

Food Safety and Technical Upskilling in the Welsh Food Industry: Impact of the KITE Project 2008-2015

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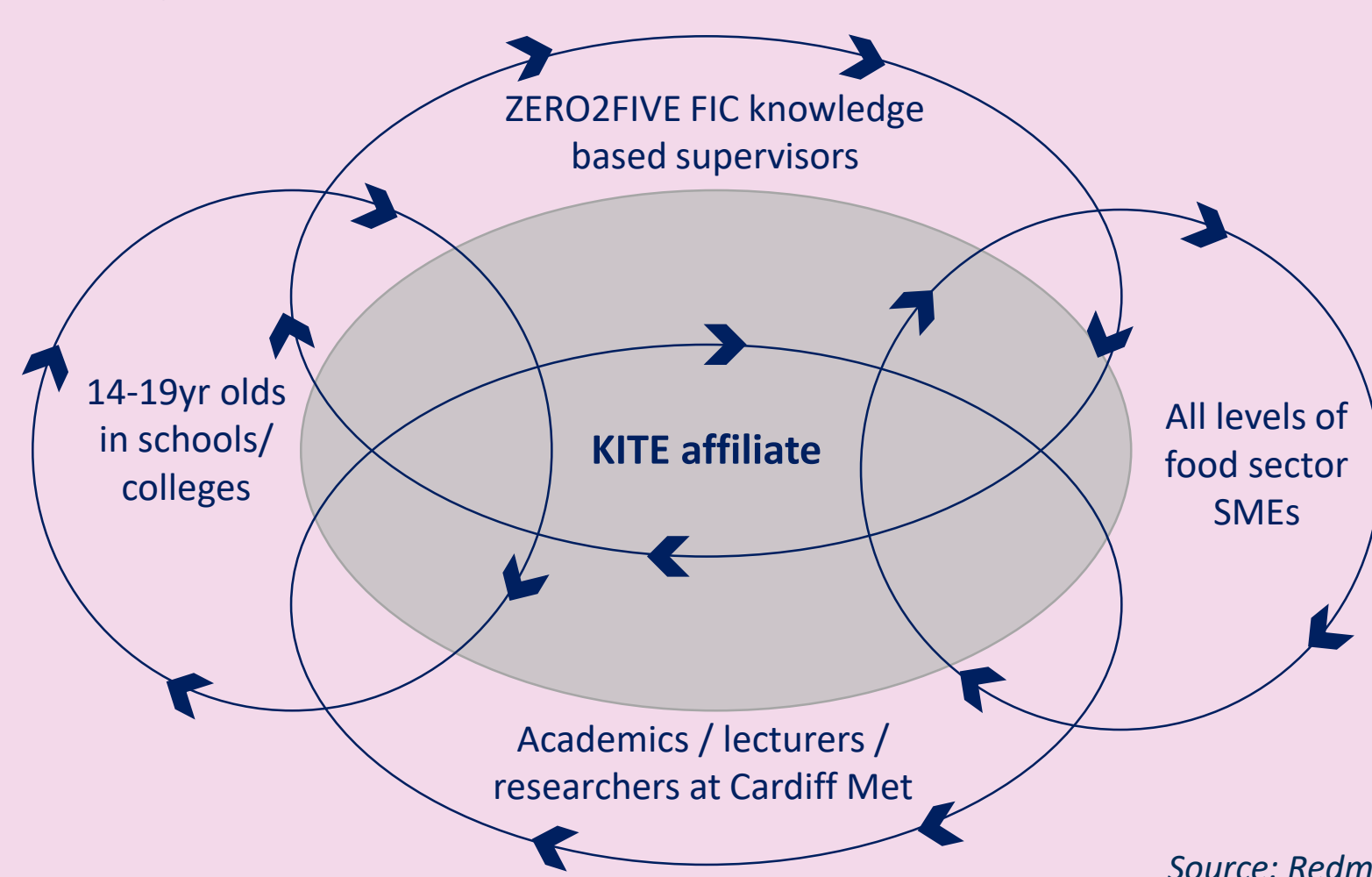
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Introduction

A shortage of food-sector technical workers has been reported in Wales, UK, with ~14000 workers failing to have necessary skills to deliver business needs (Sector Skills Councils, 2011). This, and a critical need to for food-sector small and medium sized enterprises (SMEs) to meet food-safety / technical demands resulted in development and implementation of the KITE (Knowledge, Innovation, Transfer, Exchange) feasibility project (Redmond, 2015). The KITE model was based on a collaborative partnership between an industrial (SME) partner, a knowledge-based partner and an affiliate (graduate/individual with industrial-experience) and aimed to increase food science/technology knowledge and improve technical compliance in food-sector SMEs. KITE project implementation facilitated circulation of food safety and technical knowledge between affiliates, food sector SMEs and ZERO2FIVE FIC / CardiffMet (Figure 1)

Figure 1. Circulation of food safety and technical knowledge within Cardiff Met, the FIC, KITE affiliates and Welsh food sector SMEs.



Source: Redmond, 2015

Purpose

This study aimed to evaluate development of food science and technical skills in the Welsh food-sector with associated potential effectiveness of the KITE project.

Methods

- An output/outcome evaluation was undertaken to determine KITE primary/secondary impacts associated with upskilling/knowledge-transfer/third-party accreditations.
- A quantitative, online affiliate survey was distributed by email to all participating KITE affiliates for profiling.
- Qualitative approaches included in-depth interviews (n=30) with KITE and SME Managing-Directors (MDs), Affiliates and Technologists.
- Project approaches/reports and media reports (n=>90) were analysed using a content analysis approach.

References

- Sector Skills Councils (2011) Welsh Food and Drink Skills Project: delivering skills for future growth. Supported by the Welsh Government.
- Redmond, E.C. (2015) Welsh Assembly / EU Final Evaluation of the KITE Feasibility Project. Cardiff Metropolitan University for the Welsh Government. December.

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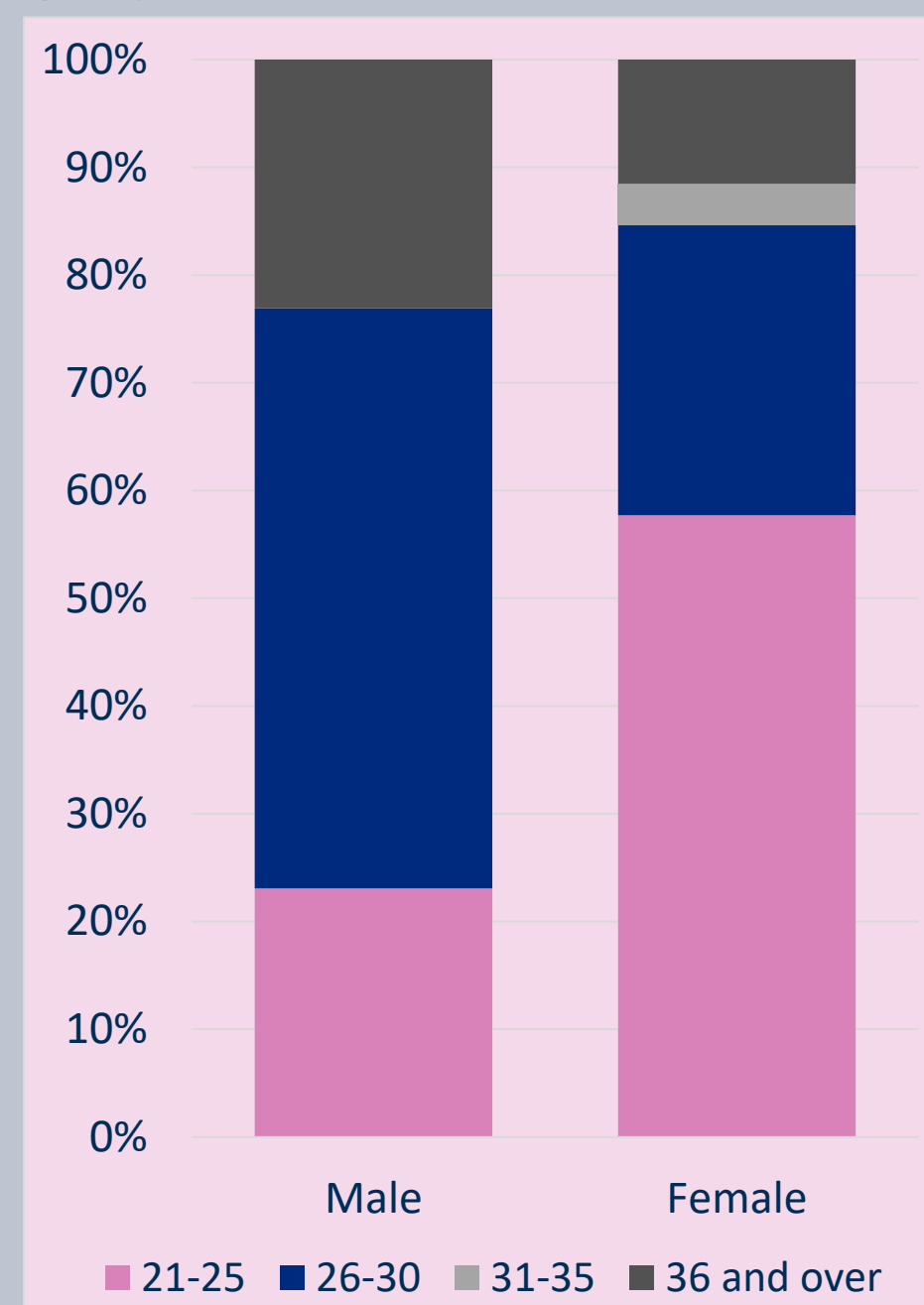


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Results and Discussion

- Food-sector growth enabled >1700 jobs created/safeguarded, indicating increased employment in the Welsh food-sector.
- Implementation of the KITE project enabled employment of 39 affiliates; this facilitated increased employment of female, science graduates aged 18-24 years in senior, skilled jobs in the Welsh food-sector.

Figure 2. Breakdown of affiliate age groups (n=39)



Affiliate profiling data

- Profiling of affiliates indicated that 67% were female; 33% male.
- Female affiliates (n=20) were aged between 21-28 years at the start of their first KITE programme (mean age 24.2 years) and male affiliates (n=13) were aged between 22-50 years (mean age 31 years).
- Date representing a breakdown of affiliate ages can be seen in Figure 2; **the majority (58%) were females were aged 21-25 yrs.**
- All affiliates who participated in the KITE project reported their place of residence before starting the KITE project was Wales; a key, evidenced benefit of KITE met an original concept of **graduate retention in Wales.**
- The KITE project has facilitated successful employment and up skilling of individuals trained in a **variety of science based disciplines** (including Food Microbiology/Technology, Sports Science, Psychology, Nutrition, Veterinary Medicine, Public Health, Biomedical Science), with a variety of skill base levels (from HNDs, degrees and a doctorate) into the food industry.
- Overall, 69% affiliates reported previous experience (very limited in most cases) of working in the food industry before participation in the KITE project – some of these affiliates were going to leave the industry, but with the knowledge based supervisor support, **KITE enabled the support mechanism required to stay within the food industry.**

KITE knowledge transfer associated with 3rd party accreditation achievement

Transfer of food safety and quality technical knowledge from FIC experts and KITE affiliates into KITE SME partners has improved the Welsh SME partners' and food scientists' / technologists' knowledge and skills base.

3rd party safety/quality certification standards achieved in KITE partner SMEs included:
37 British Retail Consortium
13 Safe and Local Supplier Approval
33 retail standards for leading UK supermarkets.

- Cumulatively, 68% KITE SME partners obtained 3rd party certifications during the project.
- Knowledge exchange has informed more commercially minded academics in Cardiff Met.
- Retention of 3rd party certification standards, whilst improving the technical profile in SMEs, has enabled retention of retail/business contracts.
- Improved and evidenced technical capabilities has resulted in increased retailer confidence in Welsh manufacturers' technical knowledge and abilities.

SME Managing Director perceptions of technical upskilling associated with KITE

- SME MDs highlighted how KITE intervention / knowledge-transfer had strengthened company workforces and food scientists' / technologists' knowledge/skills base.
- Achieving/retention of BRC certification was perceived to be "the key that opens the door" to new business and retaining existing (retail) customers.

"The KITE programme delivered critical technical support to Beacon Foods to maintain BRC, organic and a leading retailer accreditation"

"the KITE knowledge transfer programme is up-skilling a number of our workforce"

"KITE support has been excellent; the company would not have been able to achieve SALSA accreditation on an Food Hygiene Rating of 5 without KITE ...the company would have been dead in the water"

"Without the technical support and expertise of KITE it would have taken the company longer to achieve BRC..... the whole technical team have gained confidence and knowledge through the programme and are continuing to develop skills which could not be achieved without their support"

Conclusions

- The transfer of food-safety/technical knowledge to KITE SMEs is essential for the development of technical systems in food-sector SMEs in Wales; such technical systems are an essential prerequisite for the supply to major retailers, and thus business growth and sustainability.
- KITE knowledge transfer / exchange has resulted in a more technically skilled workforce in the Welsh food-sector.