

# HELP FOR SMALLER MANUFACTURERS

## Are you...

- Constantly juggling priorities?
- Too busy running your company to plan for the future?
- Keen to improve your business but not sure how to go about it?

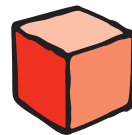
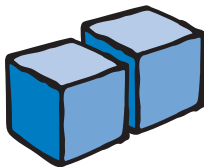
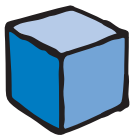
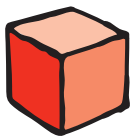


## We can help...



## IfM Education and Consultancy Services

Offering support services specially designed for smaller manufacturing companies.





# **I don't have the time!**

Managers of smaller companies have little time to think beyond the immediate day-to-day challenge of keeping the firm on track.

When problems arise, managers are often too busy firefighting to be able to identify the real cause of any problem and prevent it happening again.

But such problems must be addressed if a business is to flourish and grow.

**We can help you...**

## First step – prioritise

With time and resources in short supply any efforts to improve the company must be carefully targeted at real priority areas, where improvement will make a significant difference.

A comprehensive prioritisation exercise, taking in the whole business, is the first step in our structured approach to helping smaller companies.

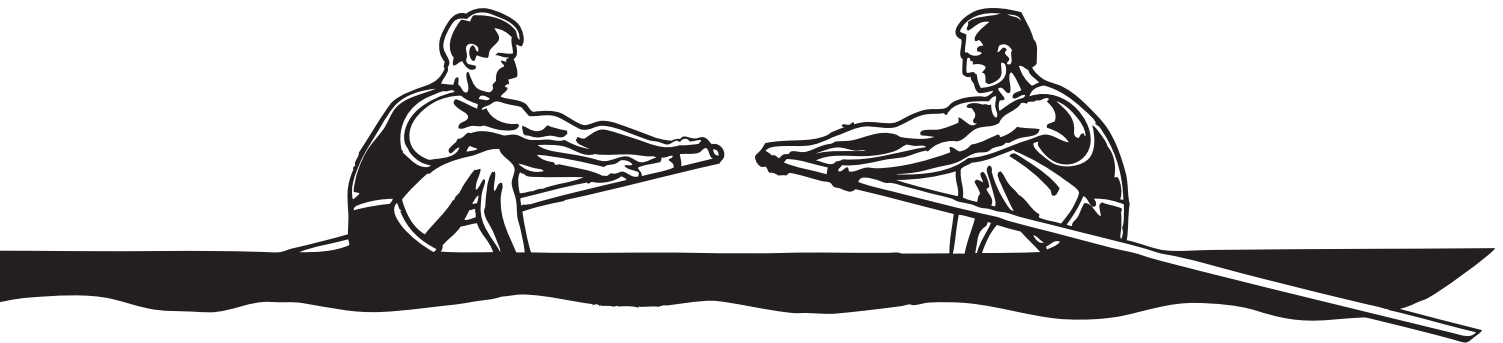
## Try this simple exercise...

Cut out the tiles on the pull-out flap at the back of this booklet and use them to identify your business priorities. The **blue** tiles represent the five main order winners – ways your business could grow. The **red** tiles represent the five potential constraints – things holding you back.

Place each set of tiles on the grid on the inside back cover, according to how important you think they are for your business.

## Do your colleagues agree with you?

Get your fellow managers to do the same. Do you all agree? How closely?



*Is everyone pulling in the same direction?*

5

### Order winners

**Price**  
We want to compete and win business on price. The cheapest provider in the marketplace will get the orders.

4

**Quality**  
Our ability to provide reliable, fit-for-purpose products and services will be key to our success in the marketplace.

3

**Delivery**  
Customers expect the product when they ask for it. It must be available as soon as possible, or on the date we promise, even if customers change their minds.

2

**Unique value**  
We need to compete on the uniqueness of offering: developing our product, improving range and/or enhancing our service, in order to stay ahead of the competition.

1

**Ethical**  
Our core values are...

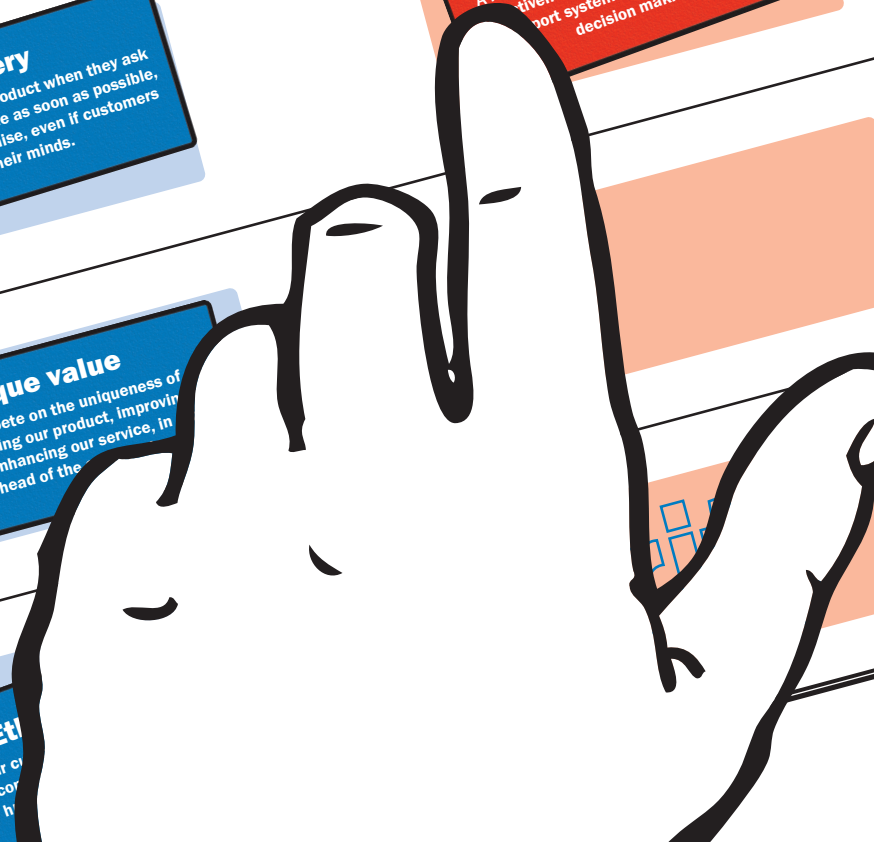
# Price

## Business constraints

**Cash**  
A key barrier to achieving growth will be a lack of cash to invest in value-generating activity. It will be critical that cash is released from inventory and interest payments.

**Plant and equipment**  
A key constraint will be our structural assets. We need to reduce bottlenecks and maximise the effectiveness of our equipment, factory space etc.

**People and information**  
A key priority for us will be to maximise the effectiveness and flexibility of our staff and support systems, e.g. software, processes, decision making etc.



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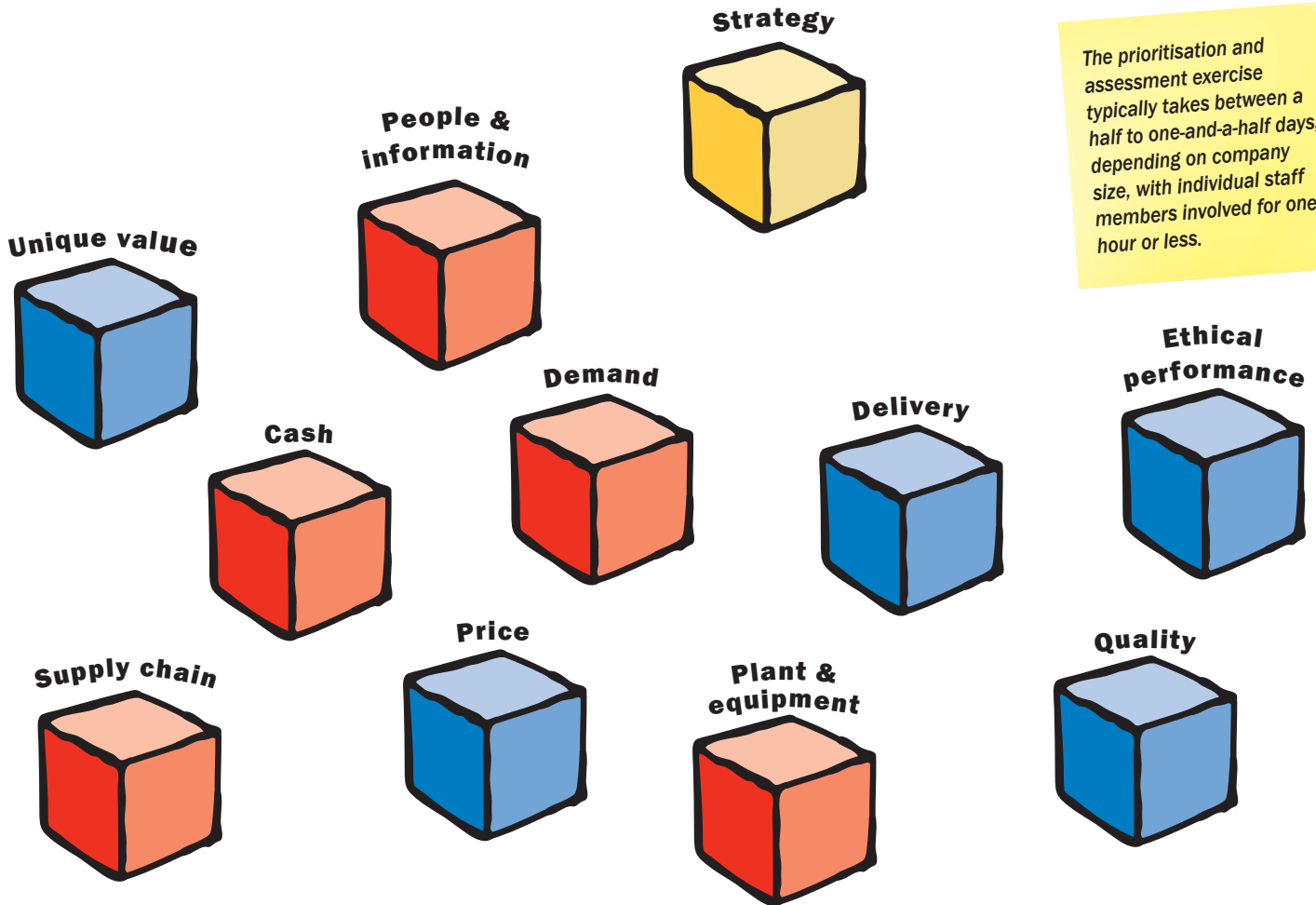
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Price

## How well is your company doing?

Once you are all agreed on the order of importance of the order winners and constraints for your business, the next step is to assess your company's performance. This will ensure that you focus your efforts on improvements that will really make a difference, helping you to win orders and overcome your company's constraints.

We have developed a comprehensive question set that is designed to rapidly 'get under the skin' of your business. It assesses the strength of your company's performance across all business areas and reveals how well you are doing in achieving your priorities.



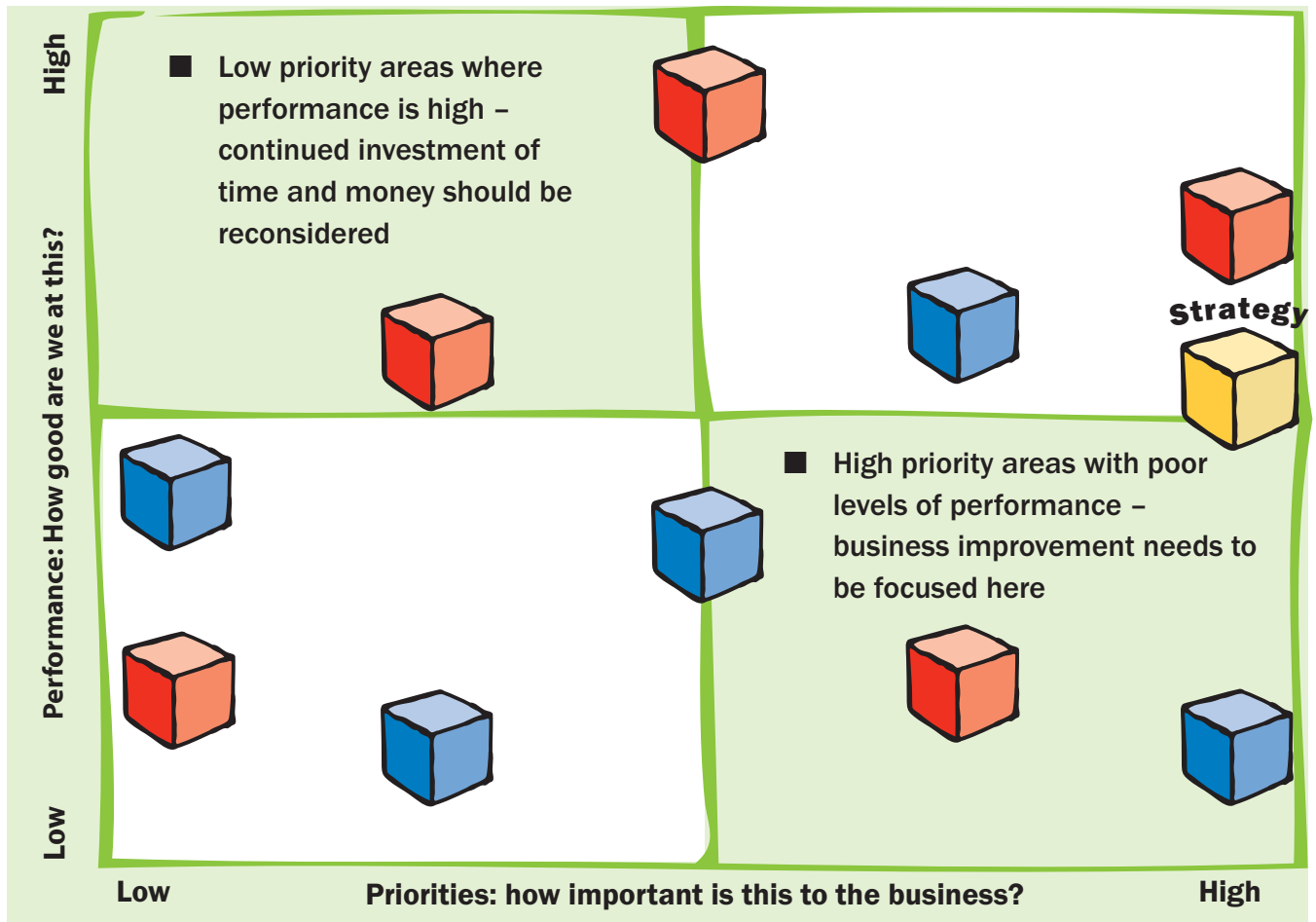
The prioritisation and assessment exercise typically takes between a half to one-and-a-half days, depending on company size, with individual staff members involved for one hour or less.

# Identifying your real business priorities

The results of this assessment will reveal the top priority areas for your company – areas that are vital to your business but where performance is poor.

It will also show the low priority areas that are less important to your business but where performance is currently high. Continued investment of resources in these areas should be reconsidered.

Your priority areas will form the basis of a tailored action plan to develop key capabilities and achieve real improvement.



strategy



## Is your business going in the direction you want?

One item that should *always* be a priority for any company is to develop and communicate a clear business strategy. Many small companies struggle with this but a good strategy will ensure you focus your efforts on the right areas, helping you increase sales and profitability. Companies in which everyone is working towards the same goals are also more rewarding places to work – encouraging people to go the extra mile.

If the prioritisation exercise reveals the need for a clearer strategy for your business then we will work with your management team to set one in place. This involves:

- identifying the external factors likely to affect the business
- assessing your company's particular strengths and weaknesses
- developing and selecting options for your future
- preparing a clear project plan with defined responsibilities and timescales

The business strategy will guide decision making for several years to come and ensure everyone's efforts are focused in the right direction.

Strategy development involves four half-day workshops scheduled to fit in with the availability of the management team.



*It may be that everyone is pulling in the same direction – but is it the right direction?*



## Tackling the real priorities: capability development

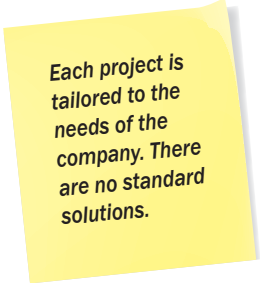
The next step is to focus on the capabilities you need to develop in order to tackle your priority areas and make a real difference to company performance.

The issues will be as varied as the companies involved. They could range from improving product quality or raising on-time delivery performance, to improving cash management or increasing the reliability of key suppliers.

We support the improvement process in a number of ways:

- briefing sessions for the management team
- introduction of new systems and processes
- staff training to fill skills gaps

We help you with the change process but the most valuable time will be spent by the company itself deciding how best to tackle the issues involved.

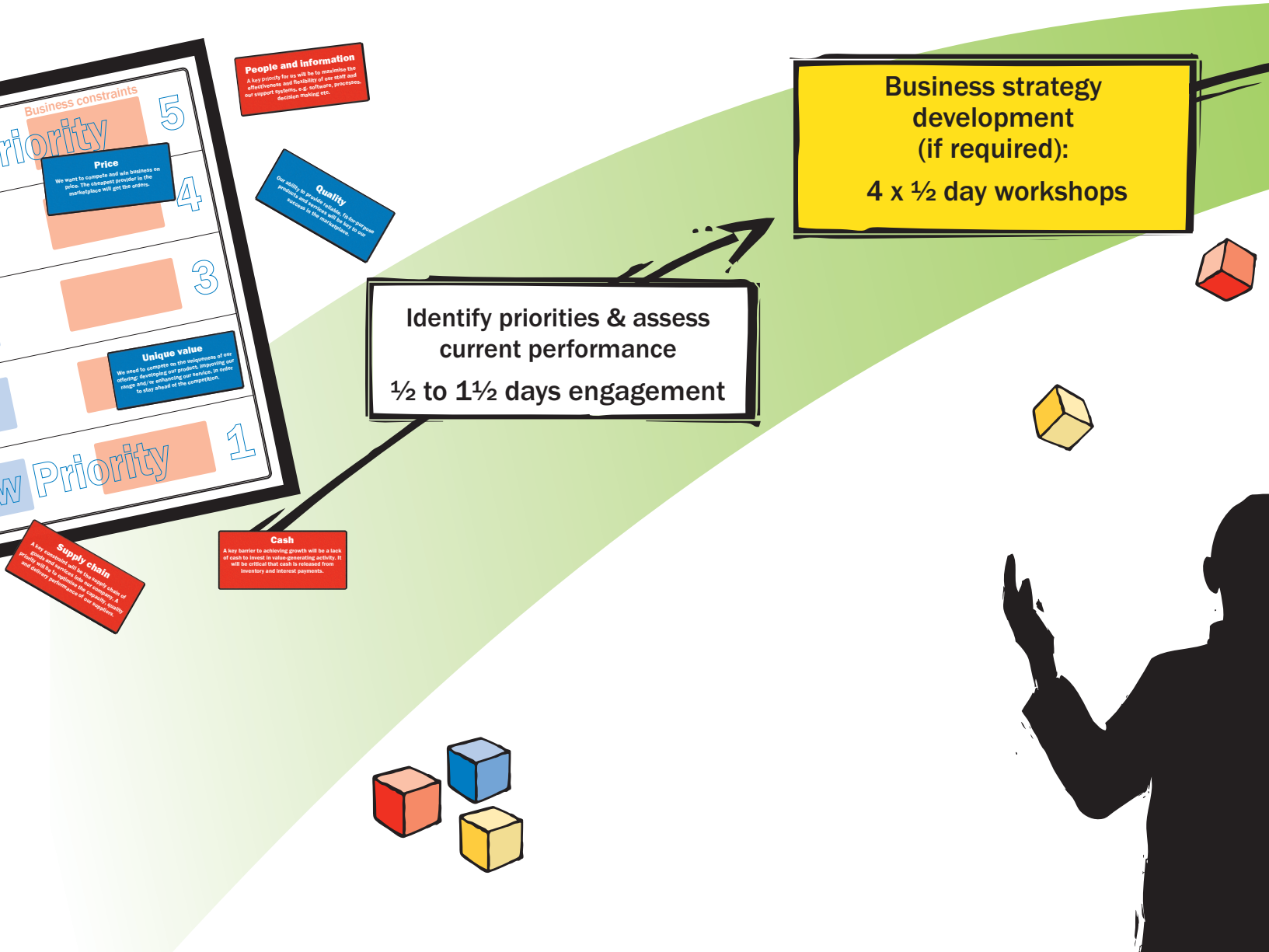



*Each project is tailored to the needs of the company. There are no standard solutions.*



# How we work...

## A typical improvement programme






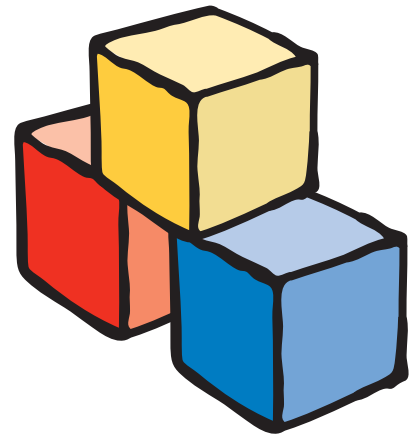
Capability development projects in  
your business priority areas  
4 to 8 days engagement per project



**Business  
success**



Improvement projects  
follow a structured  
approach specially  
designed to suit smaller  
businesses. Each  
company is different  
and timescales will vary  
according to a firm's  
needs and ability to  
absorb new approaches.  
Get in touch to discuss  
ways we can help you  
develop and grow your  
business.



# How we develop key capabilities

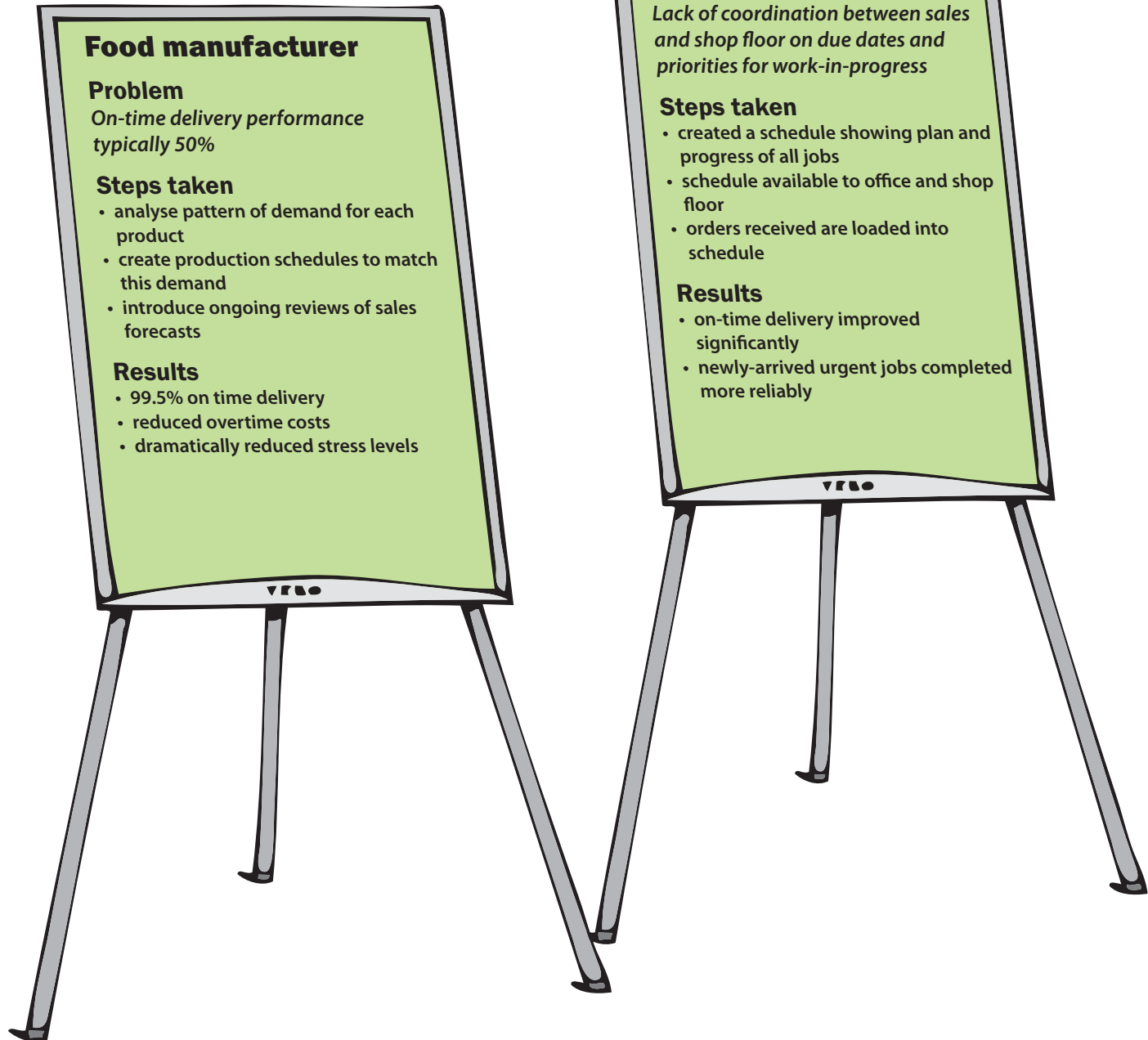
<b>Order winners</b>	<b>Delivery performance</b>	<b>Unique value and innovation</b>	<b>Ethical and environmental performance</b>	<b>Quality management</b>	<b>Price management</b>
<b>Aim</b>	<i>To improve delivery performance</i>	<i>To offer more distinctive and compelling products</i>	<i>To deploy firm's ethical values to win business</i>	<i>To increase quality of products and services</i>	<i>To improve pricing and margin management</i>
<b>Strengthen</b>	<ul style="list-style-type: none"> <li>• Production planning and scheduling</li> <li>• Production management</li> <li>• Supplier management</li> </ul>	<ul style="list-style-type: none"> <li>• Idea generation</li> <li>• Product introduction</li> <li>• Product portfolio management</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainability strategy and business model</li> <li>• Response to customers' needs and values</li> <li>• Design, supply, production, distribution, marketing and through-life service functions</li> </ul>	<ul style="list-style-type: none"> <li>• Product (quality) design</li> <li>• Quality systems</li> <li>• Understanding of quality across company</li> <li>• Suppliers' quality performance</li> </ul>	<ul style="list-style-type: none"> <li>• Product marketing</li> <li>• Pricing strategies; price setting</li> <li>• Cost management; cost reduction</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Improved customer satisfaction</li> <li>• Reduced overtime</li> <li>• Reduced stress, increased morale</li> </ul>	<ul style="list-style-type: none"> <li>• More exciting product ideas; delighted customers</li> <li>• Products developed quicker, on time and on budget</li> <li>• Resources focused on the right opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Improved product whole-life performance</li> <li>• Improved efficiency of resources (energy, materials)</li> <li>• Better informed staff and customers</li> </ul>	<ul style="list-style-type: none"> <li>• Fewer defects; improved customer satisfaction</li> <li>• Reduced re-work; lower costs</li> <li>• Reduced frustration; improved morale</li> </ul>	<ul style="list-style-type: none"> <li>• Better strategic pricing</li> <li>• Improved margins over product lifetimes</li> </ul>
<b>Business benefit</b>	<ul style="list-style-type: none"> <li>• Win more business</li> <li>• Reduce operating costs</li> <li>• Improve customer loyalty</li> </ul>	<ul style="list-style-type: none"> <li>• Win more business at higher margin</li> <li>• Increase income over the product life cycle</li> <li>• Improve customer loyalty and strengthen brand</li> </ul>	<ul style="list-style-type: none"> <li>• Win more business</li> <li>• Reduce costs</li> <li>• Strengthen brand</li> </ul>	<ul style="list-style-type: none"> <li>• Win more repeat and new business</li> <li>• Increase revenues</li> <li>• Reduce costs</li> </ul>	<ul style="list-style-type: none"> <li>• Win more profitable orders</li> <li>• Reduce operating costs</li> <li>• Increase margins</li> </ul>

<b>Business constraints</b>	<b>Supply chain</b>	<b>Demand</b>	<b>People and information</b>	<b>Cash</b>	<b>Plant and equipment</b>
<b>Aim</b>	<i>To improve supply chain performance while reducing total costs</i>	<i>To influence demand and generate profitable sales</i>	<i>To increase business performance and productivity through effective management of people and information</i>	<i>Manage cash to minimise business financing costs</i>	<i>Improve utilisation of production assets</i>
<b>Strengthen</b>	<ul style="list-style-type: none"> <li>• Supply management</li> <li>• Outbound logistics</li> <li>• Information management and use</li> </ul>	<ul style="list-style-type: none"> <li>• Marketing and sales: strategy, management and operations</li> <li>• Product management</li> <li>• Sales and operations planning</li> </ul>	<ul style="list-style-type: none"> <li>• Performance management</li> <li>• Employees' knowledge and skills; talent acquisition</li> <li>• Use of ICT, e.g. MRP/ERP</li> </ul>	<ul style="list-style-type: none"> <li>• Creditor and debtor management</li> <li>• Inventory management</li> <li>• Cash flow management</li> </ul>	<ul style="list-style-type: none"> <li>• Selection of plant and equipment</li> <li>• Production operations management</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Improved supplier performance</li> <li>• Improved delivery performance</li> <li>• Managed inventory levels</li> </ul>	<ul style="list-style-type: none"> <li>• Stand-out from competitors</li> <li>• More enquiries; greater conversion; more orders</li> <li>• More efficient order processing and faster delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Increased discretionary effort by employees</li> <li>• Increased team effectiveness and productivity</li> <li>• Improved information management and use</li> <li>• Increased employee morale and motivation</li> </ul>	<ul style="list-style-type: none"> <li>• Improved cash receipts and payments</li> <li>• Reduced cash tied up in inventory</li> </ul>	<ul style="list-style-type: none"> <li>• Increased operational effectiveness</li> <li>• Better use of capital, labour and factory space</li> <li>• Improved throughput efficiency</li> </ul>
<b>Business benefit</b>	<ul style="list-style-type: none"> <li>• Win more orders</li> <li>• Reduce working capital</li> <li>• Develop effective supply chain partners</li> </ul>	<ul style="list-style-type: none"> <li>• Stronger sales pipeline and conversion into orders</li> <li>• Increased revenues</li> <li>• Increased customer retention</li> </ul>	<ul style="list-style-type: none"> <li>• Improve decision-making</li> <li>• Increase business performance</li> </ul>	<ul style="list-style-type: none"> <li>• Better use of working capital</li> <li>• Reduced financing costs</li> </ul>	<ul style="list-style-type: none"> <li>• Greater output from existing equipment, labour and capital</li> <li>• Improved delivery performance</li> </ul>

**Capability development includes:**

- management team briefing
- assessment of current and required capability level
- structured approaches to improve key processes and skills
- support and mentoring

# Company examples



## Hospitality business

### Problem

*Company just breaking even – needed to grow but unsure how to do this*

### Steps taken

- strategy workshops identified different customer groups with varying needs
- range of product solutions created to suit each customer group with appropriate price and service levels
- internal processes restructured to channel most effort into premium customers

### Results

- revenue doubled in one year
- new staff taken on
- profits increased

## Construction materials company

### Problem

*Company operating in declining industry, forcing closure of one of its production plants*

### Steps taken

- assessment undertaken of the company's skills, facilities and technical abilities
- strategy workshops identified potential new markets
- new market chosen and appropriate product developed using existing skills and facilities

### Results

- new product launched
- land acquired for new facilities
- staff numbers expected to grow

## Waste management company

### Problem

*Cash flow problems holding back company's growth plans*

### Steps taken

- analysis of cash flow revealed high costs associated with repeated machine breakdowns
- assessment showed high landfill costs incurred as machines not sorting waste correctly
- training introduced for staff to improve operation and maintenance of machinery

### Results

- costs reduced significantly
- cash flow improved
- plans for growth now feasible

## Benefits at a glance

Company sector	Length of project	Revenue	
		Before	After
Industrial electronics	9 months	£1.2m	£2.2m
Refrigeration	18 months	£750K	£2.1m
Food	18 months	£3m	£4.8m
Chemical treatment	12 months	£1.7m	£3.5m
Laboratory equipment	12 months	£5m	£6.2m
Smart metering	6 months	£2.3m but falling	£2.3m but rising
Materials handling	4 years	£10m Not profitable	£16m Profitable
Food	18 months	£6.8m	£8.4m
Packaging	18 months	£3.2m	£4.1m
Capital equipment	2 years	£12m	£35m



Employees		Revenue per employee		Other
Before	After	Before	After	
11	14	£109K	£157K	<i>Exploited new market opportunities leading to growth</i>
8	10	£94K	£210K	<i>New practices released production capacity</i>
70	70	£43K	£69K	<i>Delivery performance increased from 50% on time to &gt;99% on time in full</i>
25	45	£68K	£78K	<i>Defects halved in &lt;6 months</i>
32	32	£156K	£194K	<i>Profits doubled</i>
20	20	£115K	£115K	<i>Defects halved in 4 months</i>
140	150	£71K	£106K	<i>Moved into new markets</i>
75	75	£91K	£112K	<i>Moved from breakeven to significant profitability</i>
48	48	£67K	£85K	<i>Net profit more than doubled</i>
70	70	£171K	£500K	<i>Growth in UK supply chain</i>

## **The team**

The improvement approaches described here are delivered by IfM Education and Consultancy Services (IfM ECS), the dissemination arm of Cambridge University Institute for Manufacturing (IfM).

IfM ECS industrial consultants are experienced senior manufacturing professionals – people who have ‘been there and done it’ – typically as operations director, general manager, managing director or owner. They have deep knowledge and experience across manufacturing SMEs, larger firms and/or leading consultancies.

Our approach is different to conventional consultancy and involves working collaboratively to co-develop solutions. Our consultants focus on transferring knowledge as well as delivering business results. The findings from their engagements help to inform future IfM research.



Order winners

Business constraints

5

High Priority

5

4



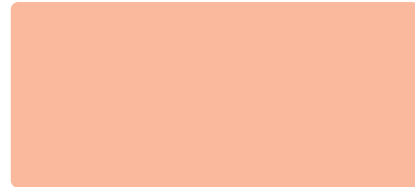
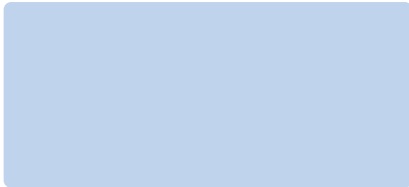
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3



3

2



2

1

Low Priority

1

## Order winners

### Price

We want to compete and win business on price. The cheapest provider in the marketplace will get the orders.

### Quality

Our ability to provide reliable, fit-for-purpose products and services will be key to our success in the marketplace.

### Unique value

We need to compete on the uniqueness of our offering: developing our product, improving our range and/or enhancing our service, in order to stay ahead of the competition.

### Delivery

Customers expect the product when they ask for it. It must be available as soon as possible, or on the date we promise, even if customers change their minds.

### Ethical performance

Our customers and other stake-holders are concerned about the performance of our humanitarian, social, environmental and regulatory obligations.

## Business constraints

### People and information

A key priority for us will be to maximise the effectiveness and flexibility of our staff and our support systems, e.g. software, processes, decision making etc.

### Plant and equipment

A key constraint will be our structural assets. We need to reduce bottlenecks and maximise the effectiveness of our equipment, factory space etc.

### Supply chain

A key constraint will be the supply chain of goods and services into our company. A priority will be to optimise the capacity, quality and delivery performance of our suppliers.

### Demand

A key priority for us will be to find more customers for our product or service. We can accommodate increased volumes without any difficulty.

### Cash

A key barrier to achieving growth will be a lack of cash to invest in value-generating activity. It will be critical that cash is released from inventory and interest payments.



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## About us

IfM Education and Consultancy Services Ltd (IfM ECS) provides a rapid dissemination route for new ideas and approaches developed at the Cambridge University Institute for Manufacturing (IfM). A team of industrial practitioners helps companies of all sizes to apply research-based improvement techniques via a programme of consultancy and education services. This work brings benefits to both parties. Industry receives practical solutions based on the latest applied research; the IfM gains live feedback to help set the agenda for new research as well as an income stream to assist in funding future research activities. IfM ECS is a wholly owned company of the University of Cambridge.

**Please get in touch if you would like to discuss how we can help you to develop and grow your business.**

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