

PLANNING AND PRIORITISING FUTURE SKILLS, TRAINING AND BUSINESS SUPPORT NEEDS FOR RURAL BUSINESSES ACROSS THE SELEP REGION

Talent is evenly spread – opportunity is not. Creating more opportunities relies on the ambitions and skills of all ages. Success requires close collaboration.

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A4 Food and drink - production and manufacture

Primary processing and secondary processing (manufacturing)

The UK food and drink sector employs some 430,000 people, contributes more than £28 billion to the economy¹ with the food and drink manufacturing sector contributing £28.6 billion to national GVA in 2018². Overall, food processing and manufacturing includes fresh foods, ambient foods, chilled foods, frozen foods, drinks, confectionary, bakery, dairy, and meat, poultry and seafood. Much of this is aligned with primary agricultural production. Not surprisingly, the sector is evolving constantly to meet changing and growing demand particularly through technological and process innovations such as automation.

This section of this report is concerned mostly with the primary processing of agricultural and related products but nevertheless, the majority of the skills needs will be common to the whole sector.

Dairy sector

¹ Defra, 2018 (updated 30 March 2020). Food Statistics in your pocket: Food Chain. London: Crown Copyright

² Food and Drink Federation, 2019 (updated 09 June 2020). [Online infographic and main messages]. Our industry at a glance.

The UK's dairy sector is large and employs some 23,000 people at processing sites, 50,000 people on dairy farms, and 13,000 active dairy farmers. The sector produces almost £8.8 billion annually from 14 billion litres of milk³. These are turned into large scale and artisan cheeses (there are over 700 named cheeses produced in the UK), yogurts, milk, and butter.

Flour milling

Flour milling has an annual turnover of circa £1.25 billion, producing some 12 million loaves, 2 million pizzas, and 10 million cakes and biscuits in the UK daily. Milled flour is used in bakeries (66%), biscuit making (11%), others (10%), export (7%), household flour (4%), cake making (2%). Over 85% of the wheat used by UK millers in 2018/19 was grown in the UK⁴.

Bread and baking

The UK bread and bakery sector employs approximately 75,000 people with a value of circa £4.0 billion at retail sales. The sector produces nearly 4 billion units, equivalent volume to 11 million loaves of bread sold daily. The sector is made up of large baking companies that produce 80% of the UK's bread by volume, in-store bakeries in supermarkets that produce 17%, and high street or craft bakeries that produce just under 3%⁵.

Meat processing

The British meat processing industry is worth £8.2 billion annually and employs over 75,000 people; 40% of which are skilled butchers⁶. There are circa 250 red meat abattoirs in the UK, as one in three small abattoirs have closed in the past decade. This is down from almost 1,900 abattoirs in 1970 and reflects the increased economy of scale from competitive businesses. The closure of smaller units also has an impact on employment as skilled local butchers and processors lose their jobs. Large slaughterhouses currently depend more on unskilled labour and foreign-recruited staff, resulting in nearly 75% of the meat industry workers being from outside of the UK⁷.

The Food Chain

Post farmgate, most food is processed in some way before being sold to consumers. This is usually a complex, dynamic food and drink supply chain which adds value through processing, wholesaling, distribution, retail and catering. This substantially increases the value and employment supported. The primary objective of adding value is for the rural sector to secure as much additional value to primary products at or close to the site and business of production.

³ Dairy UK, 2020. The UK Dairy Industry. London: Dairy UK

⁴ National Association of British and Irish Millers (NABIM), 2019. Facts and figures: Flour milling in the UK. <http://www.nabim.org.uk/statistics> (accessed May 05, 2020). London: National Association of British and Irish Millers

⁵ Federation of Bakers (FOB), 2019. About the bread industry. London: Federation of Bakers

⁶ British Meat Processors Association (BMPA), 2019. The UK meat sector and labour: putting British food on your plate. London: British Meat Processors Association

⁷ Kennard, R. and Young, B. 2018. [Online]. A good life and a good death: re-localising farm animal slaughter. Bristol, UK: Sustainable Food Trust

For each job in agriculture, the food and drink sector provides raw ingredients which support another 2.5 jobs in suppliers, food processing, wholesaling and distribution and another 18 in food retail and catering. All these jobs are supported by agricultural and horticultural producers in the region, UK and internationally. The food and drink processing, distribution and support sectors such as agri-food technology and research and development, increases employment to over 180,000 across the South East and London. It contributes GVA of £1.25billion in agriculture to £9.7billion to the 'factory gate'.

The large regional population of 18m people in London and the South East in 2017, means that the consumer end of the food chain is large and growing. This supports a further 920,000 jobs in London and the South East and generated a GVA of £22.4billion in 2018. The region is particularly significant for the catering sector, with 38% of all UK catering jobs.

The South East and London end to end food chain, from farm to fork, is therefore estimated to represent 27% of the UK total, supports 1.1 million jobs and generates a GVA of £32billion⁸.

The region's farmers will strengthen their links in the supply chain, recognising the importance and potential in adding value through processing, marketing and distribution, focused in particular on exploiting high value short food chains in the South East and London. The region's national strengths, such as its fruit sector, burgeoning viticulture sector and naturally grazed beef and sheep flocks, makes the region well placed to respond to high value consumer markets which are demanding provenance and traceability.

To deliver a more productive and sustainable agriculture the industry will build on its world class compliment of universities, colleges and research centres to drive transformational and sustainable growth

Vegetable box schemes

Vegetable box schemes connect producers directly with consumers and decentralise food supply. Sales in 101 surveyed veg box schemes increased by 111% between end of February to mid-April 2020 as a result of COVID-19⁹. Collectively, across the 500 estimated box schemes currently operating, at least 3.5 million boxes have been delivered during this crisis. 82% of box schemes now have waiting lists or have closed to new applicants. The Food Foundation estimated that if these lists are met and the customers who have been turned away are supplied, an additional 5.3 million veg boxes could be supplied from mid-April to mid-June 2020. If medium sized boxes cost £127 on average and that at least 3 million boxes have already been sold in the six weeks of crisis, this amounts to nearly £42 million that has bypassed the central machinery of the food system and supported primary producers directly. Veg box schemes therefore benefit primary producers directly.

⁸ Hasnain, S., Ingram, J. and Zurek, M. 2020. Mapping the UK Food System – a report for the UKRI Transforming UK Food Systems Programme. Environmental Change Institute, University of Oxford, Oxford. ISBN 978-1-874370-81-9

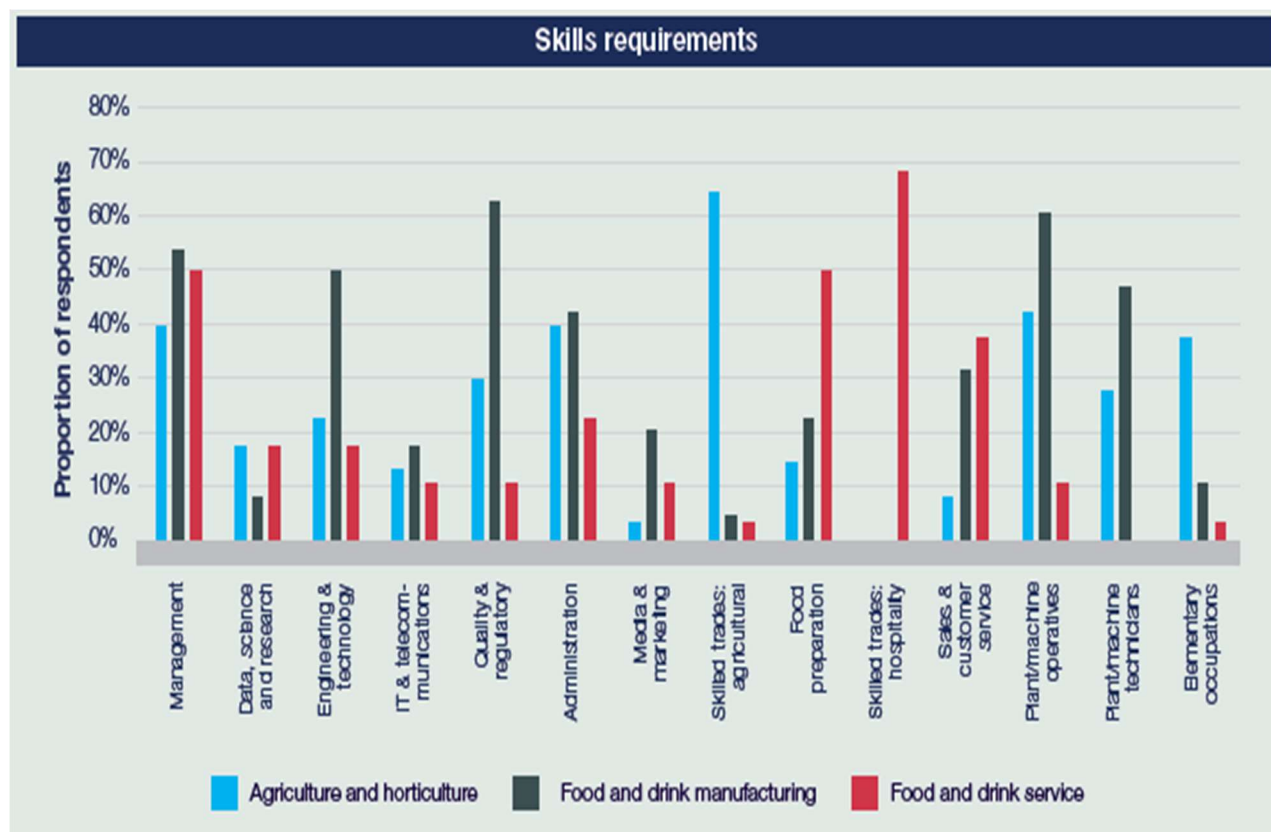
⁹ Wheeler, A., Dykstra, P., Black, J., and Soares, N. 2020. COVID-19 UK veg box report. London: The Food Foundation

Productivity

Improving productivity is central to the continued success of the food and drink sector. A well trained and educated workforce is critical to this large sector to facilitate further developments and improvements. Creating highly skilled, well-paid and home-grown talent is critical to realising this potential. This can best be done by combining sector and local focussed approaches to upskill and attract talent with related government activities, particularly the ongoing reforms to technical education.

The report on mapping the food system¹⁰ highlights the existing difficulty in recruiting, and the expected shortfall in labour and skills availability, but also identifies opportunities for the UK food and drink sector to come together to deliver solutions that will transform its image as an employer and advance its training and skills development.

The Mapping the Food System report¹⁰ sets out clearly the demand for skills across the whole food chain and aspects of this are relevant to the rural sector in the south east as well as primary production, rural businesses, process, manufacture and retail food and drink.



¹⁰ Hasnain, S., Ingram, J. and Zurek, M. 2020. Mapping the UK Food System – a report for the UKRI Transforming UK Food Systems Programme. Environmental Change Institute, University of Oxford, Oxford. ISBN 978-1-874370-81-9

The Food and Drink Sector council

The Food and Drink Sector Council (FDSC) is the most recent sector council to be established by government and recognises the importance of the sector for UK strategically and economically.

The Council has established the objective

“To professionalise leadership and management skills across the sector. To ensure managers are prepared for a changing workplace”.

In the FDSC Future Workforce and Skills Survey¹¹, management and leadership were consistently identified as being amongst the top three skills businesses were looking to fill through training of their existing staff. Management and leadership roles were also noted as ‘difficult-to-fill’ across the sector, and were identified as a key skills gap in the interviews. Strong management and leadership skills are vital to ensure food businesses can continue to improve productivity and meet all of the demands put upon them. The FDSC identifies the challenge of how to find and train these future leaders.

The FDSC also has established a set of summary recommendations to achieve the leadership and management needs. The policy drivers are:

- Creation of a resilient food system, able to withstand domestic and international volatility
- Provision by industry of high quality, affordable products
- Contribution to improving public health through better nutrition and diet
- Reduction of industry’s environmental impacts through reductions in waste and emissions
- Development of new opportunities for a skilled workforce
- Growth of food and drink exports

Summary of Policy Recommendations Building confidence in apprenticeships and T Level work placement participation within the sector:

1. Create a Food Sector pilot fund to optimise Apprenticeship Levy usage and ensure access for all, including SMEs
2. Industry pledge to deliver T Level work placements
3. Government to prioritise apprenticeships that drive productivity, improving food and drink specific training provision
4. Create a National Network of Providers leading on Food Engineering and technical skills
5. Professionalisation of leadership and management skills through third-party validation
6. Place skills at the heart of a Food Strategy to deliver well-paid jobs across the country
7. Create a lifelong learning culture through a network of food and drink businesses to enable coaching on management and leadership skills

¹¹ Preparing for a Changing Workforce: a food and drink supply chain approach to skills, October 2019.
<http://www.fdsc.org.uk/fdsc/publications.aspx>

Skills required for primary food processing

In this report, employers and businesses tell us that the skills they need are multifaceted and are listed below under the main rural sector types.

Food manufacturing generally – basic skills:

- thoroughness and attention to detail
- patience and remaining calm in busy situations
- the ability to work on own initiative
- knowledge of manufacturing production and processes
- the ability to work well with others
- functionality in mathematics
- to be able to carry out basic tasks on a computer or hand-held device
- follow and implement Standard Operating Procedures (SOPs) and adhere to quality processes
- comply with Quality, Food Safety, Environmental, and Health and Safety requirements
- monitor the control of stock levels
- Monitor product quality and identify and communicate opportunities for improvement
- contribute to Continuous Improvement activities
- engage in HACCP (Hazard Analysis and Critical Control Points) monitoring and controls
- clean equipment according to specifications and schedules
- locomotory skills for example, coordination, dexterity and grace
- basic fault finding and problem solving and the ability to use, repair and maintain machines and tools
- Interpret, record and act upon performance indicator data

Food and Drink processing – advanced skills:

- ensure compliance with Health and Safety regulations and HACCP
- undertake, monitor and report risk assessments
- analyse and report data on process and business performance
- anticipate problems / delays and plan accordingly
- be able to solve problems in processes
- evaluate and improve production
- improve efficiency through minimising waste
- carry out routine and specialist maintenance of equipment
- execute incident management protocols
- support internal and external audits of efficiency and productivity
- contribute to the development and improvement of quality controls
- test for quality control
- be involved in mentoring, buddying and on-the-job training
- Interpret and implement Standard Operating Procedures (SOPs)

Butchery – basic skills:

- adhere to the health and safety regulations and the legislative regulations that apply in the food industry
- butcher meat effectively - eg use of steak and boning knives, hand saws, cleavers, banding needles and other relevant hand tools used in the process of primal cutting, boning, slicing, dicing, rolling, trimming and filleting
- produce meat / poultry products such as sausages and pies etc
- use machinery and cutting equipment safely
- have good hand/eye co-ordination and physical agility for the manual handling of carcasses
- work in a team and individually in a busy environment
- sample products for quality control
- support CPD activities
- communicate effectively with customers, suppliers and colleagues
- have excellent interpersonal skills

Butchery – advanced skills:

- take responsibility for food safety, HACCP and health and safety practices
- Demonstrate technical abilities and support others in the use of knives, hand saws, cleavers, banding needles and other relevant hand tools used in the process of primal cutting, boning, slicing, dicing, rolling, trimming and filleting
- Help develop recipes for sausages, pies etc
- develop new meat products for new markets
- manage the cold storage and cutting rooms including staff supervision
- Communicate effectively in a variety of ways with internal colleagues and with customers.
- Monitor and respond to the sales suggesting new and improved products for development
- Supervise sales to ensure deadlines are met including cash, stock and financial administration of the business or area of responsibility

Bakers - skills:

- make a loaf by hand
- make bread and cake products to specification
- make a range of sweet and savoury pastries
- produce a range of enriched doughs
- finish bakery products
- source, handle and store ingredients and finished goods
- use knives, equipment and machinery safely
- comply with legislation and regulations
- conduct product sampling and testing
- communicate effectively with colleagues, suppliers and customers
- work as part of a team and individually
- use problem solving skill.
- manage own time effectively to meet deadlines

Bakers - advanced skills:

- mix doughs, using sours, sponges, and enzymes
- high level and complex practical baking skills, including mixing, decorative moulding and finished product decoration
- formulating recipes to order
- use a range of techniques including long-ferment, enriched dough, lamination, yeasted and non-yeasted, bread doughs, biscuit doughs, products with inclusions and batters
- team working skills including listening, negotiation and planning
- compliance with relevant food safety and health & safety legislation
- conduct risk assessments
- collate and interpret product and process data
- contribute to Continuous Improvement
- contribute to a variety of internal and external audits
- sample and testing for quality monitoring
- adhere to standard operating procedures

Packhouse supervisors – advanced skills: (includes box schemes)

- maintain hygiene, health, safety (inc manual handling) and security for self, others and live/fresh products
- use IT to manage orders and stock
- manage accurate records
- maintain and promote effective working
- report on operational issues
- resolve problems effectively
- implement Hazard Analysis Critical Control Points (HACCP) plans
- plan production schedules for efficient line operation
- coordinate products and resources to meet customer demand
- supervise the identification, selection and preparation of fresh products such as fruit, vegetables, cut flowers and plants for sale/dispatch to achieve high quality and hygiene standards
- supervise packaging of product to agreed specifications
- supervise the operation to ensure line meets production targets
- Ensure routine maintenance and checks are performed
- operate food processing/packing machinery and equipment safely and efficiently
- respond appropriately to incidents and emergencies in the workplace
- develop own working practices
- lead and motivate a team of operatives to achieve targets

Fishmonger – Skills

- safe handling and storage
- stock rotation
- quality assessment
- temperature control and monitoring and avoiding cross-contamination
- prepare fish including scaling, gutting, filleting, boning, pocketing, canoeing and skinning

- hand prepare shellfish including dressing and shucking
- display fish and shellfish for sale
- sell fish and shellfish
- interpret and satisfying customer needs
- fish and shellfish portioning, preparing, weighing, packing, labelling and processing payments
- use tools and equipment safely in the handling
- work safely and hygienically
- handle complaints and resolve problems
- communicate effectively with customers and colleagues

Milk processing and dairy

- follow health and safety guidelines
- understand food safety risks with pasteurised and unpasteurised products
- manage resources and stock to avoid cross contamination
- communicate effectively with customers and colleagues
- the ability to work on own initiative
- make dairy products from milk including, cheese, butter and yoghurt
- adapt recipes to achieve the required specification
- communicate clearly with staff, and public
- work to achieve time critical deadlines
- rotate and manage stock in store prior to sale

FDQ Level 1 Certificate in Food Industry Skills¹²

One employee made a specific plea for the reinstatement of funding to support the recently removed qualification which previously provided an excellent programme of training for those new entrants and career changers seeking to enter the food processing sector.

The programme delivered: basic maths, English, food preparation and processing; food science and technology; food hygiene and safety.

Training and skills for Fishermen

As part of an associated piece of work with Hastings Fishermen to develop a longer-term strategy and training programme for the Hastings Stade Fishing Fleet, the extract below was developed but it is also cognisant with this future skills report.

The Fishermen have indicated that the aims of training should be focussed on:

- Developing the existing workforce to better meet future challenges, upskilling for resilience and flexibility - especially for both full time fishermen but also for those who are part time: the training needs for the non-fishing part of the business is equally important as the fishing aspect.
- Improving potential recruits' workplace readiness and employability
- Focusing on business management, technology, sustainability and ecology to better articulate the environmental implications of the businesses' activities to

¹² Food industry skills (VRQ) See [web site]: <http://www.fdg.org.uk/our-qualifications/introductory-food-skills/developing-food-industry-skills/> [Accessed 15.06.20].

an increasingly environmentally conscious public.

- Improve understanding of finances, innovation entrepreneurship and in so doing, creating employees who are more innovative and able to challenge the status quo.
- Developing resilience and better ability to manage change rather than being driven by it.
- Creating a focus to review this review in the light of the new Environment Bill to stimulate support for skills training.

The fishermen told us that they find it difficult to find time to undertake training and studying, especially for traditionally delivered courses so there needs to be an acknowledgement from training providers to include and support new, more flexible approaches to learning, using project-based themes (learning from the experiences of one and another's own businesses), including:

- On line access - self-access, open source outlines of topic content
- External coaching and mentoring to identify successful solution(s) to business problems
- Preparation and presentation of business development plans – review of scenarios for unit and whole business development proposals by industry experts
- Individual research projects – in depth analysis and evaluation of topics requiring research and development
- Group research projects – in depth analysis and evaluation of topics requiring research and development, including team working; Work placements / experiences – at a range of levels to experience change management / innovations
- Work shadowing – for potential new managers to experience the culture of change management and introduction of new approaches / systems
- Coaching – in work development skills and techniques for staff management and motivation
- Mentoring – in work support and guidance to facilitate the leading of change management
- Seminars – discussion groups / forums for sharing ideas e.g. developing approaches to change management

Offshore training

In terms of working on an offshore vessel, the main requirement is that formal safety training has taken place but not much more than this. The training requirements are as follows:

- Basic sea survival
- Basic firefighting and prevention
- Basic first aid
- Basic health and safety

The basic sea survival must be completed before going to sea and the others to be undertaken within 3 months of starting work as a fisherman/woman.

Currently there is no option for prospective entrants into the industry to gain these qualifications locally. There is a lack of funding for these courses and, as such, new

entrants are paying around £700-£1,000 to gain the necessary qualifications in order to join a fishing vessel.

This is a major drawback from anyone willing to enter the industry in a low-income area. This is compounded by there being no full-time training packages available in the commercial fishing sector in the South East limiting 16-18 year old progression into industry. Below is a list of centres that provide access to these competency tickets that would allow a potential entrant to gain access to the industry:

Seahaven Maritime Academy (Seahaven Maritime Academy, 2019)

<https://seahavenmaritimeacademy.co.uk/courses-professional/>

Offer a range of professional and RYA courses. Purpose built, full training centre in the port of Newhaven, East Sussex.

Maritime Skills Academy- Dover (Maritime Skills Academy, 2019)

<https://www.maritimeskillsacademy.com/sector/marine-and-stcw/>

A range of courses with a focus on maritime safety and sea survival.

Fishing College- Dorset (Fishing College, 2019)

<https://www.fishingcollege.co.uk/> and <https://www.sfita.co.uk/courses-b.htm>

Offer a range of short courses for those in industry as well as new entrants. Courses range from 1-15 days.

Warsash Maritime Academy (Warsash Maritime Academy, 2019)

<https://www.warsashacademy.co.uk/about/welcome-to-warsash/who-we-are.aspx>

A range of courses including undergraduate and graduate, ship simulation, tanker, offshore oil and gas, safety, hotel operations and deck navigation.

Western Maritime Training- Plymouth (Western Maritime Training, 2019)

<https://www.westernmaritime.training/index.php/training-courses>

Broad range of courses, including engineering, navigation, commercial fishing, superyacht and radio operation.

Whitby Fishing School- North Yorkshire (Whitby Fishing School, 2019)

<https://www.whitbyfishingschool.co.uk/>

Offer a range of courses relating to sea fishing including:

- Level 2 Diploma in Maritime Studies
- Basic sea survival
- A range of shorter courses for industry training
- Only ATP covering UK wide Diploma Training

The only relevant apprenticeship standard currently available is the Able Seafarer (deck). The details of this standard can be found here <https://www.instituteforapprenticeships.org/apprenticeship-standards/able-seafarer-deck/>. Currently this is available at the following local provider:

North Kent College- Kent (North Kent College, 2019)

<https://www.northkent.ac.uk/courses/apprenticeships.aspx>

There are three apprenticeship offers available in the marine and maritime sector:

- MSQ L2 Diploma in Maritime studies (BML)
- MSQ L2 Diploma in Maritime Studies (achieving either Able Seafarer (deck) or Able Seafarer (Engine Room))
- Level 3 Officer of the Watch on Merchant Vessels of less than 500 gross tonnage (near coastal) including tugs

These apprenticeships are offered in block release placements with 87% employer satisfaction, 83% learner satisfaction and 74% achievement rate (5% higher than national achievement rate). They have a range of facilities on offer to provide at various locations.

Onshore Training

Variety of providers offering a range of different qualifications including apprenticeships. Focus on food processing. Current apprenticeship providers listed on seafish website (<https://www.seafish.org/article/apprenticeship-providers>):

- Duchy College - SW England
- MEAT Ipswich Ltd - SE and Eastern England (Intermediate Apprenticeships only)
- Blackpool and the Fylde College - Northern England
- Grimsby Institute - Yorkshire and the Humber Region
- Lakes College West Cumbria - Cumbria
- PeoplePlus (was LearnDirect) - individual clients throughout the UK.

Initial analysis shows a broad range of offers along the south coast in both offshore and onshore training. For offshore training, the focus is mainly on maritime studies that includes basic entry requirements for the commercial fishing industry but does not give any depth to commercial fisheries activity. The closest centre that delivers anything like this is the Fishing College in Dorset. However, these courses are only short and do not match the offer of that in Whitby at the Whitby Fishing School which offers a Level 2 diploma in maritime studies – sea fishing (SQA qualification).

In terms of onshore training, a variety of options are available including apprenticeships in seafood production. The above list is from the Seafish website. Plumpton College is currently delivering fishmonger apprenticeships.

From the above list, there is a gap in the market in the South East for a specific full-time training provision for a Level 2 and potentially Level 3 in the commercial sea-fishing sector.