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Understanding Barriers to Accreditation in the Food & Drink Sector in Wales

DECK TWO: Report Findings

A report by the ZERO"FIVE Food Industry Centre at Cardiff Metropolitan University for the Welsh Government Food Division as part of Lot 9: Programmes to Support the Food & Drink Sector.

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1. Introduction

1.1 The need for food safety schemes

Food Safety Schemes (FSSs) are essential to the food and drink industry. FSSs provide the framework for compliance within the industry to assist in the production of safe and legal food. FSSs are differentiated by having their own criteria for food safety, quality and operational control. FSSs aim to fulfil legal compliance and maintain both brand and consumer protection.

The leading FSSs aim to define the standards that Food and Drink Manufacturing and Processing Businesses (FDMPBs) should meet. Over time, these schemes intend to raise standards to improve the overall performance of the entire food and drink industry.

Globalisation of food supply means that compliance with a privately operated FSS is often a prerequisite to supply. These schemes are produced by stakeholders such as the British Retail Consortium (BRC) (Manning & Baines, 2004).

A trend has been observed over the last 15 years which suggests that a number of FDMPBs in the UK, have moved away from generic ISO certification towards bespoke 3rd Party accreditation standards, such alternative 3rd Party accreditation schemes are said to have been developed in a response to the need for such standards to closely match the requirements of the industry and the need to rationalise retailer-specific compliance schemes (Grigg & McAlinden, 2001).

One of the key market drivers in the level of penetration of FSSs is the retailer's need to meet their due diligence requirements. There is also an added business benefit in reducing the cost of the retailers own involvement in the inspection of their immediate suppliers and previous suppliers in the food supply chain (Manning & Baines, 2004).

Indeed, Manning (2007) outlines that the three key stakeholder drivers are legislation, the development of private Food Safety Management Systems (FSMS) and the protection of the product brand. Furthermore, it is discussed that effective FSMS must be at the core of organisational strategy.

Swoffer (2005) describes a 'retail revolution' in the UK, in which UK retailers are the main drivers of the development of FSMS in Europe, they have been proactively involved with the development of FSMS such as Assured Farm Schemes, GlobalGAP and the BRC Global Standard for Food Safety, it is said that these Standards have become widespread in use and have been used as the framework for other Standards (Swoffer, 2005).

There are several key factors that have resulted in the proliferation and evolution of private FSS standards. Key factors include continued reforms in FSSs (as a response to real and/or perceived risks, and the need to include more stringent requirements), a greater emphasis on control of the processes by which food is brought to market and a greater emphasis on the responsibility of private sector FDMPBs in ensuring that food is safe for consumers. The Elliott Review into the integrity and assurance of food supply networks in the UK recommended that the value of audit and assurance regimes must be recognised in identifying the risk of food crime in supply chains (Elliott, 2014).

Globalisation of food supply and the increased trend towards privatisation of market governance are all key factors in the increase in private FSSs (Henson & Humphrey, 2009). Holleran *et al.* (1999) separate FSMS into three groups, these are:

- International standards (ISO 9000);
- National assurance standards (line marks, assured produce), and
- Proprietary quality assurance systems (defined by retailers and stakeholders, such as BRC Global Standards).

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It is suggested that there is a need to develop a consistent set of reliable and valid measures to explore perceived barriers and benefits from the implementation of 3rd Party certified FSMS (Qijun & Batt, 2016). Research suggests that FDMPBs with limited knowledge of the process of FSMS certification are largely unaware of the high costs and paperwork required to obtain certification (Qijun & Batt, 2016).

Research conducted in the USA determined that the most common reasons for becoming compliant was to meet customers' requirements. Enhancing food safety and remaining competitive were other reasons given for becoming compliant (Crandall *et al.*, 2012), however given that such data on UK FDMPBs and particularly those in Wales are limited, there is a need for research with FDMPBs in Wales to identify the driver, barriers and benefits of FSS compliance.

1.2 Welsh Government Action Plan for the Food and Drink Industry 2014-2020

The Welsh Government Action Plan for the Food and Drink Industry 2014-2020 (Welsh Government, 2014) demonstrates a clear commitment to promote and support the uptake of recognised FSSs of food, drink and feed businesses in Wales. There is limited UK data detailing the factors associated with obtaining compliance to FSSs, for this reason, there is a need to obtain an in-depth understanding of the barriers that exist to FDMPBs in Wales to obtaining and maintaining FSSs. Such data may inform the development of support mechanisms to enable increased accreditation and accelerate food sector growth in line with Welsh Government aspirations (Evans *et al.*, 2016).

2. Research aims and objectives

2.1 Research aims

The aims of this research project are to:

- Assess what food and drink FSSs are available for FDMPBs in Wales
- Provide details about the breadth of these schemes and their credibility
- Obtain an understanding of what the market place requires and how the sector is developing the future of FSSs
- To provide an update on the uptake of FSSs (including BRC Global Standards and SALSA Standard);
- Identify and understand the barriers for Welsh FDMPBs achieving accreditations (such as BRC Global Standard/SALSA Standard or similar). Understand the scheme requirements to supply retailers, the public sector and other markets.
- Gain an understanding of how to support Welsh FDMPBs to gain 3rd party accreditation/certification to enable access to new market opportunities and achieve growth in line with the Food and Drink Action Plan targets.

2.2 Research objectives

- Conduct a desk-based review of available FSSs and to evaluate how robust, respected, credible and practical each FSS is;
- Undertake focus groups with FDMPBs and stakeholders to determine the barriers which prevent FDMPBs in Wales gaining FSSs compliance;
- Utilise quantitative research methods to inform the development of support mechanism recommendations; and
- Present recommendations to support and enable FDMPBs in Wales to overcome the barriers to FSS compliance.

3. Evaluation of available FSSs

A panel of qualified food science technologists (FST) (*n*=7) identified specific characteristics to assess scheme practicality, credibility, respectability and robustness. The research identified 30 FSSs currently implemented in the UK (particularly in Wales), which included;

- 1. BRC Global Standard for Food Safety,
- 2. BRC Global Standard for Food Safety (Global Markets Standard),
- 3. BRC Global Standard for Packaging and Packaging Materials,
- 4. BRC Global Standard for Storage & Distribution,
- 5. BRC Global Standard for Agents and Brokers,
- 6. SALSA Standard,
- 7. STS Public Sector Code of Practice,
- 8. Lion Code (BEIC),
- 9. Organic Standard,
- 10. Red Tractor Standard,
- 11. Marks & Spencer Retail Standard.
- 12. Waitrose Retail Standard.
- 13. Tesco Retail Standard,
- 14. Tesco Nurture Retail Standard,
- 15. ASDA Retail Standard,
- 16. Sainsbury's Retail Standard,
- 17. Lidl Retail Standard,
- 18. Aldi Retail Standard,
- 19. Food Hygiene Rating Scheme (FHRS),
- 20. Local Authority Supplier Audit,
- 21. Protected Geographical Indication Scheme (PGI),
- 22. Gluten Free Audit Standard (Coeliac UK),
- 23. Fair Trade Standard,
- 24. Automatic Vending Association (AVA),
- 25. KOSHER Certification,
- 26. International Organisation for Standardisation (ISO) 9001 Standard,
- 27. Food Safety System Certification (FSSC) 22000 Standard,
- 28. International Food Standard (IFS),
- 29. Roundtable on Sustainable Palm Oil Standard (RSPO); and
- 30. Safe, Quality Food Code (SQF).

Furthermore, the FST panel identified four FSSs most pertinent to FDMPBs in Wales as they enable access to different markets including retail, wholesale and public sector, and include a FSS that is mandatory in Wales. The findings relating to these four schemes are presented in tables in each section and include;

- 1. BRC Global Standard for Food Safety (Worldwide FSS),
- 2. SALSA Standard (UK-only FSS),
- 3. Food Hygiene Rating Scheme (FHRS) (Mandatory for food and drink premises in Wales since 2013. Currently voluntary in England and Northern Ireland. In Scotland, the Food Hygiene Information Scheme (FHIS) applies. FHRS extends to all establishments supplying food direct to consumers (restaurants, cafes, takeaways, sandwich shops and retailers)); and
- 4. STS Public Sector Code of Practice (Mandatory food safety requirements for processors and suppliers to the public sector).

3.1 FSSs available to FDMPBs

The availability of different FSSs across Wales is vast, with relevant schemes being offered throughout the food chain. Since 1990, recognised as an era of high profile international food crisis, the review identified the launch of at least 17 new FSSs within the market place since the 1990s.

The majority of FSSs available (93%) are targeted specifically to food and drink processors and manufacturers. The availability of FSSs within the remaining supply chain remains more limited. Figure 1 illustrates the total number of FSSs within the study for each target FDMPB type. It should be noted, some FSSs are targeted to more than one part of the food and drink sector.

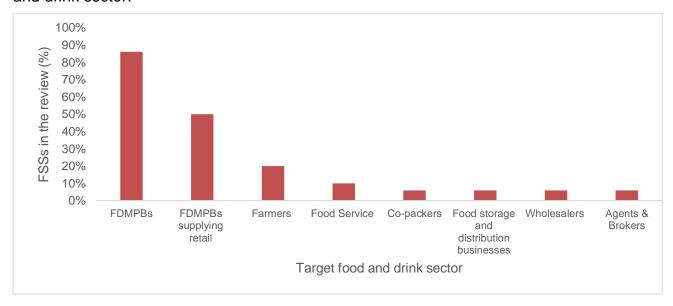


Figure 1 Percentage of FSSs included in the review based on target sector.

The research identified that in 2014, the BRC launched a new FSS specifically for agents and brokers. This was in line with the Elliott Review findings following a food fraud incident in 2013.

The Global Standard for Agents and Brokers provides certification for FDMPBs that provide purchase, importation or product distribution services in the food and packaging supply chain (BRC, 2014). The importance of agents and brokers in the food chain is often overlooked. Agents and brokers provide a critical link in the movement and trade of products, and influence supplier product safety and quality standards, as well as being responsible for maintaining an effective chain of traceability (BRC, 2014).

Agents and brokers are unique in that they do not manufacture, store or distribute products themselves but facilitate this through the use of third parties. The end user therefore, has limited knowledge of the movement of the goods they are purchasing, traceability through the chain or even the original source. The launch of the BRC Standard for Agents and Brokers marks the first of its kind and highlights the growing need to have an effective and transparent supply chain management system which ensures global food security.

3.2 FSS Practicality

The characteristics considered under this section relate to the practical considerations of FDMPBs when choosing a FSS (including delivery approach, scheme fees and additional services offered to members). Table 1 illustrates the findings regarding FSS practicality.

3.2.1 FSS Membership Restrictions

FSSs do not generally restrict membership based on company size. The only exception to this rule is the SALSA Standard, whose scheme has been tailored specifically for small (<50 full time employees) and micro businesses (<10 full time employees).

3.2.2 FSS Scheme Delivery

There are noticeable differences in the delivery approach across the FSSs. Whilst 30% of FSSs are managed and operated by the scheme owner, the operation of the remaining schemes is undertaken by an independent body, typically a certification body (CB) i.e. a service provider.

In general, the CB operates the FSS in accordance to ISO/IEC 17065 (ISO, 2012). ISO/IEC 17065 require systems in place to address issues of preventing conflict of interest, managing customer information, properly qualifying personnel, auditor calibration, and many other aspects involved with the certification to ensure consistency of delivery across all CBs operating the scheme (GFSI & The Consumer Goods Forum, 2011). The majority of FSSs are operated by more than one service provider (including CBs, retailers or the scheme owner themselves), allowing FDMPs to choose their own independent body. FSSs operating in this way include BRC Global Standards for Food Safety, ISO 9001, FSSC 22000, Lion Code and IFS.

The reputation of a CB will be a key factor in the decision making process for Welsh FDMPBs. The research panel identified that consideration should also be given to the credentials and profile of the CB. Even among the accredited CBs, some are only recognised within the country in which they issue certifications, rather than having world-wide recognition. Furthermore, some retailers and major food and drink manufacturers favour some CBs over others therefore it is important to fully understand your customer requirements before choosing a CB.

FSSs (in particular, the inspections) are delivered in either a consultative or non-consultative style. Where FSSs are operated in accordance to ISO/IEC 17065, the inspector must remain impartial and shall not offer the food businesses any advice or guidance on the scheme (GFSI & The Consumer Goods Forum, 2011). Examples of non-consultative FSSs include BRC Global Standards and ISO 9001. FSSs offering a consultative style approach include the SALSA Standard and the FHRS.

3.2.3 FSS Fees

The study identified a number of associated costs with FSSs including; scheme registration, annual membership, subscription based services, inspection and verification visits. Transparency in costs varies considerably between FSSs. The study identified that 23% of FSSs provided details of associated scheme fees on their website. FSSs providing this information for its members include the SALSA Standard, Lion Code, FHRS, Gluten Free Audit Standard, RSPO and SQF.

The review identified that the FHRS is the only FSS to provide FDMPBs the inspection without charge. It should be noted that the FHRS is a mandatory scheme for all food and drink premises in Wales, which is operated by the local authority, in partnership with the Food Standards Agency (FSA).

Inspection fees range between £500 (SALSA Standard) to £4000 (Gluten Free Audit, (Coeliac UK, 2015)). The range is based on FSSs who publish inspection fees. The range may be distorted due to the high number of FSSs who do not publish this information. Fees are typically based on inspection/audit duration and calculated using a sliding scale, with factors such as product sales, number of employees and site size taken into consideration. Tools such as an audit duration calculator are used to provide a more transparent and consistent approach to establishing audit duration (BRC, 2010).

The review highlighted that privately operated FSSs do not disclose inspection costs or membership fees. The diversity of business types within the food and drink industry make it more appropriate for scheme operators to provide 'site specific' fees based on business criteria (including site, number of employees, number of HACCP plans etc.).

3.2.4 Additional FSS Services

An increasing number of FSSs are offering additional support mechanisms to its members. The mechanisms include subscription based services (access to online supporting publications, webinars, key publications, flipbooks, case studies, white papers, and reports in the resource library), pre-audits, training courses, workshops and mentoring.

3.2.5 FSS Database

One third of FSSs within the study offer a searchable directory or database of approved members. A searchable directory allows enhanced marketing opportunities for members and in the case of some schemes, allows FMPBs to share inspection reports and certificates instantly and securely with customers. A searchable directory is also an ideal tool for checking the authenticity of a certificated manufacturing site. FSSs within the desk based research which provide a searchable directory include BRC Food, SALSA Standard, FHRS, AVA, IFS and FSSC 22000 Standard.

Table 1 Summary of findings for FSS practicality

	BRC Food	FHRS	SALSA Standard	STS Public Sector Code of Practice
Membership Restrictions	No restrictions on size of business	No restrictions on size of business	Designed for SMEs with 1-50 full time employees	No restrictions on size of business
Scheme Delivery	Owned by BRC. Operated by accredited CBs	Owned and operated by LAs, with FSA	Owned by IFST. Operated by SALSA	Owned and operated by STS
Membership Costs	Membership costs not disclosed	£0*	Membership costs range between £500 - £920	Membership costs not disclosed
Additional Services offered to members	Pre-auditsTrainingWorkshopsSeminars	FSA template materials	Pre-auditsTrainingAdviceMentoringWorkshops	TrainingFood SafetyCompliance Portal
Scheme database available	Yes	Yes	Yes	Yes

^{*}A fee is applied if FDMPBs request a re-audit.

3.3 FSS Credibility and Respectability

The characteristics considered within this section refer to FSS credibility and respectability including benchmarking, ISO accreditation. Table 2 provides a summary of findings for scheme credibility and respectability.

3.3.1 FSS Benchmarked against the Global Food Safety Initiative (GFSI)

GFSI is an initiative typically associated with scheme credibility. The GFSI is an industry-driven initiative to benchmark FSSs. It is facilitated by the Consumer Goods Forum. A recognised GFSI FSS indicates the scheme meets the minimum internationally recognised food safety requirements (GFSI, 2014). The initiative is industry-driven, which is accomplished through collaboration between the world's leading food safety experts from retail, manufacturing and food service companies, as well as international organisations, governments, academia and service providers to the global food industry.

GFSI does not make policy for retailers, manufacturers or food safety scheme owners, undertake any accreditation or certification activities, own any food safety schemes/standards or undertake training. Recognition by GFSI does include the following benefits (GFSI, 2016):

- Independent verification of the scheme;
- Recognition by the GFSI Board provides credibility that the FSS is backed by the food industries biggest buying companies; and
- The systematic revision of the GFSI Guidance Document by global stakeholders means that it remains relevant to industry needs, and promotes continuous improvements in the benchmarked FSSs.

Twenty-four percent of FSSs in the study have been benchmarked against GFSI. Recognised GFSI schemes include BRC Global Standard for Food Safety, STS Public Sector Code of Practice, IFS, FSSC and SQF.

3.3.2 FSS Accredited to ISO/IEC 17065 (Guide 65)

The review identified two types of FSSs, accredited and non-accredited. The term accredited means formal recognition has been provided by an authoritative body, typically by the United Kingdom Accreditation Service (UKAS) for the operation of the FSS. Accredited FSSs meet the technical requirements of ISO/IEC 17065 (Guide 65) (ISO, 2012). The process for accreditation of CBs is illustrated in Figure 2.

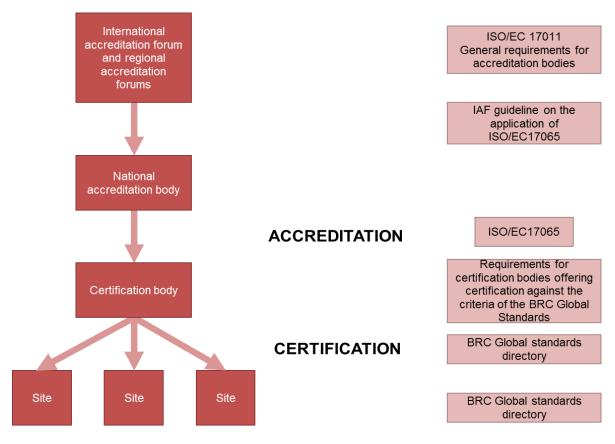


Figure 2 Process for Accreditation of Certification Bodies (BRC, 2015a).

The selection of a FSS by a FDMPB will be influenced by many factors which will be illustrated throughout the research. Scheme selection and effective implementation, is critical to the development of a FDMPB to ensure access to new market opportunities and growth. The potential selection pathway and relationships with GFSI, scheme owner, service provider and auditor is illustrated in Figure 3.

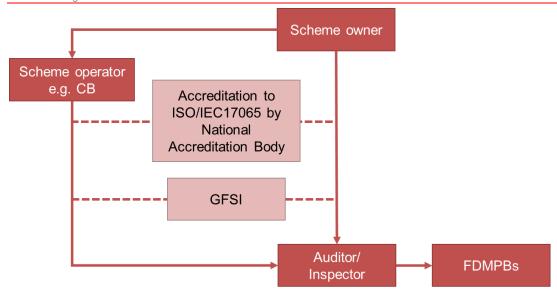


Figure 3 Food Safety Scheme Pathway

3.3.3 UK or Global FSSs

The study identified 47% of FSSs operate the scheme worldwide, these include the BRC Global Standards (for Food, Global Markets, Packaging, Storage & Distribution and Agents & Brokers), Organic Standard, Marks & Spencer Retail Standard, Aldi Retail Standard, PGI Standard, FSSC 22000, ISO 9001, IFS, RSPO and SQF. This may be an important attribute for Welsh FDMPBs to consider when deciding to trade internationally.

FSSs limited to UK-only operation include SALSA Standard, Food Hygiene Rating Scheme (FHRS), STS Public Sector Code of Practice, Lion Code, Red Tractor Scheme and Automatic Vending Association (AVA).

Although some UK FSSs do not have the global recognition offered by the GFSI (including BRC Global Standards, ISO 9001 or FSSC 22000), the national FSSs enable Welsh FDMPBs to maintain a credible food certification. This recognition demonstrates FDMPBs are manufacturing products in a safe and legal manner.

Research suggests that for many FDMPBs, a national FSS can provide the confidence to approach national and regional buyers and begin dialogue to trade (Bradford-Knox & Kane, 2014).

3.3.4 Private or Publicly Operated FSS

The majority of FSSs (90%) are privately operated. Private service providers include retailers, food manufacturers, trade associations; certification bodies (CBs) and independent technical experts. The FHRS and the Local Authority Supplier Audit are owned by the public sector (operated by The Food Standard Agency (FSA) and Local Authorities (LAs) respectively).

3.3.5 FSS Inspector (or Auditor) Competency

Less than half of FSSs within the study (43%) provide a detailed explanation of the minimum competency requirements for inspectors (including the requirement for qualifications and experience). Minimum competency requirements identified include experience working within the food and drink industry, audit experience, knowledge of HACCP and lead auditor training. Where competency requirements have been defined, the requirements have been set by the scheme owner. Where FSSs are operated by an independent service provider (e.g. CB), it is the CBs responsibility to ensure the minimum inspector (or auditor) competency has been met and maintained.

Recommendation: Further research with scheme owners regarding auditor consistency is required. There is a need to provide a detailed explanation of the minimum competency requirements set by scheme owners for inspectors/auditors in the public domain.

3.3.6 FSS Membership

The review identified that few FSSs included within the review formally publish their membership figures.

BRC Food is the largest and most widely adopted Food Safety Standard in the world. The BRC confirm membership of over 23,841 certified sites globally (in 132 countries), with 18,694 certificates issued against the BRC Food (BRC, 2015a).

It was identified the BRC certified a total of 172 sites in Wales (November 2015). A total of 70% of the certificated sites were in accordance to BRC Food Standard. It was determined that no FDMPBs was certified to the BRC Agents and Brokers Standard, however it must be noted that the BRC Agents and Brokers Standard was only launched in 2014.

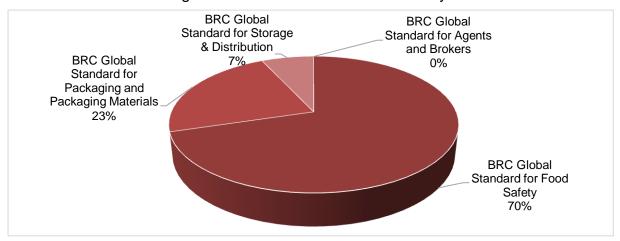


Figure 4 Total number of BRC certified sites in Wales (n=172) (November 2015)

In February 2016, SALSA reported to have 1263 active members (934 approved members) in the UK (Ball, 2016b). In May 2016, personal communication with the SALSA Scheme Manager established that SALSA have 62 active members in Wales, there are currently 53 SALSA approved FDMPBs in Wales, which equate to 7% of all certificated sites in the UK (SALSA Operations, 2016).

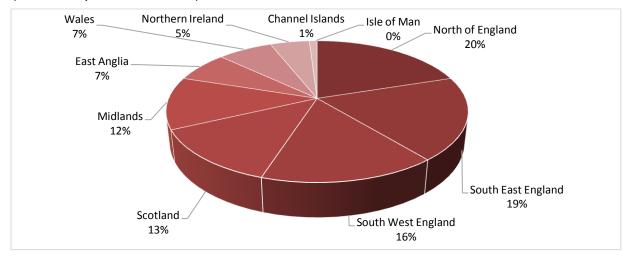


Figure 5 Percentage of SALSA approved sites by UK regions (n=934) (Ball, 2016a)

It is clear from the data there is an opportunity to increase the number of SALSA approved sites in Wales.

Recommendation: there is a need to capture current data to compare the number of FDMPBs with FSSs as a percentage of all regional FDMPBs to obtain a realistic insight to the true number FDMPBs in Wales with FSSs

Table 2 Summary of findings for FSS credibility and respectability

	BRC Food	FHRS	SALSA Standard	STS Public Sector Code of Practice
Scheme Owner	BRC	FSA	IFST	STS
Accredited to ISO/IEC 17065 (Guide 65)	Yes	No	No	No
Benchmarked against the GFSI	Yes	No	No	No
UK-only or Worldwide Scheme	Worldwide	UK only	UK only	UK only
Privately or Publicly Operated Scheme	Private	Public	Private	Private
Stakeholders	BRC, Retailers, Food Service, Manufacturer Trade Associations, CBs, Independent Experts, UKAS	FSA, Local Authority, all FDMPBs in Wales. FHRS Steering Group	BRC, FDC, BHA, NFU, micro and small FDMPBs	STS, Public Sector
Inspector (or Auditor) Competency	Inspector competence defined	Inspector competence defined	Inspector competence defined	Inspector competence defined
Total Member Uptake	18,694	440,000*	934	Undisclosed

^{*}Total number of food and drink businesses reported on the FSA website. However, this does not confirm 440,000 businesses have been inspected. This figure also includes sites inspected within England and Northern Ireland (FSA, 2015a).

Recommendation: there is a need for the FSA to separate data for FDMPB sites from catering and hospitality outlets to improve transparency of information.

3.4 FSS Robustness

The characteristics considered refer to FSS robustness and include scheme updates and inspection approach. Findings are summarised in Table 3.

3.4.1 FSS Updates

A total of 10 FSSs (33%) within the study have been revised and re-issued within the last 3 years. Forty percent of the FSSs included in the review were launched since 2000. Since 2010, three new FSSs (including BRC Food Safety – Global Markets, BRC Agents & Brokers and FHRS) have been launched.

3.4.2 Mandatory or Voluntary FSS

Whilst membership to nearly all FSSs included in the review remains voluntary, there is one FSS which remains mandatory for all food premises in Wales, but remains voluntary for businesses based in England, Northern Ireland and Scotland (FHIS).

Under Article 6(2) of Regulation 852/2004, food business operators must register their establishments (i.e. each separate unit of their food business) with the appropriate food authority (FSA, 2014, 2015b). Registered food businesses will then be inspected in accordance to scheme requirements by the local authority. The FHRS inspection includes a review of food hygiene practices and checks business compliance to UK and European Food Safety Law.

The FHRS has been mandatory for food premises in Wales since 2013. However, it is currently voluntary in England and Northern Ireland, a full public consultation regarding mandatory display in England is expected to take place later in 2016 (FSA, 2016).

Whilst membership to the majority of FSSs are voluntary, many food businesses make certification to a FSS a specification requirement and a prerequisite for their suppliers (FSA, 2012).

Recommendation: investigate the potential overlap between requirements of the FHRS and other 3rd party FSSs to determine the requirement for an additional FHRS inspection. The research may identify the need to negate the requirement for FHRS inspections in third-party accredited/certified FDMPBs, thus reducing the burden of multiple-inspections on FDMPB and having a positive impact on EHO time allocation/workload.

3.4.3 Announced or Unannounced FSS Inspections

All FSSs included within the review require an on-site inspection. The majority of the inspections are completed on an announced basis, with only six FSSs offering an unannounced option. In some circumstances, the customer (e.g. manufacturer or retailer) will stipulate their specification for announced or unannounced inspection. As an example, ASDA confirmed in 2013 to their suppliers of ASDA branded products that they must have unannounced BRC inspections (BRC, 2015b).

3.4.4 FSS Inspection duration and frequency

The study identified the on-site inspection duration varies across FSSs. Inspections range from two hours to three days. The average inspection duration is one and a half days. The frequency of FSS inspections range from six months to three years. The average frequency of FSS inspection within the study is once per annum.

Table 3 Summary of findings for FSS robustness

	BRC Food	FHRS	SALSA Standard	STS Public Sector Code of Practice
Scheme Revision (date of last update)	July 2015 (Issue 7)	2014	June 2015 (Issue 4)	2007 (Issue 3)
Mandatory or voluntary FSS for FDMPBs	Voluntary*	Mandatory	Voluntary*	Mandatory for processors and suppliers to the public sector only
Announced or unannounced inspection	Announced and unannounced	Unannounced	Announced	Announced
Inspection duration	Typically 2 days	Duration not disclosed	Half a day	Duration not disclosed
Inspection frequency	6 to 12 months	6 to 24 months	12 months	12 months

^{*}It should be noted that some FDMPBs make certification a mandatory requirement for suppliers.

3.5 Summary of review findings

The review findings illustrate key differences in FSS practicality, credibility, respectability, and scheme robustness. The findings from this study provide evidence of the breadth and variety of FSSs available to Welsh FDMPBs.

3.5.1 FSS Practicality

The findings suggest that FSSs are available for all Welsh FDMPBs, regardless of size. Furthermore, the research highlights that few FSSs provide clear information on associated FSS costs. This finding may translate to be a potential barrier for Welsh FDMPBs who are trying to determine if a FSS is suitable, practical and affordable.

The study highlighted that an increasing number of FSSs offer additional support mechanisms to its members. The success and growth of additional support mechanisms is likely to generate income for scheme owners, a proportion of which will be invested back into the scheme leading to continued growth and recognition of the FSS within the industry.

Whilst additional support mechanisms arguably add to the overall cost of compliance for Welsh FDMPBs, the benefits of support mechanisms (including pre-audits, interpretation guidelines and training) should add value to the business and increase the probability of success during inspection/audit.

One third of FSSs offer a searchable directory. A searchable directory allows enhanced marketing opportunities for Welsh FDMPBs and increases the opportunity for supplying new markets and supporting business growth.

3.5.2 FSS Credibility and Respectability

The findings illustrate that more than half of FSSs within the research are not accredited, therefore do not operate to ISO/IEC 17065. Likewise, less than 25% of FSSs have been benchmarked against GFSI. Although accreditation and recognition to GFSI may play a role in a FSS's credibility and respectability in the food and drink industry, the study suggests there are a high number of recognised FSSs that operate successfully without ISO/IEC 17065 or GFSI status.

More than half (53%) of FSSs within the research do not operate their scheme outside the UK. Although a national FSS can provide Welsh FDMPBs the confidence to approach national and regional buyers, the absence of global recognition for some FSSs may be a potential barrier for Welsh FDMPBs to access new market opportunities and achieve growth outside the UK.

The majority of FSSs (90%) are privately operated. This study highlights that the private sector has the power to influence current and future schemes available to Welsh FDMPBs. This finding suggests that the private sector has the potential to influence the direction and growth of the future of accreditation and certification.

3.5.3 FSS Robustness

Forty per cent of new FSSs were launched since 2000 (first edition), with three brand new FSSs being published since 2013. The review confirms that FSSs continue to update and evolve in line with industry changes, priorities and emerging trends. Regular scheme updates may act as a barrier for Welsh FDMPBs (increased scheme requirements and changes may in turn result in increased cost to implement). However, compliance to evolving FSSs provides the assurance and confidence to existing and new customers that systems and procedures are in place within the supply chain to manage emerging food risks and global food security.

The findings highlight that all Welsh FDMPBs must comply with at least one FSS i.e. the FHRS and membership to the remainder of the FSSs is voluntary. However, the majority of

FDMPBs make certification to a FSS a specification requirement for their suppliers. This finding implies many food businesses within the supply chain (and potential new market opportunities) consider compliance to FHRS a prerequisite for supply; however compliance to this scheme alone may not provide the supply base the level of brand and consumer protection it requires.

3.6 Recommendation for further research

Whilst conclusions on FSS credentials are based on information sourced within the public domain (typically from the scheme owner website), the desk based research does highlight that some scheme information is not available to the general public.

Recommendation: To further build on the findings identified within the desk-based review of FSS, it is recommended the research methodology is extended to communicate with all scheme owners to capture scheme information not available within the public domains.

The variation in the amount of available information for each FSS highlights a difference in openness and transparency of scheme owners. The review highlights that some FSSs provide more scheme information than others to its members. For example, some FSSs provide its members with a downloadable copy of the scheme content and inspection protocol. However, some FSSs (in particular privately operated FSSs); do not make this information available. This finding was particularly noted within the retailer standards.

The review also highlighted that few FSSs provide clear information on associated FSS costs. This finding may translate to be a potential barrier for FDMPBs in Wales who are trying to determine if a FSS is suitable, practical and affordable.

Collectively, these findings suggest there is a need for consistency and transparency amongst scheme owners on the amount of, and the type of scheme information made available to its stakeholders.

Recommendation: A minimum set of FSS criteria should be agreed by the food and drink industry, and all scheme owners should make the information available, based on the minimum criteria, to its stakeholders.

The review identified that there are a significant number of different FSSs for FDMPBs in Wales to choose from. Although the research panel focussed on 30 FSSs, it should be noted that more FSSs are available.

Recommendation: Expand on the research conducted to compare FSS content to determine key differences in scheme requirements. By its nature, this research will identify duplication in FSS content and more importantly would identify unique scheme requirements which may enable businesses to access new market opportunities and achieve growth.

4. Barriers to achieving compliance to FSSs

The focus groups (participated by FDMPBs in Wales, stakeholders, auditors and mentors) and in-depth interviews (conducted with retail representatives) allowed the research team to identify key drivers and benefits of obtaining/maintaining a FSSs. The findings are summarised in Figure 1.

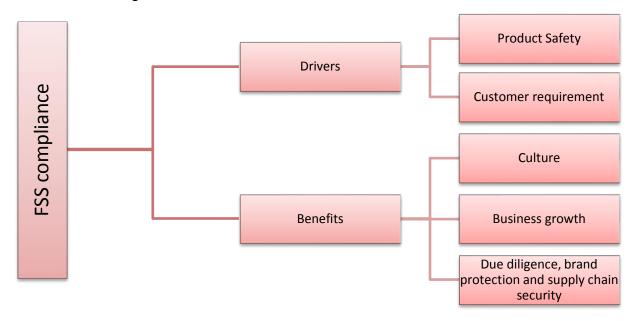


Figure 6 Identification of drivers and benefits of FSSs

4.1 Drivers to FSS compliance

Two key factors were identified as drivers for obtaining compliance to FSSs including customer requirements and product safety.

4.1.1 Customers

A number of respondents identified customer pressure and customer pre-requisites as drivers for obtaining FSS compliance. It was identified that if customers did not require compliance to a FSS, it would be unlikely that many FDMPBs would work towards it. It was suggested that compliance to the SALSA Standard was initially used as a marketing benefit for FDMPBs, however in recent years this view has changed and it has become a customer requirement (with more stakeholders and buyers formally recognising the scheme).

"Customer requirement is the main thing. If they didn't insist on it, would we do it all?" (Participant 15, technical manager of a FDMPBs with FSS).

"I think that the biggest one is that it's the customers that drive it, not the food processing facility." (Participant 05, SALSA mentor).

"It's almost becoming the industry standard then, if you haven't got it, you can't trade." (Participant 45, director of an SME bakery without a FSS).

"From our brand perspective, we have in our 'Requirements for Trade' that obtaining BRC certification for all food is the technical entry level to supply." (Participant 66 Retail Representative)

4.1.2 Product safety

Ensuring product safety (in particular, ensuring due diligence) was the second major driver for FDMPBs to obtain compliance to a FSS.

"The key legal one, which is of course that this will generate an efficient due diligence defence scheme for people should they ever need to call up on it." (Participant 02 SALSA auditor/mentor).

"You know that the product being sold is safe." (Participant 35, co-owner of a micro business producing bakery items, without FSS).

"Due diligence in place, if something goes wrong the companies have the processes and systems in place to complete a withdrawal or recall – to produce a consistent, safe, legal, quality product." (Participant 68, retail representative).

4.2 Benefits to FSS Compliance

Three factors were identified during the research as benefits for FDMPBs for obtaining/maintaining compliance including culture, business growth and due diligence (including brand protection, and supply chain security).

4.2.1 Culture

The research identifies that company culture is improved when an FDMPB comply with a FSS. Appropriately trained staff positively benefit the performance of a FDMPB by strengthening the organisation.

"Allows staff to build up and acquire higher established jobs" (Stakeholder North)

"Food safety can initially be seen as just something the technical team own / have to deliver - whereas when a company embarks on a project to obtain certification, I think the awareness of food safety (when it is done properly in the business) becomes much more than just a technical responsibility. I think this awareness can really benefit the whole business." (Retailer)

4.2.2 Business growth

Business growth and success was a major benefit identified by many FDMPBs. The research identified that compliance to FSSs can facilitate trade by opening opportunity to supply to new markets. Participants also felt that the reputation and profile of the business was improved by gaining FSS compliance.

The discussions highlighted that staff upskilling, increased confidence, improved morale and job security can lead to the retention of local employees; a highly motivated workforce and business growth. It was suggested that compliance to a FSS, can retain business, therefore securing jobs, which is particularly important in rural areas.

"Securing jobs as well, for the local environment and the local areas" (Without FSS, South)

"You're maintaining those high level standards, so people keep their jobs, the factory doesn't shut" (Without FSS, South)

"...food safety system will improve the profitability of the business." (SALSA Auditor and Mentor)

"there's potential growth isn't there, you can grow your business if you've got these things, you'll probably be more likely to grow and attract more customers and so secure the jobs and increase the wealth of the locale as a results." (Without certification, South)

4.2.3 Due diligence, brand protection and supply chain security

Compliance to FSS ensures systems are in place to maintain full product traceability, which is a legal requirement and supports the food supply chain in providing transparency and food security. FDMPBs explained that the requirements of FSSs helped improve the robustness of their traceability and FSMS as well as protecting the consumer and supply chain. Participants stated 'accountability' as a big benefit to gaining and maintaining a FSS, adding that the FSMS documentation provides the structure their due diligence defence. This has a significant impact on the credibility of the FDMPB with customers, supply chain and stakeholders. Participants stated 'confidence for suppliers' was a major benefit of compliance to FSSs. Improved product quality was also identified as a benefit.

"Protects the supply chain. I mean just because we all operate good healthy businesses, I'm going back to the horse meat scandal, you know if somebody in the supply chain isn't... I suppose if a retailer has confidence and not just the person that they are buying off, but all further down the line is trustworthy as well" (North Wales FDMPB without a FSS)

"Accountability, side of thing its great having records, having SALSA, having records for everything, so that if something goes wrong we can turn around to a customer and say there was an issue with the food, we can say it wasn't actually us, it couldn't have been us because we got all these procedures in place that say, no, it couldn't have been us. That's another driver that if you are a large

manufacturer supplying then you don't have a law suit on your hands...." (South Wales FDMPB with a FSS)

"Obtaining certification against a food safety scheme does show that suppliers have met the basic requirements of a scheme, which allows our brand to focus on aspects which can deliver competitive advantage, rather than having to do audits that focus on what our brand would consider to be the 'basic requirements to meet food safety'." (Retail representative)

4.1 Barriers to obtaining & maintaining FSSs

Participants identified that there is a difference between the barriers faced to achieve compliance and the barriers faced to maintain compliance to FSSs. As discussed by a technical manager of a medium sized butcher with SALSA working towards BRC, the barriers to achieving and maintain FSS compliance can vary:

"There are barriers to achieving accreditation and there are barriers to maintaining. Achieving you've got your initial set up costs your resources, human and financial. For maintaining, ...I can put the procedures in and train them and do it, but because we are not like a production line,... It's two separate things." (Participant 44).

As illustrated in Figure 7, the words most frequently used in relation to the barriers included 'time, 'people', 'cost', 'management', and 'technical'. Further analysis of the focus group transcripts grouped the key barriers discussed according to:

- Time, cost and resources;
- Knowledge and skills; and
- Communication and access to information.



Figure 7 Word cloud indicating frequency of words used in focus groups when discussing barriers to obtaining and maintaining FSSs

4.1.1 Time, cost and resources

FDMPBs of all sizes, both with and without FSS compliance identified 'time' as being a barrier to compliance and maintenance of a FSS. Documentation processes such as design, implementation, verification and review of FSMS being 'time consuming'.

Focus groups suggested that duration of inspections or audits can often be lengthy and it can be problematic for micro and small businesses to accommodate, and may not be flexible to the working pattern or production of the FDMPB.

Participants stated that if they had some or more technical staff members it would be easier to manage the time allowed for audits and for gaining accreditation. Technical activities such as food safety documentation completion, GMP audits and daily checks to ensure

compliance with FSSs can slow down or stop production which in turn may cause conflict within an organisation. Participants also stated that accreditation or certification is not suitable for micro-small FDMPBs where the standards expect 'independent internal audits' for example. Findings indicate the need for time management and qualified technical staff, the use of pre-audits may enable FDMPBs to 'manage' the audit.

Money was determined to be a significant barrier to achieving and maintaining compliance to a FSS, especially for small / micro FDMPBs. Concerns highlighted relate to the cost of design, implementation (changes to structure, equipment, and external resource for technical knowledge and support), maintenance and the supporting mechanisms such as recruitment, training and education. The participants indicated significant investment is required in people, processes, products, equipment and the manufacturing environment in order to achieve and maintain compliance too FSSs.

"I think cost is obviously the biggest barrier. To achieve certain accreditations, there are certain requirements businesses need that sometimes their business size will not allow them to have. The obvious example being with the BRC standard for a high-risk factory. In this example, if you do not have positive air flow or a metal detector (both of which are very expensive investments!), you cannot get your BRC accreditation." (Participant 66, Retail representative).

"Yes because it takes time to be audit ready." (Participant 13, FDMPB with a FSS).

"I can put it down to two basic things, time and money (number of participants agree) running the business takes up a lot of my time, and the time that's left goes towards putting effort into my accreditation, and it's down to that, the time, and the cost, I can't afford to get a technical person in, so it's on my shoulders." (Participant 43, FDMPB without a FSS).

"It's the money and the resource, for the people that do it, there's also for smaller companies the cost of actually having the audit, but for the big boys it's the actual resource, people to actually input the standard." (Participant 01, SALSA Auditor).

"We often have one or two key people needing to go on a course but you need them on the factory floor so you can't afford to release them." (South Wales FDMPB without a FSS).

Training and education costs are also a concern for larger FDMPBs, the cost of releasing groups of staff for external activities incurs both training costs and loss of staff from the work place.

Recommendation: more consideration for the size of the business and the number of staff members involved in the implementation of the system could be considered by the scheme owner or service provider.

Recommendation: there is a need for greater access to financial support to enable training costs to be covered.

Comments regarding food safety documentation included the abundance, the unnecessary use and the appropriateness of the paperwork. Some participants felt that in smaller production sites, the relevance of some documentation has not been considered by the scheme owners. Frequently, FDMPBs are producing the same documentation in more than one format to meet with multiple schemes, consequently, businesses are employing additional people to keep up with the paperwork obligations of the scheme. Participants recommended that special consideration be given to micro businesses, for example when an independent audit is required, by someone impartial of the activity being audited i.e. in an internal systems review.

In older manufacturing sites or non-purpose built factories scheme compliance can instigate fabrication, equipment and process changes. This in turn may trigger a financial investment for the business which it cannot afford. Thus, presenting a barrier to FSS compliance especially for smaller FDMPBs that may not have the finance to develop their factory, this can lead to a loss of business.

"I think we're not far away with that, as far as paperwork is concerned, it's just the buildings and everything and financially the work we have to do is quite big. Capital expenditure." (Participant 33, north Wales FDMPB without a FSS).

"Fabrication changes to the facility." (Participant 17, FDMPB technical director with a FSS).

Recommendation: Financial support for capital expenditure such as building and equipment in relation to FSS compliance.

4.1.2 Knowledge and skills

A number of FDMPBs indicated they are unable to recruit skilled staff with relevant experience. Potential candidates often lack the knowledge and skills required to operate effectively in the sector and this is a barrier to the business which leads to increased costs in training, education and development of new employees. Employees in the sector are low paid and the industry does not attract the calibre of staff the FDMPB's require. Recruiting the 'right person in the right job' was highlighted by the FDMPB's as being a barrier to business growth and critical in maintaining compliance to FSSs. Many micro businesses and SME's need support to identify the key personal attributes and qualifications required by potential new employees in order to recruit the optimal candidate who will add value to the business.

"We don't have a technical manager. And so to get a BRC, I believe we would need a technical manager, so there is quite a lump of an overhead straight away that you have to do, unless we could find an alternative way through resourcing that sort of technical help, because an overhead of forty thousand pound on top of a small firm is a very big cost." (Participant 37, operations manager FDMPBs without a FSS).

"We actually went through using a headhunting team for us to find the right people, which meant that they went through all the CVs so we just got to see three at the end and interview, and it didn't work doing it that way so we decided to do it ourselves, and advertised ourselves, we got to see all the CVs, perhaps we shortlisted CVs that headhunting teams wouldn't. It's been very successful doing it ourselves, rather than going through and paying so so much, high high fees to companies to find the right people and it hasn't worked. We've done it ourselves and it's been really successful." (Participant 45, FDMPB director without a FSS).

The participants in a number of the focus groups also commented on the industry shortage of qualified technical staff and lack of technical expertise which is essential for all businesses aspiring to and maintaining compliance to FSSs and how the image of the food industry should be more desirable for school leavers.

"The food industry on the whole has got a shortage of qualified technical staff, there is a general shortage." (Participant 02, SALSA auditor/mentor).

"We've not got enough people coming through the right sort of courses to take the right sort of jobs to enable them to actually put these schemes in place, and they do exist." (Participant 05, SALSA auditor/mentor).

The attitudes and commitment of senior management were also discussed to be a barrier to support and achieve compliance to a FSS and the impact management commitment can have on culture. Technical staff realise that without management commitment to the scheme, they do not get support from other involved departments such as finance or production. Those FDMPBs where senior management commitment is evident, a stronger, fully -committed more confident team is apparent. Education, training and effective communication will directly impact the culture of an organisation. Therefore, in order to drive continuous improvement and FSS compliance clear leadership, communication, education and training strategies need to be implemented by all FMPBDs.

"Management commitment is another big one, and that the management are committed to the investment to the time, committed to basically meeting customer requirements." (Participant 04, SALSA auditor Mentor).

"From my experiences, it's the all-round 'food safety culture', I think the management team need to understand that you're working together as a single entity, so you need to be able to communicate from the bottom right to the very top." (Participant 36, South Wales FDMPB without a FSS).

"Even if they understand the standard its self, they can't readily access guidance on how to comply with it, that they don't know how to put it in to practices in their business." (Participant 59, stakeholder).

"We get from staff "Why should we do it?" (South Wales FDMPB without a FSS).

Recommendation: Creation of food induction training for new-employees from nonfood backgrounds to obtain specific technical knowledge and skills required for employment in the food industry.

4.1.3 Communication and access to FSS information.

Participants stated that they think there are too many FSSs. The FDMPB's find it difficult to know which FSS to select and work towards due to the lack of knowledge regards FSSs and visibility of scheme information. Often FDMPBs are required by customers to meet more than one scheme which in turn complicates and compounds the FDMPB'S obligations to compliance. It was highlighted that FSS standards can vary and may require different documentation to evidence the same action or activity.

Participants would prefer FSSs to be consolidated, so FSMS designed and implemented would satisfy all scheme owners' requirements.

Focus group discussions indicated that selecting a suitable FSS could be a barrier as indicated in an excerpt of discussion between two stakeholders in a north Wales focus group, this may suggest the need for greater communication to FDMPBs regarding available and suitable FSSs:

"The fact that there are multiple standards out there, and always there's one that isn't recognised and different customers want different standards." (Participant 59).

"There's so many different accreditations, that you don't know them all." (Participant 64).

"So maybe one of the barriers is knowing which standard is appropriate for your business." (Participant 59).

Recommendation: Consider the potential consolidation of FSSs and the number of audits to prevent duplication of activities and reduce costs and burden on the FDMPBs.

Miscommunication regarding the need for FSSs was an issue raised regarding FDMPBs being encouraged to obtain a FSS:

"I think there's confusion as well sometimes from a higher level, buyers are saying "you need to get SALSA you need to get BRC", for businesses that it's not appropriate for, and actually their understanding of what actually food safety accreditation or certification schemes that are appropriate for that type of business and so that's a driver, they, the buyers, will be telling them, that business to get whatever approval, this confusion is fed from that level, and goes directly again into the suppliers and they are not quite sure where to go as well, so it's a sort of confusion over all, there's a need for clarity to say which is appropriate for which type of business I think." (Participant 61, north Wales stakeholder group).

"I think sometimes the buyer will be putting an unnecessary pressure on suppliers. If we can get buyers and procurement into a better understanding of the standards then they will put less burden on the suppliers." (Participant 49, north Wales stakeholder group).

The co-owner of a FDMPB that had originally started as a market stall discussed the lack of awareness regarding FSSs and a Trading standards officer indicated the need for information signposting;

"We kind of noticed that not many market stalls know about SALSA and BRC. But it can take you two or three years to know that there is another level. If we would have known about SALSA we would have tried to get it two years before" (Participant 40, south Wales FDMPB without a FSS).

"Businesses need to be signposted to ask where the next step is. For smaller businesses, they are so busy doing what they are doing that they can't see what to do next." (Participant 48, Trading Standards officer).

Recommendation: There is a need for greater communication to FDMPBs regarding FSS availability and the potential benefits from scheme holders.

5. Support mechanisms for FDMPBs to comply with FSSs

Completion of the focus groups informed the design and development of a self-complete online questionnaire. The questionnaire was distributed to FDMPBs and stakeholders to obtain the perceptions and attitudes of potential support mechanisms. The findings of the research phases were analysed by the research team to enable suggestions of support mechanisms to be made. Recommendations are based on the views, perceptions and opinions of respondents (including FDMPBs, stakeholders, SALSA auditors and mentors and retail representatives). All recommendations are supported by the professional judgment and industry experience of the research team.

During the focus groups it was established that support requirements vary between FDMPBs and FSSs. Different types of support are required between FDMPBs wanting to implement or maintain a FSS was also discussed:

"The support depends upon which scheme they go for though doesn't it, it all depends on that." (Participant 08, SALSA auditor/mentor).

The recommended support mechanisms relate to

- Knowledge, skills and development; and
- Information and communication; and
- Financial support

5.1 Perceived usefulness of suggested support mechanisms

The potential usefulness of mechanisms to support FDMPBs in Wales to obtain and maintain FSS compliance were determined. Although no suggested mechanisms were perceived to be extremely useless, the least useful mechanisms were determined to be; Improved consumers awareness of FSSs. As indicated in Figure 8, the mechanisms believed to be most useful were funding for advice and training, pre-audits, on-site support and documentation support.

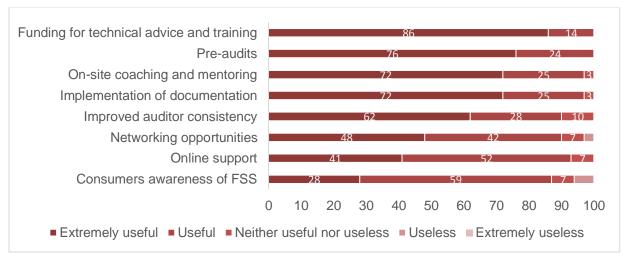


Figure 8 Perceived usefulness of suggested support mechanisms (*n*=29)

Consequently as illustrated in Figure 9, the research concluded that the support mechanisms believed to be most beneficial to FDMPBs in Wales and perceived to be necessary to implement and maintain FSSs are funding for advice and training (68%),

support for the implementation of food safety documentation (64%), on-site support (50%) and pre-audits (46%).

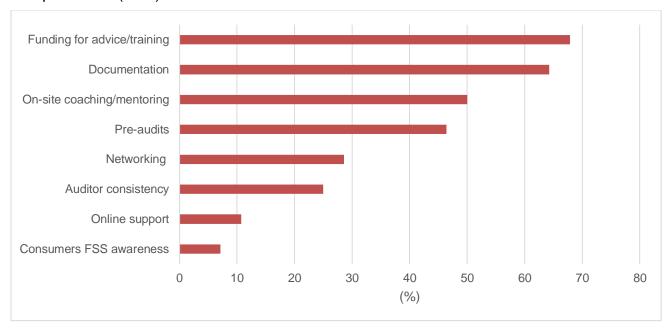


Figure 9 Support mechanisms believed to be most beneficial (n=28)

The findings highlighted that improved consumers awareness (7%), online support (11%) and improved auditor consistency (25%) were perceived to be the least beneficial support mechanisms.

5.2 Knowledge and skills development

The research identified knowledge and skills as a barrier to FSS compliance, consequently support mechanisms relating to education and training to achieve and maintain FSS accreditation were explored. Education and training needs were identified within all levels of a food and drink business, and across all departments (including technical, procurement, maintenance etc.). Identified support mechanisms include education, training, documentation support, mentoring, knowledge transfer, networking and pre-audits (Figure 10).

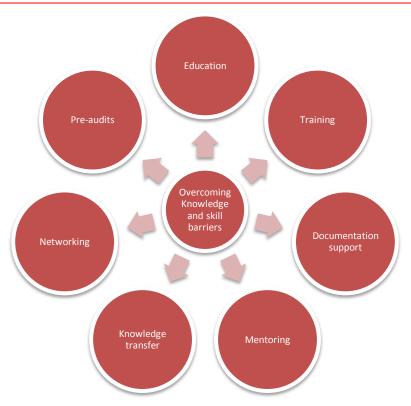


Figure 10 Identified support mechanisms to overcome knowledge and skill barriers to FSS compliance

5.2.1 Education

The focus groups established the lack of food graduates as a potential barriers to FSS compliance due to the lack of qualified people. In order to address this

"Promote Food Science and Technology as a worthwhile degree course with many career opportunities." (SCQ respondent)

"There needs to be a concerted effort to get children at school level to understand what careers are out there because there is a perception that the food industry is all about working in kitchens." (Participant 49, stakeholder).

To ensure future uptake of food-related qualifications within Wales, consideration should be given to ensuring further and higher education courses remain desirable to individuals opting to study this qualification. Support mechanisms introduced at this stage will ensure individuals entering the industry have suitable qualifications and knowledge to fulfil their job role and make competent decisions relating to food safety. By increasing the number of food graduates, barriers identified in the research (including knowledge gaps, quality of staff and lack of technical expertise) will be addressed.

Recommendation: Campaign to drive awareness within secondary schools of food related FE and HE qualifications and career options within the food industry. There is a need to investigate approaches to improve the popularity and image of the food industry.

Recommendation: Explore the possibility of financial support (such as bursaries, scholarships and fee waivers) for students to complete food-related higher or further education qualifications. This would include the identification of the determinants degree choice and compare non-continuation rates with students who do not receive financial support.

5.2.2 Training

The research identified 'training' as a barrier for food and drink businesses to achieve and maintain accreditation. Positive attitudes were expressed with 90% agreeing or strongly agreeing that "Funding for training and education would result in more capable workforce", 97% agreeing or strongly agreeing that "Staff training can improve employee engagement in working towards a food safety scheme" and 93% disagreeing that "Training and advice will not improve a business's ability to comply with a food safety scheme". Although the exact training needs for 'start-up' and 'established' FDMPBs will vary.

The positive impact on training and education in relation to compliance to a FSS was discussed, as this included increased skills, staff morale and awareness of what staff are expected to do by giving an understanding of the purpose of FSSs. However, the cost and time required for the implementation of training and education was a concern and seen as a barrier to obtaining compliance to a FSS. Consequently, it was suggested that innovative mechanisms to support training and education would be beneficial, and practical solutions to enable staff training (such as shared onsite, bespoke training) between multiple local FDMPBs were suggested, indeed the need for local flexible courses was of particular concern for those in North Wales, such suggestions would also enable training to be 'local' to the FDMPBs.

Support mechanisms identified for Welsh FDMPBs include;

- Accredited training (for example Food Safety and HACCP)
- Bespoke training (for example subject-related, site-specific and /or product category specific)
- On-site, flexible, local, multilingual training
- Training provided for all levels, business-to-business (basic to advanced)
- Financial support for training and refresher training

The learning outcomes of training must be recognised by stakeholders within the industry (including Scheme Owners, retailers, wholesale and the public sector).

Trained staff are more likely to make competent decisions relating to food safety, legality and quality. As a result, effective staff training will reduce the overall risk of a food safety incident within the industry. Consideration should be given to how Welsh FDMPBs can access effective, relevant and affordable staff training. The effectiveness of this support mechanism will be elevated if FDMPBs have access to qualified, experienced and competent individuals who have the skills to develop and deliver bespoke training.

Established training providers could provide a suitable bespoke training support mechanism for Welsh FDMPBs. To ensure training remains affordable, consideration must be given to the financial support available to Welsh FDMPBs to pay for relevant accredited and bespoke food safety training.

"Training is a key one. People don't know what they are expected to do" (Participant 13).

"Reasonable cost training..." (Participant 15) "...not cost preventative." (Participant 17).

"I think it would be beneficial for companies to network and arrange on-site training days. Even if you use the FIC, if you only have half a dozen people then why not open it up to other businesses, especially small businesses who have only got 1 or 2 members of staff going on a course."

"If you are down the road it feels more flexible and you're not missing somebody out of the office for five days doing that course, but coming back and working whilst they are learning... So maybe there's

a need for local access to more flexible courses in North Wales would overcome those barriers that small businesses can't afford for their staff to be away for a prolonged period of time." (Participant 65).

Recommendation: Consider the design and develop of bespoke on-site subjectspecific staff training, and explore the possibility of 'local and flexible shared training' between multiple local FDMPBs; and assess the impact on staff behaviour and audit outcomes.

Recommendation: Creation of food induction training for new-employees from non-food backgrounds to obtain specific technical knowledge and skills required for employment in the food industry.

5.2.3 Documentation support

The majority of respondents (72%) believed that support with the implementation of food safety documentation would be extremely useful (Figure 8). As indicated in Figure 9, food safety documentation support was second only to funding support, 64% believed it to be one of the most beneficial mechanisms for FDMPBs in Wales.

The majority indicated positive attitudes towards documentation support with 86% agreeing or strongly agreeing that "support with the up-keep of food safety documentation is essential for maintaining a food safety scheme" and 79% disagreeing or strongly disagreeing that "support with the implementation of food safety documentation would not speed up the process of achieving a food safety scheme". Statements made in relation to a mechanism to support with the implementation of food safety documentation indicated the importance of such documentation, however the resources and the commitment required to implement appropriate documentation was referred to, and the benefit of preventing time wastage with implementation of documentation was discussed:

"Good documentation is key to accreditation and help in setting it up and then keeping up-to-date is vital."

"Support with the initial implementation is invaluable, it ensures an inexperienced company is on the correct path and therefore are less likely to waste time & resources."

Different levels of support would be required for businesses wanting to implement and maintain a FSS. It was actively discussed that the 'up-keep' of paperwork required for BRC Global Standard for Food Safety required a full-time member of staff. With some of the small FDMPBs aspiring to obtain compliance, they were unable to see the benefits or need for such in-depth paperwork, they were simply wanting to produce and sell their products. This highlights the need for education and training in the requirements and implementation of FSS with FDMPBs in Wales.

"There might be perhaps more paperwork that would be required by a small business, and if you are a 'one-man-band' then it's perhaps difficult to commit a lot of time to your accreditation as well as doing your day job which is producing your products." (Participant 60, Stakeholder, north Wales focus group).

"There's a lot of paperwork involved though and a lot of time involved doing paperwork and you think 'why am I filling this in?'." Participant 45, Director of a south Wales FDMPB without a FSS).

"I think your turnover needs to be at a certain level before you can actually look at doing this, because you definitely need a full time person to look after the paper work from my previous experience." (Participant 32 North Wales FDMPB without a FSS).

Recommendation: Specific activity-targeted training for development, implementation and maintenance of FSMS documentation.

5.2.4 Mentoring

As indicated in Figure 8, the majority of respondents (72%) believed that on-site support (e.g. coaching and mentoring) would be an extremely useful support mechanism for

FDMPBs. Half (50%) believed that on-site support would be the most beneficial mechanism (Figure 9). Positive attitudes were expressed towards such onsite support, with 100% agreeing or strongly agreeing that "On-site support would enable site-specific problems to be addressed" and 93% disagreeing or strongly disagreeing that "On-site coaching and mentoring would be a waste of time for businesses". Statements in relation to on-site support indicated that appropriate solutions to problems would be identified and many felt that face-to-face contact and guidance was essential:

"Help identify problems and issues and appropriate solutions."

"Being advised how to comply is more valuable than merely being told that you don't."

"Face-to-face will embed the knowledge."

"Most small companies don't know where to start and won't prioritise it so this would direct the company and prioritise the work if an agreed visit programme was in place."

"I think every company should, once they are set up have a mentor, and from somebody who knows. Not a pen pusher that works in an office, somebody like that who's never run a business, the Welsh government or whoever sorts it out, if you can get somebody to help you, and they are all very nice, but at the end of the day they've never been on the ground floor running the business, and you want all confidence in them." (Participant 35)

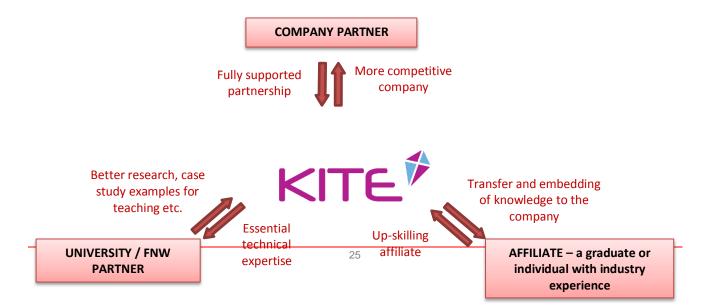
Qualified on-site mentoring will enable businesses to make competent decisions relating to management systems, documentation, subject and product specific areas, which will in turn reduce the chance of a serious food safety incident and importantly increase confidence in the Welsh supply chain by buyers and technical representatives of the retailers, wholesalers and NPS.

To ensure on-site mentoring remains accessible and affordable, consideration should be given to the financial support available to Welsh FDMPBs. It is recommended that this support mechanism is delivered by recognised food safety experts. On-site mentoring would form a fundamental delivery mechanism for future knowledge transfer programmes. It is also suggested on-site mentoring is the preferred delivery mechanism for 'rapid response' technical interventions.

Recommendation: To ensure on-site mentoring remains accessible and affordable. Consideration must be given to ensuring on-site mentoring is supplied by qualified and experienced mentors who can draw upon their practical experience within the industry to provide appropriate solutions.

5.2.5 Knowledge transfer

Knowledge transfer schemes (such as KITE) were identified as a potential support mechanism for FDMPBs. The mechanism addresses the critical need for FDMPBs to meet the technical demands of the sector and facilitate the transfer and embedding of food science/technology knowledge via the expertise from FIW. The KITE model is based on a collaborative partnership between an industrial partner (SME), a knowledge- base (FIW)



partner and an 'affiliate' (graduate), as detailed in Figure 11.

Figure 11 Knowledge Transfer Mechanism 'KITE'

Furthermore, discussion in relation to networking and 'peer group 'mentoring where businesses learn from the experiences of other businesses.

"That's something that I miss now that it's gone. KITE was a way of sharing without having to go to other sites to learn things because we don't go to each other's sites to learn, so it's quite hard to get best practice" (Participant 15).

"We have had a number of KITE student, we couldn't have done that. It helps graduates get jobs and we are still on good terms and we ring each other. KITE/KTP network is formed, BRC technical. Graduates, gives links between companies" (Participant 10).

Recommendation: Provision of post-graduate knowledge transfer programmes (for example KITE) managed by Food Innovation Wales (FIW) to enable graduate transition and continual learning from education into industry.

5.2.6 Networking

The potential use of peer-group networking was discussed as a support mechanism for overcoming FSS related problems, it was suggested that an opportunity where regional FDMPBs can speak to one another and listen to the experiences of others would be beneficial. it was indicated that networking would create new contacts to obtain understanding of how tasks in relation to FSSs were addressed and also support other broader business objectives.

"In North Wales we are quite isolated as well, we are very rural, most of us have travelled over an hour to get here today, but by being here now, this is a good job to find somebody." (Participant 35)

"Bringing experienced and fledgling companies together is a huge benefit. This can be online as well as maybe quarterly networking events."

"Excellent for smaller businesses who don't have a large team/pool of experience to problem share & discuss current issues with peers."

"Networking with business representatives who have achieved or are working towards accreditation is useful to draw on experience and shared learnings."

The majority (93%) believed that networking opportunities would be useful (Figure 8), only 48% believed it to be extremely useful, indeed less than a third (29%) perceived networking opportunities such as with other FDMPBs and scheme holders at food centres to be one of the most beneficial support mechanisms. The majority had positive attitudes towards networking opportunities, with 86% in agreement that "Networking opportunities with other food and drink businesses would give insight to addressing food safety scheme problems" and 89% disagreeing that "Networking opportunities are not beneficial for food and drink businesses

A suitable support mechanism would ensure all Welsh FDMPBs have access to, and receive regular communication regarding relevant, forthcoming network opportunities. It is suggested this support mechanism is facilitated by a Technical Compliance Group (TCG). The TCG could be represented by influential stakeholders within the food and drink industry including Welsh Government, retailers, Scheme Owners and FDMPBs. Figure 12 illustrates suggested members of the TCG.



Figure 12 TCG members

Network events would provide an ideal opportunity for TCG members to disseminate subject-specific information to the TCG network. The TCG network also provides an ideal mechanism for continual professional development (CPD) for industry professionals.

As a recommendation, FIW could establish the TCG. The TCG would be responsible to determine a programme of network events. FIW would communicate the events to all relevant stakeholders and host regional events across South, Mid and North Wales.

Recommendation: Encourage Food Innovation Wales to develop a regional Pan-Wales Technical Compliance Group (TCG) consisting of stakeholders, retailers, Scheme Owners and FDMPBs to provide a networking support structure to enable Welsh FDMPBs to communicate, access and receive information regarding FSS including legal updates, industry best practice and forthcoming changes to scheme requirements and the hosting of regional networking activities.

Recommendation: Expand on the networking opportunities provided by the TCG by creating a product category specific mentoring system, whereby experienced FDMPBs that maintain a FSS mentor FDMPBs aspiring to achieve a FSS.

5.2.7 Pre-audits

Three-quarters of respondents (76%) believed that pre-audits would be an extremely useful mechanism to support FDMPBs in Wales (Figure 8). Although only 46% believed it to be the most beneficial support (Figure 9). However, attitudes towards support mechanisms were most positive in relation to pre-audits, where 69% strongly agreed that a pre-audit would aid FDMPBs to know what to expect during an audit and 83% disagreed or strongly disagreed that "a pre-audit would be too time consuming for businesses":

"This is a useful tool in preparing for the main audit - for focus, 'fresh pair of eyes' approach and for coaching staff at the site."

"Pre-audits are essential through someone who is familiar with the standard requirements to establish an effective gap analysis in order to ensure an action plan is available to support implementation and to achieve compliance."

"Save wasting money on what could turn out to be a failed audit."

"Can take away the fear of formal audits."

It was indicated from respondent experiences that audits can be varied and inconsistent. Figure 8 indicates that improved auditor consistency was percieved to be extremely useful by 64% and only 25% believed it to be the most beneficial mechanism. The majority (93%) agreed or strongly agreed that "Auditor calibration would ensure a fair and consistent audit" and 83% disagreed or strongly disagreed that "Calibration of auditors (to achieve consistency) would not improve the audit experience".

It was suggested that mentoring, pre audit and knowledge transfer mechanisms would all work to improve this experience:

"The levels of audits are not consistent."

"Auditor consistency within and across accreditation bodies and consistency with LA food safety audits would provide businesses with assured advice and confidence in the system."

"Knowing that each auditor has the same level of qualification suitable for the industry he is auditing. For example, do not send a meat industry auditor to audit ambient goods."

Scheme owners are responsible for ensuring auditors are credible and consistent in their processes, and that the experience and expertise of the auditor will ensure the consistency of audits. However all potential variables that can influence an audit experience must be considered, as illustrated in

Figure 13. it is suggested that SME FDMPBs may not be aware of how to "manage" an audit and familiarisation with audit protocal via the a pre-audit would address this.

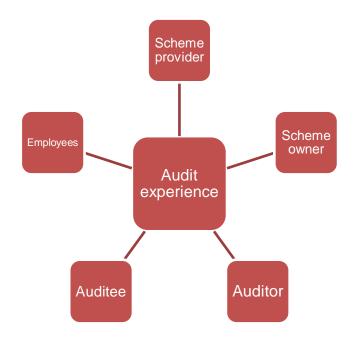


Figure 13 Factors influencing audit experience

Recommendation: Consider the development of auditee training to ensure FDMPBs are 'audit-ready' by means of a pre-audit to enable a positive audit experience. Training would ensure that auditees know 'how to manage an audit' and how to approach a complaint procedure.

5.3 Information and communication

The focus groups identified that some respondents within the research cohort were not aware of how or where to access key information relating to scheme requirements or industry best practice. The desk based research identified that some FSSs already provide

its members access to an information library (including white papers, interpretation guidelines, case studies and industry best practice).

5.3.1 On-line information

The suggestion of an independent 'on-line', support mechanism, (via the Welsh Government). Knowledge hub and forum discussion groups was raised, where FSS compliance information can be posted. Although a 'knowledge hub' was identified, consideration should be given to FDMPB confidentiality and to the quality of information shared within the forum to ensure it meets industry best practice and legal requirements. However, it was also clear from the discussions there are currently many on line forums accessible to FDMPB's in Wales.

"Is there any call for that from the Welsh Government to put some people online to help with this?" "I think the Tesco supplier network is getting better and better. Something along those lines where you have forum discussion groups."

"Even if you had online forums, professional bodies they tend to have their own online forums, HACCP etc., there's nothing new, everybody has had something in one way or another, you've got something that somebody might think that is really difficult and somebody might think it's quite easy to get around"

"As an enforcement group we have a website called the knowledge hub where you can ask questions if you have a problem. I use it quite a lot and if someone in my area has a question I will direct them to the knowledge hub. They may not have the time but by asking on the knowledge hub they can ask the question and go back a week later and hopefully it would have been answered. There is a lot of crossover."

It was determined that online support (e.g. tutorials, webinars, problem based forums) was believed to be one of the least useful support mechanisms, although the majority (93%) indicated it would be useful (Figure 8), only 41% believed that online assistance would be 'extremely useful' to FDMPBs in Wales to obtain and maintain FSSs, furthermore only 11% believed it to be one of the most beneficial support mechanisms.

Of the suggested support mechanisms, the most neutral attitudes were expressed towards online support, with 38% not agreeing that "Online support could make it easier for food and drink businesses to select an appropriate food safety scheme" and 31% not disagreeing that "Online support would not help with addressing food safety scheme difficulties or concerns".

Recommendation: there is a need for research to investigation what on-line training and education mechanisms currently exist to support FDMPBs, and evaluate the accessibility, acceptability, accuracy and the potential impact of such mechanisms on FDMPBs.

Recommendation: encourage FIW to develop an information portal which would act as a knowledge hub for Welsh FDMPBs. Food industry experts within FIW would be responsible for maintaining the document library and disseminating the relevant white papers to food and drink businesses. Access to authoritative reports and guidelines may enable personnel to make informed decisions based on facts and best practice.

5.3.2 Scheme owner communication

The delivery of support from scheme owners was discussed in five of the nine focus group sessions conducted as part of this study. Some discussions indicated a desire for support and information from scheme owners. Concerns were highlighted with regards to confidentiality, asking for guidance and interpretation from scheme owners and service providers was feared as it may be focused upon during an audit. The potential conflict between auditing and service provision and confidentiality were discussed at length.

"BRC helpdesk, you want guidance or interpretation but you are afraid to flag in case they focus on it." (Participant 13).

"I'd say it's a conflict of interest, if I'm paying for someone to come and audit me and after auditing someone and they are selling the services off the back of the non-conformances that they found during the audit, I personally think that the body should separate their role of the support and advice that they supply from the auditing, the advising I see that as a different role. For transparency you need different roles within the organisation." (Participant 65).

"a loyalty scheme, if the audit is difficult, you can move with your feet and go elsewhere, but if you've been with the same scheme for let's say five years, then surely you're happy with them, they're happy with you, then some sort of loyalty scheme, you've been here and inspired to do it, you get 20% discount, or 30%, that sort of thing"

The desk based research highlighted a number of differences in the amount of information Scheme Owners provide their members. In some cases, information is limited to members only and the amount of information in the public domain remains limited. It is recommended that more research is undertaken with scheme owners to examine the availability and transparency of information provided to businesses before any further recommendations are made.

This research highlighted that respondent's experiences of audits can be varied and inconsistent, suggesting mechanisms are needed to improve consistency. The research team acknowledge that systems are in place across FSSs to ensure auditor consistency (including calibration and regular witnessed audits).

Without further research and discussion with Scheme Owners, no support mechanisms can be suggested to improve auditor consistency. It is suggested however that Scheme Owners make the terms and conditions surrounding the appeals and complaints process clear to members in the event FDMPBs decide to challenge findings identified during an audit.

Recommendation: Further research with scheme owners regarding auditor consistency is required. There is a need to provide a detailed explanation of the minimum competency requirements set by scheme owners for inspectors/auditors in the public domain.

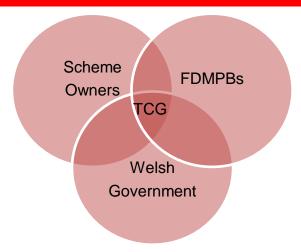


Figure 14 TCG providing a conduit between scheme Owners and Welsh FDPBs

It is suggested Welsh FDMPBs are provided access to key documentation which informs the reader concisely about products, services and complex issues faced by businesses within the food and drink industry. Authoritative reports and guidelines will allow personnel to make informed decisions based on facts and best practice. A suitable support mechanism would ensure all Welsh FDMPBs have access to key documentation. The mechanism should include clear communication to FDMPBs about where and how to access relevant information. The support mechanism should take into consideration the

cost for Welsh FDMPBs to access key information and give consideration to providing financial support to FDMPBs in this area. This support mechanism could be operated and maintained by food safety experts.

5.3.3 Consumer awareness of FSSs

Some discussions were based around the need for consumer awareness of FSSs to enable compliance to be used as a marketing tool with business benefit, schemes other than red tractor and organic are non-consumer facing. This is an area for further discussion and research.

"The consumer should know about this, like the little red tractor, that's how I look at it. So I don't think, that if you went out and asked Joe Blogs on the street they wouldn't know what it (referring to FSSs) is." (Participant 33, co-owner of a north Wales FDMPB without a FSS).

Although 59% believed that improved consumer awareness of FSSs would be useful in supporting FDMPBs in Wales to obtain and maintain a FSS, only 28% thought it to be extremely useful and it was the support mechanism believed to be the least beneficial, with only 7% perceiving it to be one of the most beneficial support mechanisms. No comments were made with regards to this suggested support mechanism, 28% failed to express a positive attitude towards "Consumer awareness of food safety schemes would be of commercial benefit". It was determined that 14% were in agreement that "Increased consumer awareness of food safety schemes would cause fear towards the food and drink industry".

Recommendation: Consider conducting consumer and scheme owner research into the benefits of increasing consumer awareness of FSSs. Explore the costs of making FSSs consumer facing, and the potential impact on consumer, perceptions, behaviour and willingness to pay for food products with advertised FSSs.

5.4 Financial support

All respondents believed that support with funding would be useful (Figure 8), with 86% believing it to be extremely useful, more than two-thirds (68%) also believed it to be one of the most beneficial of the suggested support mechanisms.

It was indicated from responses relating to funding, that it was of particular importance for smaller FDMPBs to enable the financing of qualified technical expertise and support and that funding would prevent FDMPBs from being deterred by the costs of schemes.

"Schemes are expensive especially for micro businesses and this deters many from considering the schemes."

"Essential for growth of the small / medium business who cannot support a full time technical person in house."

"To ensure compliance to food safety schemes and for compliance to be maintained 24/7, requires a trained workforce. The level of training required can be too costly for small businesses."

This finding suggests that the associated cost of implementing and maintaining FSSs (including technical expertise, training, accreditation fees etc.) is high and is a significant reason why FDMPBs do not become accredited. The support mechanism should give consideration to providing Welsh FDMPBs financial support with the costs associated with implementing and maintaining accreditation.

Recommendation: Financial support for capital expenditure such as building and equipment in relation to FSS compliance.

Recommendation: there is a need for greater signposting information for FDMPBs to access financial support that is currently available to enable training costs to be covered.

6. Conclusion

The literature review identifies the wide availability of FSSs for FDMPBs across Wales and the UK. The literature review illustrates the variation across the different FSSs in terms of robustness, respectability, credibility, practicality and membership uptake. The review highlights that FSSs are continually evolving and developing. This drives the FDMPBs in Wales to maintain their FSMS in line with scheme developments. Enabling the businesses to continue to access current and new market opportunities and achieve growth in line with the WG Food and Drink Action Plan.

The review also suggests that to increase the number of accredited FDMPBs will contribute towards continued legal compliance, security of the food supply chain and will help safeguard both brand and consumer protection.

The literature review identifies that approximately 30% of FDMPBs in Wales have accreditation (BRC Global Standard or SALSA Standard) suggesting there is an opportunity for further growth in the proportion of food and drink businesses achieving compliance to a recognised FSS. The review suggests that this will in turn, increase the number of Welsh suppliers across all food categories within the food and drink sector.

Through a triangulation of research methods, the research team have established the barriers that exist for FDMPBS in Wales to obtain and maintain FSS compliance. Information was gathered from a number of key industry stakeholders including FDMPBs (with and without experience of accreditation), Enforcement officers, scheme owners, auditors, retailer representatives, NPS, food service providers and food industry experts.

This information has been used to identify a series of support mechanisms which could assist FDMPBs meeting scheme requirements to supply retailers, the public sector and other markets. The support mechanisms include;

- 1. Knowledge and skills development
 - a. Education
 - b. Training
 - c. Documentation support
 - d. Mentoring
 - e. Knowledge transfer
 - f. Networking
 - g. Pre-audits
- 2. Information and communication
 - a. Online-information knowledge hub
 - b. Scheme owner communication
 - c. Consumer awareness of FSS
- 3. Financial support

The research highlights that a number of support mechanisms are interconnected. Figure 15, illustrates the support mechanisms identified in this research to assist FDMPBs.



Figure 15 Support mechanism timeline to assist Welsh FDMPBs obtain and maintain FSSs (* TCG: Technical Compliance Group, ** TCN: Technical Compliance Network)

The report highlights there is a need to develop appropriate metrics for each support mechanism in order to evaluate the effectiveness and impact of the implemented support mechanisms.

The recommendations within this report should serve to inform the development of policy and interventions to encourage and support food and drink manufacturers in Wales to investigate and progress towards achieving FSS accreditation status.

Ultimately, the recommendations within this report will support the delivery of a resilient and robust food industry in Wales which is credible and leading the way in terms of food safety and FSS compliance.

7. Additional benefits of the research

Following completion of the Barriers to Accreditation project, additional benefits of the research have been identified:

- 1. The workshops (including both South and North) created an ideal networking opportunity for welsh FDMPBs. Each event was attended by over 30 businesses and stakeholders (including scheme owners, local authority, WG and NPS). The workshop location and environment provided an opportunity for local businesses to network and have open discussion. Business-to-business (B2B) networking, peer group learning and problem solving was witnessed during and particularly after the focus groups, with different businesses arranging further meetings etc. From the workshops FDMPBs indicated a clear desire for such events to allow for the dissemination of information and B2B networking.
- 2. Stakeholders that participated in the workshops benefited from the insight gained from direct contact with FDMPBs.
- 3. The workshops were structured to include a scheme update for both BRC Global Food Standard and SALSA which added value to the sessions for the businesses that attended. This sessions proved very informative for both accredited with FSSs and businesses looking to become accredited. The session provided an ideal opportunity for scheme owners to share with businesses the benefits of the FSSs. The scheme update session provided an opportunity for businesses to ask questions to the scheme owners and exchange contact details.
- 4. All stakeholders (>100 contacted as part of the research project) were made aware the project was commissioned and funded by Welsh Government. Completion of the 'Barriers to Accreditation' project has raised the profile of Welsh Government Food Division commitment towards the food and drink sector and has raised stakeholder awareness of the Welsh Government Action Plan for the Food and Drink Industry 2014 2020.
- 5. Post project discussions between FIC and NPS. Meeting planned 04/07/2016 to examine collaborative approach to manage food safety supplier risk.
- 6. During the course of the research, it was identified that there was a need to modify the research approach to include retail representative. Consequently, the inclusion of the interviews conducted with the retailers ensured allowed the FIC to capture information along the whole supply chain, which added depth to the research.
- 7. The research has not only identified the barriers to FSS compliance, completion of the research project has made recommendations for suggested support mechanisms to enable FDMPBs in Wales to obtain and particularly maintain FSS compliance.
- 8. The research has identified future research areas for the Welsh Government.
- 9. Academic research papers and global conference presentations are planned for 2017 to disseminate the findings of the 'Barriers to Accreditation' research project.

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