



Interface

FOOD & DRINK

Reflections on Interface Food & Drink 2011 – 2016

16 Common Interest Groups involving **200** companies

8 projects involving more than one university partner

16 support organisations

27 funded projects



100 projects funded



17 Scottish university partners

£1.29m funding approved ✓

£589k Cash contributions from industry

£2.77m total value of projects including in-kind contributions

A GVA of **£26.3** million has been achieved

from Interface Food & Drink and Interface's support for food & drink businesses. EKOS 2015.





Interface Food & Drink was funded by the *Scottish Funding Council* to drive innovation through knowledge exchange, collaboration and providing targeted funding. Its focus was on achieving economic impact and it specifically encouraged collaborations of industry, trade associations and Common Interest Groups with Scottish universities.

Now that the project is coming to an end, we highlight some of the initiatives and activities we have been involved in to encourage continued cooperation and collaboration between industry and academia, and to signpost to where you will continue to find support for your innovative ideas. But most of all, we want to inspire you to explore the wide and sometimes surprising opportunities available across a diverse range of academic disciplines.

We all owe a debt of gratitude to our Steering Group whose wisdom, council and challenging nature kept us on course and got the best out of us. I would personally like to thank the *Scottish Funding Council* for their imagination in dreaming this project up and their flexibility in managing it, helping us to deliver the most appropriate support possible.

It really has been a pleasure.

Helen Pratt,
Interface Food & Drink



Interface Food & Drink team members from L to R: Howell Davies, Teresa Shutter, Helen Pratt and Lorna McIvor



Interface Food & Drink team member Alistair Trail with the co-chairs of the Resource Efficiency Industry Advisory Group, Mary Lawton and Catriona Hay receiving their Multi-Party Collaboration Award from Cabinet Secretary John Swinney MSP at the Interface Excellence Awards 2014

Common Interest Groups

We have loved working with Common Interest Groups - everyone gets so much more achieved by working together than in isolation. We have been involved with 16 groups, ranging from primary production including soft fruit, rapeseed oil, potatoes, venison and seaweed, to further processing for chocolatiers, cheese makers, distillers, bakers, butchers and juice makers.

The Resource Efficiency Industry Advisory Group for Food & Drink



The close cooperation and partnership between *Interface Food & Drink*, *Zero Waste Scotland* and the *Scottish Food and Drink Federation (SFDF)* created this group, which comprises many prominent Scottish food manufacturers. The group continues to drive the sustainability agenda through innovation and provides

a forum for direct interaction between businesses to share best practices in resource efficiency and have been involved in a number of projects around the themes of contaminated packaging, heat recovery and effluent treatment. An *Interface Food & Drink* feasibility study has helped one of the members save £600,000 a year on energy costs and the research data from the project was shared amongst the group.

Scottish Rapeseed Oil



Along with partners *Scotland Food & Drink (SFD)* and the *Scottish Agricultural Organisation Society (SAOS)*, we approached a group of rapeseed oil producers who had been separately pursuing academic projects, with the idea of forming a Common Interest Group.

They benefited from *SFD's* Market Insights and worked together to develop their collective reputation and to open up new commercial opportunities. The Scottish cold pressed rapeseed oil industry has seen sales increase by 18.5% in Scotland year on year (KantarWorldPanel). (www.scotrapeseedoil.co.uk).

Having established advantages of Scottish soil conditions through academic research projects, they are applying for Protected Geographical Status, which will enhance their marketing proposition.

Cross-Fertilising and Connecting

During the course of the five year programme we have brought together academic teams and businesses through seminars, learning journeys and events.

In January 2016, we hosted the Food From Thought event that showcased what *Interface Food & Drink* has done best – making connections. It was aimed at inspiring food and drink companies to consider how they can tap into the world-class academic expertise in Scotland's universities and research institutions to take their products and processes to the next stage.

The event led directly to a competition winning project with *Davidsons Animal Feeds* and the *Scottish Association of Marine Science*, part of the University of the Highlands and Islands, investigating by-products from marine biofuel as a feedstock for the animal feeds industry:

“I have learned so much since we attended the Food from Thought event. This is exactly what Davidsons needs as it has opened up so many possibilities and opportunities for the company to innovate.”

Gary Dow – Company Accountant, Davidsons Animal Feeds.



“Interface Food & Drink has been very successful at bringing academics to the table with technologies and expertise of direct and important relevance to the food industry, particularly with regards to Common Interest Groups.”

Douglas Watson - Project Manager/National Development Officer for Farmers' Markets.



Ashley Baker, Kerry Group – guest speaker at Food From Thought, January 2016

Industry Sectors

Scotland is blessed with a vibrant food and drink industry, covering a wide variety of sectors, including fish, meat, agriculture, bakery, confectionery and, of course, whisky. We worked with them all, both through collaborative groups and with individual companies as highlighted through the selection of case studies.

The World is your Oyster - Aquaculture and Fisheries



Fisheries might be regarded as a traditional industry, however with increases in competition and restrictive legislation, many businesses are taking an innovative and high tech approach to sustainability and process efficiency as well as consumer insight. Scottish universities have considerable expertise in all of these areas. The University of Aberdeen, Abertay University and the University of Stirling have been awarded scholarships and competition projects to work with companies such as *Dawnfresh*, the *Scottish Salmon Company* and trade associations such as *Seafish* on fundamental issues from looking to the future through the analysis of consumer preferences to the processing of wastewaters into biofuels and valuable chemicals.

Sláinte

One of the key strengths of the Scottish drinks industry is the very traditional nature of whisky production, but another emerging growth opportunity is the dynamic and thriving craft distilling and brewing sectors. *Interface Food & Drink* has helped these sectors access the available innovation support which has resulted in the launch of new craft gins and vodka, Scotland's first ever rum, a botanicals library to develop new gins and a range of whisky cocktails. The drinks industry subscribed to a number of scholarships, all with the International Centre for Brewing and Distilling (ICBD) at Heriot Watt University. These have focused on future proofing the industry through looking at developing drought resistant barley in collaboration with the long established *Scotch Whisky Association* to combat the uncertainties of climate change; and with the new kids on the block, *BrewDog* an in-depth study into hop aroma and quality aimed at further improving production.



Addressing Industry Challenges

Making Food Healthier



Producing healthier food is a constant priority for the food industry – their consumers expect it and the government is putting the industry under ever increasing pressure to reduce levels of fat, salt and sugar. In Scotland, we are fortunate to have product development specialists and nutritionists of international renown and companies are partnering with academics from the Rowett Institute of Nutrition and Health (University of Aberdeen) and Queen Margaret University. The Complex Fluids Partnership (University of Edinburgh) are investigating modifying food structure to reduce sugar and fat through physics on behalf of the *Reformulation Common Interest Group*. In addition to academia, we have been working closely with *SFDF*, ensuring alignment with industry needs and a well-connected voice.

Greening our Greens



All of the food industry is concerned with waste and possibly no sector is under more pressure than primary production. These businesses need to be as lean as possible to maintain their slim margins, but with waste becoming ever more costly to deal with, they are having to become more imaginative. *Interface Food & Drink* has been enormously proud to work with groups of farmers in arable and soft fruit to achieve not only ways of reducing waste but getting increased value from waste that can't be eliminated. Three groups, made up of seven universities (University of Glasgow, University of Strathclyde, Robert Gordon University, University of the West of Scotland, Edinburgh Napier University, University of Edinburgh and Heriot Watt University), several farms and food producers, are working on projects that will convert waste to renewable energy and higher value products, utilise waste materials and recover value from waste plastics.

Inspiring Innovation Through Competitions

Interface Food & Drink ran several competitions to inspire further 'out of the box' thinking and encourage cross fertilisation of ideas, tapping into the wide scope of possibilities from across academic disciplines.

A collaboration between Edinburgh Napier University, *Agrico UK Ltd*, *Celtic Renewables* and *Jarron Farms* investigated the commercial feasibility of fermenting a combination of distilling and potato waste to produce acetone, butanol and ethanol. This may lead to industrial scale-up which will be of great benefit to both the distilling and agricultural sectors.



"As Chair of SFDF, I have long been aware of the amazing resource that exists within Scotland's universities, but with assistance from Interface Food & Drink, Agrico has undertaken projects aimed at improving our competitive advantage as well as offering our farmers innovative ways to unlock the value from potato waste."

Archie Gibson – Director, Agrico UK Ltd and Chair of the Scottish Food and Drink Federation

Lightbody and the University of Strathclyde developed an ongoing relationship using hyperspectral imaging in the production of their celebration cakes, helping them to predict and prolong shelf-life through moisture analysis.



"Strathclyde and the Hyperspectral Imaging Centre have benefited enormously from our association with Interface Food & Drink, providing us with the opportunity to work with a variety of companies and academics from other institutions, resulting in new and exciting collaborations."

Professor Stephen Marshall – Director of the Hyperspectral Imaging (HSI) Centre, University of Strathclyde

Our Thanks and the Future:

We want to thank all of the support agencies we have worked with. You will find them as valuable as we have – we can't thank them enough.

The support landscape is evolving and is building on successes, not only of *Interface Food & Drink*, but also of other initiatives such as the *Food and Health Innovation Service*. Sector specialists are working closely together and will be on hand to guide you through the next stages of innovation, whether you're a company looking for academic support, or an academic looking for industry partners. The future is bright.



Interface
The knowledge connection for business

Following the success of *Interface Food & Drink*, particularly in supporting multiparty groups of businesses and academics, *Interface* will continue to support the food & drink industry through their Sector and Business Engagement teams. Individual and groups of businesses seeking support for partnering with academic teams are encouraged to contact *Interface*. They can also put you in contact with other support agencies where appropriate.

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Thank you to our funders and supporters:

SCOTLAND
OF FOOD & DRINK


Scottish Funding Council
Promoting further and higher education

SAOS
Developing co-operation in farming,
food and rural Scotland

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Scottish Enterprise


HIE
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Iomairt na Gàidhealtachd 's nan Eilean