



Skills for Sustainability



Manufacturing Skills Australia

Improving resource efficiency

What is this all about?

Traditionally businesses maintain a strong focus on factors that have a clear and direct effect on their economic performance, predominantly looking at financial measures such as costs, sales and profit margins.

Many enterprises are moving towards sustainability by taking a broader view of their performance including their relationship to the environment and the community. This is not just for the 'feel good' factor. It enables them to fully assess the potential and actual impact to their business – both costs and benefits – from their interactions with the local and broader community and with the physical environment.

These concepts are embedded in terms like the triple bottom line, people-planet-profit and social, environmental and economic sustainability.

People - social sustainability activities focus on maintaining mutually beneficial relationships with employees, customers and the community. These activities often have benefits in terms of positive profile and customer and community support.

Planet - environmental sustainability activities focus on the potential impact of resource usage, hazardous substances, waste and emissions on the physical environment. These activities may have a direct cost benefit for a business.

Profit - economic sustainability activities focus on business growth, efficiency and productivity supporting the financial viability of the business.

What's it got to do with efficient operations?

Improving your resource efficiency has a significant and direct impact on your overall sustainability performance. Reducing your energy use, recycling water and scrap and reducing waste that is sent to landfill will have direct cost benefits and will also reduce your carbon footprint.

How you improve your resource efficiency will be influenced by your approach to:

- applying compliance and reporting mechanisms
- investing in technology, infrastructure and design features
- measuring and monitoring to identify issues and targets and improve your performance
- leadership and workplace culture that encourages employees to engage with sustainability practices
- implementing 'lean' systems across the whole business
- training and performance management for your personnel
- identifying any government funding or incentives for energy and water saving projects.

What can I do?

Your approach will depend on factors such as the size of your business, your immediate needs and long term goals. It will also depend on who is driving the operational efficiency improvements. The biggest efficiency gains will be achieved by organisations with commitment at the highest levels in the business. But significant efficiency gains can be achieved on the shop floor through day to day practices.

Strategic

Improvement systems and waste reduction activities that are applied throughout your whole business can deliver huge energy and resource savings. These will be supported by strategic decisions in areas such as investment in buildings, plant and equipment to reduce energy consumption, or setting up cogeneration or energy recovery and water capture systems or finding ways to recycle, re-use or remanufacture.

A strategic commitment to implementing 'lean' can provide a systematic approach to continuous improvement and can help to find hidden wastes across the whole business. Resource waste might be hidden in processes or product features that do not create value for the customer. It might result from equipment that is running but waiting for input or excess inventory that generates significant transport and storage costs before it is converted to sales income.



Operational

There are many ways to improve resource efficiency that can be implemented in day to day operations and that do not require senior management approval and capital expenditure.

Initiatives generated from the shop floor might include:

- identifying how to recycle waste material and scrap for use in the business
- establishing new practices for switching off lights or heating when not needed and equipment that is not in use
- optimising production processes for better productivity
- identifying how to reduce down time, rework and scrap
- implementing systems to capture rainwater or to divert and reuse run off water
- reducing fuel consumption through driver training programs and maintaining correct tyre pressure
- reducing transport and fuel costs by making adjustments to truck capacity and loading techniques.

More about sustainability

The Skills for Sustainability website provides more information about achieving sustainability improvements through business and resource efficiency measures. The website also shows how sustainability improvements can be achieved across other aspects of a business including:

- facility management
- product design, technology and process improvements
- compliance
- community relationships and profile
- governance and strategy
- eliminating waste
- managing the supply chain.

See www.sustainabilityskills.net.au

Skills for sustainability

Key areas of skills which support the viability an organisation while benefiting the environment in which the organisation operates include:

- managing relationships with the local community
- planning and implementing strategies to reduce water and energy use, waste and emissions
- developing opportunities for recycling, reuse and remanufacturing
- making product improvements and designing ‘clever’ products
- improving day to day operational resource efficiency
- measuring and reporting environmental/sustainability performance
- assessing environmental risks and developing responses
- managing the supply chain.

Manufacturing Skills Australia has developed leading edge skills solutions to help the manufacturing and related sectors achieve sustainability. These reside in the Sustainable Operations, Competitive Systems and Practices and Environmental Monitoring and Technology qualifications.

For more information about sustainability skills, qualifications and learning and assessment materials see [Skills for Sustainability website www.sustainabilityskills.net.au](http://www.sustainabilityskills.net.au).

To view the qualifications and information on Registered Training Providers see www.training.gov.au.

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