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Scientists and SMEs join forces to help the regional economy flourish

Small to medium sized businesses (SMEs) in the Nottinghamshire and Derbyshire Food and Drink industry are reaping the benefits of having free specialist scientific advice and access to facilities and knowledge from a new project team at the University of Nottingham. The aim is to help them develop product ideas and solve process issues.

The University's Food Innovation Project Team in the [Food Innovation Centre](#) on the Sutton Bonington Campus have already put over 50 companies on the road to potential success with bespoke, complimentary support and advice.

On Wednesday 21 June at 2pm a number of these companies attended the Sutton Bonington to explain how science has helped them overcome a range of issues from designing prototype equipment to advice on expansion and finding processes to make their products healthier.

£20m three year project

As part of a £20m, 3-year project across three of the region's universities Nottingham, Nottingham Trent and Derby with part-funding from the European Regional Development Fund, the Centre brings together Food, Nutrition, Flavour, Sensory and Brewing sciences and makes this expertise accessible to businesses.

Richard Worrall, Head of Project, said: "Developing businesses often need scientific or technical expertise to support product innovation or to improve processes in their operation. We have a dedicated Project team here that takes a brief from a business and responds with free technical advice, access to Food Halls and development kitchens, access to our academic knowledge across these Sciences and access to Food Science students who are looking for real-time projects within their courses."

Access to science and state of the art facilities

Within the Project Team there is a dedicated food scientist, a food process engineer and a sensory scientist, plus two 'on the road' advisors who visit SME businesses and establish what their needs might be. On campus there's a specialist food hall with extrusion and small sterilisation equipment; a micro brewery; sensory and nutrition labs; and development kitchens – to allow businesses to formulate, test and scale up their products with the support of trained technicians.

Among the companies to benefit so far is [Nutri2Go!](#) – a healthy food on the move lunch delivery service set up by University of Nottingham Food Science graduate Jordana Chin. Jordana set up Nutri2Go! After graduating from the University of Nottingham with a food science degree. She won the Nottingham Post's Women in Business New Business of the Year Award last year and turned to the Food Innovation Centre for help in growing her business.

[Barmies](#) are making handmade baked snacks in Nottingham from beer barm – a by-product of the brewing process. They were handcutting their snacks until help from the Centre along with the Faculty of Engineering provided them with a prototype roll cutting to speed up their production process. The Food Innovation team are also working with Barmies to develop their packaging and extend shelf life.

Debbie White and Kerrie Brolan who run [The Cake Decorating Company](#) from premises in Nottingham are looking for a technique to make sugar-free sugarpaste. The Centre oversaw a student project which was initiated to try and achieve this aim and which successfully concluded at the end of May of this year.

The [Dancing Duck Brewery](#) in Derby, run by husband and wife team Ian and Rachel Matthews wanted some signature beers to be tested and tasted for new marketing material. The Food Innovation team have applied their Sensory Science skills to come up with a form of flash profiling – ranking descriptive analysis – to profile the beers in consumer friendly language. With the help of a series of evening profiling sessions with regular beer drinkers they collected data to produce visual diagrams to describe the flavours of the different beers they produce on labels and promotional material.

PhD student and early career scientists want to hear from SMEs

PhD students and early career scientists in food, brewing and sensory science are actively seeking to help businesses with project ideas backed up by experts in food, flavour, brewing, sensory, nutrition and other sciences. There is also cross disciplinary help should the need arise. For instance the Faculty of Engineering has looked at new equipment and the Business School offers support on business planning.

Mr Worrall said: "We are part of a new and growing UK network of new Food Innovation Centres where we share academic knowledge and so, even if we don't have the right equipment, facilities or knowledge, we probably know someone who does."

"We have access to worldwide research on food and drink production and product development, so we know what work has been or is being done. For example we can provide expertise on salt, sugar or fat reduction and replacement. We work in the priority research areas which are of global significance, but also of direct relevance to SME businesses, so we act as the bridge between the two to ensure SMEs are as highly informed as possible to aid their commercial development.

Beacons of Excellence

The University of Nottingham is investing £200 million in the future of its research - picking out six beacons of excellence of which 'Future Food' is one.

Future Food, is led by [David Salt](#), Professor of Genome Enabled Biology. He said: "In the face of climate change we must develop new, resilient crops. Yields must also increase to feed the additional two billion people expected by 2050. Better access to healthier, more nutritious food is needed in all countries due the growing prevalence of micronutrient deficiencies and over-processed foods. All these challenges must be met in sustainable ways that do not put additional strain on the planet.