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Introduction

Eco-efficiency is doing more with less

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Eco-efficiency for the Marine Industry Fact Sheet

Is your business

- ☑ wanting to gain a competitive advantage by improving efficiency?
- ☑ trying to reduce solid waste, energy and water supply costs?
- ☑ wanting to promote an environmentally friendly image?
- ☑ trying to improve relations with environmental regulators?
- ☑ experiencing tightening discharge limits and higher disposal costs?
- ☑ interested in managing environmental issues more systematically or becoming a signatory to an environmental initiative such as the Clean Marinas program?

Eco-efficiency could be the answer

What is eco-efficiency and how can it help your business save money?

Eco-efficiency is a strategy that helps businesses reduce costs through improved environmental performance by using resources more efficiently. Significant savings can be achieved by reducing production of solid waste and other pollutants, and consuming fewer natural resources such as energy and water. Eco-efficiency involves systematically evaluating your existing practices and identifying innovative ways that your business can produce your goods and services more efficiently, while also improving environmental performance.

How will being eco-efficient help your business stay competitive?

The Australian marine industry has undergone significant expansion and change in recent years, and now employs about 15,000 people, with an annual turnover of about $5.1B. The industry has evolved into a diverse group of businesses, mostly small to medium enterprises, and includes boat and ship builders, marinas, ports, manufacturers of marine equipment and accessories, and a variety of other service providers[1]. Firms with a turnover of less than $1M make up the bulk of the industry, with 64 per cent of Australian turnover spread over 1,900 firms, and six other firms making up the difference. The growth of the industry to date, 12.5 per cent per annum in the last five years[2], has largely been a result of a strengthening Australian economy and the consequent increases in disposable income for much of the population.[1] The industry acknowledges that if the economy weakens, many businesses will be forced to adapt to a much more competitive environment.

Some businesses are adopting eco-efficient practices because they realise that it is possible to reduce operating costs and decrease liability by applying environmental best practice. Other businesses see the benefits of improving relations with regulators, better workplace health and safety conditions and enhanced public image.

Can you afford to be inefficient any longer?

What are the key environmental issues facing the marine industry?

Environmental issue	Potential sources
Air quality	Solvents, resins, paints, glues, degreasers, sealants, cleaners and strippers, dust from sanding, grinding and cutting
Solid waste	Fibreglass, wood, packaging, metal (aluminium and steel), sawdust, resin, buckets, drums, household waste
Hazardous chemicals	Solvents, resins, paints, glues, degreasers, sealants, cleaners and strippers
Trade waste/water pollution	Cleaning and antifouling waste, paints, solvents, thinners, oils, MEK, resins, gun wash
Ground contamination	Cleaning and antifouling residue, oils, fuels, paints
Energy use	Machinery, tools, compressors, heating, welding, vacuum, water heating, computers
Water use	Cleaning, testing
Noise	Compressors, cutting equipment, vehicles

How can your business become more eco-efficient?

The UNEP Working Group for Cleaner Production in the Food Industry, based at the University of Queensland, in collaboration with the marine industry, the Queensland Department of State Development, Trade and Innovation (DSDTI) and the Queensland Environmental Protection Agency, has addressed many of these issues in this series of educational resources, *A Toolkit for Eco-efficiency in the Marine Sector*. The toolkit is one of many initiatives undertaken by DSDTI to make Queensland's marine industry more competitive.

While the series hopes to increase awareness of those activities that impact on the environment, the main focus is to highlight the cost of these current practices, and opportunities for improvement. Opportunities include measures such as simple housekeeping (e.g. controlled spray painting), product design (e.g. light-weighting), input substitution (e.g. replacing harmful solvent chemicals with less toxic materials), process efficiency improvements (e.g. reducing energy use by repairing air compressor leaks) and on-site recycling.

What is in the toolkit?

The toolkit contains a range of fact sheets that provide information on:

- opportunities to **conserve energy, water and waste**
- eco-efficient practices that can be applied to activities such as **fibre composite manufacturing, welding, abrasive blasting, spray painting and marina management**
- **environmental management systems, lean manufacturing and digital manufacturing** strategies that may help businesses structure their management, identify environmental issues and improve efficiency
- **implementing eco-efficiency**—rapid growth in the industry has led to skills shortages, and many sectors struggle to find sufficiently trained and experienced staff essential for the uptake of new practices and technology. Training, collaboration and industry networking can assist the uptake and implementation of eco-efficiency in the marine industry
- **environmental legislative requirements** for the marine industry in Queensland, to help businesses keep up to date with their rapidly evolving regulatory obligations.

A Toolkit for Eco-efficiency in the Marine Sector

INTRODUCTION – MAKING THE CASE FOR ECO-EFFICIENCY

FACT SHEETS
BEST PRACTICES
Fibre – Composite manufacture
Welding
Spray painting
Surface preparation/Abrasive blasting

FACT SHEETS AND CHECKLISTS
ECO-EFFICIENCY OPPORTUNITIES
Compressed Air
Motors
Lighting
Water consumption and wastewater
Solid waste
Solvent Management

FACT SHEETS
ECO-EFFICIENT STRATEGIES
Environmental management systems
Lean manufacturing
Digital manufacturing

MARINAS
GOOD PRACTICE QUICK REFERENCE GUIDE

FACT SHEET
TRAINING FOR ECO-EFFICIENCY

ENVIRONMENTAL LEGISLATION
QUEENSLAND MARINE INDUSTRY

References

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2. ACG (2005) *Benchmarking Australia's Marine Industries*, The Allen Consulting Group for the Department of Industry, Tourism and Resources, Melbourne. Retrieved 15-12-2005 from: www.industry.gov.au/assets/documents/itrinternet/Marine_benchmark_rptweb20050609112234.pdf

For further information

Ecobiz can assist you to reduce costs and improve eco-efficency in your business Call 1300 369 388 for further information.

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