



# High-value chemicals from plants and microbes

Yorkshire and the Humber: home to  
innovation for the UK's bioeconomy



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# High-value chemicals from plants and microbes

The region has one of the biggest concentrations of chemical companies in the country. Many of these companies are experts in the use of biobased raw materials.

- ✔ The region hosts more than 450 chemical companies, accounting for around 10% of the UK's chemical industry.
- ✔ Large multinationals, such as Novartis, BP and Syngenta, are based here as well as many innovative small companies and start-ups.
- ✔ Croda is a global leader in biobased speciality chemicals, headquartered in East Yorkshire.

World-class research and development can be found in the region's top-ranking universities.

- ✔ The Green Chemistry Centre of Excellence at York pioneers sustainable chemical research in fields such as alternative solvents and renewable materials.
- ✔ The Advanced Biomanufacturing Centre, at Sheffield explores biobased technologies for the production of medicines, energy, chemicals and food.
- ✔ The Centre for Novel Agricultural Products at York uses fast-track molecular breeding approaches to improve plant and microbial production of high-value chemicals.

A wide range of chemicals can be extracted from plants and microbes. These natural products are increasingly sought after by manufacturers from the personal care, food, drink and pharma sectors.

The Yorkshire and Humber region is a major centre for the expertise needed to create novel biobased products and technologies.

The biobased chemicals sector is strengthened by specialist networks led from the region.

- ✔ The High-Value Chemicals from Plants Network brings together industry and academics working on the production of high-value chemicals from plants for collaboration and information sharing.
- ✔ Yorkshire Chemical Focus provides business support, training and networking opportunities for the region's biobased chemicals industry.
- ✔ The Global Green Chemistry Centres network enables collaboration and knowledge sharing between experts to ensure advancements in the field.

Small, high-growth companies in Yorkshire are developing valuable, biobased innovations for the chemicals industry.

- ✔ Sci Green Innovations uses supercritical fluids and superheated water to extract and manufacture valuable products from biomass.
- ✔ Floreon has created a globally patented, compostable bioplastic, which outperforms standard plastic packaging.
- ✔ Australian chemical manufacturer Circa has established a Yorkshire base to access local knowledge and expertise on biobased chemicals.



If you want to access the region's biobased chemical innovation, contact BioVale.  
[www.biovale.org](http://www.biovale.org)