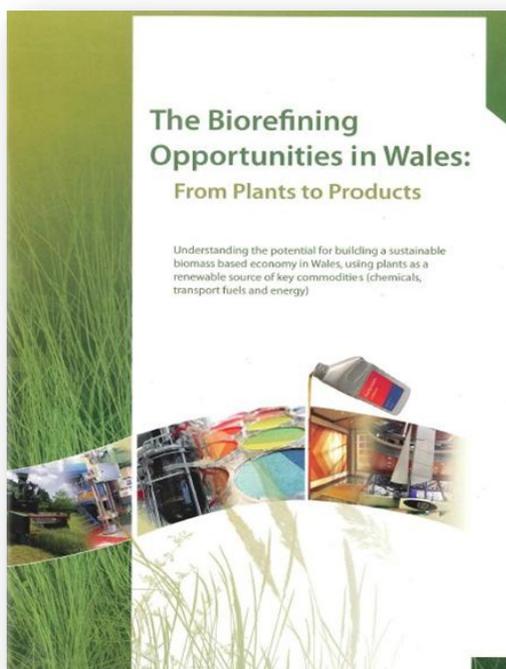


Welsh Biorefinery Centre of Excellence

Chemistry Innovation helped make the case for a centre of excellence in biorefining in Wales which led to the £20m BEACON project.

In 2008 Chemistry Innovation were contracted by Bangor BioComposites Centre to complete a techno-economic feasibility study on the potential for building a sustainable biomass based economy in Wales. The report considered if it was possible to reverse the economic impact of the decline in traditional rural economies by creating a sustainable biorefining industry in Wales, through the use of renewable, non-genetically modified, non-food crop based feedstocks, which would include high sugar grasses.

The final report, published in 2009, concluded Wales has access to a suitable feedstock and infrastructures as well as a strong relevant science and technology base that could underpin the development of the necessary supply chains to access a £560m market opportunity.



“The establishment of a new centre of excellence in biorefining will position Wales at the forefront of the UK’s low carbon, knowledge-based economy”

***Ian Shott, CBE, Chairman,
Industrial Biotechnology Leadership Forum***

BEACON

From plants to products
O blanhigion i gynhyrchion

The document formed a key part of the argument for the £20 million investment in the BEACON project, funded through the Convergence European Funding Programme through the Welsh European Funding Office (Welsh Assembly Government).

The BEACON project seeks to establish a Biorefining Centre of Excellence for Wales, and will bring together academics from Bangor University, IBERS at Aberystwyth University and Swansea University. The team combines experts in chemistry, microbiology, environmental science and natural products to add value to plant materials by advanced extraction, fractionation and processing techniques. The combination of these approaches and strategies in a holistic manner within the biorefinery concept will provide a boost to the green economy and local industry.

BEACON will create a platform to generate closer links between Welsh academia and industry in the area of low carbon technologies, promote Welsh expertise in scientific research and innovation within Europe and the United States and facilitate inward investment in these technologies for the benefit of Wales, along with expansion of the scientific skill base.

The main focus of the BEACON initiative is to use the concept of biorefining to work with Welsh end user companies, in order to identify a wide range of products from plant material which are tailored to their requirements. The biorefinery concept uses non-food crop feedstocks in much the same way that oil refineries use crude oil to produce a broad spectrum of commodity products. It seeks to give Welsh manufacturing companies a commercial advantage in the marketing of these renewable products as well in the future environmental and economic sustainability of their businesses through application of these developing technologies.