

Resource efficiency: cut costs in plastics processing

Workbook 1: directing resource efficiency

Business and the environment

- Resource efficiency is the skill that will decide if you survive or fail
- Resource efficiency is the management issue
- Resource efficiency is a basic philosophy and approach
- Generate profit and not waste

Workshop objectives

- To show directors that resource efficiency is good business
- To show directors that resource efficiency is good for the business
- To show the way forward for management

Waste is anything that does not add value to the product

Why resource efficiency?

Cost category	Proportion of total costs		
	1960	1986	1996
Direct labour	25%	12%	10%
Direct materials	60%	58%	55%
Overheads	15%	20%	35%
Resource costs	67.5%	68%	72.5%

Efficient use of resources is the key to future survival in manufacturing

Not: *stop waste!*

But: *find waste!*

The greatest waste is the waste we don't see

Business pressures for resource efficiency

- Waste costs real money
- The true cost of waste is hidden
- Resource efficiency is good business
- Legislation and the legal consequences
- Our reputation and customer pressure

Waste costs real money

- Waste costs UK industry around £15 billion/year
- Waste costs are approximately 4.5% of turnover
- Costs are usually about 10 times the first estimate
- Waste costs can be reduced by 25% - equivalent to 1% of turnover
- Savings go directly to profits
- Hidden costs are much higher than obvious costs

The true cost of waste is hidden

Obvious waste costs:

- Skip removal
- Effluent charges

Hidden waste costs:

- Cost of raw materials in the skip
- Cost of labour, consumables and utilities in scrapped product
- Lost sales value and production time

Resource efficiency is good business

- Savings do not require high capital expenditure
- Companies of all sizes can benefit
- High return on investment and short payback period
- Self-funding after the first successful project
- Success can be shared between groups of companies

Legal requirements

- Climate Change Levy
 - Landfill tax
 - Packaging waste regulations
 - Materials disposal regulations
- + more to come ...

**Waste minimisation reduces exposure
to new regulations**

Our reputation

- People want to work for 'clean' companies
- Waste minimisation reduces our environmental impact
- Customers are demanding more from suppliers
- Waste minimisation shows that we are improving our environmental performance
- Waste minimisation demonstrates efficient use of loans and investments

Key steps

- Step 1: recognising the true cost of waste and making a commitment to action
- Step 2: collecting better resource data
- Step 3: analysing resource data
- Step 4: preparing an action plan
- Step 5: implementing the plan
- Step 6: monitoring, reviewing and providing feedback

A systematic approach tailored to company priorities

Words for waste

- Conveyor loss, customer returns ...
 - Defects, dirty solvent, dregs, dross, dust ...
 - Obsolete stock, offcuts, out-of-spec, overfill ...
 - Reel ends, regrind, rejects, rework, rubbish ...
 - Scrap, second quality, sprues, sweepings ...
 - Usage allowance, usage variance ...
 - Workaway, yield loss ...
- + more that are being invented all the time**

Opportunity checklist

Look at:

- Incoming materials
- Stores (raw materials, parts, final products)
- Production
- Support services
- Energy
- Water
- Other

Potential opportunities

1	
2	
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12	

Managing costs

- The scale of the potential savings makes resource efficiency a core business issue
- The returns are worth the effort
- Train staff to reduce costs through resource efficiency and listen to their ideas
- No-one knows the business better than the people who work in it
- Encourage immediate action to implement good ideas

Providing direction

- Establish board-level commitment for resource efficiency
- Appoint a resource efficiency champion
- Seek regular 'one line' reports on:
 - the cost of waste collection/disposal
 - the total cost of waste
- Support initiatives and praise success

Resource efficiency is good business

Resource efficiency is NOT:

- A quick fix
- A technology solution
- A destination

Resource efficiency IS:

- An on-going process
- A management attitude
- A journey