Life Cycle Assessment (LCA)

Developing sustainable, low-carbon, bio-based products and technologies is a key aim of the BEACON Biorefining Centre of Excellence. A central component of this is our environmental impact assessment work, which runs in tandem with the physical research undertaken through the project.

Life Cycle Assessment (LCA) allows us to assess which processes and materials offer the most sustainable solutions to the research questions we address. It allows us to identify environmental ‘hotspots’ within a production chain, optimise design, and can form the basis of public declarations, such as eco-labels and Environmental Product Declarations (EPDs). As a result, LCA is increasingly seen as an important aspect of corporate product R&D programmes, eco-design and environmental benchmarking.

At BEACON, our LCA expertise includes access to the most academically respected LCA databases as well as market-leading LCA modelling software. Nearly all our pre-treatment and pilot scale processing equipment has hard-wired energy monitoring equipment fitted, allowing for detailed process energy usage analysis and process optimisation work.

If you would like to know more about Life Cycle Assessment and working with BEACON please contact:
Campbell Skinner  +44 (0)1248 382605  lca@bangor.ac.uk
Benefits to your organisation:

- Environmental product benchmarking
- Product improvement insights
- Identification of process & supply chain ‘hotspots’
- Green marketing & communications opportunities
- Brand differentiation & enhancement
- Environmental management planning insights
- Transparent & credible environmental claims

LCA capability at the BEACON Biorefining Centre of Excellence:

- Energy monitoring capability at the individual machine level
- Access to the world’s largest database of lifecycle inventory datasets
- Market-leading LCA analysis software
- Expertise in LCA and lifecycle costing approaches
- Unique set of laboratory and pilot-scale biomass processing equipment

OWL energy monitoring software

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