

Following on from the success of the 2017 conference “Building FMCG Structure Through Engineering”, the IChemE Food and Drink Special Interest Group hosted the first of its two-part event, “Future of Food and Drink: Product, Process and Beyond (Part1)”, in Campden BRI. The conference aimed to highlight the state-of-art in food engineering and its future perspective from a product and process development point of view. Tim Ingmire (PepsiCo) analysed the global food systems challenges from both a macro- and micro-perspective. On a macro-scale Ingmire argued that the food industry must move towards zero-waste, more sustainable & efficient processes in order to combat a problem exacerbated with an ever increasing population and scarcity of resources. Ingmir went on to say that, on the micro-scale, the need of a more thorough understanding of the relationship between process and product microstructure is required as a key pathway to tackle the present challenges of the sector. In turn, this would help meet modern consumer needs and requirements for healthier and more functional products.

To expand on the subject of sustainable & efficient processes, Fred Brotherton (Beedes Ltd) discussed a clear example of how reducing the primary energy input and recovering energy through steam compression in the distillation of potable spirits. Additionally, Simon Wheeler (PWS Technology/BPE) described the latest development for processes manufacturing low-alcohol/low-calories beverages with full aroma retention.

Claire Pizzezy (Diamond Light Source) provided more insights on a range of techniques available for advanced material characterisation which are there as effective tools to help scientists improve their understanding of food microstructure and the effect of processing.

However - as discussed in the talks from Craig Leadley (Campden BRI), Seamus Higgins (University of Nottingham), Andy Hey (PM Group) and Andrew Strong (Cambridge Consultants) - innovation is still needed to improve current technologies but also required us the development of new technologies which will prepare the sector for the future. A future that will share some of the current challenges but also present new ones such as easy-to-expand plants in the new era of the Internet of Things (IoT) and Industry 4.0, among others.

Finally, all these topics were further discussed in a panel discussion between speakers and the audience. The conference was well attended and more than 50 delegates from major UK companies and universities were present and actively engaged in a number of constructive Q&A sessions.

Special thanks go to IChemE Food and Drinks Interest Group, Amanda Talhat and Paula Haran for the impeccable organisation; to Campden BRI for hosting and providing interesting tours of their facilities; and finally, to the speakers and to the food engineers, academics and professionals who were present.

The second part of this event, “Future of Food and Drink: Product, Process and Beyond (Part2)”, will take place at the Department of Chemical Engineering & Biotechnology, University of Cambridge on the 26 September 2018. We would strongly encourage all parties with interests in this exciting area to save this date and we look forward to seeing you all in Cambridge!

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