risk management.

Figure 5 - Steps in the good work design process



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Principle 10**Learn from experts, evidence, and experience**

- Continuous improvement in work design and hence work health and safety requires ongoing collaboration between the various experts involved in the work design process.
- Various people with specific skills and expertise may need to be consulted in the design stage to fill any knowledge gaps. It is important to recognise the strengths and limitations of a single expert's knowledge.
- Near misses, injuries and illnesses are important sources of information about poor design.

Most work design processes will require collaboration and cooperation between internal and sometimes external experts. Internal advice can be sought from workers, line managers, technical support and maintenance staff, engineers, ICT systems designers, work health and safety advisors and human resource personnel.

Depending on the design issue, external experts may be required such as architects, engineers, ergonomists, occupational hygienists and psychologists.

If you provide advice on work design options it is important to know and work within the limitations of your discipline's knowledge and expertise. Where required make sure you seek advice and collaborate with other appropriate design experts.

For complex and high-risk projects, ideally a core group of the same people should remain involved during both the design and implementation phases with other experts brought in as necessary.

The type of expert will always depend on the circumstances. When assessing the suitability of an expert consider their qualifications, skills, relevant knowledge, technical expertise, industry experience, reputation, communication skills and membership of professional associations.

Is the consultant suitably qualified?

A suitably qualified person has the knowledge, skills and experience to provide advice on the specific design issue. You can usually check with the professional association to see if the consultant is certified or otherwise recognised by them to provide work design advice.

The decision to design or redesign work should be based on sound evidence. Typically this evidence will come from many sources such as both proactive and reactive indicators, information about a new technology or the business decisions to downsize, expand or restructure or to meet the requirements of supply chain partners.

Proactive and reactive indicators can also be used to monitor the effectiveness and efficiency of the design solution.

Proactive indicators provide early information about the work system that can be used to prevent accidents or harm. These might include for example: key process variables such as temperature or workplace systems indicators such as the number of safety audits and

inspections undertaken.

Reactive indicators are usually based on incidents that have already occurred. Examples include number and type of near misses and worker injury and illness rates.

Useful information about common work design problems and solutions can also often be obtained from:

- Work health and safety regulators
- industry associations and unions
- trade magazines and suppliers, and
- specific research papers.

Summary

The ten principles of good work design can be applied to help support better work health and safety outcomes and business productivity. Just as every workplace is unique, so is the way each principle can be applied in practice.

When considering these principles in any work design also ensure you take into account your local jurisdictional work health and safety requirements.

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