



IBioIC, Scottish Enterprise and Zero Waste Scotland

Mapping Scotland's bioresource arisings to develop sustainable, local and low carbon value chains

CUSTOMER REQUIREMENTS:

In 2017, [IBioIC](#) and [Scottish Enterprise](#) contracted Ricardo to develop the [Scottish Bioresource Mapping Tool](#). This Tool was enabled through use of the data collated for the 2017 report '[Biorefining Potential for Scotland](#)' which Ricardo developed for [Zero Waste Scotland](#).*

RICARDO SOLUTION:

Ricardo developed the Tool using Microsoft Excel mapping Scotland's bioresource arisings to the local authority level. Arisings covered included Household and Commercial and Industrial waste, by-products (from whisky, beer, fish, dairy and meat), agriculture and sludge. We subsequently developed three new streams (CO₂, macroalgae and forestry biomass) and revised all the datasets for Zero Waste Scotland in 2021 and 2022. The Tool was updated with these new datasets in 2024.

CUSTOMER BENEFIT:

Ricardo's experience in conducting literature reviews, market assessments, stakeholder engagements and Material Flow Analysis (MFA) supported the creation of a Tool helping identify, assess, quantify and map Scotland's bioresource arisings. Using this Tool, organisations can access detailed data on the availability of biological waste, by-products and residues, allowing industries and manufacturers to source sustainable, local and low carbon materials and/or to valorise their own biological waste, by-products and residues. This has the potential to support Scotland's reduction of carbon emissions and the Scottish value chains identifying circular opportunities to address the increasing generation of biological waste, by-products and residues.

* Zero Waste Scotland have permitted the data to be used in the Tool by IBioIC solely for the purposes of the Tool.