



Food Processing in Greater Cambridge Skills Gaps and Solutions

A Report for the GCP

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On the Food Processing Sector in Greater Cambridge

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Executive Summary

The food processing sector is one of the most challenging to analyse because of its diversity and profile. The sector spans the whole spectrum of labour organisation from fundamental labour intensive production lines to high volume 'just in time' manufacturing, automated packaging and highly skilled labour providing engineering support. Purchasing power from the big 4 supermarkets continues to lead to "improvements" in delivery times, and freshness. In the Greater Cambridge area, as in many other parts of the country, these new pressures and opportunities have led to increasing merger and acquisition activity. This reflects the drive for economies of scale as well as the globalisation of the food economy.

Whilst it is easy to think in terms of a low skills equilibrium operating in the sector, on closer inspection one can equally make the case for large parts of the sector upskilling the workforce to a high standard – albeit a company standard rather than a national qualification standard. The level of skill in some large companies is clearly much greater than can be gleaned from looking at the sum of formal qualifications obtained by the workforce. This has obvious implications for the reported skills levels in this sector. The assertion that a low skills equilibrium accurately describes this sector then, is debatable. Whilst almost 50% of the workforce are deployed on production lines – the modern way of working (as evidenced in some of the larger companies) requires greater skill than older style work routines and the production line of today can resemble something more akin to a sequence of distinct processing operations, involving highly specialised computerised machinery, managed by skilled operatives, many of whom have developed multiple proficiencies across the 'shop floor'.

Food processing is the largest segment of the manufacturing sector in England and has an export value of £6.6bn. Cambridgeshire accounts for 14% of employment in the sector which in the East of England comprises 37,100 workers. Of these, 6,200 are non-UK nationals, almost 17% of the workforce. This reflects the amount of ESOL training which takes place in the sector especially among the larger food processing companies.

There are approximately 505 food manufacturing companies in the East of England and 680 business sites, according to ONS statistics (2009). Just over 180 companies operating in food manufacturing are based in Cambridgeshire. 97% of these have less than 250 employees and 110 (60%) operate from a single location, though almost 20% of these are subsidiaries of a larger company outside the county or region.

Acquisitions in the food sector have changed the ownership landscape in recent years. Many SMEs have been bought up by very large multinational companies to gain market share and economies of scale in their operations. The Food Processing sector is concentrated in north and eastern parts of the Greater Cambridge area. Wisbech might be seen as the 'capital' food processing town, but there is a significant sector presence close to Ely, (G's at Barway) Cambridge (Premier Foods –

Histon), Peterborough (e.g. Produce World – Yaxley) and Bury St. Edmunds (e.g. British Sugar).

Most training is compliance related, which isn't surprising given the onerous amount of food safety legislation and the need for extremely high standards of food hygiene required by the principal buyers – the powerful supermarket chains. However, it would be misleading to give the impression that food processing companies only train people to comply with outside pressures. In many companies there is a culture of training and development which pervades the organisation.

In the food processing sector there is an acute shortage of skilled meat boners and trimmers which may need to be met through targeted immigrant labour. This has led to a recommendation in October 2009, from the Migration Advisory Committee to add meat boners and trimmers to the “shortage occupation list”. Skills shortages can require specific intervention to ensure that a sector is able to recruit specific skills needs which are not easily available in the EU. In such examples, it is important to ensure that immigrant labour isn't used to drive down labour prices at home.

Whilst this report shows a range of skills gaps extracted from research by the Sector Skills Council - Improve, some caution needs to be attached to their significance: The high volume research undertaken does not necessarily do justice to the intricacies of training needs analysis or to the individual interpretations put on the word “skill” or “need” by the company respondent. Moreover large companies with HR departments are much more likely to have gaps readily identified than small companies without such resources. This could be one reason for Improve's surprising finding that larger companies are more likely to have skills gaps than small ones (see e.g. Skills Needs in the English Regions 2007 page 74)

The case studies in this report have illustrated some very good practice in terms of staff development. This is reinforced by the extremely low staff turnover evident in some companies (e.g. Premier Foods in Histon), and some excellent examples of training initiatives which could be built on to develop a 'dispersed' Centre of Training Excellence in the sub-region.

In terms of provision, the Greater Cambridge area has the potential to make a significant difference to businesses by bringing together all the different training elements under one virtual academy. This could harness the enthusiasm and resources of employers already leading the way in training and hopefully encourage others to join in. The National Skills Academy directory could be replicated in the region so that employers (and employees) know what courses are on where, allowing providers to achieve greater economies of scale in scheduling courses in the area.

The National Centre for Food Manufacturing at Holbeach in Lincolnshire could provide some best practice support for such an initiative, working with universities and colleges in the East of England.

Recommendations

- Look at possibilities for a dispersed centre of excellence: Hub & spoke – lots of different sites and involving the private sector (e.g. G's; Premier Foods and Produce World - all willing).
- Identify good practice by highlighting the work of larger companies and attempting to link up smaller businesses through the Centre of Excellence idea (above).
- Link up with the Sector Skills Council – Improve – to provide consistent information on qualifications available in the sector – and promoting the benefits of developing the workforce (through the qualifications route).
- Increase opportunities for short taster courses available as feeders into mainstream provision.
- Publish, on-line in one place, information about courses possibly using the 21 categories identified by Improve.
- Work with Improve and local colleges to raise perceptions about the industry – what it means to work for different employers in the region – possibly showcasing several “best practice” companies at Further Education open days.

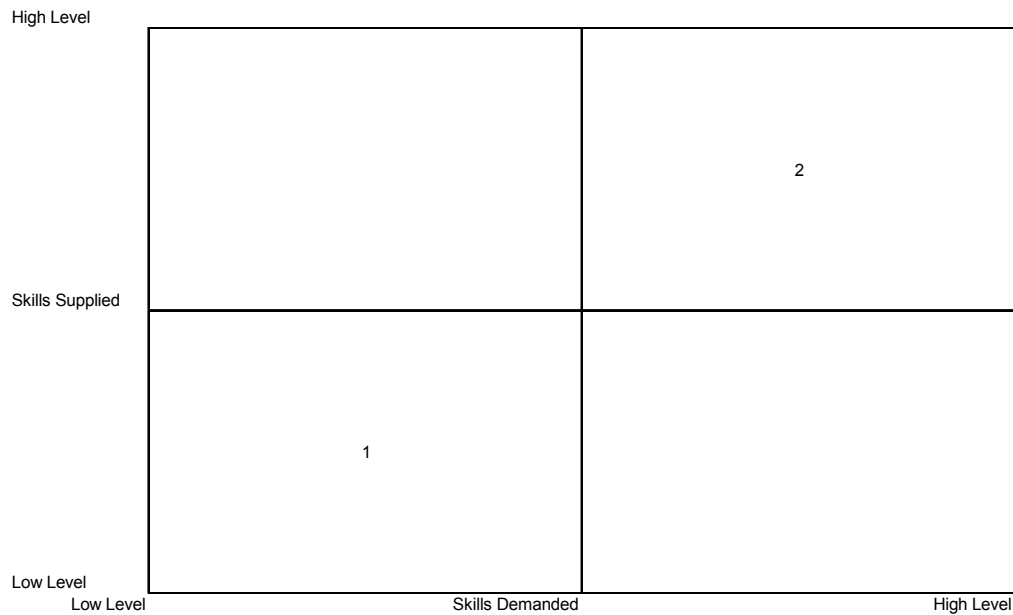
its essential role in our lives, issues tend to get easily polarised.

Moreover the food processing sector has undergone considerable change in recent years, and purchasing power from the big 4 supermarkets continues to lead to “improvements” in delivery times, and freshness. While consumers never seem to tire of fast food variations an increasing volume of prepared food floods on to the retail market every day. This higher value end of food processing has become a growth sub-sector all on its own.

In the Greater Cambridge area, as in many other parts of the country, these new pressures and opportunities have led to increasing merger and acquisition activity. This reflects the drive for economies of scale as well as the globalisation of the food economy.

The food sector highlights the contradictions evident in attempting to match the supply and demand of skills in any one sector. Whilst there are many highly skilled jobs in food processing one cannot avoid the 48% of low skilled labour required for the industry to deliver its produce to the supermarkets, fast food chains and other outlets on a daily basis. What has at times been called a low skills equilibrium (DTI 2003) reveals a simple fact: some of the sector needs people to do work on production lines carrying out simple and repetitive tasks – and if the supply is insufficient in the Greater Cambridge area, there is plenty of labour (especially from the newly acceded EU countries) to fill the vacancies for low skills work.

Given the importance of this issue, and its occasional crude politicisation, it is worth exploring the low skills equilibrium (LSQe) in a little more detail. Before then though, it is important to state that the forgoing analysis does not apply to the whole of the food processing sector. There are many examples (e.g. Premier Foods below) which show that what may be statistically categorised as low skilled labour is in fact highly trained labour multi-tasking in a varied and complex computerised environment. Qualifications may not be evident (except for the mandatory food safety and health and safety certificates), but the degree of learning on the job required to perform to company standards can be much more than low skill. It is interesting to note that these well trained people don't count in the UK statistics on skills levels – suggesting that we may be a more skilled (though not certified) nation than appears in



The Problem of a Low Skills Equilibrium

The graph sets out the supply and demand for different levels of skills . In a highly skilled economy or sector of the economy we are likely to arrive at an equilibrium at point 2 where there is a demand for high level skills matched by a supply of high level skills. The LSQe position (Point 1) might be described as a vicious circle – of consistent demand for low skills matched by consistent supply of low skills.

There are several issues to consider here: First, does a high demand for low skilled labour mean that only low skilled labour is supplied? There is plenty of evidence to suggest that Eastern Europeans (among others) who take low paid, low skilled jobs in the sector, are, on the one hand more qualified than they need to be for the job, and on the other hand able to progress into supervisory and management roles in the company over time (see e.g. G’s and Premier Foods case studies below).

Secondly, does the Leitch “mantra” espousing the need for higher level skills, work all the time? Might it not be the case that the supply and demand of low skilled labour for the food processing sector is actually a “good” match?

Thirdly, the demand for low skilled labour inevitably translates into demand for low paid labour. Without wishing to wade into a debate about flexible or ‘sticky’ labour markets, it would be useful to distinguish between a problem of low skill or a problem of low pay. The two are not the same and to be clear, raising pay will not alter the low skills equilibrium; more specifically, the demand for low skilled labour to attend production lines, will remain (until new innovative processes are introduced). Admittedly, higher pay would presumably attract more local/UK labour but the work required would still be “low skill”.

Finally, one can't avoid the question does it matter? If the current demand for low skills in the food sector is high, shouldn't one leave it to the market to supply what's needed? This inevitably leads on to look at the reasons for formal adult learning. Four possibilities are outlined below:

1. Learning to meet the requirement of the company (including regulatory requirements imposed on it).
2. Learning to meet the aspirations of the person (but not necessarily work or qualification related).
3. Learning to meet the aspirations for a more equal society (e.g. targeting learning opportunities towards hard to reach communities).
4. Learning to meet the requirements of the economy (e.g. Leitch targets - employer responsiveness, global competitiveness, transferable skills etc..)

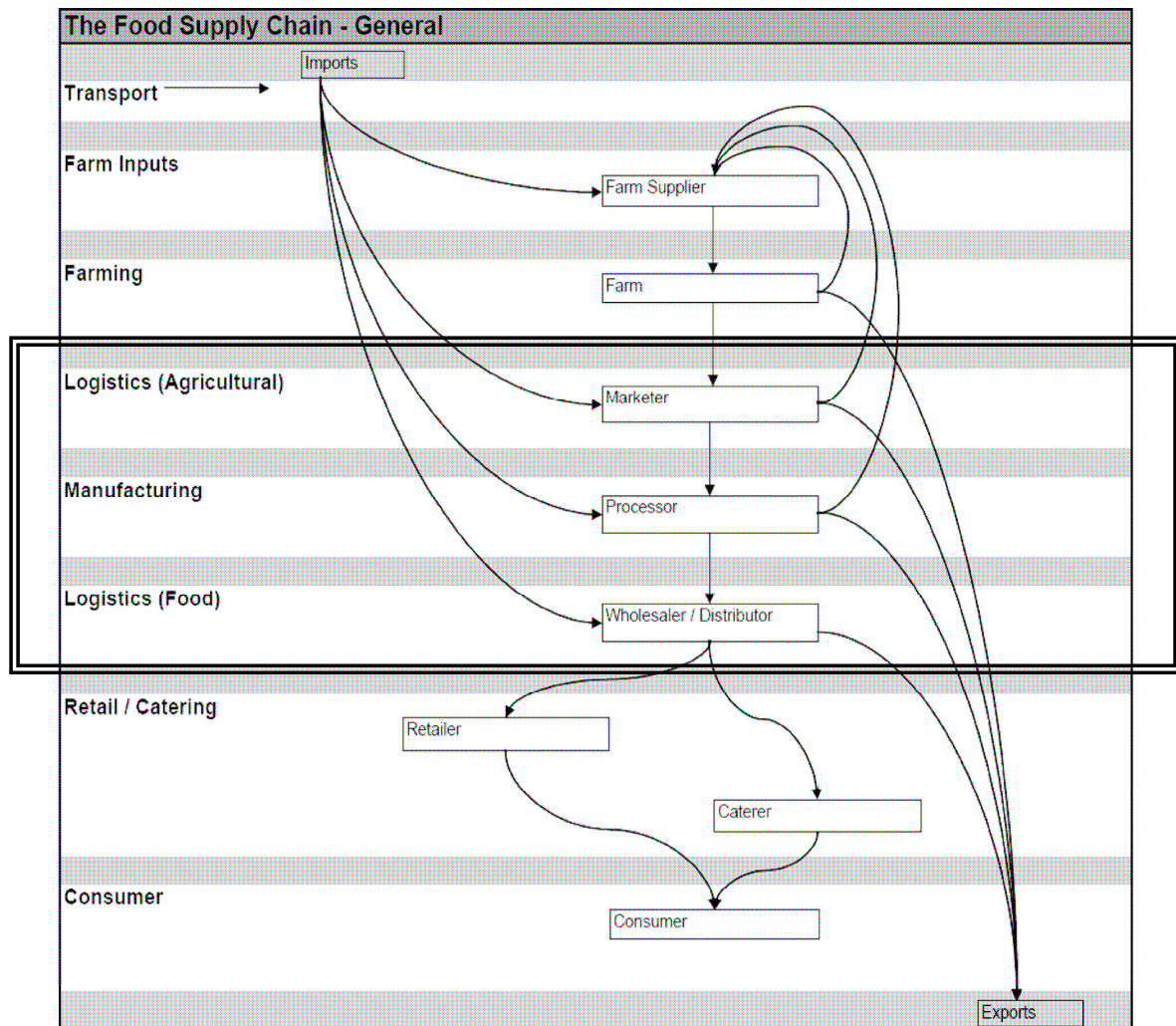
A low skills equilibrium may arise from a narrow focus on learning (as in Point 1 above). However there are other reasons to consider raising the skills levels of employees from the sector, even though this is not a requirement of the employer. The LSQe then, needs to be viewed in the wider context of individual aspirations, society's objectives; and the needs of the whole economy.

2. Characteristics of the Sector

Food processing is the largest segment of the manufacturing sector in England and has an export value of £6.6bn (Improve 2010 page 1).

Whilst meat processing is one of the dominant sub-sectors in the region, fruit and vegetable processing is also important. Baking is less represented in the region than in other parts of the country.

Food Processing Sector Diagram



(Based on: East Anglia Food Link).

The food sector supply chain is illustrated above. This report focuses mainly on the boxed middle part of the diagram – manufacturing and logistics. The inter-relationships between the different parts of the supply chain are critical especially when dealing with perishable products; this is one reason why there has been so much acquisition activity and vertical integration across the supply chain.

47% of staff in the food processing sector work on production lines (process, plant and machine operatives or 'elementary' roles). However the quality of job can vary enormously depending on the degree of automation. Premier Foods in Histon for example has machine operatives deployed in multi-tasking roles and it is difficult to

identify an actual production “line” – more of a series of distinct processes. Over half of larger companies (employing more than 50 people) require Food scientists and technologists. Their roles can vary from: quality assurance; product development to process control; management and R&D.

It is of concern to note that in this region only 7% of the those employed in the sector work in ‘skilled trade occupations’ (compared to 15% nationally) according to Improve (East of England Report 2008 p.99). It is possible that this reflects the number of high tech sites in the region which employ machine operatives who may not have “skilled trades” qualifications, but nevertheless are trained to a high company standard (but not a national qualification) over a six month period before being deemed competent to work unsupervised (see e.g. Premier Foods in Histon case study).

Most training is compliance related, which isn’t surprising given the onerous amount of food safety legislation and the need for extremely high standards of food hygiene required by the principal buyers – the powerful supermarket chains. However, it would be misleading to give the impression that food processing companies only train people to comply with outside pressures. In many companies there is a culture of training and development which pervades the organisation. For example at G’s in Ely, there are several ongoing training programmes for staff at all levels; at Premier Foods it takes at least six months for new employees to become proficient in their work and at Produce World, in Yaxley, the training organised for the company is a full time scheduling task.

Cambridgeshire accounts for 14% of employment in the sector which in the East of England comprises 37,100 workers. Of these, 6,200 are non-UK nationals, almost 17% of workforce. This reflects the amount of ESOL training which takes place in the sector especially among the larger food sector companies.

91% of the workforce is full time and 69% are male. In the last two decades the shift from part time work to full time work is reflected in the 24/7 shift patterns now standard in more advanced food processing companies. Most operatives will be required to work 8 hour shifts covering the morning, evening and night operations. This has replaced a section of the population who were the cornerstone of the food production line; women with families – who used to be able to start work after organising the school run and finish in time for school collection. So whilst new technology has resulted in some contraction of jobs, it has also changed the makeup of the workforce. However, there are still many traditional food companies which don’t have new machinery (or at least don’t have the need to run machinery 24 hours a day), who continue with old patterns of working; JDM in Wisbech, for example, talk of the “mummy” shift at their factory, a reference to women workers, in part-time roles.

The food processing sector tends to have older workers than some other sectors, e.g. 35 – 39 (22%); and 40 – 44 (15%). Premier Foods, for example have no apprenticeships at their Histon site. The regimented approach to food safety –

involving constant washing of hands; and the dress code which includes mandatory hair nets; goggles and ear muffs are probably sufficient reasons to put off many young people who might not feel the sector has a “cool” image. But equally, the responsibility given to workers in this high tech environment makes it much less of a risk to take more mature workers.

Staff Retention is generally good in the sector. According to Improve, 20% have worked for their employer for more than 10 years. 48% for more than 5 years; (33% less than 2 years). This is uneven across the sector: Premier Foods have less than 2% staff turnover per annum, but a smaller food processor in the county quoted 30% staff turnover as normal for the industry (and applicable to his own company). Improve found that on average, around a third of the workforce is replaced every year or two.

The food processing sector has a diverse range of occupations including operations and production managers; Supply chain staff; multi-skilled engineers, procurement specialists; packing technologists; and machine operatives. Career opportunities are more evident in larger companies which tend to have more clear progression paths than their smaller counterparts.

Size of Sector

There are approximately 505 food manufacturing companies in the East of England and 680 business sites, according to ONS statistics (2009).

It is difficult to find accurate statistics for the local level but Dunn & Bradstreet data suggests that there are just over 180 companies operating in food manufacturing in Cambridgeshire. 97% of these have less than 250 employees and 110 (60%) operate from a single location, though almost 20% of these are subsidiaries of a larger company outside the county or region.

Acquisitions in the food sector have changed the ownership landscape in recent years. Many SMEs have been bought up by very large multinational companies to gain market share and economies of scale in their operations.

A typical example of a food processing company corporate group might look something like this:

PRODUCE WORLD PLC



BRIESS PRODUCE LTD
Peterborough CAMBRIDGESHIRE ENGLAND

+

ISLEHAM FRESH PRODUCE LTD
Peterborough CAMBRIDGESHIRE ENGLAND

ISLEHAM FRESH PRODUCE LTD (Branch Location)
Ely CAMBRIDGESHIRE ENGLAND

+

RUSTLER PRODUCE LTD
Chatteris CAMBRIDGESHIRE ENGLAND

+

PRIMA PRODUCE PLC
PETERBOROUGH CAMBRIDGESHIRE ENGLAND

+

PRODUCE WORLD (EBT TRUSTEES) LTD
Peterborough CAMBRIDGESHIRE ENGLAND

+

SOLANUM LTD
Peterborough CAMBRIDGESHIRE ENGLAND

SOLANUM LTD (Branch Location)
Spalding LINCOLNSHIRE ENGLAND

+

RIVERSIDE SUTTON BRIDGE LTD
PETERBOROUGH CAMBRIDGESHIRE ENGLAND

PRODUCE WORLD ORGANICS LTD (Branch Location)
Brandon SUFFOLK ENGLAND

+

RB ORGANIC LTD
Peterborough CAMBRIDGESHIRE ENGLAND

BROCHEALTH UK LTD
NOTTINGHAM NOTTINGHAMSHIRE ENGLAND

+

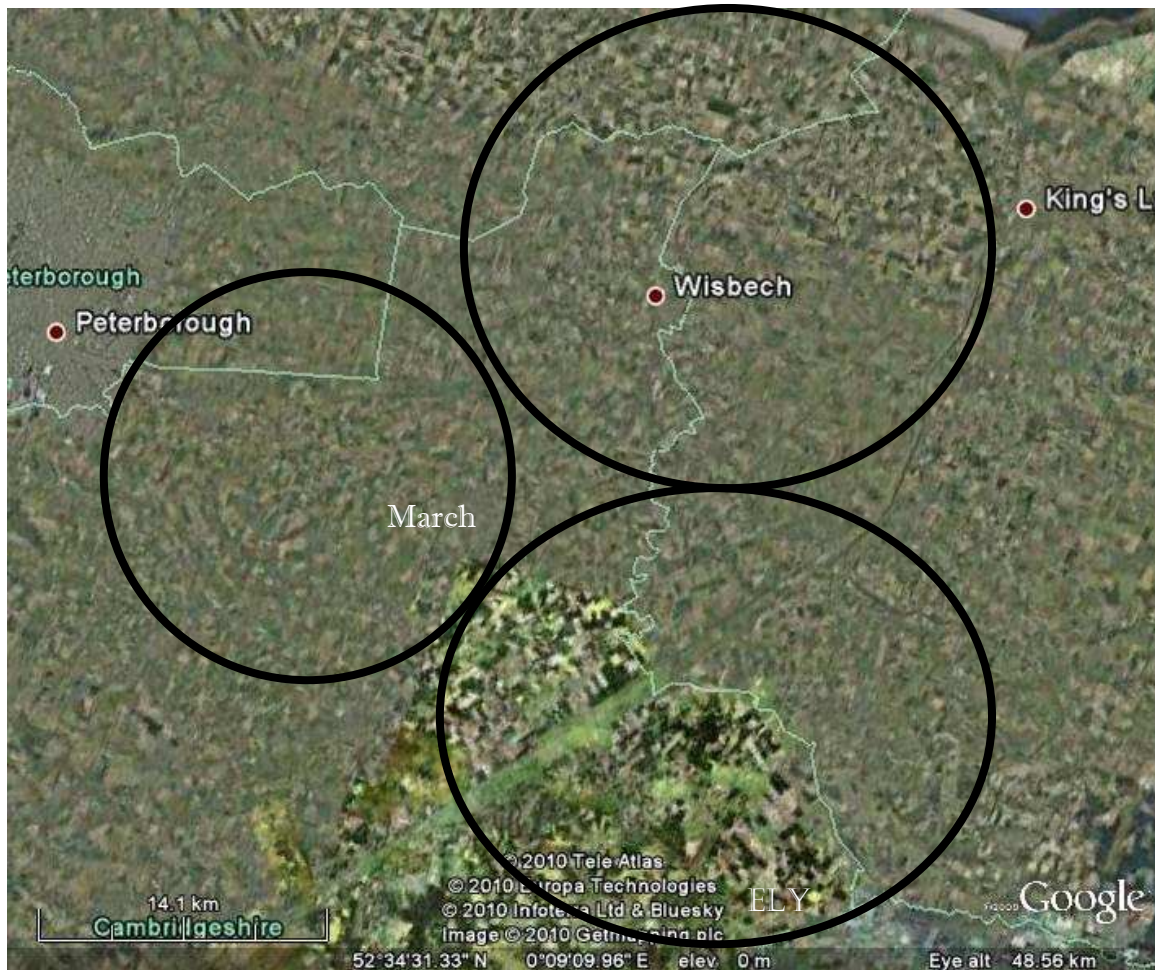
PREP DIRECT LTD
Peterborough CAMBRIDGESHIRE ENGLAND

+

FRUPAC (YAXLEY) LTD
Peterborough CAMBRIDGESHIRE ENGLAND

Locating the ownership of a subsidiary can be difficult, and given the constant merger activity, data can quickly become out of date.

Concentration of Food processing in the Greater Cambridge area.



MAP

The Food Processing sector is concentrated in north and eastern parts of the Greater Cambridge area. Wisbech might be seen as the 'capital' food processing town, but there is a significant sector presence close to Ely, (G's at Barway) Cambridge (Premier Foods – Histon), Peterborough (e.g. Produce World – Yaxley) and Bury St. Edmunds (e.g. British Sugar).

It is interesting to note the actual wording of the December 2009 Shortage Occupation List for the “Butchers, meat cutters” category:

skilled meat boner where the pay is at least £9.00 per hour skilled meat trimmer where the pay is at least £9.00 per hour
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Source: <http://www.ukba.homeoffice.gov.uk/sitecontent/documents/workingintheuk/shortageoccupationlist.pdf>

Government policy will ensure that in this skill area, there is no possibility of “cheap labour” being used to undercut skilled trades already available in the country.

Skills shortages then, can require specific intervention to ensure that a sector is able to recruit specific skills needs which are not easily available in the EU. In such examples, it is important to ensure that immigrant labour isn’t used to drive down labour prices at home.

Skills Gaps – Findings from Improve Sector Skills Council

Improve report that 13% of East of England food and drink manufacturers have vacancies compared to a national average of 16%. The majority of these vacancies are short term; only around 4% of jobs are deemed “hard to fill”. 11% of employers in the region state that they have skills gaps which are most prominent in the machine operative/ production line worker area (Improve – The Food and Drink Manufacturing Industry in the East of England – Labour Market Information Profile 2009/10).

Improve suggest that although there are a range of skills gaps among machine operatives, the bulk of the need is for technical, practical or job specific skills:

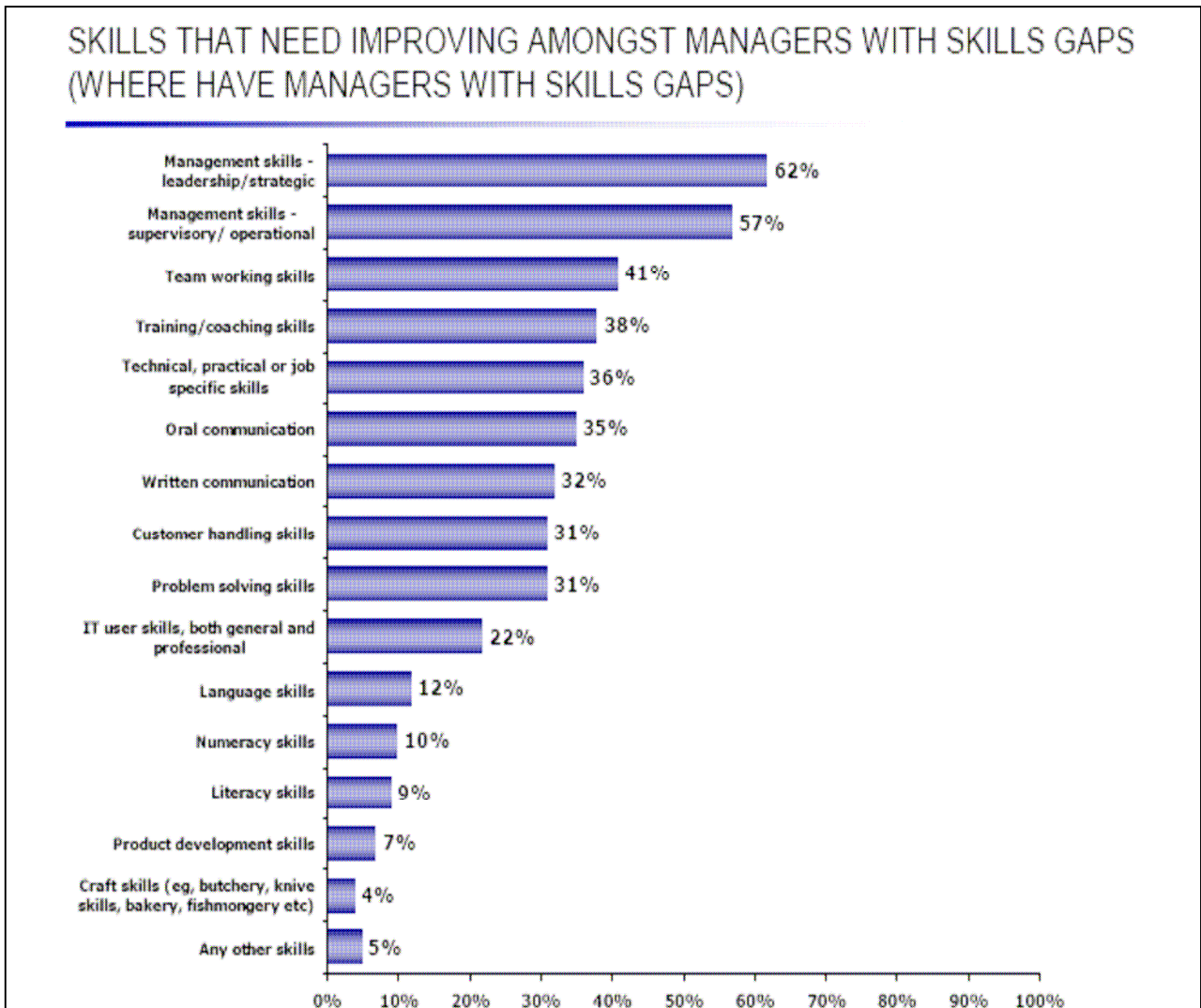
SKILLS THAT NEED IMPROVING AMONGST PROCESS, PLANT AND MACHINE OPERATIVES - BY JOB ROLE (WHERE EMPLOY PROCESS, PLANT AND MACHINE OPERATIVES WITH SKILLS GAPS) - %					
	Total	Fork lift truck drivers	Heavy good vehicle drivers	Food, drink and tobacco process operatives	Other process, plant and machine operative staff
IT user skills, both general and professional	3	13	15	1	0
Oral communication	12	3	0	16	4
Written communication	15	13	22	19	4
Customer handling skills	1	0	0	0	8
Team working skills	44	32	22	53	40
Language skills	13	4	2	18	4
Problem solving skills	5	4	2	3	13
Management skills - leadership/strategic	2	3	0	3	0
Management skills - supervisory/operational	2	3	0	2	4
Numeracy skills	15	3	7	19	4
Literacy skills	17	17	22	23	0
Product development skills	13	7	22	12	0
Training/coaching skills	3	0	0	3	4
Craft skills (e.g., butchery, knife skills, bakery, fishmongery etc)	4	18	0	1	23
Technical, practical or job specific skills	81	65	78	89	52
Any other skills	7	4	0	10	4
Unweighted bases	60	15	10	30	16

Source: Skills Needs in the English Regions 2007 – Page 67.

However, again these are likely to be short term skills gaps arising from new recruits learning their roles. As will be seen in the Premier Foods (Histon) case study below, these skills gaps are addressed through a very thorough induction and upskilling programme but not necessarily through the acquisition of qualifications other than compliance certificates in health and safety and food hygiene.

Some skills gaps are reported at management level, and it can be surmised that most of these longer term gaps will be in smaller companies where management structures are weaker and investment in management training is less likely. Of those employers stating skills gaps the most common concern is a lack of manager flexibility – in their ability to “work across a range of functions” (Skills Needs in the English Regions 2007 - Page 58). Or to be more specific, where flexibility is required, the skill needed (for “multi-flexing”) appears to be lacking.

Improve show a range of skills gaps reported for managers as shown below.



✓Skills Needs in the English Regions 2007 - Page 58

As we have seen with other sectors, there are a range of sector specific “technical” and “craft” skills gaps reported for the sector; on the craft side, butchery, bakery and fishmongery skills are all identified as lacking in the UK as a whole.

For sales and customer service staff a range of familiar skills gaps are reported. These include: customer handling; technical; problem solving; team-working; oral & written communication skills.

4. Case Studies

Food Case Studies

Produce World

Based in Yaxley, near Peterborough, the Produce World group has emerged out of several Russell Burgess businesses, and consists of a wide range of food processing companies including: Solanum; Isleham Fresh Produce; RB Organic; Rustler Produce; Briess Produce; Marshalls and; Las Lomas and Agromark in Spain. The company also owns several farms in the Fens.

Produce World Ltd. (PWL) employs over 1400 employees, who are deployed in a variety of roles from management and back office staff; engineers; transport and production line staff. The company supplies many of the top UK food retailers as well as leading food processors.

PWL describes itself as a “learning oriented group” and has recently conducted a company wide employee survey to find out more about staff views and aspirations. A training culture appears to be embedded in the company; multiple training opportunities are available to staff at all levels, and internal promotion is common. 99% of vacant posts are advertised internally. Peterborough Adult Education play a key role in providing English for Speakers of Other Languages (ESOL) which is delivered on site. The college also provides other “functional skills” courses especially relating to communication issues.

PWL has a formal staff appraisal system in place and supervisors identify people showing initiative on production lines for potential further training opportunities. There is an internal coaching programme and some senior managers have the opportunity to attend negotiation workshops run by the Gap Partnership. Produce World have a knowledge transfer partnership (KTP) with University of Cranfield and have a graduate training programme with Holbeach campus (University of Lincoln).

Louise Pennington, HR and Training Manager at Produce World confesses to not fully understanding what Further Education colleges have to offer. Apart from Peterborough Adult College, the company does not have any established relationship with FE.

G's – Shropshire's

G's is based in Barway close to Ely, Cambridgeshire. With 1100 permanent staff of which some 700 are based in this region, G's is an example of a successful large food company, integrating several parts of the supply chain from farming to processing and distribution.

As with many food processing companies, G's is reliant on a significant proportion of migrant labour. Around 30% of the workforce is non UK residents coming from Portugal; Poland and; other Eastern European countries. ESOL courses are run on site (at the company) four days a week (Monday – Thursday) for over 80 enrolled staff, and on Fridays a Spanish course has been organised for a further 25 staff to support the company's food production in Spain. G's has responded to demand by allocating 2 CRC ESOL staff to G's. The commitment to helping people speak and write English has obvious practical benefits for the company, and it has allowed people who may otherwise have been left as production operatives to progress in the company.

The language of business can be a barrier even to the best of English speakers – so G's have more specific "Business English" courses to help staff become more familiar with key business phrases.

A 2 year management programme has recently been set up. It is the result of a compact between the CMI (Chartered Management Institute); G's and CRC. CMI is the awarding body and accredits the programme; Cambridge Regional College provides the quality framework and ensures that the course proceeds to national standards. Paul Waller - G's Group Learning and Development Manager - has designed and delivered most of the training, supported by CRC staff as required and requested. Some 40 learners are enrolled and have to complete assignments over a 2 year period to qualify for the CMI awards. Whilst short courses, which Paul also delivers (certified by CRC) might have appeared to be a more efficient method of upskilling, the CMI/G's/CRC course ensures that learning outcomes are embedded over time in a 'learning by doing' process – to the benefit of the company and the employee, resulting in a more cost effective solution in the long term.

The NVQ in Business Improvement Techniques (BIT) is a popular training tool. At G's the course is being implemented in exciting and innovative ways across all aspects of their food production (beetroot, onions, garlic, lettuce, celery, radish etc). Small teams of staff (up to 10 in a team) are brought together to learn the principles of BIT and apply these to all aspects of their work. Concentrating on cost, quality and delivery, everyone involved learns how to help minimise waste, and contribute to the efficient running of the operation through specific projects with measured outcomes.

By way of example, dealing with fresh produce inevitably involves a battle against perish-ability, the environment and produce quality. Demands from large food retailers need to be managed to ensure the shortest time distance between picking in the field and delivery to supermarket shelves is achieved; anywhere in the supply

chain that can be shortened is welcomed. At G's, the warehousing factory principle is being brought into the field so that picking and packing become an integrated outdoor task. This requires a high degree of customisation involving bespoke rigs designed in G's own workshops especially for the fields (the machinery is actually packed up and shipped to Spain for their picking season and then comes back again in time for the British season). Since the machinery is entirely bespoke, there are no OEM manuals or training courses to show how it works, so when it breaks down, G's engineers are always on call to make repairs. The Cambridge Regional Course Business Improvement Techniques programme has been designed with this specific set of challenges in mind, working on the key performance indicator of overall equipment efficiency to drive down waste and make improvements in cost, quality and delivery.

The relationship that G's has built up with the college means that CRC is seen as the first port of call for training enquiries. As the account manager, Ray Hilton works hard to meet their needs and this has led to a range of other courses being arranged from warehousing and business administration to customer service.

Further evidence of the special relationship between the two organisations is revealed in the proposed induction video being developed for G's staff. It will be created by college students who will liaise with G's HR staff to identify requirements and then researched to find the best means of making the video.

Food processing companies are not obvious candidates for taking on apprenticeships. But G's have requested to start an apprenticeship programme in conjunction with CRC for engineers, administrators and other staff as the programme develops. It's another demonstration of how G's has become a truly learning organisation and the close relationship built up between the company and the college – and it will underpin G's HR succession planning – an area which is often left to chance in businesses.

Premier Foods – Histon

Premier Foods is the largest food producer in the UK. It has factories all over England, and eight sites in the East of England including its Head office in Hertfordshire (St Albans). Premier Foods – Histon produces: preserves, marmalade, mincemeat, jellies and fruit filling and has recently invested in a new “pot desserts” section with a range of automated processing equipment to handle continuous production.

The Histon site has been in existence since 1873 and for most of that time has been associated with the name “Chivers”. In 2002 the business changed its name to “Premier Foods” and was floated on the stock exchange in 2004.

The Histon site has changed substantially over the last 30 years, and anything resembling a “production” line environment is difficult to see. Rather, one finds a sequence of distinct processing operations, involving highly specialised computerised machinery, managed by skilled operatives, many of whom have developed multiple proficiencies across the ‘shop floor’. This multi-skilling is a key part of the success of the Histon site; what used to be the role of engineers is now part of a setter/operator’s job – whether it’s changing labelling requirements; resetting machines to reflect the size of jars being filled; responding to computer fault read-outs; or programming inputs for continuous batch productions. Engineers are no longer needed for the vast majority of standard operational practices, processes, fault diagnoses, or scheduling decisions. Their time can be spent on more important core capability functions.

There are 430 staff at the Histon site. Around a quarter (120) are “overhead” labour – engineers, technical staff; managers and administration staff. The rest (310) are “direct labour” operatives and supervisors – all directly involved in the production process.

Walking through the various processing sections, one is immediately aware of the orderliness that pervades the factory environment. Training in health and safety, and food safety is rigorous and a culture of attentiveness appears to pervade the whole site. This isn’t coincidental; great effort and planning is put into ensuring that all staff know exactly what they should be doing; what the Standard Operating Procedures (SOPs) are for different machines/tools; and what safety procedures need to be followed. Hygiene procedures are rigorous; all staff are required to undertake food hygiene and food safety certificates. A 12 week probation and induction programme which includes three formal manager reviews, ensures that every new member of staff becomes thoroughly familiarised with the culture and disciplines of the company. A buddy system works across the site to ensure all new recruits have one to one support in their first weeks of work, and training continues beyond induction, with work based learning in place to cover the operation of all relevant machinery. This usually includes learning how to operate complex computerised equipment.

However, many workers at Histon will be categorised as “below Level 2” because they have not gained appropriate national qualifications. But the approach to training in the company has resulted in all workers being substantially upskilled in the “Premier Foods way” rather than attaining a nationally recognised skill level. Moreover, if they wished to leave, one imagines that the staff would be eminently employable in many other companies. Staff retention however is not a problem here: labour turnover hovers around 2% per annum and this hasn’t changed significantly for a long time.

Around 40% of the workforce can be classed as “migrant labour” although this terminology is misleading given the excellent staff retention rates as well as the career progression opportunities available within the company; there are several non-UK supervisors who have worked their way up from the ‘shop floor’ and the company currently has one Lithuanian middle manager who has also progressed through the ‘ranks’ in other Food Manufacturing companies. English language training (ESOL) is delivered on site, and the company has customised aspects of the delivery to ensure that staff learn about operating instructions, safety procedures and the company ethos. The College of West Anglia was singled out for praise from the Training Manager, Richard Griffin: “They’ve been fantastic and the employment engagement team keep coming back to check on progress and make sure everything is being delivered as expected”, he said.

In addition to the training of core operative staff, Premier Foods runs a supervisor development programme – which is split into five modules, and a management training programme. These have been specifically developed for the company and award ceremonies are held for people achieving the required standard.

The personal development review process which all staff undergo, completes the training and development cycle.

It is difficult to separate out the culture of personal development which pervades the company, and the rigorous customer led training requirements that drive the quality and efficiency of the company’s products. Premier Foods deals with all of the major food retailers and their requirements for quality, safety and of course ‘just in time’ delivery all impact on the way the company trains and develops its staff. So what appears to be supply chain driven actually ends up providing excellent development opportunities for staff at the factory, as they learn to deliver to the demanding standards set by their main customers.

It is this virtuous circle of continuous improvement which has led HR Manager, Malcolm Orbell to comment: “people don’t come trained to the jobs we have here, we train them once they start to work with us.” This is the essence of the Histon approach – levels of qualification are less important than a willingness and aptitude to learn on the job.

In terms of the future, a dedicated Learning Centre is planned, with on-line facilities and computer based resources. It is hoped that this will provide training for

functional skills (skills for life); ESOL and other basic skills requirements. Much will depend on resources available but it is certainly a good aspiration and one that will continue to promote the Histon site as a good place to work, where genuine opportunities for life long learning are supported.

The Cambridge Organic Food Company

The Cambridge Organic Food Company has been established for more than 12 years and has built up a reputation in the Greater Cambridge Area for delivering fresh organic produce directly to households. Although turnover is down compared to the heights of 2008, much of the business has thrived during the recession and the company has 450 households signed up to its “box scheme” – an alternative delivery system which brings fresh organic produce straight to the home rather than into retail chains. This has multiple low carbon advantages on top of the obvious freshness achieved:

- It reduces overall travel times by using one vehicle to deliver to hundreds of homes rather than each of those homes making car journeys to buy the same produce;
- it provides a genuinely local food solution: not only is the food grown locally but its supply chain is entirely local unlike most supermarket “local food” which will have travelled many miles to a central depot before it returns to the local retailing area;
- It encourages people to buy local produce when its in season rather than purchase out of season food from abroad (again more food miles);

COFCo is supplied by nearly every organic farmer in the Greater Cambridge area, and they in turn supply produce to many independent organic, specialist and health food shops in the local area. Their produce is just one stage removed from the grower.

According to Duncan Catchpole, Founder and Director of COFCo, Cambridge has the highest spend on organic food in the country so it could be called a growth sector for the local economy.

COFCo has 10 staff, and although none are formally trained in relevant sector skills, the company has some of the most enthusiastic and knowledgeable individuals in the field of organics working in the COFCo team. This enthusiasm is a key part of the company’s success and says much about the recruitment policy. Formal qualifications are less important than a commitment to the principles of organic farming, perhaps most succinctly encapsulated in the Soil Association’s concerns about the health implications of increasingly intensive agricultural systems following the Second World War. These included:

- The loss of soil through erosion and depletion
- Decreased nutritional quality of intensively produced food
- Exploitation of animals in intensive units
- Impact of large intensive farming system on the countryside and wildlife

5. Skills Provision

The National Skills Academy for Food & Drink Manufacturing is part of Improve's portfolio of support and guidance offered to the sector. Over the last couple of years it has developed a suite of new qualifications in consultation with employers and these will be rolled out across the country in time for September 2010 student enrolments. The two types of qualification for the food sector will be known as Improve Proficiency Qualifications (IPQs) for "on the job training" or Improve Vocational Qualifications (IVQs) for off the job training.

This new qualifications structure is part of the Qualifications Credit Framework, as detailed below:

Qualifications Credit Framework	
Level, Size & Content	
The difficulty of a course determines its Level (from entry to 1 to 8)	
The size of a qualification determines its credit value and therefore its description as an Award, Certificate or Diploma. So you can have an EDEXCEL Level 1 BTEC Diploma in Construction (QCF) and a RSPH Level 5 Certificate in Adjudication in the Construction Industry (QCF).	
Award	1 – 12 Credits
Certificate	13 – 36 Credits
Diploma	37+ Credits
One Credit = 10 Notional learning hours	
The content will depend on the size and the level	

Improve's National Skills Academy (NSA) has produced a Training Directory of its members relevant and current courses in the UK. It divides the courses into 21 categories as shown below:

Food Processing Course Categories

Working safely within the industry	Food Logistics and Packaging
Communication and Language	Robotics and Automation
Quality and Audit	<i>(awaiting course update)</i>
I.T and Administration	Dairy
Food Science and Technology	Meat and Poultry
Food and Drink Manufacturing	Bakery
Training and Development	Seafood
Leadership and Management	Fresh Produce
Commercial and Marketing	Regional and Rural
Sustainability	Engineering and Maintenance
Lean Manufacturing	Drinks

Running to more than 190 pages, it gives the impression of being a comprehensive guide for the industry, but since it only publishes NSA member courses it is incomplete and there are no courses mentioned for any of the colleges in the Greater Cambridge area.

The food processing sector places great importance on compliance and this is reflected in the training available within the sub-region. Trainagain has been collecting information about industry short courses for several years. The table below shows the results for the category “food safety” for colleges in the area.

Food Safety Courses in Greater Cambridge Area

EventName	Cambridge Regional College	Huntingdonshire Regional College	Peterborough Regional College	The College of West Anglia	West Suffolk College	Grand Total
RSPH Award in Food Safety (Level 2)			18			18
RSPH Award in Supervising Food Safety in Catering			2			2
Award in Food Safety in Catering	3					3
Award in Food Safety in Catering Level 2	9					9
CIEH Food Safety in Catering Award Level 2				1		1
CIEH Level 2 Award in Food Safety in Catering		2		15	17	34
CIEH Level 2 Foundation Certificate in Food Hygiene		4				4
CIEH Level 3 Award in Supervising Food Safety in Catering					2	2
Diploma in Nutritional Advice VTCT	1					1
Food Hygiene and Safety		5				5
Level 2 Award in Food Safety					1	1
Level 2 Award in Food Safety in Catering				3		3
Level 2 Award in Healthier Food and Special Diets					4	4
RSPH Award in Food Safety (Level 2)			8			8
RSPH Award in Supervising Food Safety in Catering			2			2
Grand Total	13	11	30	19	24	97

Source: Trainagain 2010

Looking at the same data from a demand perspective, the table below shows the number of clicks each course received in the same period.

Trainagain Clicks per Food Safety course – Greater Cambridge Area

EventName	Cambridge Regional College	Huntingdonshire Regional College	Peterborough Regional College	The College of West Anglia	West Suffolk College	Grand Total
RSPH Award in Food Safety (Level 2)			32			32
RSPH Award in Supervising Food Safety in Catering			7			7
Award in Food Safety in Catering	5					5
Award in Food Safety in Catering Level 2	16					16
CIEH Level 2 Award in Food Safety in Catering		46		37	176	259
CIEH Level 2 Foundation Certificate in Food Hygiene		3				3
CIEH Level 3 Award in Supervising Food Safety in Catering					2	2
Food Hygiene and Safety		6				6
Level 2 Award in Healthier Food and Special Diets					9	9
RSPH Award in Food Safety (Level 2)			30			30
RSPH Award in Supervising Food Safety in Catering			5			5
Grand Total	21	55	74	37	187	374

Health & safety is the other big compliance issue – and as with other sectors, this is treated with great importance in the food processing sector. Moreover, given the dominance of a just a few buyers (the supermarket chains) – and their quality standard requirements it may be the case that health and safety is treated with particular importance in this sector. “Inspectors” from one of the big four tend to visit their suppliers on a regular basis and if they are not satisfied with the standard,

safety and quality of conditions – a valuable (and usually long term) contract could be endangered.

Recent courses published on Trainagain for colleges in the area include the following:

Health & Safety Courses that have been available in the Greater Cambridge area
MANAGING SAFELY (IOSH)
Accident Investigation for Aviation
Adapt and Connect
APPOINTED PERSON (EMERGENCY AID)
Appointed Person (Emergency Aid) Certificate
Basic First Aid - Appointed Person
Certificate in Oral Health Education
CIEH Level 2 Award in Health & Safety in the Workplace
Emergency Aid - Appointed Persons
Fire Regulations - Are You Hot on the Topic?
First Aid - Until Help Arrives
First Aid at Work (HSE) Approved - Level 2
First Aid HSE (3 year Certificate)
Free Business Continuity Workshop - find out what the Utilities & Emergency Services will do for you in a crisis
HSE First Aid at Work
Institution of Occupational Safety and Health (IOSH)
Introduction to new Fire Regulations: How does this affect me?
IOSH Managing Safely
IOSH Working Safely
Leading and Building Teams
Level 1 Certificate in Asbestos Awareness
MFA Paediatrician First Aid Child Carers
NEBOSH - National General Certificate in Occupational Health and Safety
PAT Testing
Refresher Course - First Aid HSE (3 year Certificate)
Refresher First Aid At Work 12 hours
RISK ASSESSMENT
Safe and Sound
Start Up He Preparation Health Care Assistant
The Royal Society for the Promotion of Health Level 1 Certificate in Asbestos Awareness

Source: Trainagain 2010

Despite the range of Improve's categories above, the bread and butter of industry training then, is based around food safety and health & safety - and these are the most popular courses (within the sector) offered by colleges in the area.

There are several apprenticeship routes available for a career in the sector and a range of NVQs offered for people working in the sector. The national database of accredited qualifications shows 399 courses at Level 2 relating to "food" – and almost half of these are owned by Improve and accredited by various awarding bodies including City & Guilds.

There are a range Food and Drink Manufacturing Operations NVQs available at Level 2. Within these are a variety of qualification units including the following:

Qualification Units for Food Manufacturing NVQs

Assemble and fill celebration cakes
Assemble and process products for food service
Assemble different products to a pre-determined pattern in food manufacture
Bake-off food products for sale
Batch finish craft dough products
Batch finish craft flour confectionery
Batch finish dough products
Batch finish flour confectionery
Care for livestock pre-slaughter in food manufacture
Care for poultry pre-slaughter in food manufacture
Carry out and finish bulk filling in food manufacture
Carry out and finish transfer of materials in food manufacture
Carry out boning in meat & poultry
Carry out butchery in a retail outlet
Carry out disinfection in food manufacture
Carry out manual bleeding operations
Carry out manual slaughter in meat & poultry
Carry out primal cutting in meat & poultry
Carry out product changeovers in food manufacture
Carry out seaming or filleting in meat & poultry
Carry out task hand-over procedures in food manufacture
Carry out trimming in meat & poultry
Clean in place (CIP) plant and equipment in food manufacture
Contribute to bio-security in livestock holding in food manufacture
Contribute to developing production specifications in food manufacture
Contribute to environmental safety in food manufacture
Contribute to improvements in food manufacture
Contribute to maintaining stock security and minimising losses in food manufacture
Contribute to the effectiveness of food retail operations
Contribute to the maintenance of plant and equipment in food manufacture
Control batching in food manufacture
Control bottling & packing in food manufacture
Control conditioning in food manufacture
Control conversion in food manufacture
Control depositing in food manufacture
Control effluent treatment operations in food manufacture
Control enrobing in food manufacture
Control forming in food manufacture
Control heat treatment in food manufacture
Control manual size reduction in food manufacture
Control milling in food manufacture
Control mixing in food manufacture
Control pelletising in food manufacture
Control separation in food manufacture
Control size reduction in food manufacture
Control slicing and bagging in food manufacture
Control stock levels in food manufacture
Control temperature reduction in food manufacture
Control washing and drying machinery in food manufacture
Control weighing in food manufacture
Control wrapping & labelling in food manufacture
Cure or marinate meat products
Decorate celebration cakes
Deposit and fry craft hot plate products
Deposit and fry hot plate products
Display food products in a retail environment
Display livestock to potential buyers in food manufacture
Eviscerate animals or birds manually
Fill and close pastry products
Fill or extrude meat and meat-based mixtures
Fry craft dough products
Fry dough products
Hand deposit pipe and sheet flour confectionery
Hand divide, mould and shape craft fermented dough
Hand divide, mould and shape fermented doughs
Inject meat
Lift and handle materials safely in food manufacture
Load consignments for despatch in food manufacture
Maintain product quality in food manufacture
Maintain reception and holding areas for livestock in food manufacture
Maintain the workplace and health & safety in food manufacture
Maintain workplace food safety standards in manufacture
Manufacture meat products in a retail outlet
Mask and cover celebration cakes

To what extent the sector values and uses these competency units is not clear. As noted earlier, many of the larger companies have their own rigorous in house training which meets the standards of their buyers. Smaller companies are less likely to have the need (or resources) for such a rigorous approach and may limit themselves to compliance training from a private provider, of which there are many who specialise in helping companies meet compliance standards in health and food safety.

Specialist Support

There are several specialist centres providing expertise and these need to be considered in terms of support for the sector in the Greater Cambridge area.

University of East Anglia's Institute of Food Research (IFR) focuses on science across a range of food and nutrition-related disciplines. Their goal is to provide evidence for how food can be a means of improving the health of individuals and of preventing or reducing the risk of food-related diseases.

The National Centre for Food Manufacturing

University of Lincoln's Holbeach Campus houses the National Centre for Food Manufacturing, an employer led venture which provides students with state of the art food manufacturing equipment (loaned by Process and Packaging Machinery Association (PPMA) members) in a factory environment on the campus.

Holbeach lies in the Fens on the south eastern tip of Lincolnshire. Within 30 miles of a large proportion of food businesses in the East of England, it is an important resource which should not be overlooked just because it lies outside of the region.

The Holbeach Campus specialises in food manufacturing and, in addition to its specialist facilities, has a range of courses at both FE and HE levels – and a range of industry short courses.

Cranfield University

Cranfield University specialises in food science and runs a range of short courses specifically for industry. Most of the courses listed below are probably more relevant for food businesses further up the supply chain, but, given the upstream/downstream links within the industry they are worth mentioning.

Agriculture/Food Short Courses

Advanced GIS Methods 17-21 Jan 2011
Aerial Photography and Digital Photogrammetry 11-15 Oct 2010
Agricultural and Environmental Soil Engineering 22-26 Nov 2010
Describing Your Environment
Emergency Water Supply and Environmental Sanitation

GIS Fundamentals 25-29 Oct 2010
GIS Fundamentals 25-29 Oct 2010
Geographical Resource Survey 31 Jan - 4 Feb 2011
Image Processing and Analysis 22-26 Nov 2010
Landfill Science

Agriculture/Food Short Courses (continued)

Mechanics of Soil Compaction
Modelling Hydrological Systems
Physical Principles and Technology of Remote Sensing 6-10 Dec 2010
Social and Economic Aspects of Development
Soil Carbon, Nutrients and Contamination 6-10 Dec 2010
Soil Erosion, Conservation and Bioengineering 14-18 Feb 2011
Soil Policy and Legislation 14-18 Mar 2011
Spatial Data Management 8-12 Nov 2010
Spatial Data and the Internet 14-18 Feb 2011
Water Politics, Globalisation and Climate Change

Postgraduate Courses

Agricultural and Environmental Engineering MSc by Research
Economics for Natural Resource and Environmental Management MSc/PgDip/PgCert
Geographical Information Management MSc/PgDip/PgCert
Land Management MSc/MTech/PgDip/PgCert
Ecological Conservation (MSc/MTech/PgDip/PgCert)
Land Reclamation and Restoration (MSc/MTech/PgDip/PgCert)
Natural Resource Management (MSc/MTech/PgDip/PgCert)
Soil Management (MSc/MTech/PgDip/PgCert)
Sports Surface Technology MSc by Research
Water Management MSc/MTech/PgDip/PgCert
Community Water and Sanitation(MSc/MTech/PgDip/PgCert)
Environmental Water Management (MSc/MTech/PgDip/PgCert)
Water and Society (MSc/MTech/PgDip/PgCert)
Land and Water Management PhD with Integrated Studies

Food East

Food East is a networking organisation for the East of England. Based in the north east of Cambridgeshire, Food East is responsible for delivering the Beyond 2010 programme for the food sector. Training grants are available for SMEs in the sector wishing to undertake workforce training especially courses that are outside the mainstream. Up to 50% of the cost of a training programme (up to a maximum grant of £2500 available per business) is available from the European Social Fund and East of England Development Agency.

6. Conclusions

The food processing sector in the Greater Cambridge area, is diverse in terms of: what it does (from meat processing to vegetable sorting); its size of operation (from micro businesses processing small quantities of specialist provision to large 24/7 operators producing round the clock products for supermarkets); and its ownership structure (from private limited company to PLC).

As a sector which directly affects us all, it is highly regulated – and food safety compliance is enforced both through the Food Standards Agency working closely with local authority food law enforcement officers to make sure that food law is applied throughout the food chain; and because of the high standards set by powerful buyers.

Formal qualifications in the sector appear to be less important than the right attitude – especially in relation to safety – although compliance based qualifications (e.g. food hygiene certificate) are prevalent throughout the industry.

Whilst it is easy to think in terms of a low skills equilibrium operating in the sector, on closer inspection one can equally make the case for large parts of the sector upskilling the workforce to a high standard – albeit a company standard rather than a national qualification standard. The level of skill in some large companies is clearly much greater than can be gleaned from looking at the sum of formal qualifications obtained by the workforce. This has obvious implications for the reported skills levels in this sector.

Looking beyond skills statistics and company training preferences, one can make a case for greater formal learning opportunities at work – leading to a nationally recognised qualification – on the basis of meeting the aspirations of individual employees.

Whilst this report shows a range of skills gaps extracted from research by Improve, some caution needs to be attached to their significance: The sector skills council is required to report on skills gaps across the UK. The high volume research undertaken does not necessarily do justice to the intricacies of training needs analysis or to the individual interpretations put on the word “skill” or “need” by the company respondent. Moreover large companies with HR departments are much more likely to have gaps readily identified than small companies without such resources. One might even suggest a positive relationship between the degree of HR support in a company and its level of skills gaps reported. This could be one reason for Improve’s surprising finding that larger companies are more likely to have skills gaps than small ones (see e.g. Skills Needs in the English Regions 2007 page 74)

The case studies in this report have illustrated some very good practice in terms of staff development. This is reinforced by the extremely low staff turnover evident in some companies (e.g. Premier Foods in Histon), and some excellent examples of

training initiatives which could be built on to develop a 'dispersed' Centre of Training Excellence in the sub-region.

In terms of provision, the Greater Cambridge area has the potential to make a significant difference to businesses by bringing together all the different training elements under one virtual academy. This could harness the enthusiasm and resources of employers already leading the way in training and hopefully encourage others to join in. The National Skills Academy directory could be replicated in the region so that employers (and employees) know what courses are on where, allowing providers to achieve greater economies of scale in scheduling courses in the area.

The National Centre for Food Manufacturing at Holbeach in Lincolnshire could provide some best practice support for such an initiative, working with universities and colleges in the East of England.

7. Recommendations

- Look at possibilities for a dispersed centre of excellence: Hub & spoke – lots of different sites and involving the private sector (e.g. G's; Premier Foods and Produce World all willing).
- Identify good practice by highlighting the work of larger companies and attempting to link up smaller businesses through the Centre of Excellence idea (above).
- Link up with the Sector Skills Council – Improve – to provide consistent information on qualifications available in the sector – and promoting the benefits of developing the workforce (through the qualifications route).
- Increase opportunities for short taster courses available as feeders into mainstream provision.
- Publish, on-line in one place, information about courses possibly using the 21 categories identified by Improve.
- Work with Improve and local colleges to raise perceptions about the industry – what it means to work for different employers in the region – possibly showcasing several "best practice" companies at Further Education open days.

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