Population growth, urbanisation and increasing economic prosperity are escalating the rate of municipal solid waste (MSW) production. Globally, the majority of MSW ends up in landfills or is incinerated, polluting the environment and contributing to climate change. On average 40% of MSW is biodegradable and high in fermentable sugars. This BBSRC industrial-CASE project aims to investigate the potential of the organic fraction of MSW as a renewable feedstock for biofuel and chemical production. Our industrial partner Wilson Bio-Chemical (www.wilsonbio-chemical.co.uk) uses a proprietary autoclave process to pre-treat and separate MSW into inorganic and organic components, providing us with the organic fraction in the form of Wilson Fibre®. I will be discussing the ways in which our industrial collaboration has shaped this project, influenced our research and helped us overcome key challenges. I will also present some of the recent results from my PhD work, which has largely focused on evaluating the fermentability of enzymatically hydrolysed Wilson Fibre® using a range of industrially useful microorganisms in order to identify the most promising strains for industrial applications.